

Washington, D.C., June 8, 20 18

I HEREBY CERTIFY that the annexed is a true copy of the complete administrative record
upon which the Secretary of Commerce based his decision to reinstate a question concerning
citizenship on the 2020 Decennial Census. I base this Certification on my personal involvement
with the the compilation and review of the documents comprising the administrative record.

A copy of this record is

on file in the U.S. Department of Commerce, 1401 Constitution Ave. NW, Washington, DC 20230


Sahra Park-Su, Senior Policy Advisor

(Official title)

I HEREBY CERTIFY that Sahra Park-Su
who signed the foregoing certificate, is now, and was at the time of signing, the custodian of the complete administrative
record upon which he Secretary of Commerce based his decision to reinstate a question concerning citizenship on the 2020 Decennial Census.

and that full faith and credit should be given bis/her certificate as such.

IN WITNESS WHEREOF, I have hereunto subscribed my name,
and caused the seal of the Department of Commerce to be af-
fixed this 8th *day of* June
two thousand *eighteen*

For the SECRETARY OF COMMERCE :


Certifying Officer

Topic Area	Bates #	Date	Document Title
1- BACKGROUND DOCS	1		1- Background Docs 2000 Census AdvertisementBates
	2		1- Background Docs 2000 Census Long FormBates
	42		1- Background Docs 2000 Census Short FormBates
	48		1- Background Docs 2010 Census FormBates
	54	11/16/2012	1- Background Docs 2010 Census Match Study 11.16.12Bates
	149		1- Background Docs 2018 Census Test FormBates
	153	12/21/2017	1- Background Docs 2020 Census LCCE Exec Summary 20171221 Clean with Approvals PageBates
	194		1- Background Docs 201703 Subjects Planned for the 2020 Census and ACS
	271	4/14/1988	1- Background Docs 19880414 DOJ Response Miller
	277	9/22/1989	1- Background Docs 19890922 DOJ Response Bingaman
	278	6/25/2014	1- Background Docs 20140625 DOJ_GC_ACS Letter 6.25.14
	284	7/2/2014	1- Background Docs 20140702 NIH How Well Does the ACS Count Naturalized Citizens
	311	11/4/2016	1-Background Docs 20161104 DOJ Ltr to Census Director Thompson re Use of ACS 11.4.16Bates
	317	8/7/2017	1- Background Docs 20170807 Census Updates
	326	12/18/2017	1- Background Docs 20171218 Admin Records Briefing for Secretary Ross_12_18_17_DDBBates
	336	1/18/2018	1- Background Docs 20180118 Secretary Ross Briefing 2020 Census Update 2018.01.18 FINALBates
	380	2/26/2018	1- Background Docs 20180226 Secretary Ross Briefing 2020 Census Update 2018.02.26 Final PresentationBates
	413	3/5/2018	1- Background Docs 20180305 Question Submission ESA 3-5-18Bates
	435	3/6/2018	1- Background Docs 20180306 Question Submission DOC 3-6-18Bates
	456	3/24/2018	1- Background Docs 20180323 20180324-Answer re 2010 short form and ACS [3.23.18]Bates

	457	3/23/2018	1- Background Docs 20180323 ACS 2016 Breakoff Rates by Race Group for internet [3.23.18]Bates
	467	3/23/2018	1- Background Docs 20180323 ACS Item Allocation Rates_2016, 2013, 2010 [3.23.18]Bates
	481	3/23/2018	1- Background Docs 20180323 Percent of ACS response rates by mode 2010-2017 [3.23.18]Bates
	482	3/23/2018	1- Background Docs 20180323 Response rates for ACS 2000-2016 [3.23.18]Bates
	485		1- Background Docs ACS 2000Bates
	509		1- Background Docs ACS 2010Bates
	523		1- Background Docs Background Docs ACS Why We Ask PlaceofBirth_Citizenship_YearofEntryBates
	524	3/19/2018	1- Background Docs Background Docs Administrative Data Inventory - Census BureauBates
	526		1- Background Docs Background Docs Brief of Former Directors of the U.S. Census Bureau as Amici Curiae (Evenwel v Abbott)Bates
	540	9/24/2003	1- Background Docs Background Docs Census 2000 Content Reinterview Survey Accuracy of Data 9.24.2003Bates
	548	1/30/2003	1- Background Docs Background Docs Census 2000 Mail Response Rates 1.30.03Bates
	612		1- Background Docs Background Docs CFR Adjustments of the 1990 Census for Overcounts and Undercounts Notice of Final DecisionBates
	616		1- Background Docs Background Docs Crosswalk from LCCE in Exec Summary to FY 19 Pres. BudgetBates
	617		1- Background Docs Background Docs Evenwel v Abbott, 136 S.Ct. 1120 (2016)Bates
	641		1- Background Docs Background Docs Historical Information_ Questionnaires - CensusBates

	642		1- Background Docs Background Docs Historical Information_ Questionnaires - Citizenship QuestionBates
	644	12/6/2005	1- Background Docs Background Docs Kincannon, Charles Statement - Director, U.S. Census Bureau 12.6.05Bates
	646		1- Background Docs Background Docs Measuring America The Decennial Censuses From 1790 to 2000 (Issued April 2002)Bates
	656	3/19/2018	1- Background Docs Background Docs MOU Status Update 3.19.18Bates
	662		1- Background Docs Background Docs Title 13 U.S.C. 213 False Statements, Certificates, and InformationBates
2- DOJ COMMUNICATIONS	663	12/12/2017	2- DOJ Communications 20171212 DOJ Citizenship Request to Jarmin 12.12.17Bates
3- MEDIA	666		3- Media - Tracker on DoJ Letter to USCB_3.23.2018Bates
	734		3- Media camarota, Steven [article]Bates
	738		3- Media Gupta, Vanita [RP article]Bates
	742		3- Media Gupta, Vanita [Testimony]Bates
	750		3- Media Vargas, Arturo [HP article]Bates
	754		3- Media Vargas, Arturo [NALEO research plan]Bates
	759		3- Media Vargas, Arturo [SJM op ed]Bates
4- STAKEHOLDER COMMUNICATIONS	763	7/14/2017	4- Stakeholder Communications 20170714 Email Kobach to RossBates
	765	1/3/2018	4- Stakeholder Communications 20180103 Email G Lasher to R Jarmin LBates
	766	1/3/2018	4- Stakeholder Communications 20180103 Email G Lasher to R Jarmin Response 1-4Bates
	767	1/4/2018	4- Stakeholder Communications 20180104 Letter D Carpenter to R JarminBates
	768	1/4/2018	4- Stakeholder Communications 20180104 Letter Serrano Meng to Sec Ross LBates
	770	1/4/2018	4- Stakeholder Communications 20180104 Letter Serrano Meng to Sec Ross Responses 2-22Bates
	772	1/4/2018	4- Stakeholder Communications 20180104 Letter to D Carpenter to R Jarmin Response 2-20Bates

	773	1/4/2018	4- Stakeholder Communications 20180104 Letter V Gupta to Sec Ross LBates
	777	1/4/2018	4- Stakeholder Communications 20180104 Letter V Gupta to Sec Ross Response 3-13Bates
	778	1/5/2018	3- Stakeholder Communications 20170105 Email Vargas to Dep SecBates
	780	1/5/2018	4- Stakeholder Communications 20180105 Letter D Feinstein et al to Sec Ross LBates
	782	1/5/2018	4- Stakeholder Communications 20180105 Letter D Feinstein et al to Sec Ross Responses 1-31Bates
	787	1/5/2018	4- Stakeholder Communications 20180105 Letter E Bonilla-Silva to Sec Ross LBates
	788	1/5/2018	4- Stakeholder Communications 20180105 Letter E Bonilla-Silva to Sec Ross Response 2-22Bates
	789	1/5/2018	4- Stakeholder Communications 20180105 Letter J Paradis to R JarminBates
	790	1/7/2018	4- Stakeholder Communications 20180107 Letter P Collier-Kerr to Sec RossBates
	793	1/8/2018	4- Stakeholder Communications Email 20180108 M Thompson (E Helling) to CensusBates
	794	1/9/2018	4- Stakeholder Communications Email 20180109 B Anderson to Sec RossBates
	797	1/9/2018	4- Stakeholder Communications 20180109 Letter V Gonzalez to J SessionsBates
	798	1/10/2018	4- Stakeholder Communications 20180110 Letter LCCHR to Sec Ross LBates
	804	1/10/2018	4- Stakeholder Communications 20180110 Letter LCCHR to Sec Ross Response 2-22Bates
	806	1/11/2018	4- Stakeholder Communications 20180111 Letter Michigan NPA to Sec Ross LBates
	808	1/11/2018	4- Stakeholder Communications 20180111 Letter Michigan NPA to Sec Ross Responses 2-22Bates
	811	1/11/2018	4- Stakeholder Communications 20180111 Letter Shaheen McCaskill to Sec Ross LBates
	813	1/11/2018	4- Stakeholder Communications 20180111 Letter Shaheen McCaskill to Sec Ross Responses 2-22Bates
	815	1/12/2018	4- Stakeholder Communications 20180112 Letter E Effinger-Weintraub to Sec RossBates
	816	1/16/2018	4- Stakeholder Communications 20180116 Letter CHAC to Sec Ross Responses 2-22Bates

	819	1/16/2018	4- Stakeholder Communications 20180116 Letter CHAC to Sec RossBates
	838	1/16/2018	4- Stakeholder Communications 20180116 Letter J Manchin to Sec RossBates
	840	1/17/2018	4- Stakeholder Communications 20180117 Letter P Jayapal et al to Sec Ross LBates
	847	1/17/2018	4- Stakeholder Communications 20180117 Letter P Jayapal et al to Sec Ross Responses 2-22Bates
	908	1/18/2018	4- Stakeholder Communications 20180118 Letter C Maloney et al to Sec Ross LBates
	920	1/18/2018	4- Stakeholder Communications 20180118 Letter C Maloney et al to Sec Ross Responses 2-26Bates
	1045	1/19/2018	4- Stakeholder Communications 20180119 Letter S Kuehl et al to Sec Ross LBates
	1047	1/19/2018	4- Stakeholder Communications 20180119 Letter S Kuehl et al to Sec Ross Responses 2-22Bates
	1052	1/23/2018	4- Stakeholder Communications 20180123 Letter PAA to Sec Ross LBates
	1055	1/23/2018	4- Stakeholder Communications 20180123 Letter PAA to Sec Ross Responses 2-23Bates
	1057	1/26/2018	4- Stakeholder Communications 20180126 Letter Former Dirs to Sec RossBates
	1059	1/26/2018	4- Stakeholder Communications 20180126 Letter G Bennett to Sec RossBates
	1061	1/29/2018	4- Stakeholder Communications 20180129 Letter R Beschel to Pres TrumpBates
	1064	1/29/2018	4- Stakeholder Communications 20180129 Letter T Cochran to Sec RossBates
	1067	1/30/2018	4- Stakeholder Communications 20180130 Letter L Alejo to Sec Ross LBates
	1069	1/30/2018	4- Stakeholder Communications 20180130 Letter L Alejo to Sec Ross Responses 3-1Bates
	1070	2/6/2018	4- Stakeholder Communications Email 20180206 B Comstock (AGB) to T EdwardsBates
	1073	2/6/2018	4- Stakeholder Communications 20180206 Letter Conf of Mayors to Sec RossBates
	1079	2/8/2018	4- Stakeholder Communications 20180208 Letter J Landry to Sec Ross LBates
	1081	2/8/2018	4- Stakeholder Communications 20180208 Letter J Landry to Sec Ross Response 3-19Bates

	1082	2/8/2018	4- Stakeholder Communications 20180208 Letter Natl League Cities to Sec Ross LBates
	1085	2/8/2018	4- Stakeholder Communications 20180208 Letter Natl League Cities to Sec Ross Response 3-6Bates
	1086	2/9/2018	4- Stakeholder Communications 20180209 Letter J Reed to A Lang ABates
	1088	2/9/2018	4- Stakeholder Communications 20180209 Letter J Reed to A Lang Jarmin Response 2-28Bates
	1089	2/12/2018	4- Stakeholder Communications 20180212 Letter R Jarmin to M ThompsonBates
	1090	2/12/2018	4- Stakeholder Communications 20180212 Letter State AGs to Sec Ross LBates
	1102	2/12/2018	4- Stakeholder Communications 20180212 Letter State AGs to Sec Ross Responses 3-13Bates
	1122	2/15/2018	4- Stakeholder Communications Email 20180215 M Fidel (ADL) to Sec RossBates
	1124	2/15/2018	4- Stakeholder Communications Email 20180215 Tester (J Henry) to Philadelphia Reg OfficeBates
	1125	2/15/2018	4- Stakeholder Communications 20180215 Letter Const Acc Ctr to Sec Ross LBates
	1128	2/15/2018	4- Stakeholder Communications 20180215 Letter Const Acc Ctr to Sec Ross Responses 3-12Bates
	1129	2/16/2018	4- Stakeholder Communications 20180216 Letter S King to Sec Ross LBates
	1131	2/16/2018	4- Stakeholder Communications 20180216 Letter S King to Sec Ross Response 3-12Bates
	1141	2/18/2018	4- Stakeholder Communications 20180218 Letter K Kobach to Sec Ross LBates
	1143	2/18/2018	4- Stakeholder Communications 20180218 Letter K Kobach to Sec Ross Response 3-23Bates
	1144	2/20/2018	4- Stakeholder Communications 20180220 Letter S Choi (NYIC) to Sec Ross LBates
	1149	2/20/2018	4- Stakeholder Communications 20180220 Letter S Choi (NYIC) to Sec Ross Response 3-23Bates
	1150	2/22/2018	4- Stakeholder Communications 20180222 Letter APA VOICE to Sec Ross LBates
	1152	2/22/2018	4- Stakeholder Communications 20180222 Letter APA VOICE to Sec Ross Response 3-23Bates
	1153	2/23/2018	4- Stakeholder Communications 20180223 Letter C Lawson to Sec Ross LBates

	1154	2/23/2018	4- Stakeholder Communications 20180223 Letter C Lawson to Sec Ross Response 3-19Bates
	1155	2/23/2018	4- Stakeholder Communications 20180223 Letter J Mateer to R Jarmin LBates
	1158	2/23/2018	4- Stakeholder Communications 20180223 Letter J Mateer to R Jarmin Response 3-15Bates
	1159	2/23/2018	4- Stakeholder Communications 20180223 Letter M Warner (WV) to Sec Ross LBates
	1160	2/23/2018	4- Stakeholder Communications 20180223 Letter M Warner (WV) to Sec Ross Response 3-23Bates
	1161	2/23/2018	4- Stakeholder Communications 20180223 Letter S Marshall to Sec Ross LBates
	1163	2/23/2018	4- Stakeholder Communications 20180223 Letter S Marshall to Sec Ross Reponse 3-23Bates
	1164	2/27/2018	4- Stakeholder Communications 20180227 Letter B Goodlatte to Sec Ross LBates
	1165	2/27/2018	4- Stakeholder Communications 20180227 Letter B Goodlatte to Sec Ross Response 3-23Bates
	1166	2/27/2018	4- Stakeholder Communications 20180227 Letter J Williams to R JarminBates
	1176	2/27/2018	4- Stakeholder Communications 20180227 Letter R Jarmin to B ComstockBates
	1178	2/27/2018	4- Stakeholder Communications 20180227 Letter T Cotton et al to Sec Ross LBates
	1180	2/27/2018	4- Stakeholder Communications 20180227 Letter T Cotton et al to Sec Ross Response 3-19Bates
	1183	2/27/2018	4- Stakeholder Communications 20180227 Letters Sec Ross to CSAC MembersBates
	1193	2/28/2018	4- Stakeholder Communications 20180228 Letter R Jarmin to Sen TesterBates
	1194	2/28/2018	4- Stakeholder Communications 20180228 Schatz, Brian Post-Call SummaryBates
	1195	3/2/2018	4- Stakeholder Communications 20180302 Letter N Zauderer to Sec Ross LBates
	1197	3/2/2018	4- Stakeholder Communications 20180302 Letter N Zauderer to Sec Ross Response 3-23Bates
	1198	3/12/2018	4- Stakeholder Communications 20180312 Carper, Tom Post-Call SummaryBates
	1199	3/12/2018	4- Stakeholder Communications 20180312 Cotton, Tom Post-Call SummaryBates

	1200	3/12/2018	4- Stakeholder Communications 20180312 Cruz, Ted Post-Call SummaryBates
	1201	3/12/2018	4- Stakeholder Communications 20180312 Hood, Jim Post-Call SummaryBates
	1202	3/12/2018	4- Stakeholder Communications 20180312 Johnson, Ron Post-Call SummaryBates
	1203	3/12/2018	4- Stakeholder Communications 20180312 Landry, Jeff Post-Call SummaryBates
	1204	3/12/2018	4- Stakeholder Communications 20180312 Maloney, Carolyn Post-Call SummaryBates
	1205	3/12/2018	4- Stakeholder Communications 20180312 Miller, Tom Post-Call SummaryBates
	1206	3/13/2018	4- Stakeholder Communications 20180313 Camarota, Steven Post-Call SummaryBates
	1207	3/13/2018	4- Stakeholder Communications 20180313 Gupta, Vanita Post-Call SummaryBates
	1208	3/13/2018	4- Stakeholder Communications 20180313 Howard, Jerry Post-Call SummaryBates
	1209	3/13/2018	4- Stakeholder Communications 20180313 Kitague, Ditas Post-Call SummaryBates
	1210	3/13/2018	4- Stakeholder Communications 20180313 Letter M Hunter et al to Sec RossBates
	1213	3/13/2018	4- Stakeholder Communications 20180313 Vargas, Arturo Post-Call SummaryBates
	1214	3/15/2018	4- Stakeholder Communications 20180315 Chapman, Bruce Post-Call SummaryBates
	1215	3/15/2018	4- Stakeholder Communications 20180315 Connolly, Gerald Post-Call SummaryBates
	1217	3/15/2018	3- Stakeholder Communications 20180315 Letter P Kirsanow to R Jarmin LBates
	1220	3/15/2018	3- Stakeholder Communications 20180315 Letter P Kirsanow to R Jarmin Response 3-20Bates
	1221	3/19/2018	4- Stakeholder Communications 20180315 Murdock, Steven Post-Call SummaryBates
	1222	3/20/2018	4- Stakeholder Communications 20180319 Letter J Garcel (LCF) to Sec RossBates
	1223	3/20/2018	4- Stakeholder Communications 20180320 Letter G Meng et al to Sec Ross LBates
	1224	3/21/2018	4- Stakeholder Communications 20180320 Letter G Meng et al to Sec Ross Response 3-23Bates

	1227	3/21/2018	4- Stakeholder Communications 20180321 Letter A Torres et al to Sec Ross LBates
	1237	3/21/2018	4- Stakeholder Communications 20180321 Letter A Torres et al to Sec Ross Response G Bass 3-23Bates
	1238	3/21/2018	4- Stakeholder Communications 20180321 Letter B Kyle to Sec RossBates
	1239	3/21/2018	4- Stakeholder Communications 20180321 Letter C Gore et al to Sec Ross LBates
	1242	3/21/2018	4- Stakeholder Communications 20180321 Letter C Gore et al to Sec Ross Responses 3-23Bates
	1245	3/21/2018	4- Stakeholder Communications 20180321 Letter D Quart to Sec RossBates
	1246	3/21/2018	4- Stakeholder Communications 20180321 Letter H Weinstein to Sec RossBates
	1247	3/22/2018	4- Stakeholder Communications 20180321 Letter K Jean-Pierre to Sec RossBates
	1248	3/22/2018	4- Stakeholder Communications 20180322 Letter Const Acc Ctr to Sec RossBates
	1250	3/22/2018	4- Stakeholder Communications 20180322 Letter J Haila to Sec RossBates
	1251	3/22/2018	4- Stakeholder Communications 20180322 Letter J Hamilton to Sec RossBates
	1252	3/22/2018	4- Stakeholder Communications 20180322 Letter Ready Nation to Sec Ross LBates
	1255	3/22/2018	4- Stakeholder Communications 20180322 Letter Ready Nation to Sec Ross Responses 3-23Bates
	1256	3/23/2018	4- Stakeholder Communications 20180323 Cummings, Elijah Post-Call SummaryBates
	1257	3/23/2018	4- Stakeholder Communications 20180323 Groves, Robert Post-Call SummaryBates
	1259	3/23/2018	4- Stakeholder Communications 20180323 Habermann, Hermann Post-Call SummaryBates
	1261	3/23/2018	4- Stakeholder Communications 20180323 James, Kay Cole Post-Call SummaryBates
	1262	3/23/2018	4- Stakeholder Communications 20180323 Letter A Simotas to Sec RossBates
	1263	3/23/2018	4- Stakeholder Communications 20180323 Letter C Layne to Sec RossBates
	1264	3/23/2018	4- Stakeholder Communications 20180323 Letter D Glick to Sec RossBates

	1265	3/23/2018	4- Stakeholder Communications 20180323 Letter D Weprin to Sec RossBates
	1266	3/23/2018	4- Stakeholder Communications 20180323 Letter J Lentol to Sec RossBates
	1267	3/23/2018	4- Stakeholder Communications 20180323 Letter P Abbate to Sec RossBates
	1268	3/23/2018	4- Stakeholder Communications 20180323 Letter P Hunter to Sec RossBates
	1269	3/23/2018	4- Stakeholder Communications 20180323 Letter S Aftergood et al to Sec RossBates
	1272	3/23/2018	4- Stakeholder Communications 20180323 Letter S Aftergood et al to Sec Ross Response 3-23Bates
	1273	3/23/2018	4- Stakeholder Communications 20180323 Letter Sec Ross to M Nathan (ADL)Bates
	1274	3/23/2018	4- Stakeholder Communications 20180323 Pelosi, Nancy Post-Call SummaryBates
	1276	12/12/2017	4- Stakeholder Communications 20180323 Pierce, Christine Post-Call SummaryBates
5- CENSUS COMMUNICATIONS	1277	1/18/2018	5- Census Communications 20180119 Census Technical Review of DOJ Request 1.18.18Bates
	1286	2/6/2018	5- Census Communications 20180206 Citizenship Question_ Questions on the 19 Jan Memo 01312018_ Responses from Census_02-06-2018-FINALBates
	1298	2/6/2018	5- Census Communications 20180206 Attachment - Citizenship Questions_ACS Item Allocation Rates_2016, 2013, 2010Bates
	1304	2/15/2018	5- Census Communications 20180215 Census Alt C vs Alt D Summary 2.15.18Bates

	1308	3/1/2018	5- Census Communications 20180301 Census Review Alternative D 2.15.18Bates
6- DECISION MEMO	1313	3/26/2018	6- Decision Memo 20180326 2020 Census Decision Memo 2018-03-26_2Bates

**NO INS
NO FBI
NO CIA
NO IRS**

Nadie ajeno a la Oficina del Censo puede acceder a sus datos personales. Es la ley.
No one outside the Census Bureau can access your personal information. That's the law.

Una de las leyes de privacidad más estrictas de los Estados Unidos prohíbe que la Oficina del Censo comparta su información personal con alguien. La ley lo protege, ya sea ciudadano o no.



**United States
Census
2000**

One of the strictest privacy laws in the United States dictates that the Census Bureau cannot share your personal information with anyone. You are protected whether you are a citizen or not.

This is your future. Don't leave it blank.

United States Census 2000

U.S. Department of Commerce
Bureau of the Census



This is the official form for all the people at this address. It is quick and easy, and your answers are protected by law. Complete the Census and help your community get what it needs — today and in the future!

Start Here

Please use a black or blue pen.

- 1 How many people were living or staying in this house, apartment, or mobile home on April 1, 2000?

Number of people

INCLUDE in this number:

- foster children, roomers, or housemates
- people staying here on April 1, 2000 who have no other permanent place to stay
- people living here most of the time while working, even if they have another place to live

DO NOT INCLUDE in this number:

- college students living away while attending college
- people in a correctional facility, nursing home, or mental hospital on April 1, 2000
- Armed Forces personnel living somewhere else
- people who live or stay at another place most of the time

- ➔ Please turn the page and print the names of all the people living or staying here on April 1, 2000.



If you need help completing this form, call 1-800-471-9424 between 8:00 a.m. and 9:00 p.m., 7 days a week. The telephone call is free.

TDD – Telephone display device for the hearing impaired. Call 1-800-582-8330 between 8:00 a.m. and 9:00 p.m., 7 days a week. The telephone call is free.

¿NECESITA AYUDA? Si usted necesita ayuda para completar este cuestionario llame al 1-800-471-9424 entre las 8:00 a.m. y las 9:00 p.m., 7 días a la semana. La llamada telefónica es gratis.

The Census Bureau estimates that, for the average household, this form will take about 38 minutes to complete, including the time for reviewing the instructions and answers. Comments about the estimate should be directed to the Associate Director for Finance and Administration, Attn: Paperwork Reduction Project 0607-0856, Room 3104, Federal Building 3, Bureau of the Census, Washington, DC 20233.

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

OMB No. 0607-0856. Approval Expires 12/31/2000

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List of Persons

➔ Please be sure you answered question 1 on the front page before continuing.

2 Please print the names of all the people who you indicated in question 1 were living or staying here on April 1, 2000.

Example — Last Name

JOHNSON

First Name MI

ROBIN J

Start with the person, or one of the people living here who owns, is buying, or rents this house, apartment, or mobile home. If there is no such person, start with any adult living or staying here.

Person 1 — Last Name

First Name MI

Person 2 — Last Name

First Name MI

Person 3 — Last Name

First Name MI

Person 4 — Last Name

First Name MI

Person 5 — Last Name

First Name MI

Person 6 — Last Name

First Name MI

Person 7 — Last Name

First Name MI

Person 8 — Last Name

First Name MI

Person 9 — Last Name

First Name MI

Person 10 — Last Name

First Name MI

Person 11 — Last Name

First Name MI

Person 12 — Last Name

First Name MI

➔ Next, answer questions about Person 1.

FOR OFFICE USE ONLY

A. JIC1 B. JIC2 C. JIC3 D. JIC4

Person

1



Your answers are important!
Every person in the Census counts.

1 What is this person's name? *Print the name of Person 1 from page 2.*

Last Name

First Name

MI

2 What is this person's telephone number? *We may contact this person if we don't understand an answer.*
Area Code + Number

3 What is this person's sex? Mark ONE box.

- Male
- Female

4 What is this person's age and what is this person's date of birth?

Age on April 1, 2000

Print numbers in boxes.

Month Day Year of birth

→ **NOTE:** Please answer BOTH Questions 5 and 6.

5 Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino
- Yes, Mexican, Mexican Am., Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — *Print group.* ↗

6 What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

- 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"/> Native Hawaiian |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> Guamanian or Chamorro |
| <input type="checkbox"/> Filipino | <input type="checkbox"/> Samoan |
| <input type="checkbox"/> Japanese | <input type="checkbox"/> Other Pacific Islander — <i>Print race.</i> ↗ |
| <input type="checkbox"/> Korean | |
| <input type="checkbox"/> Vietnamese | |
| <input type="checkbox"/> Other Asian — <i>Print race.</i> ↗ | |

- Some other race — *Print race.* ↗

7 What is this person's marital status?

- Now married
- Widowed
- Divorced
- Separated
- Never married

8 a. At any time since February 1, 2000, has this person attended regular school or college? *Include only nursery school or preschool, kindergarten, elementary school, and schooling which leads to a high school diploma or a college degree.*

- No, has not attended since February 1 → *Skip to 9*
- Yes, public school, public college
- Yes, private school, private college



Person 1 (continued)

8 b. What grade or level was this person attending?

Mark ONE box.

- Nursery school, preschool
- Kindergarten
- Grade 1 to grade 4
- Grade 5 to grade 8
- Grade 9 to grade 12
- College undergraduate years (freshman to senior)
- Graduate or professional school (for example: medical, dental, or law school)

9 What is the highest degree or level of school this person has COMPLETED? Mark ONE box. If currently enrolled, mark the previous grade or highest degree received.

- No schooling completed
- Nursery school to 4th grade
- 5th grade or 6th grade
- 7th grade or 8th grade
- 9th grade
- 10th grade
- 11th grade
- 12th grade, **NO DIPLOMA**
- HIGH SCHOOL GRADUATE** — high school DIPLOMA or the equivalent (for example: GED)
- Some college credit, but less than 1 year
- 1 or more years of college, no degree
- Associate degree (for example: AA, AS)
- Bachelor's degree (for example: BA, AB, BS)
- Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)
- Professional degree (for example: MD, DDS, DVM, LLB, JD)
- Doctorate degree (for example: PhD, EdD)

10 What is this person's ancestry or ethnic origin?

(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)

11 a. Does this person speak a language other than English at home?

- Yes
- No → Skip to 12

b. What is this language?

(For example: Korean, Italian, Spanish, Vietnamese)

c. How well does this person speak English?

- Very well
- Well
- Not well
- Not at all

12 Where was this person born?

- In the United States — Print name of state.
- Outside the United States — Print name of foreign country, or Puerto Rico, Guam, etc.

13 Is this person a CITIZEN of the United States?

- Yes, born in the United States → Skip to 15a
- Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas
- Yes, born abroad of American parent or parents
- Yes, a U.S. citizen by naturalization
- No, not a citizen of the United States

14 When did this person come to live in the United States? Print numbers in boxes.

Year

15 a. Did this person live in this house or apartment 5 years ago (on April 1, 1995)?

- Person is under 5 years old → Skip to 33
- Yes, this house → Skip to 16
- No, outside the United States — Print name of foreign country, or Puerto Rico, Guam, etc., below; then skip to 16.
- No, different house in the United States

Person 1 (continued)

15 b. Where did this person live 5 years ago?

Name of city, town, or post office

Did this person live inside the limits of the city or town?

- Yes
- No, outside the city/town limits

Name of county

Name of state

ZIP Code

16 Does this person have any of the following long-lasting conditions:

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Blindness, deafness, or a severe vision or hearing impairment? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying? | <input type="checkbox"/> | <input type="checkbox"/> |

17 Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities:

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Learning, remembering, or concentrating? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Dressing, bathing, or getting around inside the home? | <input type="checkbox"/> | <input type="checkbox"/> |
| c. (Answer if this person is 16 YEARS OLD OR OVER.) Going outside the home alone to shop or visit a doctor's office? | <input type="checkbox"/> | <input type="checkbox"/> |
| d. (Answer if this person is 16 YEARS OLD OR OVER.) Working at a job or business? | <input type="checkbox"/> | <input type="checkbox"/> |

18 Was this person under 15 years of age on April 1, 2000?

- Yes → Skip to 33
- No

19 a. Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?

- Yes
- No → Skip to 20a

b. Is this grandparent currently responsible for most of the basic needs of any grandchild(ren) under the age of 18 who live(s) in this house or apartment?

- Yes
- No → Skip to 20a

c. How long has this grandparent been responsible for the(se) grandchild(ren)? If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.

- Less than 6 months
- 6 to 11 months
- 1 or 2 years
- 3 or 4 years
- 5 years or more

20 a. Has this person ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.

- Yes, now on active duty
- Yes, on active duty in past, but not now
- No, training for Reserves or National Guard only → Skip to 21
- No, never served in the military → Skip to 21

b. When did this person serve on active duty in the U.S. Armed Forces? Mark a box for EACH period in which this person served.

- April 1995 or later
- August 1990 to March 1995 (including Persian Gulf War)
- September 1980 to July 1990
- May 1975 to August 1980
- Vietnam era (August 1964—April 1975)
- February 1955 to July 1964
- Korean conflict (June 1950—January 1955)
- World War II (September 1940—July 1947)
- Some other time

c. In total, how many years of active-duty military service has this person had?

- Less than 2 years
- 2 years or more



Person 1 (continued)

21 LAST WEEK, did this person do ANY work for either pay or profit? Mark (X) the "Yes" box even if the person worked only 1 hour, or helped without pay in a family business or farm for 15 hours or more, or was on active duty in the Armed Forces.

- Yes
 No → Skip to 25a

22 At what location did this person work LAST WEEK? If this person worked at more than one location, print where he or she worked most last week.

a. Address (Number and street name)

(If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.)

b. Name of city, town, or post office

c. Is the work location inside the limits of that city or town?

- Yes
 No, outside the city/town limits

d. Name of county

e. Name of U.S. state or foreign country

f. ZIP Code

23 a. How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, mark (X) the box of the one used for most of the distance.

- Car, truck, or van
 Bus or trolley bus
 Streetcar or trolley car
 Subway or elevated
 Railroad
 Ferryboat
 Taxicab
 Motorcycle
 Bicycle
 Walked
 Worked at home → Skip to 27
 Other method

→ If "Car, truck, or van" is marked in 23a, go to 23b. Otherwise, skip to 24a.

23 b. How many people, including this person, usually rode to work in the car, truck, or van LAST WEEK?

- Drove alone
 2 people
 3 people
 4 people
 5 or 6 people
 7 or more people

24 a. What time did this person usually leave home to go to work LAST WEEK?

- a.m. p.m.

b. How many minutes did it usually take this person to get from home to work LAST WEEK?

Minutes

→ Answer questions 25–26 for persons who did not work for pay or profit last week. Others skip to 27.

25 a. LAST WEEK, was this person on layoff from a job?

- Yes → Skip to 25c
 No

b. LAST WEEK, was this person TEMPORARILY absent from a job or business?

- Yes, on vacation, temporary illness, labor dispute, etc. → Skip to 26
 No → Skip to 25d

c. Has this person been informed that he or she will be recalled to work within the next 6 months OR been given a date to return to work?

- Yes → Skip to 25e
 No

d. Has this person been looking for work during the last 4 weeks?

- Yes
 No → Skip to 26

e. LAST WEEK, could this person have started a job if offered one, or returned to work if recalled?

- Yes, could have gone to work
 No, because of own temporary illness
 No, because of all other reasons (in school, etc.)

26 When did this person last work, even for a few days?

- 1995 to 2000
 1994 or earlier, or never worked → Skip to 31

Person 1 (continued)

27 Industry or Employer — Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give the information for his/her last job or business since 1995.

a. For whom did this person work? If now on active duty in the Armed Forces, mark this box → and print the branch of the Armed Forces.

Name of company, business, or other employer

b. What kind of business or industry was this? Describe the activity at location where employed. (For example, hospital, newspaper publishing, mail order house, auto repair shop, bank)

c. Is this mainly — Mark ONE box.

- Manufacturing?
- Wholesale trade?
- Retail trade?
- Other (agriculture, construction, service, government, etc.)?

28 Occupation

a. What kind of work was this person doing? (For example: registered nurse, personnel manager, supervisor of order department, auto mechanic, accountant)

b. What were this person's most important activities or duties? (For example: patient care, directing hiring policies, supervising order clerks, repairing automobiles, reconciling financial records)

29 Was this person — Mark ONE box.

- Employee of a PRIVATE-FOR-PROFIT company or business or of an individual, for wages, salary, or commissions
- Employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization
- Local GOVERNMENT employee (city, county, etc.)
- State GOVERNMENT employee
- Federal GOVERNMENT employee
- SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm
- SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm
- Working WITHOUT PAY in family business or farm

30 a. LAST YEAR, 1999, did this person work at a job or business at any time?

- Yes
- No → Skip to 31

b. How many weeks did this person work in 1999? Count paid vacation, paid sick leave, and military service.
Weeks

c. During the weeks WORKED in 1999, how many hours did this person usually work each WEEK?
Usual hours worked each WEEK

31 INCOME IN 1999 — Mark the "Yes" box for each income source received during 1999 and enter the total amount received during 1999 to a maximum of \$999,999. Mark the "No" box if the income source was not received. If net income was a loss, enter the amount and mark the "Loss" box next to the dollar amount.

For income received jointly, report, if possible, the appropriate share for each person; otherwise, report the whole amount for only one person and mark the "No" box for the other person. If exact amount is not known, please give best estimate.

a. Wages, salary, commissions, bonuses, or tips from all jobs — Report amount before deductions for taxes, bonds, dues, or other items.

Yes Annual amount — Dollars

\$ | | | | | .00

No

b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships — Report NET income after business expenses.

Yes Annual amount — Dollars

\$ | | | | | .00

Loss

No



Person 1 (continued)

31 c. Interest, dividends, net rental income, royalty income, or income from estates and trusts — Report even small amounts credited to an account.

- Yes Annual amount — Dollars
\$ | | | | | .00 Loss
- No

d. Social Security or Railroad Retirement

- Yes Annual amount — Dollars
\$ | | | | | .00
- No

e. Supplemental Security Income (SSI)

- Yes Annual amount — Dollars
\$ | | | | | .00
- No

f. Any public assistance or welfare payments from the state or local welfare office

- Yes Annual amount — Dollars
\$ | | | | | .00
- No

g. Retirement, survivor, or disability pensions — Do NOT include Social Security.

- Yes Annual amount — Dollars
\$ | | | | | .00
- No

h. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support, or alimony — Do NOT include lump-sum payments such as money from an inheritance or sale of a home.

- Yes Annual amount — Dollars
\$ | | | | | .00
- No

32 What was this person's total income in 1999? Add entries in questions 31a—31h; subtract any losses. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.

- Annual amount — Dollars
- None OR \$ | | | | | .00 Loss

→ Now, please answer questions 33—53 about your household.

33 Is this house, apartment, or mobile home —

- Owned by you or someone in this household with a mortgage or loan?
- Owned by you or someone in this household free and clear (without a mortgage or loan)?
- Rented for cash rent?
- Occupied without payment of cash rent?

34 Which best describes this building? Include all apartments, flats, etc., even if vacant.

- A mobile home
- A one-family house detached from any other house
- A one-family house attached to one or more houses
- A building with 2 apartments
- A building with 3 or 4 apartments
- A building with 5 to 9 apartments
- A building with 10 to 19 apartments
- A building with 20 to 49 apartments
- A building with 50 or more apartments
- Boat, RV, van, etc.

35 About when was this building first built?

- 1999 or 2000
- 1995 to 1998
- 1990 to 1994
- 1980 to 1989
- 1970 to 1979
- 1960 to 1969
- 1950 to 1959
- 1940 to 1949
- 1939 or earlier

36 When did this person move into this house, apartment, or mobile home?

- 1999 or 2000
- 1995 to 1998
- 1990 to 1994
- 1980 to 1989
- 1970 to 1979
- 1969 or earlier

37 How many rooms do you have in this house, apartment, or mobile home? Do NOT count bathrooms, porches, balconies, foyers, halls, or half-rooms.

- | | |
|----------------------------------|--|
| <input type="checkbox"/> 1 room | <input type="checkbox"/> 6 rooms |
| <input type="checkbox"/> 2 rooms | <input type="checkbox"/> 7 rooms |
| <input type="checkbox"/> 3 rooms | <input type="checkbox"/> 8 rooms |
| <input type="checkbox"/> 4 rooms | <input type="checkbox"/> 9 or more rooms |
| <input type="checkbox"/> 5 rooms | |

Person 1 (continued)

38 How many bedrooms do you have; that is, how many bedrooms would you list if this house, apartment, or mobile home were on the market for sale or rent?

- No bedroom
- 1 bedroom
- 2 bedrooms
- 3 bedrooms
- 4 bedrooms
- 5 or more bedrooms

39 Do you have COMPLETE plumbing facilities in this house, apartment, or mobile home; that is, 1) hot and cold piped water, 2) a flush toilet, and 3) a bathtub or shower?

- Yes, have all three facilities
- No

40 Do you have COMPLETE kitchen facilities in this house, apartment, or mobile home; that is, 1) a sink with piped water, 2) a range or stove, and 3) a refrigerator?

- Yes, have all three facilities
- No

41 Is there telephone service available in this house, apartment, or mobile home from which you can both make and receive calls?

- Yes
- No

42 Which FUEL is used MOST for heating this house, apartment, or mobile home?

- Gas: from underground pipes serving the neighborhood
- Gas: bottled, tank, or LP
- Electricity
- Fuel oil, kerosene, etc.
- Coal or coke
- Wood
- Solar energy
- Other fuel
- No fuel used

43 How many automobiles, vans, and trucks of one-ton capacity or less are kept at home for use by members of your household?

- None
- 1
- 2
- 3
- 4
- 5
- 6 or more

44 Answer ONLY if this is a ONE-FAMILY HOUSE OR MOBILE HOME — All others skip to 45.

a. Is there a business (such as a store or barber shop) or a medical office on this property?

- Yes
- No

b. How many acres is this house or mobile home on?

- Less than 1 acre → Skip to 45
- 1 to 9.9 acres
- 10 or more acres

c. In 1999, what were the actual sales of all agricultural products from this property?

- None
- \$1 to \$999
- \$1,000 to \$2,499
- \$2,500 to \$4,999
- \$5,000 to \$9,999
- \$10,000 or more

45 What are the annual costs of utilities and fuels for this house, apartment, or mobile home? If you have lived here less than 1 year, estimate the annual cost.

a. Electricity

Annual cost — Dollars

\$ | | | | .00

OR

- Included in rent or in condominium fee
- No charge or electricity not used

b. Gas

Annual cost — Dollars

\$ | | | | .00

OR

- Included in rent or in condominium fee
- No charge or gas not used

c. Water and sewer

Annual cost — Dollars

\$ | | | | .00

OR

- Included in rent or in condominium fee
- No charge

d. Oil, coal, kerosene, wood, etc.

Annual cost — Dollars

\$ | | | | .00

OR

- Included in rent or in condominium fee
- No charge or these fuels not used



Person 1 (continued)

46 Answer ONLY if you PAY RENT for this house, apartment, or mobile home — All others skip to 47.

a. What is the monthly rent?

Monthly amount — Dollars

\$ | | , | | .00

b. Does the monthly rent include any meals?

- Yes
 No

47 Answer questions 47a—53 if you or someone in this household owns or is buying this house, apartment, or mobile home; otherwise, skip to questions for Person 2.

a. Do you have a mortgage, deed of trust, contract to purchase, or similar debt on THIS property?

- Yes, mortgage, deed of trust, or similar debt
 Yes, contract to purchase
 No → Skip to 48a

b. How much is your regular monthly mortgage payment on THIS property? Include payment only on first mortgage or contract to purchase.

Monthly amount — Dollars

\$ | | , | | .00

OR

No regular payment required → Skip to 48a

c. Does your regular monthly mortgage payment include payments for real estate taxes on THIS property?

- Yes, taxes included in mortgage payment
 No, taxes paid separately or taxes not required

d. Does your regular monthly mortgage payment include payments for fire, hazard, or flood insurance on THIS property?

- Yes, insurance included in mortgage payment
 No, insurance paid separately or no insurance

48 **a. Do you have a second mortgage or a home equity loan on THIS property? Mark all boxes that apply.**

- Yes, a second mortgage
 Yes, a home equity loan
 No → Skip to 49

b. How much is your regular monthly payment on all second or junior mortgages and all home equity loans on THIS property?

Monthly amount — Dollars

\$ | | , | | .00

OR

No regular payment required

49 What were the real estate taxes on THIS property last year?

Yearly amount — Dollars

\$ | | , | | .00

OR

None

50 What was the annual payment for fire, hazard, and flood insurance on THIS property?

Annual amount — Dollars

\$ | | , | | .00

OR

None

51 What is the value of this property; that is, how much do you think this house and lot, apartment, or mobile home and lot would sell for if it were for sale?

- | | |
|---|---|
| <input type="checkbox"/> Less than \$10,000 | <input type="checkbox"/> \$90,000 to \$99,999 |
| <input type="checkbox"/> \$10,000 to \$14,999 | <input type="checkbox"/> \$100,000 to \$124,999 |
| <input type="checkbox"/> \$15,000 to \$19,999 | <input type="checkbox"/> \$125,000 to \$149,999 |
| <input type="checkbox"/> \$20,000 to \$24,999 | <input type="checkbox"/> \$150,000 to \$174,999 |
| <input type="checkbox"/> \$25,000 to \$29,999 | <input type="checkbox"/> \$175,000 to \$199,999 |
| <input type="checkbox"/> \$30,000 to \$34,999 | <input type="checkbox"/> \$200,000 to \$249,999 |
| <input type="checkbox"/> \$35,000 to \$39,999 | <input type="checkbox"/> \$250,000 to \$299,999 |
| <input type="checkbox"/> \$40,000 to \$49,999 | <input type="checkbox"/> \$300,000 to \$399,999 |
| <input type="checkbox"/> \$50,000 to \$59,999 | <input type="checkbox"/> \$400,000 to \$499,999 |
| <input type="checkbox"/> \$60,000 to \$69,999 | <input type="checkbox"/> \$500,000 to \$749,999 |
| <input type="checkbox"/> \$70,000 to \$79,999 | <input type="checkbox"/> \$750,000 to \$999,999 |
| <input type="checkbox"/> \$80,000 to \$89,999 | <input type="checkbox"/> \$1,000,000 or more |

52 Answer ONLY if this is a CONDOMINIUM — What is the monthly condominium fee?

Monthly amount — Dollars

\$ | | , | | .00

53 Answer ONLY if this is a MOBILE HOME —

a. Do you have an installment loan or contract on THIS mobile home?

- Yes
 No

b. What was the total cost for installment loan payments, personal property taxes, site rent, registration fees, and license fees on THIS mobile home and its site last year? Exclude real estate taxes.

Yearly amount — Dollars

\$ | | , | | .00

→ Are there more people living here? If yes, continue with Person 2.

Person

2



Census information helps your community get financial assistance for roads, hospitals, schools and more.

1 What is this person's name? Print the name of Person 2 from page 2.

Last Name

First Name

MI

2 How is this person related to Person 1? Mark ONE box.

- Husband/wife
- Natural-born son/daughter
- Adopted son/daughter
- Stepson/stepdaughter
- Brother/sister
- Father/mother
- Grandchild
- Parent-in-law
- Son-in-law/daughter-in-law
- Other relative — Print exact relationship.

If NOT RELATED to Person 1:

- Roomer, boarder
- Housemate, roommate
- Unmarried partner
- Foster child
- Other nonrelative

3 What is this person's sex? Mark ONE box.

- Male
- Female

4 What is this person's age and what is this person's date of birth?

Age on April 1, 2000

Print numbers in boxes.

Month Day Year of birth

NOTE: Please answer BOTH Questions 5 and 6.

5 Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino
- Yes, Mexican, Mexican Am., Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — Print group. ↘

6 What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

- 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"/> Native Hawaiian |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> Guamanian or Chamorro |
| <input type="checkbox"/> Filipino | <input type="checkbox"/> Samoan |
| <input type="checkbox"/> Japanese | <input type="checkbox"/> Other Pacific Islander — Print race. ↘ |
| <input type="checkbox"/> Korean | |
| <input type="checkbox"/> Vietnamese | |
| <input type="checkbox"/> Other Asian — Print race. ↘ | |

- Some other race — Print race. ↘

7 What is this person's marital status?

- Now married
- Widowed
- Divorced
- Separated
- Never married



Person 2 (continued)

8 a. At any time since February 1, 2000, has this person attended regular school or college? Include only nursery school or preschool, kindergarten, elementary school, and schooling which leads to a high school diploma or a college degree.

- No, has not attended since February 1 → Skip to 9
- Yes, public school, public college
- Yes, private school, private college

b. What grade or level was this person attending? Mark ONE box.

- Nursery school, preschool
- Kindergarten
- Grade 1 to grade 4
- Grade 5 to grade 8
- Grade 9 to grade 12
- College undergraduate years (freshman to senior)
- Graduate or professional school (for example: medical, dental, or law school)

9 What is the highest degree or level of school this person has COMPLETED? Mark ONE box. If currently enrolled, mark the previous grade or highest degree received.

- No schooling completed
- Nursery school to 4th grade
- 5th grade or 6th grade
- 7th grade or 8th grade
- 9th grade
- 10th grade
- 11th grade
- 12th grade, **NO DIPLOMA**
- HIGH SCHOOL GRADUATE** — high school DIPLOMA or the equivalent (for example: GED)
- Some college credit, but less than 1 year
- 1 or more years of college, no degree
- Associate degree (for example: AA, AS)
- Bachelor's degree (for example: BA, AB, BS)
- Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)
- Professional degree (for example: MD, DDS, DVM, LLB, JD)
- Doctorate degree (for example: PhD, EdD)

10 What is this person's ancestry or ethnic origin?

(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)

11 a. Does this person speak a language other than English at home?

- Yes
- No → Skip to 12

b. What is this language?

(For example: Korean, Italian, Spanish, Vietnamese)

c. How well does this person speak English?

- Very well
- Well
- Not well
- Not at all

12 Where was this person born?

- In the United States — Print name of state.
- Outside the United States — Print name of foreign country, or Puerto Rico, Guam, etc.

13 Is this person a CITIZEN of the United States?

- Yes, born in the United States → Skip to 15a
- Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas
- Yes, born abroad of American parent or parents
- Yes, a U.S. citizen by naturalization
- No, not a citizen of the United States

14 When did this person come to live in the United States? Print numbers in boxes.

Year

15 a. Did this person live in this house or apartment 5 years ago (on April 1, 1995)?

- Person is under 5 years old → Skip to 33
- Yes, this house → Skip to 16
- No, outside the United States — Print name of foreign country, or Puerto Rico, Guam, etc., below; then skip to 16.
- No, different house in the United States

Person 2 (continued)

15 b. Where did this person live 5 years ago?

Name of city, town, or post office

Did this person live inside the limits of the city or town?

- Yes
- No, outside the city/town limits

Name of county

Name of state

ZIP Code

16 Does this person have any of the following long-lasting conditions:

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Blindness, deafness, or a severe vision or hearing impairment? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying? | <input type="checkbox"/> | <input type="checkbox"/> |

17 Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities:

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Learning, remembering, or concentrating? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Dressing, bathing, or getting around inside the home? | <input type="checkbox"/> | <input type="checkbox"/> |
| c. (Answer if this person is 16 YEARS OLD OR OVER.) Going outside the home alone to shop or visit a doctor's office? | <input type="checkbox"/> | <input type="checkbox"/> |
| d. (Answer if this person is 16 YEARS OLD OR OVER.) Working at a job or business? | <input type="checkbox"/> | <input type="checkbox"/> |

18 Was this person under 15 years of age on April 1, 2000?

- Yes → Skip to 33
- No

19 a. Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?

- Yes
- No → Skip to 20a

b. Is this grandparent currently responsible for most of the basic needs of any grandchild(ren) under the age of 18 who live(s) in this house or apartment?

- Yes
- No → Skip to 20a

c. How long has this grandparent been responsible for the(se) grandchild(ren)? If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.

- Less than 6 months
- 6 to 11 months
- 1 or 2 years
- 3 or 4 years
- 5 years or more

20 a. Has this person ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.

- Yes, now on active duty
- Yes, on active duty in past, but not now
- No, training for Reserves or National Guard only → Skip to 21
- No, never served in the military → Skip to 21

b. When did this person serve on active duty in the U.S. Armed Forces? Mark a box for EACH period in which this person served.

- April 1995 or later
- August 1990 to March 1995 (including Persian Gulf War)
- September 1980 to July 1990
- May 1975 to August 1980
- Vietnam era (August 1964—April 1975)
- February 1955 to July 1964
- Korean conflict (June 1950—January 1955)
- World War II (September 1940—July 1947)
- Some other time

c. In total, how many years of active-duty military service has this person had?

- Less than 2 years
- 2 years or more



Person 2 (continued)

21 LAST WEEK, did this person do ANY work for either pay or profit? Mark (X) the "Yes" box even if the person worked only 1 hour, or helped without pay in a family business or farm for 15 hours or more, or was on active duty in the Armed Forces.

- Yes
 No → Skip to 25a

22 At what location did this person work LAST WEEK? If this person worked at more than one location, print where he or she worked most last week.

a. Address (Number and street name)

(If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.)

b. Name of city, town, or post office

c. Is the work location inside the limits of that city or town?

- Yes
 No, outside the city/town limits

d. Name of county

e. Name of U.S. state or foreign country

f. ZIP Code

23 a. How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, mark (X) the box of the one used for most of the distance.

- Car, truck, or van
 Bus or trolley bus
 Streetcar or trolley car
 Subway or elevated
 Railroad
 Ferryboat
 Taxicab
 Motorcycle
 Bicycle
 Walked
 Worked at home → Skip to 27
 Other method

→ If "Car, truck, or van" is marked in 23a, go to 23b. Otherwise, skip to 24a.

23 b. How many people, including this person, usually rode to work in the car, truck, or van LAST WEEK?

- Drove alone
 2 people
 3 people
 4 people
 5 or 6 people
 7 or more people

24 a. What time did this person usually leave home to go to work LAST WEEK?

- a.m. p.m.

b. How many minutes did it usually take this person to get from home to work LAST WEEK?

Minutes

→ Answer questions 25–26 for persons who did not work for pay or profit last week. Others skip to 27.

25 a. LAST WEEK, was this person on layoff from a job?

- Yes → Skip to 25c
 No

b. LAST WEEK, was this person TEMPORARILY absent from a job or business?

- Yes, on vacation, temporary illness, labor dispute, etc. → Skip to 26
 No → Skip to 25d

c. Has this person been informed that he or she will be recalled to work within the next 6 months OR been given a date to return to work?

- Yes → Skip to 25e
 No

d. Has this person been looking for work during the last 4 weeks?

- Yes
 No → Skip to 26

e. LAST WEEK, could this person have started a job if offered one, or returned to work if recalled?

- Yes, could have gone to work
 No, because of own temporary illness
 No, because of all other reasons (in school, etc.)

26 When did this person last work, even for a few days?

- 1995 to 2000
 1994 or earlier, or never worked → Skip to 31

Person 2 (continued)

27 Industry or Employer — Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give the information for his/her last job or business since 1995.

a. For whom did this person work? If now on active duty in the Armed Forces, mark (X) this box →

Name of company, business, or other employer

b. What kind of business or industry was this? Describe the activity at location where employed. (For example: hospital, newspaper publishing, mail order house, auto repair shop, bank)

c. Is this mainly — Mark (X) ONE box.

- Manufacturing?
- Wholesale trade?
- Retail trade?
- Other (agriculture, construction, service, government, etc.)?

28 Occupation

a. What kind of work was this person doing? (For example: registered nurse, personnel manager, supervisor of order department, auto mechanic, accountant)

b. What were this person's most important activities or duties? (For example: patient care, directing hiring policies, supervising order clerks, repairing automobiles, reconciling financial records)

29 Was this person — Mark (X) ONE box.

- Employee of a PRIVATE-FOR-PROFIT company or business or of an individual, for wages, salary, or commissions
- Employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization
- Local GOVERNMENT employee (city, county, etc.)
- State GOVERNMENT employee
- Federal GOVERNMENT employee
- SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm
- SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm
- Working WITHOUT PAY in family business or farm

30 a. LAST YEAR, 1999, did this person work at a job or business at any time?

- Yes
- No → Skip to 31

b. How many weeks did this person work in 1999? Count paid vacation, paid sick leave, and military service. Weeks

c. During the weeks WORKED in 1999, how many hours did this person usually work each WEEK?

Usual hours worked each WEEK

31 INCOME IN 1999 — Mark (X) the "Yes" box for each income source received during 1999 and enter the total amount received during 1999 to a maximum of \$999,999. Mark (X) the "No" box if the income source was not received. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.

For income received jointly, report, if possible, the appropriate share for each person; otherwise, report the whole amount for only one person and mark (X) the "No" box for the other person. If exact amount is not known, please give best estimate.

a. Wages, salary, commissions, bonuses, or tips from all jobs — Report amount before deductions for taxes, bonds, dues, or other items.

Yes Annual amount — Dollars

\$ | | | | | .00

No

b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships — Report NET income after business expenses.

Yes Annual amount — Dollars

\$ | | | | | .00 Loss

No



Person 2 (continued)

31 c. Interest, dividends, net rental income, royalty income, or income from estates and trusts — Report even small amounts credited to an account.

Yes Annual amount — Dollars
 \$ | | | | | .00 Loss

No

d. Social Security or Railroad Retirement

Yes Annual amount — Dollars
 \$ | | | | | .00

No

e. Supplemental Security Income (SSI)

Yes Annual amount — Dollars
 \$ | | | | | .00

No

f. Any public assistance or welfare payments from the state or local welfare office

Yes Annual amount — Dollars
 \$ | | | | | .00

No

g. Retirement, survivor, or disability pensions — Do NOT include Social Security.

Yes Annual amount — Dollars
 \$ | | | | | .00

No

h. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support, or alimony — Do NOT include lump-sum payments such as money from an inheritance or sale of a home.

Yes Annual amount — Dollars
 \$ | | | | | .00

No

32 What was this person's total income in 1999? Add entries in questions 31a—31h; subtract any losses. If net income was a loss, enter the amount and mark the "Loss" box next to the dollar amount.

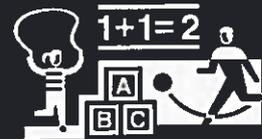
Annual amount — Dollars

None OR \$ | | | | | .00 Loss

33 Are there more people living here? If yes, continue with Person 3.

Person

3



Information about children helps your community plan for child care, education, and recreation.

1 What is this person's name? Print the name of Person 3 from page 2.

Last Name

First Name

MI

2 How is this person related to Person 1? Mark ONE box.

- Husband/wife
- Natural-born son/daughter
- Adopted son/daughter
- Stepson/stepdaughter
- Brother/sister
- Father/mother
- Grandchild
- Parent-in-law
- Son-in-law/daughter-in-law
- Other relative — Print exact relationship.

If NOT RELATED to Person 1:

- Roomer, boarder
- Housemate, roommate
- Unmarried partner
- Foster child
- Other nonrelative

3 What is this person's sex? Mark ONE box.

- Male
- Female

4 What is this person's age and what is this person's date of birth?

Age on April 1, 2000

Print numbers in boxes.

Month Day Year of birth

Person 3 (continued)

→ NOTE: Please answer BOTH Questions 5 and 6.

5 Is this person Spanish/Hispanic/Latino? Mark (X) the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino
- Yes, Mexican, Mexican Am., Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — Print group. ↗

6 What is this person's race? Mark (X) one or more races to indicate what this person considers himself/herself to be.

- 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"/> Native Hawaiian |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> Guamanian or Chamorro |
| <input type="checkbox"/> Filipino | <input type="checkbox"/> Samoan |
| <input type="checkbox"/> Japanese | <input type="checkbox"/> Other Pacific Islander — Print race. ↗ |
| <input type="checkbox"/> Korean | |
| <input type="checkbox"/> Vietnamese | |
| <input type="checkbox"/> Other Asian — Print race. ↗ | |

- Some other race — Print race. ↗

7 What is this person's marital status?

- Now married
- Widowed
- Divorced
- Separated
- Never married

8 a. At any time since February 1, 2000, has this person attended regular school or college? Include only nursery school or preschool, kindergarten, elementary school, and schooling which leads to a high school diploma or a college degree.

- No, has not attended since February 1 → Skip to 9
- Yes, public school, public college
- Yes, private school, private college

b. What grade or level was this person attending? Mark (X) ONE box.

- Nursery school, preschool
- Kindergarten
- Grade 1 to grade 4
- Grade 5 to grade 8
- Grade 9 to grade 12
- College undergraduate years (freshman to senior)
- Graduate or professional school (for example: medical, dental, or law school)

9 What is the highest degree or level of school this person has COMPLETED? Mark (X) ONE box. If currently enrolled, mark the previous grade or highest degree received.

- No schooling completed
- Nursery school to 4th grade
- 5th grade or 6th grade
- 7th grade or 8th grade
- 9th grade
- 10th grade
- 11th grade
- 12th grade, **NO DIPLOMA**
- HIGH SCHOOL GRADUATE** — high school DIPLOMA or the equivalent (for example: GED)
- Some college credit, but less than 1 year
- 1 or more years of college, no degree
- Associate degree (for example: AA, AS)
- Bachelor's degree (for example: BA, AB, BS)
- Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)
- Professional degree (for example: MD, DDS, DVM, LLB, JD)
- Doctorate degree (for example: PhD, EdD)

10 What is this person's ancestry or ethnic origin?

(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)



Person 3 (continued)

11 a. Does this person speak a language other than English at home?

- Yes
- No → *Skip to 12*

b. What is this language?

(For example: Korean, Italian, Spanish, Vietnamese)

c. How well does this person speak English?

- Very well
- Well
- Not well
- Not at all

12 Where was this person born?

- In the United States — *Print name of state.*

- Outside the United States — *Print name of foreign country, or Puerto Rico, Guam, etc.*

13 Is this person a CITIZEN of the United States?

- Yes, born in the United States → *Skip to 15a*
- Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas
- Yes, born abroad of American parent or parents
- Yes, a U.S. citizen by naturalization
- No, not a citizen of the United States

14 When did this person come to live in the United States? Print numbers in boxes.

Year

15 a. Did this person live in this house or apartment 5 years ago (on April 1, 1995)?

- Person is under 5 years old → *Skip to 33*
- Yes, this house → *Skip to 16*
- No, outside the United States — *Print name of foreign country, or Puerto Rico, Guam, etc., below; then skip to 16.*

- No, different house in the United States

15 b. Where did this person live 5 years ago?

Name of city, town, or post office

Did this person live inside the limits of the city or town?

- Yes
- No, outside the city/town limits

Name of county

Name of state

ZIP Code

16 Does this person have any of the following long-lasting conditions:

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Blindness, deafness, or a severe vision or hearing impairment? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying? | <input type="checkbox"/> | <input type="checkbox"/> |

17 Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities:

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Learning, remembering, or concentrating? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Dressing, bathing, or getting around inside the home? | <input type="checkbox"/> | <input type="checkbox"/> |
| c. (Answer if this person is 16 YEARS OLD OR OVER.) Going outside the home alone to shop or visit a doctor's office? | <input type="checkbox"/> | <input type="checkbox"/> |
| d. (Answer if this person is 16 YEARS OLD OR OVER.) Working at a job or business? | <input type="checkbox"/> | <input type="checkbox"/> |

18 Was this person under 15 years of age on April 1, 2000?

- Yes → *Skip to 33*
- No

Person 3 (continued)

19 a. Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?

- Yes
 No → Skip to 20a

b. Is this grandparent currently responsible for most of the basic needs of any grandchild(ren) under the age of 18 who live(s) in this house or apartment?

- Yes
 No → Skip to 20a

c. How long has this grandparent been responsible for the(se) grandchild(ren)? If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.

- Less than 6 months
 6 to 11 months
 1 or 2 years
 3 or 4 years
 5 years or more

20 a. Has this person ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.

- Yes, now on active duty
 Yes, on active duty in past, but not now
 No, training for Reserves or National Guard only → Skip to 21
 No, never served in the military → Skip to 21

b. When did this person serve on active duty in the U.S. Armed Forces? Mark a box for EACH period in which this person served.

- April 1995 or later
 August 1990 to March 1995 (including Persian Gulf War)
 September 1980 to July 1990
 May 1975 to August 1980
 Vietnam era (August 1964—April 1975)
 February 1955 to July 1964
 Korean conflict (June 1950—January 1955)
 World War II (September 1940—July 1947)
 Some other time

c. In total, how many years of active-duty military service has this person had?

- Less than 2 years
 2 years or more

21 LAST WEEK, did this person do ANY work for either pay or profit? Mark the "Yes" box even if the person worked only 1 hour, or helped without pay in a family business or farm for 15 hours or more, or was on active duty in the Armed Forces.

- Yes
 No → Skip to 25a

22 At what location did this person work LAST WEEK? If this person worked at more than one location, print where he or she worked most last week.

a. Address (Number and street name)

(If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.)

b. Name of city, town, or post office

c. Is the work location inside the limits of that city or town?

- Yes
 No, outside the city/town limits

d. Name of county

e. Name of U.S. state or foreign country

f. ZIP Code

23 a. How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, mark the box of the one used for most of the distance.

- Car, truck, or van
 Bus or trolley bus
 Streetcar or trolley car
 Subway or elevated
 Railroad
 Ferryboat
 Taxicab
 Motorcycle
 Bicycle
 Walked
 Worked at home → Skip to 27
 Other method



Person 3 (continued)

→ If "Car, truck, or van" is marked in 23a, go to 23b. Otherwise, skip to 24a.

23 b. How many people, including this person, usually rode to work in the car, truck, or van LAST WEEK?

- Drove alone
- 2 people
- 3 people
- 4 people
- 5 or 6 people
- 7 or more people

24 a. What time did this person usually leave home to go to work LAST WEEK?

- a.m. p.m.

b. How many minutes did it usually take this person to get from home to work LAST WEEK?

Minutes

→ Answer questions 25–26 for persons who did not work for pay or profit last week. Others skip to 27.

25 a. LAST WEEK, was this person on layoff from a job?

- Yes → Skip to 25c
- No

b. LAST WEEK, was this person TEMPORARILY absent from a job or business?

- Yes, on vacation, temporary illness, labor dispute, etc. → Skip to 26
- No → Skip to 25d

c. Has this person been informed that he or she will be recalled to work within the next 6 months OR been given a date to return to work?

- Yes → Skip to 25e
- No

d. Has this person been looking for work during the last 4 weeks?

- Yes
- No → Skip to 26

e. LAST WEEK, could this person have started a job if offered one, or returned to work if recalled?

- Yes, could have gone to work
- No, because of own temporary illness
- No, because of all other reasons (in school, etc.)

26 When did this person last work, even for a few days?

- 1995 to 2000
- 1994 or earlier, or never worked → Skip to 31

27 **Industry or Employer** — Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give the information for his/her last job or business since 1995.

a. For whom did this person work? If now on active duty in the Armed Forces, mark this box → and print the branch of the Armed Forces.

Name of company, business, or other employer

b. What kind of business or industry was this? Describe the activity at location where employed. (For example: hospital, newspaper publishing, mail order house, auto repair shop, bank)

c. Is this mainly — Mark ONE box.

- Manufacturing?
- Wholesale trade?
- Retail trade?
- Other (agriculture, construction, service, government, etc.)?

28 **Occupation**

a. What kind of work was this person doing?

(For example: registered nurse, personnel manager, supervisor of order department, auto mechanic, accountant)

b. What were this person's most important activities or duties? (For example: patient care, directing hiring policies, supervising order clerks, repairing automobiles, reconciling financial records)

Person 3 (continued)

- 29** Was this person — Mark ONE box.
- Employee of a PRIVATE-FOR-PROFIT company or business or of an individual, for wages, salary, or commissions
 - Employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization
 - Local GOVERNMENT employee (city, county, etc.)
 - State GOVERNMENT employee
 - Federal GOVERNMENT employee
 - SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm
 - SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm
 - Working WITHOUT PAY in family business or farm

- 30** a. LAST YEAR, 1999, did this person work at a job or business at any time?
- Yes
 - No → Skip to 31
- b. How many weeks did this person work in 1999? Count paid vacation, paid sick leave, and military service.
- Weeks

c. During the weeks WORKED in 1999, how many hours did this person usually work each WEEK? Usual hours worked each WEEK

- 31** INCOME IN 1999 — Mark the "Yes" box for each income source received during 1999 and enter the total amount received during 1999 to a maximum of \$999,999. Mark the "No" box if the income source was not received. If net income was a loss, enter the amount and mark the "Loss" box next to the dollar amount.

For income received jointly, report, if possible, the appropriate share for each person; otherwise, report the whole amount for only one person and mark the "No" box for the other person. If exact amount is not known, please give best estimate.

- a. Wages, salary, commissions, bonuses, or tips from all jobs — Report amount before deductions for taxes, bonds, dues, or other items.
- Yes Annual amount — Dollars
\$ | | | , | | | .00
 - No

- b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships — Report NET income after business expenses.
- Yes Annual amount — Dollars
\$ | | | , | | | .00
 - No

- 31** c. Interest, dividends, net rental income, royalty income, or income from estates and trusts — Report even small amounts credited to an account.
- Yes Annual amount — Dollars
\$ | | | , | | | .00
 - Loss
 - No

- d. Social Security or Railroad Retirement
- Yes Annual amount — Dollars
\$ | | | , | | | .00
 - No

- e. Supplemental Security Income (SSI)
- Yes Annual amount — Dollars
\$ | | | , | | | .00
 - No

- f. Any public assistance or welfare payments from the state or local welfare office
- Yes Annual amount — Dollars
\$ | | | , | | | .00
 - No

- g. Retirement, survivor, or disability pensions — Do NOT include Social Security.
- Yes Annual amount — Dollars
\$ | | | , | | | .00
 - No

- h. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support, or alimony — Do NOT include lump-sum payments such as money from an inheritance or sale of a home.
- Yes Annual amount — Dollars
\$ | | | , | | | .00
 - No

- 32** What was this person's total income in 1999? Add entries in questions 31a—31h; subtract any losses. If net income was a loss, enter the amount and mark the "Loss" box next to the dollar amount.
- Annual amount — Dollars
- None OR \$ | | | , | | | .00
 - Loss

- 33** Are there more people living here? If yes, continue with Person 4.



Person

4



Knowing about age, race, and sex helps your community better meet the needs of everyone.

1 What is this person's name? Print the name of Person 4 from page 2.

Last Name

First Name

MI

2 How is this person related to Person 1? Mark ONE box.

- Husband/wife
- Natural-born son/daughter
- Adopted son/daughter
- Stepson/stepdaughter
- Brother/sister
- Father/mother
- Grandchild
- Parent-in-law
- Son-in-law/daughter-in-law
- Other relative — Print exact relationship.

If NOT RELATED to Person 1:

- Roomer, boarder
- Housemate, roommate
- Unmarried partner
- Foster child
- Other nonrelative

3 What is this person's sex? Mark ONE box.

- Male
- Female

4 What is this person's age and what is this person's date of birth?

Age on April 1, 2000

Print numbers in boxes.

Month Day Year of birth

NOTE: Please answer BOTH Questions 5 and 6.

5 Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino
- Yes, Mexican, Mexican Am., Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — Print group. ↗

6 What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

- 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"/> Native Hawaiian |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> Guamanian or Chamorro |
| <input type="checkbox"/> Filipino | <input type="checkbox"/> Samoan |
| <input type="checkbox"/> Japanese | <input type="checkbox"/> Other Pacific Islander — Print race. ↘ |
| <input type="checkbox"/> Korean | |
| <input type="checkbox"/> Vietnamese | |
| <input type="checkbox"/> Other Asian — Print race. ↗ | |

- Some other race — Print race. ↗

7 What is this person's marital status?

- Now married
- Widowed
- Divorced
- Separated
- Never married

Person 4 (continued)

- 8** a. At any time since February 1, 2000, has this person attended regular school or college? Include only nursery school or preschool, kindergarten, elementary school, and schooling which leads to a high school diploma or a college degree.
- No, has not attended since February 1 → Skip to 9
 - Yes, public school, public college
 - Yes, private school, private college

b. What grade or level was this person attending? Mark ONE box.

- Nursery school, preschool
- Kindergarten
- Grade 1 to grade 4
- Grade 5 to grade 8
- Grade 9 to grade 12
- College undergraduate years (freshman to senior)
- Graduate or professional school (for example: medical, dental, or law school)

9 What is the highest degree or level of school this person has COMPLETED? Mark ONE box. If currently enrolled, mark the previous grade or highest degree received.

- No schooling completed
- Nursery school to 4th grade
- 5th grade or 6th grade
- 7th grade or 8th grade
- 9th grade
- 10th grade
- 11th grade
- 12th grade, **NO DIPLOMA**
- HIGH SCHOOL GRADUATE** — high school DIPLOMA or the equivalent (for example: GED)
- Some college credit, but less than 1 year
- 1 or more years of college, no degree
- Associate degree (for example: AA, AS)
- Bachelor's degree (for example: BA, AB, BS)
- Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)
- Professional degree (for example: MD, DDS, DVM, LLB, JD)
- Doctorate degree (for example: PhD, EdD)

10 What is this person's ancestry or ethnic origin?

(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)

11 a. Does this person speak a language other than English at home?

- Yes
- No → Skip to 12

b. What is this language?

(For example: Korean, Italian, Spanish, Vietnamese)

c. How well does this person speak English?

- Very well
- Well
- Not well
- Not at all

12 Where was this person born?

- In the United States — Print name of state.
- Outside the United States — Print name of foreign country, or Puerto Rico, Guam, etc.

13 Is this person a CITIZEN of the United States?

- Yes, born in the United States → Skip to 15a
- Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas
- Yes, born abroad of American parent or parents
- Yes, a U.S. citizen by naturalization
- No, not a citizen of the United States

14 When did this person come to live in the United States? Print numbers in boxes.

Year

15 a. Did this person live in this house or apartment 5 years ago (on April 1, 1995)?

- Person is under 5 years old → Skip to 33
- Yes, this house → Skip to 16
- No, outside the United States — Print name of foreign country, or Puerto Rico, Guam, etc., below; then skip to 16.
- No, different house in the United States



Person 4 (continued)

15 b. Where did this person live 5 years ago?
 Name of city, town, or post office

Did this person live inside the limits of the city or town?

Yes
 No, outside the city/town limits

Name of county

Name of state

ZIP Code

16 Does this person have any of the following long-lasting conditions:

	Yes	No
a. Blindness, deafness, or a severe vision or hearing impairment?	<input type="checkbox"/>	<input type="checkbox"/>
b. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying?	<input type="checkbox"/>	<input type="checkbox"/>

17 Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities:

	Yes	No
a. Learning, remembering, or concentrating?	<input type="checkbox"/>	<input type="checkbox"/>
b. Dressing, bathing, or getting around inside the home?	<input type="checkbox"/>	<input type="checkbox"/>
c. (Answer if this person is 16 YEARS OLD OR OVER.) Going outside the home alone to shop or visit a doctor's office?	<input type="checkbox"/>	<input type="checkbox"/>
d. (Answer if this person is 16 YEARS OLD OR OVER.) Working at a job or business?	<input type="checkbox"/>	<input type="checkbox"/>

18 Was this person under 15 years of age on April 1, 2000?

Yes → Skip to 33
 No

19 a. Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?

Yes
 No → Skip to 20a

b. Is this grandparent currently responsible for most of the basic needs of any grandchild(ren) under the age of 18 who live(s) in this house or apartment?

Yes
 No → Skip to 20a

c. How long has this grandparent been responsible for the(se) grandchild(ren)? If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.

Less than 6 months
 6 to 11 months
 1 or 2 years
 3 or 4 years
 5 years or more

20 a. Has this person ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.

Yes, now on active duty
 Yes, on active duty in past, but not now
 No, training for Reserves or National Guard only → Skip to 21
 No, never served in the military → Skip to 21

b. When did this person serve on active duty in the U.S. Armed Forces? Mark a box for EACH period in which this person served.

April 1995 or later
 August 1990 to March 1995 (including Persian Gulf War)
 September 1980 to July 1990
 May 1975 to August 1980
 Vietnam era (August 1964—April 1975)
 February 1955 to July 1964
 Korean conflict (June 1950—January 1955)
 World War II (September 1940—July 1947)
 Some other time

c. In total, how many years of active-duty military service has this person had?

Less than 2 years
 2 years or more

Person 4 (continued)

21 LAST WEEK, did this person do ANY work for either pay or profit? Mark the "Yes" box even if the person worked only 1 hour, or helped without pay in a family business or farm for 15 hours or more, or was on active duty in the Armed Forces.

- Yes
 No → Skip to 25a

22 At what location did this person work LAST WEEK? If this person worked at more than one location, print where he or she worked most last week.

a. Address (Number and street name)

(If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.)

b. Name of city, town, or post office

c. Is the work location inside the limits of that city or town?

- Yes
 No, outside the city/town limits

d. Name of county

e. Name of U.S. state or foreign country

f. ZIP Code

23 a. How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, mark the box of the one used for most of the distance.

- Car, truck, or van
 Bus or trolley bus
 Streetcar or trolley car
 Subway or elevated
 Railroad
 Ferryboat
 Taxicab
 Motorcycle
 Bicycle
 Walked
 Worked at home → Skip to 27
 Other method

→ If "Car, truck, or van" is marked in 23a, go to 23b. Otherwise, skip to 24a.

23 b. How many people, including this person, usually rode to work in the car, truck, or van LAST WEEK?

- Drove alone
 2 people
 3 people
 4 people
 5 or 6 people
 7 or more people

24 a. What time did this person usually leave home to go to work LAST WEEK?

a.m. p.m.

b. How many minutes did it usually take this person to get from home to work LAST WEEK?

Minutes

→ Answer questions 25–26 for persons who did not work for pay or profit last week. Others skip to 27.

25 a. LAST WEEK, was this person on layoff from a job?

- Yes → Skip to 25c
 No

b. LAST WEEK, was this person TEMPORARILY absent from a job or business?

- Yes, on vacation, temporary illness, labor dispute, etc. → Skip to 26
 No → Skip to 25d

c. Has this person been informed that he or she will be recalled to work within the next 6 months OR been given a date to return to work?

- Yes → Skip to 25e
 No

d. Has this person been looking for work during the last 4 weeks?

- Yes
 No → Skip to 26

e. LAST WEEK, could this person have started a job if offered one, or returned to work if recalled?

- Yes, could have gone to work
 No, because of own temporary illness
 No, because of all other reasons (in school, etc.)

26 When did this person last work, even for a few days?

- 1995 to 2000
 1994 or earlier, or never worked → Skip to 31



Person 4 (continued)

27 Industry or Employer — Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give the information for his/her last job or business since 1995.

a. For whom did this person work? If now on active duty in the Armed Forces, mark this box → and print the branch of the Armed Forces.

Name of company, business, or other employer

b. What kind of business or industry was this? Describe the activity at location where employed. (For example: hospital, newspaper publishing, mail order house, auto repair shop, bank)

c. Is this mainly — Mark ONE box.

- Manufacturing?
- Wholesale trade?
- Retail trade?
- Other (agriculture, construction, service, government, etc.)?

28 Occupation

a. What kind of work was this person doing? (For example: registered nurse, personnel manager, supervisor of order department, auto mechanic, accountant)

b. What were this person's most important activities or duties? (For example: patient care, directing hiring policies, supervising order clerks, repairing automobiles, reconciling financial records)

29 Was this person — Mark ONE box.

- Employee of a PRIVATE-FOR-PROFIT company or business or of an individual, for wages, salary, or commissions
- Employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization
- Local GOVERNMENT employee (city, county, etc.)
- State GOVERNMENT employee
- Federal GOVERNMENT employee
- SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm
- SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm
- Working WITHOUT PAY in family business or farm

30 a. LAST YEAR, 1999, did this person work at a job or business at any time?

- Yes
- No → Skip to 31

b. How many weeks did this person work in 1999? Count paid vacation, paid sick leave, and military service
Weeks

c. During the weeks WORKED in 1999, how many hours did this person usually work each WEEK?
Usual hours worked each WEEK

31 INCOME IN 1999 — Mark the "Yes" box for each income source received during 1999 and enter the total amount received during 1999 to a maximum of \$999,999. Mark the "No" box if the income source was not received. If net income was a loss, enter the amount and mark the "Loss" box next to the dollar amount.

For income received jointly, report, if possible, the appropriate share for each person; otherwise, report the whole amount for only one person and mark the "No" box for the other person. If exact amount is not known, please give best estimate.

a. Wages, salary, commissions, bonuses, or tips from all jobs — Report amount before deductions for taxes, bonds, dues, or other items.

Yes Annual amount — Dollars

\$ 1,000.00

No

b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships — Report NET income after business expenses.

Yes Annual amount — Dollars

\$ 1,000.00

No

Loss

Person 4 (continued)

31 c. Interest, dividends, net rental income, royalty income, or income from estates and trusts — Report even small amounts credited to an account.

Yes Annual amount — Dollars
 \$ | | | | , | | | | .00 Loss

No

d. Social Security or Railroad Retirement

Yes Annual amount — Dollars
 \$ | | | | , | | | | .00

No

e. Supplemental Security Income (SSI)

Yes Annual amount — Dollars
 \$ | | | | , | | | | .00

No

f. Any public assistance or welfare payments from the state or local welfare office

Yes Annual amount — Dollars
 \$ | | | | , | | | | .00

No

g. Retirement, survivor, or disability pensions — Do NOT include Social Security.

Yes Annual amount — Dollars
 \$ | | | | , | | | | .00

No

h. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support, or alimony — Do NOT include lump-sum payments such as money from an inheritance or sale of a home.

Yes Annual amount — Dollars
 \$ | | | | , | | | | .00

No

32 What was this person's total income in 1999? Add entries in questions 31a—31h; subtract any losses. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.

Annual amount — Dollars

None OR \$ | | | | , | | | | .00 Loss

33 Are there more people living here? If yes, continue with Person 5.

Person

5



Your answers help your community plan for the future.

1 What is this person's name? Print the name of Person 5 from page 2.

Last Name

First Name

MI

2 How is this person related to Person 1? Mark (X) ONE box.

- Husband/wife
- Natural-born son/daughter
- Adopted son/daughter
- Stepson/stepdaughter
- Brother/sister
- Father/mother
- Grandchild
- Parent-in-law
- Son-in-law/daughter-in-law
- Other relative — Print exact relationship.

If NOT RELATED to Person 1:

- Roomer, boarder
- Housemate, roommate
- Unmarried partner
- Foster child
- Other nonrelative

3 What is this person's sex? Mark (X) ONE box.

- Male
- Female

4 What is this person's age and what is this person's date of birth?

Age on April 1, 2000

Print numbers in boxes.

Month Day Year of birth



Person 5 (continued)

→ NOTE: Please answer BOTH Questions 5 and 6.

5 Is this person Spanish/Hispanic/Latino? Mark (X) the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino
- Yes, Mexican, Mexican Am., Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — Print group. ↗

6 What is this person's race? Mark (X) one or more races to indicate what this person considers himself/herself to be.

- 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"/> Native Hawaiian |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> Guamanian or Chamorro |
| <input type="checkbox"/> Filipino | <input type="checkbox"/> Samoan |
| <input type="checkbox"/> Japanese | <input type="checkbox"/> Other Pacific Islander — Print race. ↘ |
| <input type="checkbox"/> Korean | |
| <input type="checkbox"/> Vietnamese | |
| <input type="checkbox"/> Other Asian — Print race. ↗ | |

- Some other race — Print race. ↗

7 What is this person's marital status?

- Now married
- Widowed
- Divorced
- Separated
- Never married

8 a. At any time since February 1, 2000, has this person attended regular school or college? Include only nursery school or preschool, kindergarten, elementary school, and schooling which leads to a high school diploma or a college degree.

- No, has not attended since February 1 → Skip to 9
- Yes, public school, public college
- Yes, private school, private college

b. What grade or level was this person attending? Mark (X) ONE box.

- Nursery school, preschool
- Kindergarten
- Grade 1 to grade 4
- Grade 5 to grade 8
- Grade 9 to grade 12
- College undergraduate years (freshman to senior)
- Graduate or professional school (for example: medical, dental, or law school)

9 What is the highest degree or level of school this person has COMPLETED? Mark (X) ONE box. If currently enrolled, mark the previous grade or highest degree received.

- No schooling completed
- Nursery school to 4th grade
- 5th grade or 6th grade
- 7th grade or 8th grade
- 9th grade
- 10th grade
- 11th grade
- 12th grade, **NO DIPLOMA**
- HIGH SCHOOL GRADUATE** — high school DIPLOMA or the equivalent (for example: GED)
- Some college credit, but less than 1 year
- 1 or more years of college, no degree
- Associate degree (for example: AA, AS)
- Bachelor's degree (for example: BA, AB, BS)
- Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)
- Professional degree (for example: MD, DDS, DVM, LLB, JD)
- Doctorate degree (for example: PhD, EdD)

10 What is this person's ancestry or ethnic origin?

(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)

Person 5 (continued)

11 a. Does this person speak a language other than English at home?

- Yes
- No → *Skip to 12*

b. What is this language?

(For example: Korean, Italian, Spanish, Vietnamese)

c. How well does this person speak English?

- Very well
- Well
- Not well
- Not at all

12 Where was this person born?

- In the United States — *Print name of state.*
- Outside the United States — *Print name of foreign country, or Puerto Rico, Guam, etc.*

13 Is this person a CITIZEN of the United States?

- Yes, born in the United States → *Skip to 15a*
- Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas
- Yes, born abroad of American parent or parents
- Yes, a U.S. citizen by naturalization
- No, not a citizen of the United States

14 When did this person come to live in the United States? *Print numbers in boxes.*

Year

15 a. Did this person live in this house or apartment 5 years ago (on April 1, 1995)?

- Person is under 5 years old → *Skip to 33*
- Yes, this house → *Skip to 16*
- No, outside the United States — *Print name of foreign country, or Puerto Rico, Guam, etc., below; then skip to 16.*

- No, different house in the United States

15 b. Where did this person live 5 years ago?

Name of city, town, or post office

Did this person live inside the limits of the city or town?

- Yes
- No, outside the city/town limits

Name of county

Name of state

ZIP Code

16 Does this person have any of the following long-lasting conditions:

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Blindness, deafness, or a severe vision or hearing impairment? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying? | <input type="checkbox"/> | <input type="checkbox"/> |

17 Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities:

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Learning, remembering, or concentrating? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Dressing, bathing, or getting around inside the home? | <input type="checkbox"/> | <input type="checkbox"/> |
| c. (Answer if this person is 16 YEARS OLD OR OVER.) Going outside the home alone to shop or visit a doctor's office? | <input type="checkbox"/> | <input type="checkbox"/> |
| d. (Answer if this person is 16 YEARS OLD OR OVER.) Working at a job or business? | <input type="checkbox"/> | <input type="checkbox"/> |

18 Was this person under 15 years of age on April 1, 2000?

- Yes → *Skip to 33*
- No



Person 5 (continued)

19 a. Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?

- Yes
 No → Skip to 20a

b. Is this grandparent currently responsible for most of the basic needs of any grandchild(ren) under the age of 18 who live(s) in this house or apartment?

- Yes
 No → Skip to 20a

c. How long has this grandparent been responsible for the(se) grandchild(ren)? If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.

- Less than 6 months
 6 to 11 months
 1 or 2 years
 3 or 4 years
 5 years or more

20 a. Has this person ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.

- Yes, now on active duty
 Yes, on active duty in past, but not now
 No, training for Reserves or National Guard only → Skip to 21
 No, never served in the military → Skip to 21

b. When did this person serve on active duty in the U.S. Armed Forces? Mark (X) a box for EACH period in which this person served.

- April 1995 or later
 August 1990 to March 1995 (including Persian Gulf War)
 September 1980 to July 1990
 May 1975 to August 1980
 Vietnam era (August 1964—April 1975)
 February 1955 to July 1964
 Korean conflict (June 1950—January 1955)
 World War II (September 1940—July 1947)
 Some other time

c. In total, how many years of active-duty military service has this person had?

- Less than 2 years
 2 years or more

21 LAST WEEK, did this person do ANY work for either pay or profit? Mark (X) the "Yes" box even if the person worked only 1 hour, or helped without pay in a family business or farm for 15 hours or more, or was on active duty in the Armed Forces.

- Yes
 No → Skip to 25a

22 At what location did this person work LAST WEEK? If this person worked at more than one location, print where he or she worked most last week.

a. Address (Number and street name)

(If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.)

b. Name of city, town, or post office

c. Is the work location inside the limits of that city or town?

- Yes
 No, outside the city/town limits

d. Name of county

e. Name of U.S. state or foreign country

f. ZIP Code

23 a. How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, mark (X) the box of the one used for most of the distance.

- Car, truck, or van
 Bus or trolley bus
 Streetcar or trolley car
 Subway or elevated
 Railroad
 Ferryboat
 Taxicab
 Motorcycle
 Bicycle
 Walked
 Worked at home → Skip to 27
 Other method

Person 5 (continued)

→ If "Car, truck, or van" is marked in 23a, go to 23b. Otherwise, skip to 24a.

23 b. How many people, including this person, usually rode to work in the car, truck, or van LAST WEEK?

- Drove alone
- 2 people
- 3 people
- 4 people
- 5 or 6 people
- 7 or more people

24 a. What time did this person usually leave home to go to work LAST WEEK?

a.m. p.m.

b. How many minutes did it usually take this person to get from home to work LAST WEEK?

Minutes

→ Answer questions 25–26 for persons who did not work for pay or profit last week. Others skip to 27.

25 a. LAST WEEK, was this person on layoff from a job?

- Yes → Skip to 25c
- No

b. LAST WEEK, was this person TEMPORARILY absent from a job or business?

- Yes, on vacation, temporary illness, labor dispute, etc. → Skip to 26
- No → Skip to 25d

c. Has this person been informed that he or she will be recalled to work within the next 6 months OR been given a date to return to work?

- Yes → Skip to 25e
- No

d. Has this person been looking for work during the last 4 weeks?

- Yes
- No → Skip to 26

e. LAST WEEK, could this person have started a job if offered one, or returned to work if recalled?

- Yes, could have gone to work
- No, because of own temporary illness
- No, because of all other reasons (in school, etc.)

26 When did this person last work, even for a few days?

- 1995 to 2000
- 1994 or earlier, or never worked → Skip to 31

27 **Industry or Employer** — Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give the information for his/her last job or business since 1995.

a. For whom did this person work? If now on active duty in the Armed Forces, mark this box → and print the branch of the Armed Forces.

Name of company, business, or other employer

b. What kind of business or industry was this? Describe the activity at location where employed. (For example: hospital, newspaper publishing, mail order house, auto repair shop, bank)

c. Is this mainly — Mark ONE box.

- Manufacturing?
- Wholesale trade?
- Retail trade?
- Other (agriculture, construction, service, government, etc.)?

28 **Occupation**

a. What kind of work was this person doing? (For example: registered nurse, personnel manager, supervisor of order department, auto mechanic, accountant)

b. What were this person's most important activities or duties? (For example: patient care, directing hiring policies, supervising order clerks, repairing automobiles, reconciling financial records)



Person 5 (continued)

- 29** Was this person — Mark ONE box.
- Employee of a PRIVATE-FOR-PROFIT company or business or of an individual, for wages, salary, or commissions
 - Employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization
 - Local GOVERNMENT employee (city, county, etc.)
 - State GOVERNMENT employee
 - Federal GOVERNMENT employee
 - SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm
 - SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm
 - Working WITHOUT PAY in family business or farm

30 a. LAST YEAR, 1999, did this person work at a job or business at any time?

- Yes
- No → Skip to 31

b. How many weeks did this person work in 1999? Count paid vacation, paid sick leave, and military service.
Weeks

c. During the weeks WORKED in 1999, how many hours did this person usually work each WEEK? Usual hours worked each WEEK

31 INCOME IN 1999 — Mark the "Yes" box for each income source received during 1999 and enter the total amount received during 1999 to a maximum of \$999,999. Mark the "No" box if the income source was not received. If net income was a loss, enter the amount and mark the "Loss" box next to the dollar amount.

For income received jointly, report, if possible, the appropriate share for each person; otherwise, report the whole amount for only one person and mark the "No" box for the other person. If exact amount is not known, please give best estimate.

a. Wages, salary, commissions, bonuses, or tips from all jobs — Report amount before deductions for taxes, bonds, dues, or other items.

- Yes Annual amount — Dollars

\$ | | | | | .00

- No

b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships — Report NET income after business expenses.

- Yes Annual amount — Dollars

\$ | | | | | .00 Loss

- No

31 c. Interest, dividends, net rental income, royalty income, or income from estates and trusts — Report even small amounts credited to an account.

- Yes Annual amount — Dollars

\$ | | | | | .00 Loss

- No

d. Social Security or Railroad Retirement

- Yes Annual amount — Dollars

\$ | | | | | .00

- No

e. Supplemental Security Income (SSI)

- Yes Annual amount — Dollars

\$ | | | | | .00

- No

f. Any public assistance or welfare payments from the state or local welfare office

- Yes Annual amount — Dollars

\$ | | | | | .00

- No

g. Retirement, survivor, or disability pensions — Do NOT include Social Security.

- Yes Annual amount — Dollars

\$ | | | | | .00

- No

h. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support, or alimony — Do NOT include lump-sum payments such as money from an inheritance or sale of a home.

- Yes Annual amount — Dollars

\$ | | | | | .00

- No

32 What was this person's total income in 1999? Add entries in questions 31a—31h; subtract any losses. If net income was a loss, enter the amount and mark the "Loss" box next to the dollar amount.

Annual amount — Dollars

- None OR \$ | | | | | .00 Loss

33 Are there more people living here? If yes, continue with Person 6.

Person

6



Housing information helps your community plan for police and fire protection.

1 What is this person's name? *Print the name of Person 6 from page 2.*

Last Name

First Name

MI

2 How is this person related to Person 1? *Mark ONE box.*

- Husband/wife
- Natural-born son/daughter
- Adopted son/daughter
- Stepson/stepdaughter
- Brother/sister
- Father/mother
- Grandchild
- Parent-in-law
- Son-in-law/daughter-in-law
- Other relative — *Print exact relationship.*

If NOT RELATED to Person 1:

- Roomer, boarder
- Housemate, roommate
- Unmarried partner
- Foster child
- Other nonrelative

3 What is this person's sex? *Mark ONE box.*

- Male
- Female

4 What is this person's age and what is this person's date of birth?

Age on April 1, 2000

Print numbers in boxes.

Month Day Year of birth

NOTE: Please answer BOTH Questions 5 and 6.

5 Is this person Spanish/Hispanic/Latino? *Mark the "No" box if not Spanish/Hispanic/Latino.*

- No, not Spanish/Hispanic/Latino
- Yes, Mexican, Mexican Am., Chicano
- Yes, Puerto Rican
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — *Print group.*

6 What is this person's race? *Mark one or more races to indicate what this person considers himself/herself to be.*

- 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"/> Native Hawaiian |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> Guamanian or Chamorro |
| <input type="checkbox"/> Filipino | <input type="checkbox"/> Samoan |
| <input type="checkbox"/> Japanese | <input type="checkbox"/> Other Pacific Islander — <i>Print race.</i> |
| <input type="checkbox"/> Korean | |
| <input type="checkbox"/> Vietnamese | |
| <input type="checkbox"/> Other Asian — <i>Print race.</i> | |

- Some other race — *Print race.*

7 What is this person's marital status?

- Now married
- Widowed
- Divorced
- Separated
- Never married



Person 6 (continued)

8 a. At any time since February 1, 2000, has this person attended regular school or college? Include only nursery school or preschool, kindergarten, elementary school, and schooling which leads to a high school diploma or a college degree.

- No, has not attended since February 1 → Skip to 9
- Yes, public school, public college
- Yes, private school, private college

b. What grade or level was this person attending? Mark ONE box.

- Nursery school, preschool
- Kindergarten
- Grade 1 to grade 4
- Grade 5 to grade 8
- Grade 9 to grade 12
- College undergraduate years (freshman to senior)
- Graduate or professional school (for example: medical, dental, or law school)

9 What is the highest degree or level of school this person has COMPLETED? Mark ONE box. If currently enrolled, mark the previous grade or highest degree received.

- No schooling completed
- Nursery school to 4th grade
- 5th grade or 6th grade
- 7th grade or 8th grade
- 9th grade
- 10th grade
- 11th grade
- 12th grade, **NO DIPLOMA**
- HIGH SCHOOL GRADUATE** — high school DIPLOMA or the equivalent (for example: GED)
- Some college credit, but less than 1 year
- 1 or more years of college, no degree
- Associate degree (for example: AA, AS)
- Bachelor's degree (for example: BA, AB, BS)
- Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)
- Professional degree (for example: MD, DDS, DVM, LLB, JD)
- Doctorate degree (for example: PhD, EdD)

10 What is this person's ancestry or ethnic origin?

(For example: Italian, Jamaican, African Am., Cambodian, Cape Verdean, Norwegian, Dominican, French Canadian, Haitian, Korean, Lebanese, Polish, Nigerian, Mexican, Taiwanese, Ukrainian, and so on.)

11 a. Does this person speak a language other than English at home?

- Yes
- No → Skip to 12

b. What is this language?

(For example: Korean, Italian, Spanish, Vietnamese)

c. How well does this person speak English?

- Very well
- Well
- Not well
- Not at all

12 Where was this person born?

- In the United States — Print name of state.
- Outside the United States — Print name of foreign country, or Puerto Rico, Guam, etc.

13 Is this person a CITIZEN of the United States?

- Yes, born in the United States → Skip to 15a
- Yes, born in Puerto Rico, Guam, the U.S. Virgin Islands, or Northern Marianas
- Yes, born abroad of American parent or parents
- Yes, a U.S. citizen by naturalization
- No, not a citizen of the United States

14 When did this person come to live in the United States? Print numbers in boxes.

Year

15 a. Did this person live in this house or apartment 5 years ago (on April 1, 1995)?

- Person is under 5 years old → Skip to 33
- Yes, this house → Skip to 16
- No, outside the United States — Print name of foreign country, or Puerto Rico, Guam, etc., below; then skip to 16.
- No, different house in the United States

Person 6 (continued)

15 b. Where did this person live 5 years ago?

Name of city, town, or post office

Did this person live inside the limits of the city or town?

- Yes
- No, outside the city/town limits

Name of county

Name of state

ZIP Code

16 Does this person have any of the following long-lasting conditions:

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Blindness, deafness, or a severe vision or hearing impairment? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying? | <input type="checkbox"/> | <input type="checkbox"/> |

17 Because of a physical, mental, or emotional condition lasting 6 months or more, does this person have any difficulty in doing any of the following activities:

- | | Yes | No |
|--|--------------------------|--------------------------|
| a. Learning, remembering, or concentrating? | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Dressing, bathing, or getting around inside the home? | <input type="checkbox"/> | <input type="checkbox"/> |
| c. (Answer if this person is 16 YEARS OLD OR OVER.) Going outside the home alone to shop or visit a doctor's office? | <input type="checkbox"/> | <input type="checkbox"/> |
| d. (Answer if this person is 16 YEARS OLD OR OVER.) Working at a job or business? | <input type="checkbox"/> | <input type="checkbox"/> |

18 Was this person under 15 years of age on April 1, 2000?

- Yes → Skip to 33
- No

19 a. Does this person have any of his/her own grandchildren under the age of 18 living in this house or apartment?

- Yes
- No → Skip to 20a

b. Is this grandparent currently responsible for most of the basic needs of any grandchild(ren) under the age of 18 who live(s) in this house or apartment?

- Yes
- No → Skip to 20a

c. How long has this grandparent been responsible for the(se) grandchild(ren)? If the grandparent is financially responsible for more than one grandchild, answer the question for the grandchild for whom the grandparent has been responsible for the longest period of time.

- Less than 6 months
- 6 to 11 months
- 1 or 2 years
- 3 or 4 years
- 5 years or more

20 a. Has this person ever served on active duty in the U.S. Armed Forces, military Reserves, or National Guard? Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War.

- Yes, now on active duty
- Yes, on active duty in past, but not now
- No, training for Reserves or National Guard only → Skip to 21
- No, never served in the military → Skip to 21

b. When did this person serve on active duty in the U.S. Armed Forces? Mark a box for EACH period in which this person served.

- April 1995 or later
- August 1990 to March 1995 (including Persian Gulf War)
- September 1980 to July 1990
- May 1975 to August 1980
- Vietnam era (August 1964—April 1975)
- February 1955 to July 1964
- Korean conflict (June 1950—January 1955)
- World War II (September 1940—July 1947)
- Some other time

c. In total, how many years of active-duty military service has this person had?

- Less than 2 years
- 2 years or more



Person 6 (continued)

21 LAST WEEK, did this person do ANY work for either pay or profit? Mark (X) the "Yes" box even if the person worked only 1 hour, or helped without pay in a family business or farm for 15 hours or more, or was on active duty in the Armed Forces.

- Yes
 No → Skip to 25a

22 At what location did this person work LAST WEEK? If this person worked at more than one location, print where he or she worked most last week.

a. Address (Number and street name)

(If the exact address is not known, give a description of the location such as the building name or the nearest street or intersection.)

b. Name of city, town, or post office

c. Is the work location inside the limits of that city or town?

- Yes
 No, outside the city/town limits

d. Name of county

e. Name of U.S. state or foreign country

f. ZIP Code

23 a. How did this person usually get to work LAST WEEK? If this person usually used more than one method of transportation during the trip, mark (X) the box of the one used for most of the distance.

- Car, truck, or van
 Bus or trolley bus
 Streetcar or trolley car
 Subway or elevated
 Railroad
 Ferryboat
 Taxicab
 Motorcycle
 Bicycle
 Walked
 Worked at home → Skip to 27
 Other method

→ If "Car, truck, or van" is marked in 23a, go to 23b. Otherwise, skip to 24a.

23 b. How many people, including this person, usually rode to work in the car, truck, or van LAST WEEK?

- Drove alone
 2 people
 3 people
 4 people
 5 or 6 people
 7 or more people

24 a. What time did this person usually leave home to go to work LAST WEEK?

- a.m. p.m.

b. How many minutes did it usually take this person to get from home to work LAST WEEK?

Minutes

→ Answer questions 25–26 for persons who did not work for pay or profit last week. Others skip to 27.

25 a. LAST WEEK, was this person on layoff from a job?

- Yes → Skip to 25c
 No

b. LAST WEEK, was this person TEMPORARILY absent from a job or business?

- Yes, on vacation, temporary illness, labor dispute, etc. → Skip to 26
 No → Skip to 25d

c. Has this person been informed that he or she will be recalled to work within the next 6 months OR been given a date to return to work?

- Yes → Skip to 25e
 No

d. Has this person been looking for work during the last 4 weeks?

- Yes
 No → Skip to 26

e. LAST WEEK, could this person have started a job if offered one, or returned to work if recalled?

- Yes, could have gone to work
 No, because of own temporary illness
 No, because of all other reasons (in school, etc.)

26 When did this person last work, even for a few days?

- 1995 to 2000
 1994 or earlier, or never worked → Skip to 31

Person 6 (continued)

27 Industry or Employer — Describe clearly this person's chief job activity or business last week. If this person had more than one job, describe the one at which this person worked the most hours. If this person had no job or business last week, give the information for his/her last job or business since 1995.

a. For whom did this person work? If now on active duty in the Armed Forces, mark this box → and print the branch of the Armed Forces.

Name of company, business, or other employer

b. What kind of business or industry was this? Describe the activity at location where employed. (For example: hospital, newspaper publishing, mail order house, auto repair shop, bank)

c. Is this mainly — Mark ONE box.

- Manufacturing?
- Wholesale trade?
- Retail trade?
- Other (agriculture, construction, service, government, etc.)?

28 Occupation

a. What kind of work was this person doing? (For example: registered nurse, personnel manager, supervisor of order department, auto mechanic, accountant)

b. What were this person's most important activities or duties? (For example: patient care, directing hiring policies, supervising order clerks, repairing automobiles, reconciling financial records)

29 Was this person — Mark ONE box.

- Employee of a PRIVATE-FOR-PROFIT company or business or of an individual, for wages, salary, or commissions
- Employee of a PRIVATE NOT-FOR-PROFIT, tax-exempt, or charitable organization
- Local GOVERNMENT employee (city, county, etc.)
- State GOVERNMENT employee
- Federal GOVERNMENT employee
- SELF-EMPLOYED in own NOT INCORPORATED business, professional practice, or farm
- SELF-EMPLOYED in own INCORPORATED business, professional practice, or farm
- Working WITHOUT PAY in family business or farm

30 a. LAST YEAR, 1999, did this person work at a job or business at any time?

- Yes
- No → Skip to 31

b. How many weeks did this person work in 1999? Count paid vacation, paid sick leave, and military service. Weeks

c. During the weeks WORKED in 1999, how many hours did this person usually work each WEEK? Usual hours worked each WEEK

31 INCOME IN 1999 — Mark the "Yes" box for each income source received during 1999 and enter the total amount received during 1999 to a maximum of \$999,999. Mark the "No" box if the income source was not received. If net income was a loss, enter the amount and mark the "Loss" box next to the dollar amount.

For income received jointly, report, if possible, the appropriate share for each person; otherwise, report the whole amount for only one person and mark the "No" box for the other person. If exact amount is not known, please give best estimate.

a. Wages, salary, commissions, bonuses, or tips from all jobs — Report amount before deductions for taxes, bonds, dues, or other items.

Yes Annual amount — Dollars

\$ | | | | | .00

No

b. Self-employment income from own nonfarm businesses or farm businesses, including proprietorships and partnerships — Report NET income after business expenses.

Yes Annual amount — Dollars

\$ | | | | | .00

No

Loss



Person 6 (continued)

31 c. Interest, dividends, net rental income, royalty income, or income from estates and trusts — Report even small amounts credited to an account.

Yes Annual amount — Dollars
\$ | | | , | | | .00 Loss

No

d. Social Security or Railroad Retirement

Yes Annual amount — Dollars
\$ | | | , | | | .00

No

e. Supplemental Security Income (SSI)

Yes Annual amount — Dollars
\$ | | | , | | | .00

No

f. Any public assistance or welfare payments from the state or local welfare office

Yes Annual amount — Dollars
\$ | | | , | | | .00

No

g. Retirement, survivor, or disability pensions — Do NOT include Social Security.

Yes Annual amount — Dollars
\$ | | | , | | | .00

No

h. Any other sources of income received regularly such as Veterans' (VA) payments, unemployment compensation, child support, or alimony — Do NOT include lump-sum payments such as money from an inheritance or sale of a home.

Yes Annual amount — Dollars
\$ | | | , | | | .00

No

32 What was this person's total income in 1999? Add entries in questions 31a—31h; subtract any losses. If net income was a loss, enter the amount and mark (X) the "Loss" box next to the dollar amount.

Annual amount — Dollars

None OR \$ | | | , | | | .00 Loss

33 Thank you for completing your official U.S. Census form. If there are more than six people at this address, the Census Bureau may contact you for the same information about these people.

2079



Form D-2

39



2080



Form D-2

40

PLEASE DO NOT FILL OUT THIS FORM.
This is not an official census form. It is for informational purposes only.

United States Census 2000

U.S. Department of Commerce • Bureau of the Census



This is the official form for all the people at this address. It is quick and easy, and your answers are protected by law. Complete the Census and help your community get what it needs — today and in the future!

Start Here

Please use a black or blue pen.

1. How many people were living or staying in this house, apartment, or mobile home on April 1, 2000?

Number of people

INCLUDE in this number:

- foster children, roomers, or housemates
- people staying here on April 1, 2000 who have no other permanent place to stay
- people living here most of the time while working, even if they have another place to live

DO NOT INCLUDE in this number:

- college students living away while attending college
- people in a correctional facility, nursing home, or mental hospital on April 1, 2000
- Armed Forces personnel living somewhere else
- people who live or stay at another place most of the time

2. Is this house, apartment, or mobile home — Mark ONE box.

- Owned by you or someone in this household with a mortgage or loan?
- Owned by you or someone in this household free and clear (without a mortgage or loan)?
- Rented for cash rent?
- Occupied without payment of cash rent?

3. Please answer the following questions for each person living in this house, apartment, or mobile home. Start with the name of one of the people living here who owns, is buying, or rents this house, apartment, or mobile home. If there is no such person, start with any adult living or staying here. We will refer to this person as Person 1.

What is this person's name? Print name below.

Last Name

First Name

_____ MI _____

4. What is Person 1's telephone number? We may call this person if we don't understand an answer.

Area Code + Number

____ - ____ - _____

5. What is Person 1's sex? Mark ONE box.

- Male Female

6. What is Person 1's age and what is Person 1's date of birth?

Age on April 1, 2000

Print numbers in boxes

Month Day Year of birth

____ | ____ | _____

→ **NOTE: Please answer BOTH Questions 7 and 8.**

7. Is Person 1 Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino Yes, Puerto Rican
- Yes, Mexican, Mexican Am., Chicano Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — Print group. ↗

8. What is Person 1's race? Mark one or more races to indicate what this person considers himself/herself to be.

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

- Asian Indian Japanese Native Hawaiian
- Chinese Korean Guamanian or Chamorro
- Filipino Vietnamese Samoan
- Other Asian — Print race. ↗ Other Pacific Islander — Print race. ↗

- Some other race — Print race. ↗

→ **If more people live here, continue with Person 2.**

OMB No. 0607-0858: Approval Expires 12/31/2000

Form **D-61A**

Person 2

Your answers are important!
Every person in the Census counts.

1. What is Person 2's name? *Print name below.*
Last Name



First Name

MI

2. How is this person related to Person 1? Mark ONE box.

- | | |
|--|--|
| <input type="checkbox"/> Husband/wife | If NOT RELATED to Person 1: |
| <input type="checkbox"/> Natural-born son/daughter | <input type="checkbox"/> Roomer, boarder |
| <input type="checkbox"/> Adopted son/daughter | <input type="checkbox"/> Housemate, roommate |
| <input type="checkbox"/> Stepson/stepdaughter | <input type="checkbox"/> Unmarried partner |
| <input type="checkbox"/> Brother/sister | <input type="checkbox"/> Foster child |
| <input type="checkbox"/> Father/mother | <input type="checkbox"/> Other nonrelative |
| <input type="checkbox"/> Grandchild | |
| <input type="checkbox"/> Parent-in-law | |
| <input type="checkbox"/> Son-in-law/daughter-in-law | |
| <input type="checkbox"/> Other relative — <i>Print exact relationship.</i> | |

3. What is this person's sex? Mark ONE box.

- Male Female

4. What is this person's age and what is this person's date of birth? *Print numbers in boxes.*

Age on April 1, 2000 Month Day Year of birth

→ NOTE: Please answer BOTH Questions 5 and 6.

5. Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- | | |
|---|--|
| <input type="checkbox"/> No, not Spanish/Hispanic/Latino | <input type="checkbox"/> Yes, Puerto Rican |
| <input type="checkbox"/> Yes, Mexican, Mexican Am., Chicano | <input type="checkbox"/> Yes, Cuban |
| <input type="checkbox"/> Yes, other Spanish/Hispanic/Latino — <i>Print group.</i> | |

6. What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

- 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.</i> | | |
| <input type="checkbox"/> Other Pacific Islander — <i>Print race.</i> | | |

- Some other race — *Print race.*

→ If more people live here, continue with Person 3.

Person 3

Census information helps your community get financial assistance for roads, hospitals, schools, and more.

1. What is Person 3's name? *Print name below.*
Last Name



First Name

MI

2. How is this person related to Person 1? Mark ONE box.

- | | |
|--|--|
| <input type="checkbox"/> Husband/wife | If NOT RELATED to Person 1: |
| <input type="checkbox"/> Natural-born son/daughter | <input type="checkbox"/> Roomer, boarder |
| <input type="checkbox"/> Adopted son/daughter | <input type="checkbox"/> Housemate, roommate |
| <input type="checkbox"/> Stepson/stepdaughter | <input type="checkbox"/> Unmarried partner |
| <input type="checkbox"/> Brother/sister | <input type="checkbox"/> Foster child |
| <input type="checkbox"/> Father/mother | <input type="checkbox"/> Other nonrelative |
| <input type="checkbox"/> Grandchild | |
| <input type="checkbox"/> Parent-in-law | |
| <input type="checkbox"/> Son-in-law/daughter-in-law | |
| <input type="checkbox"/> Other relative — <i>Print exact relationship.</i> | |

3. What is this person's sex? Mark ONE box.

- Male Female

4. What is this person's age and what is this person's date of birth? *Print numbers in boxes.*

Age on April 1, 2000 Month Day Year of birth

→ NOTE: Please answer BOTH Questions 5 and 6.

5. Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- | | |
|---|--|
| <input type="checkbox"/> No, not Spanish/Hispanic/Latino | <input type="checkbox"/> Yes, Puerto Rican |
| <input type="checkbox"/> Yes, Mexican, Mexican Am., Chicano | <input type="checkbox"/> Yes, Cuban |
| <input type="checkbox"/> Yes, other Spanish/Hispanic/Latino — <i>Print group.</i> | |

6. What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

- 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.</i> | | |
| <input type="checkbox"/> Other Pacific Islander — <i>Print race.</i> | | |

- Some other race — *Print race.*

→ If more people live here, continue with Person 4.

Person 4

Information about children helps your community plan for child care, education, and recreation.

1. What is Person 4's name? Print name below.
Last Name



First Name MI

2. How is this person related to Person 1? Mark ONE box.

- | | |
|---|--|
| <input type="checkbox"/> Husband/wife | If NOT RELATED to Person 1: |
| <input type="checkbox"/> Natural-born son/daughter | <input type="checkbox"/> Roomer, boarder |
| <input type="checkbox"/> Adopted son/daughter | <input type="checkbox"/> Housemate, roommate |
| <input type="checkbox"/> Stepson/stepdaughter | <input type="checkbox"/> Unmarried partner |
| <input type="checkbox"/> Brother/sister | <input type="checkbox"/> Foster child |
| <input type="checkbox"/> Father/mother | <input type="checkbox"/> Other nonrelative |
| <input type="checkbox"/> Grandchild | |
| <input type="checkbox"/> Parent-in-law | |
| <input type="checkbox"/> Son-in-law/daughter-in-law | |
| <input type="checkbox"/> Other relative — Print exact relationship. ↗ | |

3. What is this person's sex? Mark ONE box.

- Male Female

4. What is this person's age and what is this person's date of birth? Print numbers in boxes.

Age on April 1, 2000 Month Day Year of birth

NOTE: Please answer BOTH Questions 5 and 6.

5. Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino Yes, Puerto Rican
 Yes, Mexican, Mexican Am., Chicano Yes, Cuban
 Yes, other Spanish/Hispanic/Latino — Print group. ↗

6. What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

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

- Asian Indian Japanese Native Hawaiian
 Chinese Korean Guamanian or Chamorro
 Filipino Vietnamese Samoan
 Other Asian — Print race. ↗ Other Pacific Islander — Print race. ↗

- Some other race — Print race. ↗

If more people live here, continue with Person 5.

Person 5

Knowing about age, race, and sex helps your community better meet the needs of everyone.

1. What is Person 5's name? Print name below.
Last Name



First Name MI

2. How is this person related to Person 1? Mark ONE box.

- | | |
|---|--|
| <input type="checkbox"/> Husband/wife | If NOT RELATED to Person 1: |
| <input type="checkbox"/> Natural-born son/daughter | <input type="checkbox"/> Roomer, boarder |
| <input type="checkbox"/> Adopted son/daughter | <input type="checkbox"/> Housemate, roommate |
| <input type="checkbox"/> Stepson/stepdaughter | <input type="checkbox"/> Unmarried partner |
| <input type="checkbox"/> Brother/sister | <input type="checkbox"/> Foster child |
| <input type="checkbox"/> Father/mother | <input type="checkbox"/> Other nonrelative |
| <input type="checkbox"/> Grandchild | |
| <input type="checkbox"/> Parent-in-law | |
| <input type="checkbox"/> Son-in-law/daughter-in-law | |
| <input type="checkbox"/> Other relative — Print exact relationship. ↗ | |

3. What is this person's sex? Mark ONE box.

- Male Female

4. What is this person's age and what is this person's date of birth? Print numbers in boxes.

Age on April 1, 2000 Month Day Year of birth

NOTE: Please answer BOTH Questions 5 and 6.

5. Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino Yes, Puerto Rican
 Yes, Mexican, Mexican Am., Chicano Yes, Cuban
 Yes, other Spanish/Hispanic/Latino — Print group. ↗

6. What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

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

- Asian Indian Japanese Native Hawaiian
 Chinese Korean Guamanian or Chamorro
 Filipino Vietnamese Samoan
 Other Asian — Print race. ↗ Other Pacific Islander — Print race. ↗

- Some other race — Print race. ↗

If more people live here, continue with Person 6.



Person 6

Your answers help
your community plan
for the future.



1. What is Person 6's name? *Print name below.*

Last Name

First Name

MI

2. How is this person related to Person 1? Mark ONE box.

- Husband/wife
- Natural-born son/daughter
- Adopted son/daughter
- Stepson/stepdaughter
- Brother/sister
- Father/mother
- Grandchild
- Parent-in-law
- Son-in-law/daughter-in-law
- Other relative — *Print exact relationship.* →

If NOT RELATED to Person 1:

- Roomer, boarder
- Housemate, roommate
- Unmarried partner
- Foster child
- Other nonrelative

3. What is this person's sex? Mark ONE box.

- Male
- Female

4. What is this person's age and what is this person's date of birth? *Print numbers in boxes.*

Age on April 1, 2000 Month Day Year of birth

→ NOTE: Please answer BOTH Questions 5 and 6.

5. Is this person Spanish/Hispanic/Latino? Mark the "No" box if not Spanish/Hispanic/Latino.

- No, not Spanish/Hispanic/Latino
- Yes, Puerto Rican
- Yes, Mexican, Mexican Am., Chicano
- Yes, Cuban
- Yes, other Spanish/Hispanic/Latino — *Print group.* ↗

6. What is this person's race? Mark one or more races to indicate what this person considers himself/herself to be.

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

- Asian Indian
- Japanese
- Native Hawaiian
- Chinese
- Korean
- Guamanian or Chamorro
- Filipino
- Vietnamese
- Samoan
- Other Asian — *Print race.* ↗
- Other Pacific Islander — *Print race.* ↗

- Some other race — *Print race.* ↗

→ If more people live here, list their names on the back of this page in the spaces provided.

**Please turn
to go to last
page.**

Form D-61A

Persons 7 – 12

If you didn't have room to list everyone who lives in this house or apartment, please list the others below. You may be contacted by the Census Bureau for the same information about these people.

Person 7 — Last Name

First Name MI

Person 8 — Last Name

First Name MI

Person 9 — Last Name

First Name MI

Person 10 — Last Name

First Name MI

Person 11 — Last Name

First Name MI

Person 12 — Last Name

First Name MI

The Census Bureau estimates that, for the average household, this form will take about 10 minutes to complete, including the time for reviewing the instructions and answers. Comments about the estimate should be directed to the Associate Director for Finance and Administration, Attn: Paperwork Reduction Project 0607-0856, Room 3104, Federal Building 3, Bureau of the Census, Washington, DC 20233.

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

**Thank you for
completing your official
U.S. Census 2000 form.**

The "Informational Copy" shows the content of the United States Census 2000 "short" form questionnaire. Each household will receive either a short form (100-percent questions) or a long form (100-percent and sample questions). The short form questionnaire contains 6 population questions and 1 housing question. On average, about 5 in every 6 households will receive the short form. The content of the forms resulted from reviewing the 1990 census data, consulting with federal and non-federal data users, and conducting tests.

For additional information about Census 2000, visit our website at www.census.gov or write to the Director, Bureau of the Census, Washington, DC 20233.

FOR OFFICE USE ONLY

A. JIC1	B. JIC2	C. JIC3	D. JIC4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



If you need help completing this form, call 1-800-XXX-XXXX between 8:00 a.m. and 9:00 p.m., 7 days a week. The telephone call is free.

TDD — Telephone display device for the hearing impaired. Call 1-800-XXX-XXXX between 8:00 a.m. and 9:00 p.m., 7 days a week. The telephone call is free.

¿NECESITA AYUDA? Si usted necesita ayuda para completar este cuestionario llame al 1-800-XXX-XXXX entre las 8:00 a.m. y las 9:00 p.m., 7 días a la semana. La llamada telefónica es gratis.

1041



Use a blue or black pen.

Start here

The Census must count every person living in the United States on April 1, 2010.

Before you answer Question 1, count the people living in this house, apartment, or mobile home using our guidelines.

- Count all people, including babies, who live and sleep here most of the time.

The Census Bureau also conducts counts in institutions and other places, so:

- Do not count anyone living away either at college or in the Armed Forces.
- Do not count anyone in a nursing home, jail, prison, detention facility, etc., on April 1, 2010.
- Leave these people off your form, even if they will return to live here after they leave college, the nursing home, the military, jail, etc. Otherwise, they may be counted twice.

The Census must also include people without a permanent place to stay, so:

- If someone who has no permanent place to stay is staying here on April 1, 2010, count that person. Otherwise, he or she may be missed in the census.

1. How many people were living or staying in this house, apartment, or mobile home on April 1, 2010?

Number of people =

2. Were there any additional people staying here April 1, 2010 that you did not include in Question 1?

Mark all that apply.

- Children, such as newborn babies or foster children
- Relatives, such as adult children, cousins, or in-laws
- Nonrelatives, such as roommates or live-in baby sitters
- People staying here temporarily
- No additional people

3. Is this house, apartment, or mobile home —

Mark ONE box.

- Owned by you or someone in this household with a mortgage or loan? *Include home equity loans.*
- Owned by you or someone in this household free and clear (without a mortgage or loan)?
- Rented?
- Occupied without payment of rent?

4. What is your telephone number? We may call if we don't understand an answer.

Area Code + Number

- -

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

Form **D-61** (1-15-2009)

5. Please provide information for each person living here. Start with a person living here who owns or rents this house, apartment, or mobile home. If the owner or renter lives somewhere else, start with any adult living here. This will be Person 1.

What is Person 1's name? *Print name below.*

Last Name

First Name MI

6. What is Person 1's sex? Mark ONE box.

- Male Female

7. What is Person 1's age and what is Person 1's 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 8 about Hispanic origin and Question 9 about race. For this census, Hispanic origins are not races.**

8. Is Person 1 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, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.* ↗

9. What is Person 1's race? Mark one or more boxes.

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

- Asian Indian Japanese Native Hawaiian
- Chinese Korean Guamanian or Chamorro
- Filipino Vietnamese Samoan
- Other Asian — *Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.* ↗
- Other Pacific Islander — *Print race, for example, Fijian, Tongan, and so on.* ↗

- Some other race — *Print race.* ↗

10. Does Person 1 sometimes live or stay somewhere else?

- No Yes — *Mark all that apply.*
- In college housing For child custody
- In the military In jail or prison
- At a seasonal or second residence In a nursing home
- For another reason

→ If more people were counted in Question 1, continue with Person 2.

1. Print name of **Person 2**

Last Name

First Name MI

2. How is this person related to Person 1? Mark ONE box.

- Husband or wife
- Biological son or daughter
- Adopted son or daughter
- Stepson or stepdaughter
- Brother or sister
- Father or mother
- Grandchild
- Parent-in-law
- Son-in-law or daughter-in-law
- Other relative
- Roomer or boarder
- Housemate or roommate
- Unmarried partner
- Other nonrelative

3. What is this person's sex? Mark ONE box.

- Male
- Female

4. What is this person's age and what is this person's 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 5 about Hispanic origin and Question 6 about race. For this census, Hispanic origins are not races.

5. Is this person 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, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on. ↗

6. What is this person's race? Mark one or more boxes.

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

- Asian Indian
- Chinese
- Filipino
- Other Asian — Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. ↗
- Japanese
- Korean
- Vietnamese
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander — Print race, for example, Fijian, Tongan, and so on. ↗

- Some other race — Print race. ↗

7. Does this person sometimes live or stay somewhere else?

- No
- Yes — Mark all that apply.
 - In college housing
 - In the military
 - At a seasonal or second residence
 - For child custody
 - In jail or prison
 - In a nursing home
 - For another reason

→ If more people were counted in Question 1 on the front page, continue with Person 3.

1. Print name of **Person 3**

Last Name

First Name MI

2. How is this person related to Person 1? Mark ONE box.

- Husband or wife
- Biological son or daughter
- Adopted son or daughter
- Stepson or stepdaughter
- Brother or sister
- Father or mother
- Grandchild
- Parent-in-law
- Son-in-law or daughter-in-law
- Other relative
- Roomer or boarder
- Housemate or roommate
- Unmarried partner
- Other nonrelative

3. What is this person's sex? Mark ONE box.

- Male
- Female

4. What is this person's age and what is this person's 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 5 about Hispanic origin and Question 6 about race. For this census, Hispanic origins are not races.

5. Is this person 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, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on. ↗

6. What is this person's race? Mark one or more boxes.

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

- Asian Indian
- Chinese
- Filipino
- Other Asian — Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. ↗
- Japanese
- Korean
- Vietnamese
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander — Print race, for example, Fijian, Tongan, and so on. ↗

- Some other race — Print race. ↗

7. Does this person sometimes live or stay somewhere else?

- No
- Yes — Mark all that apply.
 - In college housing
 - In the military
 - At a seasonal or second residence
 - For child custody
 - In jail or prison
 - In a nursing home
 - For another reason

→ If more people were counted in Question 1 on the front page, continue with Person 4.

1. Print name of **Person 4**

Last Name

First Name MI

2. How is this person related to Person 1? Mark ONE box.

- Husband or wife
- Biological son or daughter
- Adopted son or daughter
- Stepson or stepdaughter
- Brother or sister
- Father or mother
- Grandchild
- Parent-in-law
- Son-in-law or daughter-in-law
- Other relative
- Roomer or boarder
- Housemate or roommate
- Unmarried partner
- Other nonrelative

3. What is this person's sex? Mark ONE box.

- Male Female

4. What is this person's age and what is this person's 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 5 about Hispanic origin and Question 6 about race. For this census, Hispanic origins are not races.

5. Is this person 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, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on. ↴

6. What is this person's race? Mark one or more boxes.

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

- Asian Indian
- Chinese
- Filipino
- Other Asian — Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. ↴
- Japanese
- Korean
- Vietnamese
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander — Print race, for example, Fijian, Tongan, and so on. ↴

- Some other race — Print race. ↴

7. Does this person sometimes live or stay somewhere else?

- No Yes — Mark all that apply.
- In college housing
- In the military
- At a seasonal or second residence
- For child custody
- In jail or prison
- In a nursing home
- For another reason

→ If more people were counted in Question 1 on the front page, continue with Person 5.

1. Print name of **Person 5**

Last Name

First Name MI

2. How is this person related to Person 1? Mark ONE box.

- Husband or wife
- Biological son or daughter
- Adopted son or daughter
- Stepson or stepdaughter
- Brother or sister
- Father or mother
- Grandchild
- Parent-in-law
- Son-in-law or daughter-in-law
- Other relative
- Roomer or boarder
- Housemate or roommate
- Unmarried partner
- Other nonrelative

3. What is this person's sex? Mark ONE box.

- Male Female

4. What is this person's age and what is this person's 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 5 about Hispanic origin and Question 6 about race. For this census, Hispanic origins are not races.

5. Is this person 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, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on. ↴

6. What is this person's race? Mark one or more boxes.

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

- Asian Indian
- Chinese
- Filipino
- Other Asian — Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. ↴
- Japanese
- Korean
- Vietnamese
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander — Print race, for example, Fijian, Tongan, and so on. ↴

- Some other race — Print race. ↴

7. Does this person sometimes live or stay somewhere else?

- No Yes — Mark all that apply.
- In college housing
- In the military
- At a seasonal or second residence
- For child custody
- In jail or prison
- In a nursing home
- For another reason

→ If more people were counted in Question 1 on the front page, continue with Person 6.

1. Print name of **Person 6**

Last Name

First Name MI

2. How is this person related to Person 1? Mark ONE box.

- Husband or wife
- Biological son or daughter
- Adopted son or daughter
- Stepson or stepdaughter
- Brother or sister
- Father or mother
- Grandchild
- Parent-in-law
- Son-in-law or daughter-in-law
- Other relative
- Roomer or boarder
- Housemate or roommate
- Unmarried partner
- Other nonrelative

3. What is this person's sex? Mark ONE box.

- Male
- Female

4. What is this person's age and what is this person's 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 5 about Hispanic origin and Question 6 about race. For this census, Hispanic origins are not races.

5. Is this person 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, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on. ↴

6. What is this person's race? Mark one or more boxes.

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

- Asian Indian
- Chinese
- Filipino
- Other Asian — Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on. ↴
- Japanese
- Korean
- Vietnamese
- Native Hawaiian
- Guamanian or Chamorro
- Samoan
- Other Pacific Islander — Print race, for example, Fijian, Tongan, and so on. ↴

- Some other race — Print race. ↴

7. Does this person sometimes live or stay somewhere else?

- No
- Yes — Mark all that apply.
 - In college housing
 - In the military
 - At a seasonal or second residence
 - For child custody
 - In jail or prison
 - In a nursing home
 - For another reason

→ If more than six people were counted in Question 1 on the front page, turn the page and continue.

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→ If more people live here, turn the page and continue.

Use this section to complete information for the rest of the people you counted in Question 1 on the front page. We may call for additional information about them.

Person 7

Last Name First Name MI

Sex Male Female Age on April 1, 2010 Date of Birth Month Day Year Related to Person 1? Yes No

Person 8

Last Name First Name MI

Sex Male Female Age on April 1, 2010 Date of Birth Month Day Year Related to Person 1? Yes No

Person 9

Last Name First Name MI

Sex Male Female Age on April 1, 2010 Date of Birth Month Day Year Related to Person 1? Yes No

Person 10

Last Name First Name MI

Sex Male Female Age on April 1, 2010 Date of Birth Month Day Year Related to Person 1? Yes No

Person 11

Last Name First Name MI

Sex Male Female Age on April 1, 2010 Date of Birth Month Day Year Related to Person 1? Yes No

Person 12

Last Name First Name MI

Sex Male Female Age on April 1, 2010 Date of Birth Month Day Year Related to Person 1? Yes No

Thank you for completing your official 2010 Census form.

FOR OFFICIAL USE ONLY

JIC1 JIC2

If your enclosed postage-paid envelope is missing, please mail your completed form to:

**U.S. Census Bureau
National Processing Center
1201 East 10th Street
Jeffersonville, IN 47132**

If you need help completing this form, call 1-866-872-6868 between 8:00 a.m. and 9:00 p.m., 7 days a week. The telephone call is free.

TDD — Telephone display device for the hearing impaired. Call 1-866-783-2010 between 8:00 a.m. and 9:00 p.m., 7 days a week. The telephone call is free.

¿NECESITA AYUDA? Si usted necesita ayuda para completar este cuestionario, llame al 1-866-928-2010 entre las 8:00 a.m. y 9:00 p.m., 7 días a la semana. La llamada telefónica es gratis.

The U.S. Census Bureau estimates that, for the average household, this form will take about 10 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>; use "Paperwork Project 0607-0919-C" as the subject.

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This document was prepared by and for Census Bureau staff to aid in future research and planning, but the Census Bureau is making the document publicly available in order to share the information with as wide an audience as possible. Questions about the document should be directed to Kevin Deardorff at (301) 763-6033 or kevin.e.deardorff@census.gov

November 19, 2012

2010 CENSUS PLANNING MEMORANDA SERIES

No. 247

MEMORANDUM FOR The Distribution List

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

Subject: 2010 Census Match Study Report

Attached is the 2010 Census Match Study 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 Sonya Rastogi at (301) 763-6038 or Amy O'Hara at (301) 763-5757.

Attachment

2010 Census Match Study

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

FINAL REPORT

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Center for Administrative Records Research
and Applications



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Executive Summary

Study Overview

To reduce costs many countries use administrative data to assist in censuses or as a replacement to traditional censuses (Farber and Leggieri 2002, Ralphs and Tutton 2011). Currently administrative data are utilized in numerous, critical U.S. Census Bureau programs for population, economic, income and poverty, and health insurance estimates, but administrative data have not yet been extensively used to assist in decennial census operations. The Census Bureau is researching ways in which to use administrative data in decennial census operations to reduce costs.¹ This study, building and expanding on previous research that utilized Census 2000 results, provides a foundation for decennial census operational research on administrative records by assessing the quality and coverage of administrative data relative to the 2010 Census.

In the United States, decennial censuses determine apportionment of state representation to Congress, are used in state redistricting, and are used to distribute billions of federal dollars (Reamer 2010). While households are required by law to participate in the decennial census, there are many households that do not respond to initial contact attempts. This requires the Census Bureau to send enumerators door to door to collect data from non-responding households in decennial census operations called Nonresponse Followup Operations.² This effort is expensive for the Census Bureau and was estimated to cost around 1.4 billion dollars in Census 2000 of a total census budget of six billion dollars (Farber and Leggieri 2002, Walker et al. 2012). The estimated cost of these operations in the 2010 Census was about two billion dollars (Walker et al. 2012). Administrative records may be able to assist with expensive operations such as Nonresponse Followup Operations, which would save the government and taxpayers a substantial amount of money.

Census Bureau staff conducted research on the use of federal administrative data utilizing Census 2000 results. The Statistical Administrative Records System (StARS) was developed from select federal data sources in 1999. Decennial census research using these data included address and person count comparisons relative to Census 2000 (Farber and Leggieri 2002). StARS 1999 was also utilized in a field test that simulated a census in several counties during Census 2000 (Berning 2003, Bye and Judson 2004).

The 2010 Census Match Study builds on this research by evaluating the federal data sources used in StARS, additional federal data sources, and commercial data. This report is also distinctive from past research in that it matches addresses and persons in administrative records to the 2010 Census to evaluate the quality and coverage of administrative data. The matching is conducted

¹ For the purposes of this report, “administrative data” and “administrative records” are used interchangeably.

² Nonresponse Followup Operations include Nonresponse Followup, Nonresponse Followup Reinterview, Nonresponse Followup Vacant Delete Check, and Nonresponse Followup Residual. For more information, see Walker et al. (2012).

using unique address and person identifiers called master address file identification numbers and protected identification keys assigned by the Person Identification Validation System to addresses and persons in the 2010 Census and administrative records. Using count and match ratios, this study evaluates the administrative data and the 2010 Census at different levels of geography and by factors such as Hispanic origin, race, and mode of data collection. This report also evaluates the quality and coverage of Hispanic origin, race, sex, and age response data in administrative records relative to the 2010 Census.

Results Overview

Addresses

There were 131.7 million addresses in the 2010 Census and 151.3 million addresses in administrative records. Of the 2010 Census addresses, administrative records matched to 122.0 million or 92.6 percent; 29.3 million administrative records addresses were not found in the 2010 Census; and 9.7 million addresses were in the 2010 Census, but not in administrative records.

Definitional differences between addresses in the 2010 Census and administrative records contributed to the address non-matches. For instance, there were Post Office Box addresses in administrative data but none in the 2010 Census. The 2010 Census also contained physical descriptions for addresses such as “yellow house near fork in the road” that cannot be matched to administrative records. Additionally, administrative records contained non-residential addresses and may have contained new construction that was not recorded in the 2010 Census.

Persons

The person match ratios were lower than the match ratios for addresses. This is in part because all addresses in the 2010 Census had master address file identification numbers, thus all 2010 Census addresses had the potential to be matched to administrative records addresses with master address file identification numbers. However, in the 2010 Census, not all persons received a protected identification key, reducing the number of persons in the 2010 Census that had the potential to match to administrative records. Protected identification keys were assigned through probabilistic matching to records using name, address, and date of birth information.

There were 308.7 million persons in the 2010 Census, and 279.2 million were assigned a protected identification key. There were 312.2 million unique persons in administrative records that were assigned a protected identification key and were alive on Census Day, April 1, 2010. Administrative records matched to the vast majority of persons in the 2010 Census that received a protected identification key, 273.6 million or 98.0 percent. The percentage of the entire 2010 Census universe, including records lacking protected identification keys, with matching administrative records was lower at 88.6 percent.

There were 29.6 million 2010 Census persons that did not receive a protected identification key. There were 48.8 million administrative records that were assigned a protected identification key, but did not match to the 2010 Census. Future research will study the potential overlap between these universes.

There were 5.5 million 2010 Census persons with protected identification keys that were not found in administrative records data, and most of them were under the age of 17. There were several reasons why administrative data did not cover children as well as other age groups, including timing issues with tax data. Tax return data from the previous tax year failed to include babies born after January 2010, however these children would likely be reported in the 2010 Census, resulting in a lower match between administrative records and the 2010 Census for babies.

Person-Address Pairs

The match ratios for person-address pairs (i.e. a person at an address) were lower relative to the address results and person results, in part because the person-address pair data incorporate both address and person matching issues, including the presence of multiple addresses for persons in administrative records. Of the 312.2 million persons in administrative records that had a protected identification key, 301.5 million had a master address file identification number and 10.7 million did not have a master address file identification number. There were 216.2 million person-address pairs in the 2010 Census that matched to administrative records. Of the 308.7 million persons-address pairs in the 2010 Census, 70.0 percent matched to administrative records person-address pairs. Of the 279.2 million person-address pairs in the 2010 Census that had a protected identification key, 77.4 percent matched to administrative records person-address pairs.

After the best address model was applied to persons in administrative records with multiple addresses in administrative records, there were 203.2 million person-address pairs in the 2010 Census that matched to administrative records. Of the 308.7 million persons in the 2010 Census, 65.8 percent matched to administrative records person-address pairs. Of the 279.2 million person-address pairs in the 2010 Census that had a protected identification, 72.8 percent matched to administrative records person-address pairs. There were 98.6 million administrative records person-address pairs that did not match to the 2010 Census. There were 76.0 million person-address pairs that were in the 2010 Census which did not match to person-address pairs in administrative records.

Demographic Quality and Coverage

The quality of Hispanic origin response data from federal and commercial files, as defined by response match ratios between the 2010 Census and administrative data, ranged from 29.4 percent to 93.1 percent. Overall, federal data sources tended to have higher quality race data for each race group relative to the commercial data. The quality of race data varied by race group.

The White alone, Black alone, and Asian alone populations tended to have higher quality race data in administrative records compared to Two or More Races, Native Hawaiian or Other Pacific Islander alone, American Indian or Alaska Native alone, and Some Other Race alone populations.

Federal and commercial files had high quality data for age and sex responses. Across federal and commercial files that had date of birth information, the age match ratio ranged from 79.0 percent to 98.5 percent. The sex match ratios ranged from 94.7 percent to 100.0 percent.

The demographic coverage analysis evaluated whether administrative data provided a demographic response to Hispanic origin, race, age, and sex groups in the 2010 Census regardless of the quality of the response. There was a Hispanic origin response present in administrative data for 92.2 percent of non-Hispanic respondents and 78.9 percent of Hispanics in the 2010 Census. The race response coverage in administrative records ranged from 46.1 percent for the Some Other Race alone population to 81.0 percent for the White alone population. Coverage by age group ranged from 84.9 percent to 94.3 percent with older age groups achieving higher coverage relative to younger age groups. Coverage for sex was 90.1 percent, where females had slightly higher coverage (90.8 percent) relative to males (89.3 percent).

Research Implications

1. **Administrative records can enhance, but not replace the decennial census.** While the quality and coverage of administrative records relative to the 2010 Census suggests that administrative records can be utilized in decennial census operations, the quality is not high enough and the coverage is not expansive enough to replace a traditional census.
2. **Use of administrative records in Nonresponse Followup can reduce costs.** Administrative records cover a substantial number of Nonresponse Followup addresses and persons, and nearly half of person-address pairs. Of the 23.6 million addresses that responded in Nonresponse Followup in the 2010 Census, administrative records matched to 21.0 million or 89.2 percent.³ Administrative records also matched to a substantial number of persons that were in Nonresponse Followup in the 2010 Census. Of the 60.4 million persons in Nonresponse Followup in the 2010 Census, 48.0 million or 79.5 percent were in administrative records. Administrative records matched to a lower number and proportion of person-address pairs in Nonresponse Followup compared to addresses and persons. Of the 60.4 million 2010 person-address pairs in Nonresponse Followup, there were 28.7 million or 47.5 percent that matched to administrative records.

³ There are 47.2 million housing units in Nonresponse Followup according to the “2010 Census Nonresponse Followup Operations Assessment” (see Walker et al. (2012)). This number is much higher relative to the housing units in this report for several reasons. For instance, the number of Nonresponse Followup housing units in Walker et al. (2012) include vacant, deletes, and unresolved households, whereas the Nonresponse Followup housing units in this report are all occupied.

Research and improvements in record linkage, refinements of the best address model, and acquiring data that cover those most likely to be in Nonresponse Followup may enhance the person-address match between the 2010 Census and administrative records.

3. **Administrative records can assist in determining housing unit and occupancy status.** Administrative records can assist to verify whether a housing unit is a valid livable housing unit and whether it is occupied. Occupancy status results demonstrate the value of administrative records for these purposes. Of the 116.7 million occupied housing units in the 2010 Census, administrative records indicated that 96.1 million or 82.3 percent were occupied. The 2010 Census designated 15.0 million housing units as vacant, of which administrative records found that 11.4 million or 76.1 percent were not occupied. Of the 4.9 million housing units designated as deletes in the 2010 Census, administrative records indicated that 4.2 million or 85.4 percent were not occupied.⁴
4. **Administrative records can inform household population count assignment.** Administrative records had the same population count for the majority of 2010 Census housing units that matched to administrative records. Of the 116.7 million 2010 Census occupied housing units, 96.1 million matched to administrative records. Of these, 55.5 million or 57.7 percent of housing units had the same population count. When administrative records and the 2010 Census did not have the same population count, the count differed by one person for 63.7 percent of the housing units. Further research should be conducted on this universe.
5. **Acquiring additional federal, state, and commercial data can improve address, person, and demographic characteristic coverage.** Administrative data do not cover children as well as they cover adults. Also, the quality of race and Hispanic origin response data from federal and commercial sources varies considerably by race and Hispanic origin group. The Census Bureau should partner with federal agencies, state agencies, community groups, and other organizations to obtain data that contain information on children living in households, and additional race and Hispanic origin response data should be acquired, particularly for groups where the quality of race or Hispanic origin response data is low in administrative records. Obtaining data for the following groups should be a priority: Two or More Races, Native Hawaiian or Other Pacific Islander, and American Indian or Alaska Native.
6. **Administrative records can inform race and Hispanic origin determination.** For some race and Hispanic origin groups, the quality of administrative records response data was high. For instance, the White alone, Black alone, and Asian alone populations had

⁴ Deletes refer to housing units designated for deletion from the address list. Housing units may be identified as deletes for a number of reasons including being demolished, uninhabitable, or nonresidential. Counts of 2010 Census addresses designated as deletes may vary across 2010 Census Program for Evaluations and Experiments reports as a result of different data sets being used for analysis.

relatively high quality race response data in administrative records compared to other race groups. The quality of administrative records files ranged from 94.7 percent to 99.1 percent for the White alone population. The quality of federal data for the Black alone population ranged from 87.4 percent to 98.3 percent. The range was considerably lower for commercial data. For the Asian alone population, the quality of both federal and commercial data ranged from 58.0 percent to 94.1 percent. Data could also be used for other race groups from administrative records, but the quality was generally lower. Research should be conducted on how administrative records can assist with race and Hispanic origin determination for censuses and surveys.

7. **Administrative records can assist age and sex determination.** The quality of age and sex response data in administrative records is high. For sex, the quality of administrative data ranged from 94.7 percent to 100.0 percent across administrative records files. For age, in data sources that contained date of birth, the quality of administrative records ranged from 79.0 percent to 98.5 percent. Research should be conducted on how administrative data can assist with age and sex determination for censuses and surveys.
8. **Conduct additional record linkage research with the aim of improving match results for unvalidated person records.** Many improvements were made to the Person Identification Validation System to enhance the assignment of protected identification keys and master address file identification numbers to administrative records data. Continued record linkage research on the Person Identification Validation System should be conducted to further enhance the assignment of protected identification keys and master address file identification numbers to persons and addresses, potentially increasing the universe of persons and addresses that can be matched and unduplicated between censuses and surveys and administrative records. For instance, of the 308.7 million persons in the 2010 Census, 29.6 million did not receive a protected identification key. Of these, 10.3 million could not be sent through Person Identification Validation System processing because they lacked name and date of birth, and 19.3 million went through Person Identification Validation System processing but failed to receive a protected identification key. Additional research should be conducted on how to minimize this latter universe.
9. **Conduct record linkage research to improve match results for records with incomplete name and date of birth data.** Commercial data sources often lack complete name and date of birth information. Research to unduplicate these records that failed the Person Identification Validation System, and assess the quality of the data is needed. Research on how to use records that lack personally identifiable information is needed, moving the matching approach beyond validation using the Social Security Administration Numerical Identification File.

10. **Conduct record linkage research that improves person record unduplication.**
Current record linkage techniques must determine whether two people that look similar are indeed the same person or if they are two different people. Refinements on record linkage techniques will help to more accurately unduplicate person records.
11. **Develop partnerships with federal and state agencies to better understand administrative records and enhance record linkage research.** Partnering with federal and state agencies will facilitate knowledge sharing on the availability of data that could enhance record linkage processes. This knowledge sharing will also benefit administrative records research. For instance, a better understanding of how data were collected could assist in the validation and unduplication process and improve understanding of resulting linkages.
12. **Assess whether an administrative records composite improves missing data assignment.** Building an administrative records composite involves unduplicating records, assigning persons at multiple addresses to one address, and assigning one characteristic to people that have different characteristics across source files. Research should assess the quality of missing data assignment using a composite compared to using all available administrative data.
13. **Analyze linked survey data, especially the American Community Survey, to explore characteristics associated with data coverage and consistency.** Evaluating administrative records relative to the 2010 Census provided important information, at different levels of geography and by certain characteristics, about the quality and coverage of administrative data. Other evaluations using survey data such as the American Community Survey can provide additional insights because the American Community Survey has many additional characteristics that can be analyzed.

1. Introduction

Countries are increasingly adopting the use of administrative records within surveys and censuses to reduce costs. Many European countries such as Austria, Denmark, Finland, the Netherlands, Sweden, and Switzerland already use administrative records in part or entirely in their censuses (Farber and Leggieri 2002, Ralphs and Tutton 2011). Other countries such as England, Canada, Israel, and Italy are researching ways in which to use administrative records in their censuses (Ralphs and Tutton 2011).

At the Census Bureau, uses of administrative records have expanded over the years and are critical to the success of many programs including the Business Register, Intercensal Population Estimates, Local Employer Dynamics, Demographic Analysis Estimates, Small Area Income and Poverty Estimates, and Small Area Health Insurance Estimates. However, the use of administrative records has not been widely adopted within decennial census operations.

External researchers in the 1980s and the National Academies of Sciences in the mid-1990s called for research to be undertaken on the use of administrative records in decennial census operations (Alvey and Scheuren 1982, Edmonston and Schultze 1995, Steffey and Bradburn 1994). This spurred the Census Bureau to develop StARS in 1999. StARS 1999 was constructed and evaluated by Census Bureau staff, and utilized in a Census 2000 field test that simulated an administrative records census in several counties (Farber and Leggieri 2002, Berning 2003, Bye and Judson 2004). The 2010 Census Match Study builds upon and expands this research.

The 2010 Census Match Study is the first study that links administrative records to decennial census results to evaluate the quality and coverage of administrative records. This study evaluates counts and matches of addresses and persons, and persons at addresses at different levels of geography and by factors such as Hispanic origin, race, and mode of data collection. This report also evaluates the quality and coverage of Hispanic origin, race, sex, and age data in administrative records relative to the 2010 Census.

2. Background

2.1 Administrative Records in Census Programs

Many important programs at the Census Bureau utilize administrative records extensively. Administrative records are used to update the Business Register, the survey frame for the Economic Census, and most monthly, quarterly, and annual economic surveys. The Population Estimates program utilizes administrative birth and death data, as well as data from Medicare, to produce annual estimates of the U.S. population at the national, state, and county levels. Uses of these estimates include federal funding allocations and survey controls. Additionally, the Local Employment Dynamics program utilizes labor market data from states to develop critical information on employment, job creation, turnover, and earnings. Demographic Analysis

Estimates utilize administrative birth and death data, as well as data from Medicare, to assess the coverage of decennial censuses.

To help inform the administration of federal programs and the allocation of federal funds to local jurisdictions, the Small Area Income and Poverty Estimates program develops current selected income and poverty estimates for states, counties, and school districts using a combination of American Community Survey (ACS) data, administrative records, population estimates, and decennial census data. The Small Area Health Insurance Estimates program provides health insurance coverage estimates for states and counties from statistical model-based methods using survey, decennial census, and administrative data sources.

While administrative data have been incorporated into a number of important Census Bureau programs, it has not yet been highly utilized in decennial census operations. Research conducted utilizing Census 2000 results, this report, other 2010 Census Program for Evaluations and Experiments reports, and 2020 Census research will help determine the feasibility of using administrative data in decennial census operations.

2.2 Previous Household Administrative Records Research

In response to calls from external researchers and the National Academies of Science, the Census Bureau developed StARS 1999 to research the use of administrative data in decennial census operations. StARS 1999 was assembled from six administrative records sources: (1) Internal Revenue Service (IRS) Individual Income Returns, (2) IRS Information Returns, (3) Department of Housing and Urban Development (HUD) Tenant Rental Assistance Certification System (TRACS), (4) Center for Medicare and Medicaid Services (CMS) Medicare Enrollment Database (MEDB), (5) Indian Health Service (IHS) Patient Registration System, and (6) Selective Service System (SSS) Registration System (Farber and Leggieri 2002). In StARS 2000, and for subsequent years, an additional source file was added, (7) the HUD Public and Indian Housing Information Center (PIC) file.

The StARS 1999 data were assembled to test the feasibility of acquiring, validating, and unduplicating federal administrative data. The resulting files were primarily used for count comparisons relative to Census 2000 and in a Census 2000 field test called the Administrative Records Census Experiment or AREX 2000. StARS 1999 research found that address and person counts in StARS were relatively close to the counts in Census 2000 at the national level. StARS 1999 also produced counts that were similar to Census 2000 in states in the Midwest and Northeast, but there were more discrepancies with counts in the South and Southwest. Farber and Leggieri (2002) concluded that more research needed to be conducted to produce better race and ethnicity counts.

AREX 2000 investigated the possibilities of conducting an administrative records census and of using administrative records in support of a traditional census (Berning 2003). Census 2000 results for two Maryland and three Colorado counties were compared to administrative data from

StARS 1999. Nearly a one-year lag existed between the reference period of Census 2000 and several of the administrative data sources.

Count coverage of administrative data across the test counties varied according to the methodology that was used. The study also identified fewer children and more elderly people than Census 2000. Difficulties were also identified in determining the correct residence for movers. The lag between the various administrative records data reference periods and Census Day, April 1, 2000, likely contributed to these difficulties (Bye and Judson 2003).

The research on StARS 1999 and AREX 2000 provided important insights regarding the use of administrative records for decennial census operations. The 2010 Census Match Study extends the administrative records research by utilizing four additional federal files and nine commercial datasets, in addition to the data used to construct StARS. The 2010 Census Match Study also utilizes data that were close to an April 1, 2010 reference date.

3. Methodology

3.1 Data

The following sections briefly describe the federal and commercial data that were utilized in this report.

3.1.1 Federal Data from Other Agencies

Two files were used from the IRS, the Individual Income Tax Returns 1040 and Information Returns 1099. Individual Income Tax Returns provide data for individuals who file a 1040 tax return. These data include all returns received by the IRS and include the mailing address on the return (generally as of around April 15, 2010), the name and Taxpayer Identification Number (TIN) for the primary filer, and the name and TIN for any spouse and/or up to four dependents on the form. Information Returns 1099 include name, address, and TIN for individuals as reported to the IRS by financial institutions and employers on the various Information Returns (1099 forms, W2 forms, etc.).

Three files were used from HUD. The PIC data are maintained by HUD for persons participating in the public housing program and other rental assistance programs. TRACS contains data for persons receiving rental assistance and participating in other assisted housing programs through HUD. Computerized Homes Underwriting Management System (CHUMS) contains data for persons who have obtained or applied for mortgages insured under HUD/Federal Housing Administration mortgage insurance programs. These files include information such as name, address, date of birth or age, sex, race, Hispanic origin, and Social Security Number (SSN).

The 2010 Social Security Administration (SSA) Supplemental Security Record (SSR) file includes address, personal identifiers, and date of birth for Supplementary Security Income (SSI) recipients. The 2010 Census Match Study primarily used 2010 SSR files for SSI recipients and appended information on children and spouses from a separate 2011 SSR file.

The MEDB from the CMS contains Medicare enrollee data and name, address, date of birth, race, Hispanic origin, sex, and SSN. The SSS Registration File contains address and date of birth information on males, ages 18 to 25, who register with Selective Services for the purpose of creating a database which would be used in the event of a draft.

The IHS Patient Registration File contains information on American Indians or Alaska Natives (AIAN) who participate in the IHS System. Spouses and children of AIANs that are not in this race group are eligible to receive these services as well.

The National Change of Address file is maintained by the U.S. Postal Service and includes name, address, and move information such as the move date, the original address, and the new address.

Temporary Assistance for Needy Families (TANF) files include national level data for adults and children who participate or receive benefits through states' TANF programs. These files include SSN, date of birth, sex, race, Hispanic origin, and basic geographic information (state, county, and zip code). Since addresses were not included in this file, TANF is only used for the person and demographic quality and coverage sections of this report.

The Death Master File from SSA was not used in the quality and coverage analysis of administrative records relative to the 2010 Census, but assisted in processing the administrative files. It contains date of death and SSN for deaths that have been reported to SSA. Date of death information was used to help determine whether a person in administrative records was alive as of April 1, 2010.

3.1.2 2010 Census Data

The Census Edited File was used for this report. This file includes the same address and person data from the Census Unedited File along with edited demographic variables and edit and imputation flags.

3.1.3 Commercial Data

Nine data files containing identifying information and demographic characteristics were acquired from five commercial data vendors for the 2010 Census Match Study evaluation. These data are described below.⁵

⁵ Commercial data vendors are described by name in the Methodology section of this report, but all results in the Address, Person, and Person-Address sections reflect aggregated and unduplicated commercial data. License agreements with each vendor prohibit direct comparisons across companies. In the Demographic Quality and Coverage Assessment section, information about individual vendors is presented but vendor names are withheld.

The Census Bureau obtained multiple datasets from three vendors, Experian, Targus, and the Veteran Service Group of Illinois (VSGI). The Experian In-Source (INS) file contains current address, name, race, Hispanic origin, age, and sex data from credit bureau header information. The Experian End-Dated Records (EDR) file is a historical file that contains the same variables as Experian INS. The Targus Federal Consumer file contains address, name, race, Hispanic origin, age, and sex data. The Targus Pure Wireless file contains name, age, sex, and some address data. The Targus National Address File (NAF) contains addresses.

The VSGI Name and Address Resource Consumer (NAR) file contains current address, name, date of birth, race, Hispanic origin, and sex information from magazine/periodical change of address information, utility records, and other sources. The VSGI TrackerPlus (TRK) file is a historical file that contains the same variables as VSGI NAR. The VSGI race and Hispanic origin data were not used in this report, as they were at the tract level rather than at the individual level, thus quality and coverage of individual race and Hispanic origin data could not be assessed from this data source.

The InfoUSA file contains current and historical address, name, race, Hispanic origin, age, and sex data from sources such as property taxes, voter registration rolls, and telephone book white pages. The Melissa Data Base Source (Melissa) file contains address, name, and age information from credit header records, utility bills, cellular phone records, and the U.S. Postal Service.

3.1.4 Description of Data Utilized in Address, Person, and Person-Address Pairs Results Sections

All the federal and commercial data except for TANF and the Targus NAF were used in the address, person, and person-address pair result sections of this report. TANF data could not be used for the address or person-address pair evaluation as TANF did not include addresses on the file. The Targus NAF was not used for the person and person-address pair sections as the file does not contain person data.

3.1.5 Description of Data Utilized in Demographic Quality and Coverage Results Section

The demographic quality and coverage analysis used select files that contained race, Hispanic origin, age, and sex data. For race, all three HUD files, IHS, MEDB, TANF, Experian EDR, Experian INS, InfoUSA, and Targus Federal Consumer were used. The Hispanic origin analysis used all of the same files that were used for race except IHS. The sex analysis included all the files used in the race analysis plus SSS, Targus Wireless, VSGI NAR, and VSGI TRK. The age analysis included all the same files as the sex analysis plus SSR and Melissa data. In addition to these files, for all demographics, previous census records (Census 2000 and ACS 2001 to ACS 2009) and the SSA Numerical Identification File (Numident) were also evaluated. The Numident includes SSN, name, date of birth, sex, and race data for all persons who have been

assigned a SSN by the SSA. It does not include address or location information associated with records on the file, and as such it was not used in the address, person, or person-address pair results sections of this report.

The federal and commercial data do not uniformly collect and report data on Hispanic origin and race. Regarding the Numident, the SSA collected race data from 1936 to 1980 via the Social Security application based on the three categories of “White,” “Black,” and “Other.” In 1980, SSA changed its categories to “White,” “Black,” “Hispanic,” “Asian, Asian American, or Pacific Islander,” and “American Indian or Alaskan Native” in order to comply with the 1977 Office of Management and Budget (OMB) Directive 15 on Race and Ethnic Standards. The SSA then halted collecting race data when it transitioned to the Enumeration at Birth system in 1987.

The remaining federal files report race according to the OMB revised 1997 race and ethnic standards.⁶ However, unlike the Census Bureau, HUD CHUMS, HUD PIC, and TANF do not include a category for Some Other Race (SOR). While it does include this category, MEDB models its race data and does not include a category for Two or More Races.⁷ IHS differs in that it only identifies persons as AIAN and non-AIAN. The commercial files model race data and do not model more than one race for an individual.

3.2 Record Linkage

The same people and addresses are present in many of the same administrative records data sources. The administrative records files must be unduplicated in order to evaluate them relative

⁶ When collecting and tabulating data on race and ethnicity, federal agencies must adhere to guidance from the U.S. Office of Management and Budget’s (OMB) 1997 *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity*. The standards are available online at www.whitehouse.gov/omb/fedreg/1997standards.html.

OMB requires federal agencies to use a minimum of two ethnicities: Hispanic or Latino and Not Hispanic or Latino. Hispanic origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person’s parents or ancestors before their arrival in the United States. People who identify their origin as Hispanic, Latino, or Spanish may be any race. “Hispanic or Latino” refers to a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race.

OMB requires federal agencies to use a minimum of five race categories: White, Black or African American, American Indian or Alaska Native, Asian, and Native Hawaiian or Other Pacific Islander. For respondents unable to identify with any of these five race categories, OMB approved the Census Bureau’s inclusion of a sixth category, Some Other Race. The 1997 standards require federal agencies to permit respondents to self-identify with more than one race. For more information on how race was collected and tabulated in the 2010 Census please refer to Humes, K., N. Jones, and R. Ramirez. 2011. *Overview of Race and Hispanic Origin: 2010*, U.S. Census Bureau, 2010 Census Briefs, C2010BR-02, available at www.census.gov/prod/cen2010/briefs/c2010br-02.pdf.

⁷ Individuals who responded to the question on race by indicating only one race are referred to as the *race-alone* population or the group that reported only one race category. Six categories make up this population: White alone, Black or African American alone, American Indian or Alaska Native alone, Asian alone, Native Hawaiian or Other Pacific Islander alone, and Some Other Race alone. Individuals who chose more than one of the six race categories are referred to as the Two or More Races population. All respondents who indicated more than one race can be collapsed into the Two or More Races category which, combined with the six race-alone categories, yields seven mutually exclusive and exhaustive categories. Thus, the six *race-alone* categories and the Two or More Races category sum to the total population.

to the 2010 Census.⁸ Thus, unique address identifiers called master address file identification numbers (MAFIDs) and person identifiers called protected identification keys (PIKs) were assigned to administrative records through the Person Identification Validation System (PVS). To match administrative records data to the 2010 Census, MAFIDs and PIKs must be on these data sources. The 2010 Census data already had MAFIDs, therefore only PIKs were assigned to the 2010 Census through PVS. For more information on this record linkage system see Wagner and Layne (2012).

The process of assigning address identifiers starts with matching administrative data to an extract from the Census Bureau Master Address File (MAF).⁹ MAFIDs were assigned to administrative records with address data that matched to the MAF. The process of assigning PIKs to the 2010 Census and administrative data starts with matching these data to a reference file containing data on individuals.

For the assignment of PIKs, the matching software compared personally identifiable information (PII) from administrative data and the 2010 Census to PII on person reference files. The software has two primary components, and one or both of those components can be utilized depending on the characteristics available in the administrative records and 2010 Census files. The two components are “verification” and “search.” The verification module was used when the source file contained a SSN.¹⁰

Many federal administrative files contained SSNs, but the 2010 Census and most commercial data did not include SSNs. For these data sets, the search modules in the software compared name, address, and date of birth fields to the person reference file. Administrative and 2010 Census records that matched to the person reference file through either the “verification” or “search” modules were considered validated and were assigned a PIK.

3.3 Count and Match Ratios

Count and match ratios are used to evaluate the quality and coverage of administrative data relative to the 2010 Census. The count ratio is calculated by dividing the unduplicated administrative records count by the 2010 Census count and multiplying the result by 100. When the administrative records data have the same proportion of addresses, persons, or person-address

⁸ The 2010 Census also contains duplicates. Preliminary research that unduplicated the 2010 Census by PIK suggests there were 10.5 million duplicates in the 2010 Census. This is close to the official Census Coverage Measurement figures which suggest there were 8.5 million duplicates in the 2010 Census (Mule 2012). The 2010 Census Match Study report only uses the unduplicated 2010 Census for one analysis, the demographics quality analysis. Duplicates may vary by demographic group, potentially inflating quality of data for some groups while deflating quality for others. Thus, 2010 Census duplicate PIKs were removed from the demographics quality analysis.

⁹ The 2010 Census Match Study uses a Master Address File extract. For the purposes of the report, this will be referred to as the MAF. The extract used in this analysis may differ from the full Master Address File.

¹⁰ A small number of Individual Tax Identification Numbers (ITINs) were in the reference file when a PIK was assigned to 2010 Census persons. Additionally, ITINs were in the reference file when a PIK was assigned to some of the administrative data sources.

pairs as the 2010 Census, then the count ratio is 100 percent. Count ratios above 100 percent indicate a higher count in administrative records, while a ratio below 100 percent indicates a lower count in administrative records. Count ratios closer to 100 percent indicate better administrative data whereas very low and very high count ratios indicate lower quality administrative data.

The match ratio is calculated by dividing the count of 2010 Census records that match to administrative records by the 2010 Census count and multiplying the result by 100. The match ratio represents the percentage of 2010 Census addresses, persons, person-address pairs, and demographic characteristics that match to administrative records by MAFID, PIK, and PIK-MAFID, respectively.

3.4 Best Address for Person-Address Pairs

Administrative data sometimes have conflicting information regarding person-address pairs. For instance, one data source could have a person living at an address in Maryland, while another data source may have the same person living in Texas. To compare administrative records to the 2010 Census, a best address was chosen for persons with multiple addresses in administrative records.

A logistic model was utilized to select the best address for a person-address pair. For each administrative records source, the model estimated whether a particular administrative record address is the same as the 2010 Census address for each person found in both the 2010 Census and administrative records. The independent variables were 2010 Census demographic characteristics and proximity of an administrative record to April 1, 2010. Predicted values were obtained from each regression. For each person, the address associated with the highest predicted probability of having the same administrative records and 2010 Census address was selected. When demographic characteristics for a person were unavailable, the address was selected from the source with the highest overall address match rate with the 2010 Census.

There are persons at multiple addresses in the 2010 Census as well (when the same PIK appears at multiple MAFIDs), but for the person-address section these possible duplicates were kept in the 2010 Census universe.¹¹

4. Limitations

The 2010 Census Match Study included validated addresses and persons. Records lacking complete or quality data to match to the MAF or the person reference file were omitted from most analyses. The person reference file was based on the SSA Numident file which primarily includes persons with a SSN.

¹¹ The 2010 Census duplicates were retained in the count and match analyses pending further analysis on whether the pairs were true duplicates or error resulting from the probabilistic matching in the PIK assignment process.

One of the goals of the 2010 Census Match Study was to evaluate all items on the 2010 Census, including tenure and relationship to the householder. The administrative records data used in this study did not have tenure or relationship information on the files. Future research should evaluate how previous census records compare to the 2010 Census tenure and relationship data.

The majority of the federal and commercial data do not include group quarters, while the 2010 Census has housing units and group quarters. This report does not distinguish between those who live in group quarters and those who live in housing units in the 2010 Census.

5. Results

5.1 Address Count and Match

Nation

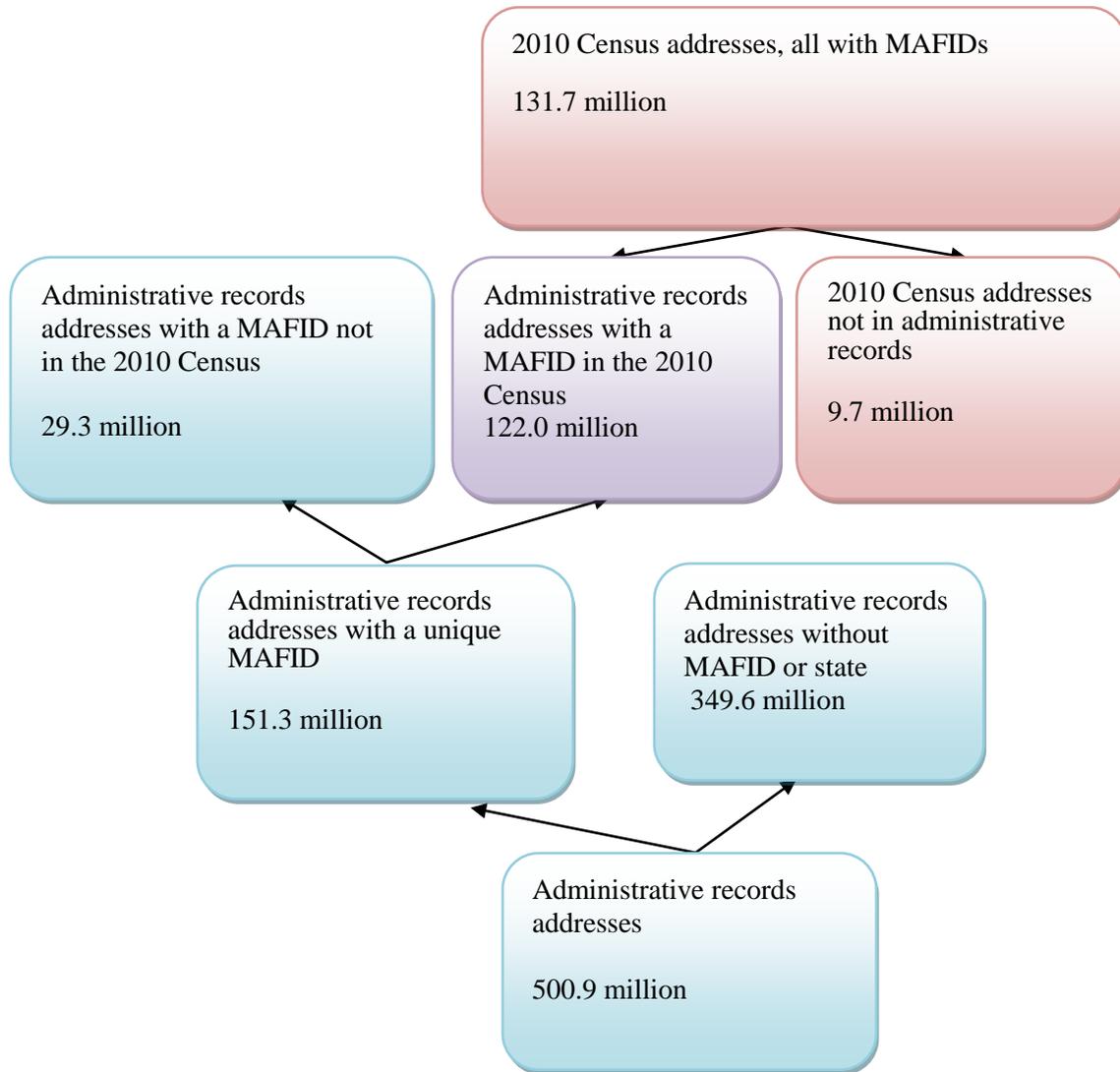
Figure 1 displays the number of addresses in the 2010 Census and administrative records. As discussed in the methodology section, MAFIDs are unique identifiers for addresses. For this report, MAFIDs facilitated address record linkage between the 2010 Census and administrative records.

There were 131.7 million occupied or vacant addresses in the 2010 Census, all of which had MAFIDs. There were 500.9 million addresses in the administrative records files. Of these, there were 151.3 million addresses that had a unique MAFID and 349.6 million addresses that did not have a MAFID. Future research will investigate unduplicating and assigning MAFIDs to administrative records addresses that do not have a MAFID.

Of the 131.7 million 2010 Census addresses, 122.0 million (92.6 percent) matched to administrative records addresses with MAFIDs. There were 29.3 million administrative records addresses with MAFIDs that were not in the 2010 Census and 9.7 million addresses that were in the 2010 Census, but not in administrative records.

There are several factors that impact the 2010 Census and administrative records address counts and matches. The 2010 Census addresses were physical locations, whereas administrative record data represented mailing addresses. For instance, there were Post Office (P.O.) Box addresses in administrative data, while the 2010 Census did not include P.O. Box addresses. Also, the 2010 Census included physical descriptions of addresses such as “yellow house near fork in the road,” which cannot be matched to administrative data. In addition, some of the commercial data utilized in this report included current and historical addresses, thus potentially containing old addresses that did not exist in April 2010.

Figure 1. Count and Match of 2010 Census and Administrative Records Addresses



Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The commercial data also included non-residential addresses. Preliminary research suggests that of the 29.3 million addresses in administrative records that were not in the 2010 Census, approximately 10.1 million may have been non-residential addresses (Schellhamer 2012). The administrative records data also could have contained addresses that were unknown to the Census Bureau such as new construction. These factors that contribute to the count and match differentials between the 2010 Census and administrative records will be examined further, contributing to research for the 2020 Census.

These results compare addresses with MAFIDs in administrative records to MAFIDs deemed “good census addresses” through 2010 Census operations. Additional research is required to

determine whether the universe of administrative records addresses could have been further refined.

Region

Table 1 shows the count and match results comparing the 2010 Census addresses to administrative records addresses by region.¹²

Table 1. 2010 Census and Administrative Records Address Count and Match Numbers and Ratios by Region

Region	2010 Census Address Count	Administrative Records Address Count	2010 Census and Administrative Records Address Match	2010 Census and Administrative Records Address Count Ratio	2010 Census and Administrative Records Address Match Ratio
Total	131,704,730	151,277,043	121,967,283	114.9	92.6
Northeast	23,647,636	26,090,251	21,410,938	110.3	90.5
Midwest	29,483,646	33,826,863	27,851,765	114.7	94.5
South	49,980,829	59,002,109	46,166,891	118.0	92.4
West	28,592,619	32,357,820	26,537,689	113.2	92.8

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

As discussed above, there were 131.7 million addresses in the 2010 Census and 151.3 million addresses in administrative records that received a MAFID, resulting in 19.6 million more addresses in administrative records relative to the 2010 Census. The address count ratio for the total population was 114.9 percent, mirroring the counts, which indicated a larger number of administrative records addresses relative to the 2010 Census.

All regions had count ratios above 110.0 percent.¹³ The South had the highest count ratio at 118.0 percent. In the South, there were 50.0 million addresses in the 2010 Census and 59.0 million in administrative records. The Midwest had the second highest count ratio (114.7 percent), where the 2010 Census count was 29.5 million and the administrative records count was 33.8 million. The count ratio for the West was 113.2 percent, and the Northeast had the lowest count ratio at 110.3 percent.

¹² Geographic variables in 2010 Census data were used to tabulate region, state, and county tables and figures throughout this report.

¹³ The Northeast census region includes Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. The Midwest census region includes Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. The South census region includes Alabama, Arkansas, Delaware, the District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. The West census region includes Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

As discussed above, the address match ratio for the total population was 92.6 percent, and all regions had a match ratio above 90.0 percent. The Midwest had the highest match ratio at 94.5 percent. Of the 29.5 million addresses in the Midwest in the 2010 Census, administrative records matched to 27.9 million. The West had the second highest match ratio (92.8 percent), followed by the South (92.4 percent). The Northeast had the lowest match ratio (90.5 percent). As demonstrated by the regional pattern of count and match ratios for addresses, these ratios do not necessarily correspond to each other. The Northeast had the lowest count and match ratios of all regions, while the South had the highest count ratio, but the second lowest match ratio.

State

Table 2 shows count ratios, match ratios, and the distribution of Type of Enumeration Area (TEA) for the ten states that have the lowest and highest count and match ratios (see Appendix 1 for 2010 Census and administrative records address count and match numbers and ratios for all states).

The state-level address count ratio ranged from 92.7 percent to 124.0 percent. Consistent with the finding that the South had the highest address count ratio relative to the other regions, many of the states with the highest count ratios are located in the South. Mississippi had the highest count ratio (124.0 percent), followed by Delaware (122.7 percent), Georgia (121.8 percent), Alabama (121.1 percent), and Louisiana (120.3 percent). All of these states are located in the South and of the ten states that had the highest count ratios, Iowa was the only one not in the South.

The state with the lowest count ratio was Alaska at 92.7 percent. This was the only state where the count ratio was below 100.0 percent. After Alaska, West Virginia (103.9 percent), Vermont (106.8 percent), Maine (106.8 percent), and New York (107.0 percent) had the next lowest state count ratios. Of the ten states that had the lowest count ratios, five were in the Northeast, four were in the West, and one was in the South. This is consistent with the regional patterns observed for count ratios, where the West and Northeast had lower count ratios relative to the South and Midwest.

Table 2. 2010 Census and Administrative Records Address Count Ratio, Match Ratio, and Type of Enumeration Area for the Ten States with the Lowest and Highest Ratios

State	Ratio	Type of Enumeration Area						
		Mailout / Mailback	Military	Remote Alaska	Remote Update Enumerate	Update Enumerate	Update / Leave	Urban Update / Leave
Lowest Count Ratios								
Alaska	92.7	63.2	2.3	9.3	1.3	0.0	23.9	0.0
West Virginia	103.9	54.9	0.0	0.0	0.0	0.0	45.1	0.0
Vermont	106.8	66.5	0.0	0.0	0.0	6.4	27.1	0.0
Maine	106.8	66.4	0.1	0.0	0.4	2.2	30.9	0.0
New York	107.0	93.9	0.1	0.0	0.0	1.9	4.1	0.0
Wyoming	107.8	51.4	0.4	0.0	0.0	4.0	44.2	0.0
New Mexico	108.0	66.6	0.4	0.0	0.0	6.4	26.5	0.0
Montana	108.3	40.6	0.2	0.0	0.0	6.3	52.9	0.0
New Hampshire	110.0	77.3	0.0	0.0	0.0	4.6	18.1	0.0
Rhode Island	110.0	98.3	0.3	0.0	0.0	0.4	1.0	0.0
Highest Count Ratios								
Mississippi	124.0	79.4	0.2	0.0	0.0	0.0	1.5	18.9
Delaware	122.7	89.4	0.4	0.0	0.0	0.0	10.3	0.0
Georgia	121.8	93.8	0.2	0.0	0.0	0.0	0.4	5.6
Alabama	121.1	88.4	0.1	0.0	0.0	1.2	0.3	9.9
Louisiana	120.3	68.9	0.3	0.0	0.0	0.0	1.3	29.5
Arkansas	118.8	66.9	0.1	0.0	0.0	0.0	33.0	0.0
Tennessee	118.6	99.6	0.1	0.0	0.0	0.3	0.0	0.1
Iowa	118.6	77.2	0.0	0.0	0.0	0.3	22.5	0.0
Texas	118.3	88.7	0.2	0.0	0.0	1.3	1.5	8.3
Florida	118.2	96.6	0.1	0.0	0.0	1.7	0.1	1.6
Lowest Match Ratios								
Alaska	70.5	63.2	2.3	9.3	1.3	0.0	23.9	0.0
West Virginia	72.8	54.9	0.0	0.0	0.0	0.0	45.1	0.0
Vermont	79.9	66.5	0.0	0.0	0.0	6.4	27.1	0.0
Maine	80.5	66.4	0.1	0.0	0.4	2.2	30.9	0.0
Montana	81.1	40.6	0.2	0.0	0.0	6.3	52.9	0.0
New Mexico	81.9	66.6	0.4	0.0	0.0	6.4	26.5	0.0
Wyoming	84.5	51.4	0.4	0.0	0.0	4.0	44.2	0.0
Hawaii	85.9	69.9	3.6	0.0	0.0	0.0	26.5	0.0
New Hampshire	87.5	77.3	0.0	0.0	0.0	4.6	18.1	0.0
Idaho	87.8	82.6	0.2	0.0	0.0	3.1	14.1	0.0
Highest Match Ratios								
Iowa	96.5	77.2	0.0	0.0	0.0	0.3	22.5	0.0
Ohio	96.1	96.7	0.0	0.0	0.0	0.0	3.3	0.0
District of Columbia	96.1	99.7	0.3	0.0	0.0	0.0	0.0	0.0
Maryland	95.8	98.4	0.3	0.0	0.0	0.0	1.4	0.0
Indiana	95.7	95.0	0.0	0.0	0.0	0.0	5.0	0.0
Kansas	95.4	80.9	0.5	0.0	0.0	0.2	18.4	0.0
California	95.4	96.5	0.2	0.0	0.0	0.9	2.2	0.1
Connecticut	95.0	99.3	0.1	0.0	0.0	0.0	0.5	0.0
Florida	94.8	96.6	0.1	0.0	0.0	1.7	0.1	1.6
Nebraska	94.6	77.1	0.3	0.0	0.0	0.4	22.3	0.0

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The state address match ratio range was 70.5 percent to 96.5 percent. The five states with the highest match ratios were in the Midwest and South. Iowa had the highest address match ratio at 96.5 percent. Ohio had the second highest match (96.1 percent), followed by the District of Columbia (96.1 percent), Maryland (95.8 percent), and Indiana (95.7 percent).¹⁴ Of the ten states that had the highest match ratios, five were in the Midwest, three in the South, and one each in the Northeast and West. Alaska (70.5 percent) had the lowest percent of addresses that matched between the 2010 Census and administrative records with MAFIDs. The following four states had the next lowest match ratios: West Virginia (72.8 percent), Vermont (79.9 percent), Maine (80.5 percent), and Montana (81.1 percent). Of the ten states with the lowest match ratios, six were in the West, three in the Northeast, and one in the South.

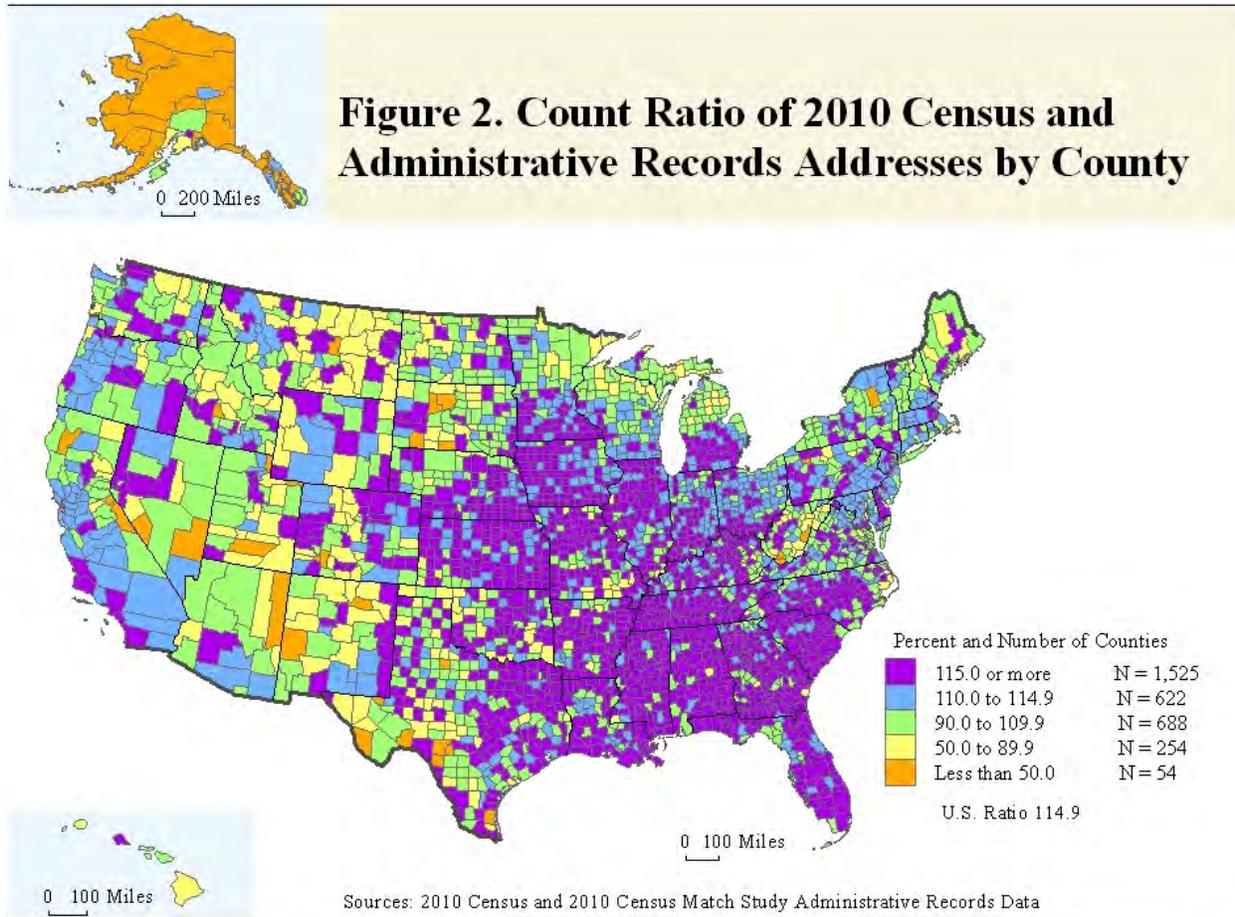
Future research will identify reasons behind geographic differences in count and match ratios. For instance, 2010 Census and administrative records address counts and matches may be in part affected by differences in city-style and rural route addresses, where city-style addresses are easier to match. TEA can be used as an indicator of city-style addresses as compared to incomplete or rural route addresses, as Mailout/Mailback TEAs tend to have more city-style addresses relative to other TEAs such as Update/Leave and Update Enumerate.¹⁵ Looking at the ten states in Table 2 with the lowest and highest count and match ratios by TEA, many of the states with the lowest count and match ratios had lower proportions of addresses designated as the Mailout/Mailback TEA relative to states with the highest count and match ratios.

County

Figure 2 shows address count ratios for the 2010 Census and administrative records by county. Green indicates counties with a count ratio that is closer to 100.0 percent, yellow and orange indicate low count ratios, and blue and purple represent high count ratios.

¹⁴ For this report, the District of Columbia is treated as a state equivalent.

¹⁵ The Census Bureau assigns a Type of Enumeration Area (TEA) value to collection blocks to assist with planning census operations for the decennial censuses. For instance, areas that have confirmed mail delivery by the U.S. Postal Service and good response rates to data collection efforts are generally assigned to a Mailout/Mailback TEA (Johanson et al. 2011). Mailout/Mailback is a data collection where forms are mailed to housing units and respondents are asked to complete their form and return by mail. Other TEAs include Update/Leave, Remote Update Enumerate, Remote Alaska, Update Enumerate, Military, and Urban Update/Leave. Update/Leave is a form of data collection where enumerators deliver questionnaires to housing units in their assignment areas and respondents are asked to complete their forms and return by mail. In Remote Update Enumerate, enumerators enumerate households; this is done in rural areas that may require special travel. Remote Alaska is a data collection method in isolated parts of Alaska where an enumerator enumerates the household. Update Enumerate is a data collection method for communities that have special needs, where an enumerator collects data from the household. Military represents areas that have military installations. Mailout/Mailback is conducted in these areas. Urban Update/Leave is a data collection method conducted in areas that have city-style addresses, but may not have good mail delivery. Enumerators leave questionnaires at housing units in their assignment areas and respondents are asked to complete and return the forms by mail. For more information on TEA delineation and definitions for the 2010 Census see Johanson et al. 2011.



Consistent with regional and state descriptive statistics, many counties in states in the South and Midwest had count ratios above 110.0 percent, indicating that administrative records had a higher number of addresses in these counties relative to the 2010 Census. In the Midwest, states or areas with a number of counties with low count ratios included North Dakota, South Dakota, northern Minnesota, northern Wisconsin, and northern Michigan. In the South, West Virginia and Texas had a number of counties with low count ratios. The West had many counties with low count ratios. For instance, many counties in Alaska, Montana, and New Mexico had low count ratios.

Table 3 shows count ratios (upper panel), match ratios (lower panel), and TEA for selected counties.

Table 3. 2010 Census and Administrative Records Address Count Ratio, Match Ratio, and Type of Enumeration Area for the Ten Counties with the Lowest and Highest Ratios

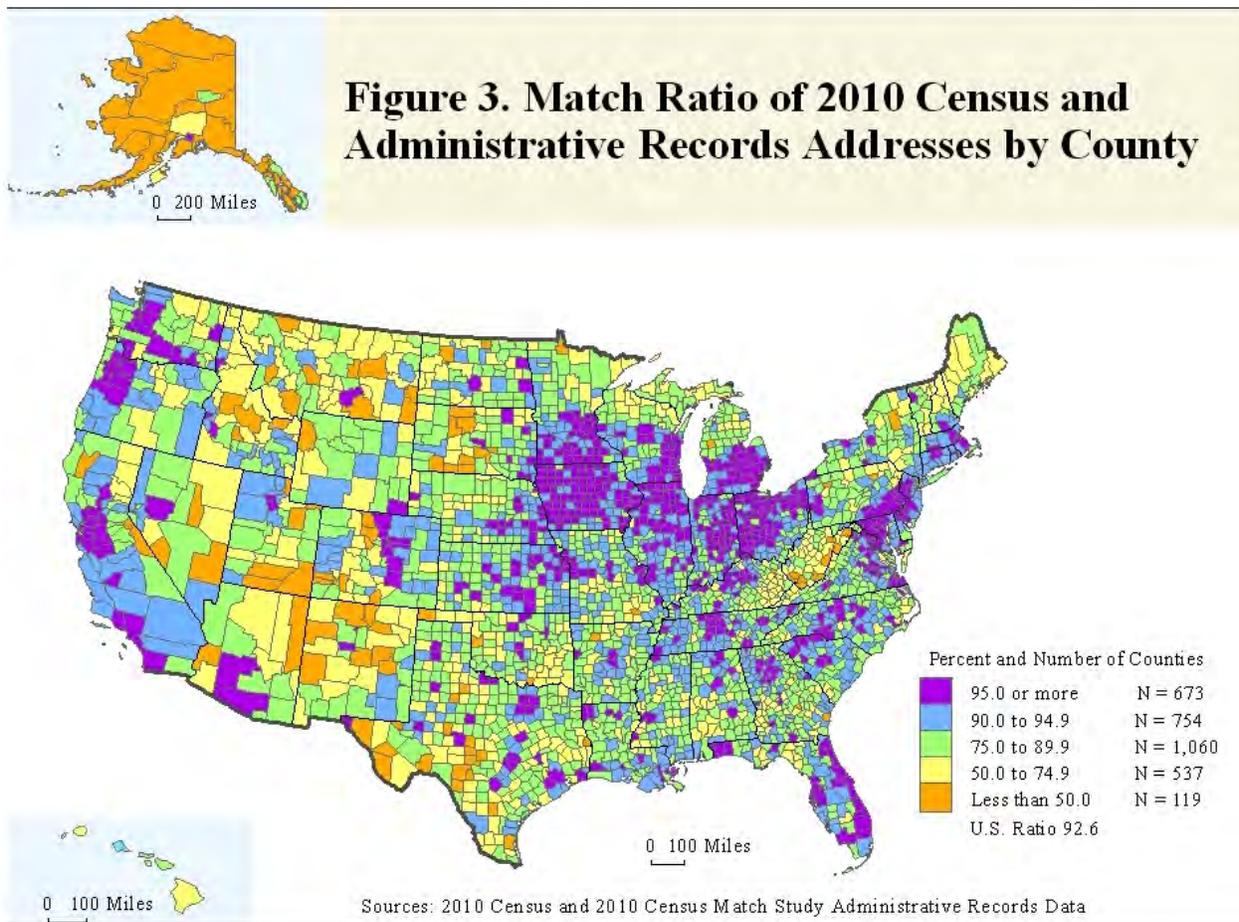
County	Ratio	Type of Enumeration Area						
		Mailout / Mailback	Military	Remote Alaska	Remote Update Enumerate	Update Enumerate	Update / Leave	Urban Update / Leave
Lowest Count Ratios								
Denali, Alaska	12.1	0.0	0.2	22.8	0.0	0.0	77.0	0.0
Yukon-Koyukuk, Alaska	12.1	0.0	0.0	100.0	0.0	0.0	0.0	0.0
Aleutians East, Alaska	14.7	0.0	0.0	50.2	0.0	0.0	49.8	0.0
Hoonah-Angoon, Alaska	15.5	0.0	0.0	0.0	21.2	0.0	78.8	0.0
Kalawao, Hawaii	15.9	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Yakutat, Alaska	16.0	0.0	0.0	0.0	14.9	0.0	85.1	0.0
Northwest Arctic, Alaska	18.4	0.0	0.0	57.1	0.0	0.0	42.9	0.0
Kenedy, Texas	19.7	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Dillingham, Alaska	20.2	0.0	0.0	56.9	0.0	0.0	43.1	0.0
Bethel, Alaska	21.2	0.0	0.0	60.1	0.0	0.0	39.9	0.0
Highest Count Ratios								
Chattahoochee, Georgia	208.2	0.0	55.6	0.0	0.0	0.0	0.0	44.4
Stephens, Georgia	207.2	66.9	0.0	0.0	0.0	0.0	0.0	33.1
Kiowa, Kansas	201.4	13.0	0.0	0.0	0.0	0.0	87.0	0.0
Hayes, Nebraska	185.3	0.0	0.0	0.0	0.0	0.0	100.0	0.0
St. Bernard, Louisiana	183.9	0.0	0.7	0.0	0.0	0.0	0.0	99.3
Warren, Georgia	180.6	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Clay, Tennessee	177.0	86.8	0.0	0.0	0.0	0.0	0.0	13.2
Houston, Tennessee	176.5	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Bleckley, Georgia	170.5	30.5	0.0	0.0	0.0	0.0	0.0	69.5
Pike, Georgia	169.7	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Lowest Match Ratios								
Denali, Alaska	8.0	0.0	0.2	22.8	0.0	0.0	77.0	0.0
Yukon-Koyukuk, Alaska	9.1	0.0	0.0	100.0	0.0	0.0	0.0	0.0
Aleutians East, Alaska	12.2	0.0	0.0	50.2	0.0	0.0	49.8	0.0
Kalawao, Hawaii	12.4	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Aleutians West, Alaska	12.8	0.0	0.0	42.7	0.0	0.0	57.3	0.0
Yakutat, Alaska	12.9	0.0	0.0	0.0	14.9	0.0	85.1	0.0
Shannon, South Dakota	13.7	0.0	0.0	0.0	0.0	100.0	0.0	0.0
Dillingham, Alaska	13.9	0.0	0.0	56.9	0.0	0.0	43.1	0.0
Haines, Alaska	14.5	0.0	0.0	0.0	0.1	0.0	99.9	0.0
Northwest Arctic, Alaska	14.9	0.0	0.0	57.1	0.0	0.0	42.9	0.0
Highest Match Ratios								
Manassas Park, Virginia	99.5	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Alexandria, Virginia	99.1	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Manassas, Virginia	98.9	100.0	0.0	0.0	0.0	0.0	0.0	0.0
St. Louis, Missouri	98.9	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Anoka, Minnesota	98.8	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Radford, Virginia	98.7	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Hampton, Virginia	98.7	99.0	1.0	0.0	0.0	0.0	0.0	0.0
Los Alamos, New Mexico	98.6	94.0	0.0	0.0	0.0	0.0	6.0	0.0
Fairfax, Virginia	98.6	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Minnehaha, South Dakota	98.6	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The count ratio range across counties was 12.1 percent to 208.2 percent. Of the ten counties with the lowest count ratios, eight were in Alaska—Denali (12.1 percent), Yukon-Koyukuk (12.1 percent), Aleutians East (14.7 percent), Hoonah-Angoon (15.5 percent), Yakutat (16.0 percent), Northwest Arctic (18.4 percent), Dillingham (20.2 percent), and Bethel (21.2 percent). Kalawao, Hawaii (15.9 percent) and Kenedy, Texas (19.7 percent) were also among the ten counties with the lowest count ratios.

The ten counties that had the highest count ratios were mainly in the South, many of them in Georgia—Chattahoochee (208.2 percent), Stephens (207.2 percent), Warren (180.6 percent), Bleckley (170.5 percent), and Pike (169.7 percent). Two counties were in Tennessee--Clay (177.0 percent) and Houston (176.5 percent). St. Bernard, Louisiana (183.9 percent) was also among the ten counties with the highest count ratios. Two counties in the Midwest, Kiowa, Kansas (201.4 percent) and Hayes, Nebraska (185.3 percent) were also among the top ten.

Figure 3 shows address match ratios by county. Purple and blue represent counties with high match ratios, while yellow and orange represent low match ratios.



A number of states in the Midwest had counties with high match ratios. The majority of counties in Iowa, Illinois, Indiana, and Ohio had match ratios that were 90.0 percent or above. Many counties in southern Minnesota, Wisconsin, and Michigan also had match ratios that were 90.0 percent or above. In the Northeast, New Jersey, southeast Pennsylvania, Connecticut, Rhode Island and Massachusetts had a number of counties with high match ratios.

Across the United States, counties near metropolitan areas tended to have high match ratios. For instance, in the West, counties near Los Angeles, California; San Francisco, California; Portland, Oregon; Seattle, Washington; and Denver, Colorado had high match ratios. In the South, counties near Houston, Texas; Austin, Texas; Little Rock, Arkansas; Birmingham, Alabama; Montgomery, Alabama; and Atlanta, Georgia had high match ratios. Many counties in western states, such as Alaska, Idaho, Montana, and New Mexico had a number of counties with low match ratios. West Virginia in the South was another state that had many counties with low match ratios.

Address match ratios for counties ranged from 8.0 percent to 99.5 percent (Table 3, bottom panel). Similar to the address count ratios for counties, eight of the ten counties with the lowest match ratios were in Alaska—Denali (8.0 percent), Yukon-Koyukuk (9.1 percent), Aleutians East (12.2 percent), Aleutians West (12.8 percent), Yakutat (12.9 percent), Dillingham (13.9 percent), Haines (14.5 percent), and Northwest Arctic (14.9 percent). Shannon, South Dakota (13.7 percent) and Kalawao, Hawaii (12.4 percent) were also among the ten counties with the lowest match ratios.

The ten counties with the highest match ratios were located in the South, Midwest and West. Six counties from Virginia were within the ten counties with the highest match ratios, Manassas Park (99.5 percent), Alexandria (99.1 percent), Manassas (98.9 percent), Radford (98.7 percent), Hampton (98.7 percent), and Fairfax (98.6 percent). Three counties in the Midwest were among the ten counties with the highest match ratios, St. Louis, Missouri (98.9 percent); Anoka, Minnesota (98.8 percent); and Minnehaha, South Dakota (98.6 percent). Los Alamos, New Mexico also had a high address match ratio (98.6 percent).

Similar to the state patterns, TEAs explain some of the count and match trends by county. Counties with the lowest count and match ratios did not have any addresses in the Mailout/Mailback TEA. Eight of the ten counties with the highest match ratios were entirely in the Mailout/Mailback TEA. At least 94.0 percent of the 2010 Census addresses in the other two counties with the highest match ratios were in Mailout/Mailback.

Federal and Commercial Data

Table 4 shows count and match ratios for the 2010 Census and federal and commercial data.

Table 4. 2010 Census and Federal and Commercial Administrative Records Address Count and Match Numbers and Ratios

Data Type	Administrative Records Address Count	2010 Census and Administrative Records Address Match	2010 Census and Administrative Records Count Ratio	2010 Census and Administrative Records Address Match Ratio
Commercial	145,635,096	119,035,878	110.6	90.4
Federal	122,680,039	110,914,836	93.1	84.2
In both Commercial and Federal	117,038,092	107,983,431	88.9	82.0

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

There were more unduplicated addresses with MAFIDs in commercial data compared to both the 2010 Census and federal data. There were 145.6 million addresses in commercial data and 122.7 million addresses in federal data. There were 117.0 million addresses that were in both commercial and federal data. Thus, 28.6 million addresses were unique to commercial data, and 5.6 million addresses were unique to federal data.

The 2010 Census-commercial and 2010 Census-federal count ratios were 110.6 percent and 93.1 percent respectively. Commercial data not only had a higher 2010 Census address count ratio relative to federal data, they also had higher 2010 Census address match ratios. Of the 131.7 million addresses in the 2010 Census, commercial addresses matched to 119.0 million or 90.4 percent. Federal data matched to 110.9 million or 84.2 percent of the 2010 Census addresses.

Type of Enumeration Area

Table 5 shows TEA address count and match ratios for the 2010 Census and administrative records.^{16, 17}

TEAs that were designated for Mailout/Mailback data collection methods, where forms were mailed to housing units and respondents were asked to complete and mail back their questionnaire, had the highest count and match ratios—Mailout/Mailback and Military TEAs. The Mailout/Mailback TEA had the second highest count ratio and highest match ratio at 114.1 percent and 94.6 percent respectively. The Military TEA had the highest count ratio and second highest match ratio at 200.5 percent and 92.8 percent respectively. These TEAs were designated for Mailout/Mailback data collection in part because they had confirmed mail delivery by the postal service and had fewer enumeration challenges (Johanson et al. 2011). These addresses were also mostly city-style addresses, which generally pose less of a matching issue relative to rural route addresses (Johanson et al. 2011).

¹⁶ Note that counts for TEA differ from “2010 Census Operational Assessment for Type of Enumeration Area Delineation” (Johanson et al. 2011) as different data sets were used.

¹⁷ Not all administrative records addresses were assigned a TEA as these may include new construction that did not exist prior to address canvassing as well as non-residential addresses which are not assigned a TEA.

Table 5. 2010 Census and Administrative Records Address Count and Match Numbers and Ratios by Type of Enumeration Area

Type of Enumeration Area	2010 Census Address Count	Administrative Records Address Count	2010 Census and Administrative Records Address Match	2010 Census and Administrative Records Address Count Ratio	2010 Census and Administrative Records Address Match Ratio
Total	131,704,730	151,277,043	121,967,283	114.9	92.6
Mailout/Mailback	119,713,726	136,634,851	113,204,798	114.1	94.6
Military	213,420	427,947	198,082	200.5	92.8
Remote Alaska	28,549	5,710	4,798	20.0	16.8
Remote Update Enumerate	6,896	2,481	1,898	36.0	27.5
Update Enumerate	1,366,883	1,149,847	875,505	84.1	64.1
Update/Leave	7,978,221	7,571,640	5,863,855	94.9	73.5
Urban Update/Leave	2,397,035	2,497,466	1,818,347	104.2	75.9
No TEA	0	2,987,101	0	-	-

Note: A “-” in tables in this report indicates a ratio where the denominator was 0.

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The Urban Update/Leave TEA had the next highest count and match ratios, but they were considerably lower than the Mailout/Mailback and Military count and match ratios. The count ratio was 104.2 percent, and the match ratio was 75.9 percent. These count and match ratios were likely lower for Urban Update/Leave relative to Mailout/Mailback and Military because this form of data collection was designated for areas where the Census Bureau believed that there were issues with accurate mail delivery (Johanson et al. 2011). For instance, this TEA included multi-unit buildings where mail was delivered at a drop point instead of individual units or communities that had city-style addresses, but where many residents had mail delivered to a P.O. Box, likely impacting the match ratios between the 2010 Census and administrative records. (Johanson et al. 2011).

The Update/Leave count ratio (94.9 percent) was lower than Urban Update/Leave, but this TEA had a similar match ratio (73.5 percent) to Urban Update/Leave. The Update Enumerate count and match ratios were 84.1 percent and 64.1 percent respectively. Update/Leave and Update Enumerate count and match ratios were likely lower than Mailout/Mailback and Military because Update/Leave was conducted in areas that typically do not have city-style addresses and in Update Enumerate many housing units may not have had a house number or street name, making these addresses difficult to match (Johanson et al. 2011).

Remote Alaska and Remote Update Enumerate had the lowest count and match ratios. The count and match ratios for Remote Update Enumerate were 36.0 percent and 27.5 percent respectively. Remote Alaska had the lowest count and match ratios at 20.0 percent and 16.8 percent respectively. Remote Alaska and Remote Update Enumerate areas were designated as such because mail was considered undeliverable, thus accounting for the low count and match ratios.

Housing Unit Type

Table 6 shows 2010 Census and administrative records address count and match ratios by housing unit type.¹⁸ Multi-unit buildings with five to nine units had the highest count ratio (145.5 percent), followed by buildings with ten to nineteen units (136.6 percent). Multi-unit buildings with 20 or more units (118.7 percent), multi-unit buildings with two to four units (115.9 percent), and single-family homes (114.2 percent) all had lower count ratios, but they were still above 100 percent. The count ratio for trailer-mobile homes was considerably lower at 88.7 percent. The category “other,” which includes boats, recreational vehicles, and vans had the lowest count ratio at 49.4 percent.

Table 6. 2010 Census and Administrative Records Address Count and Match Numbers and Ratios by Housing Unit Type

Housing Unit Type	2010 Census Address Count	Administrative Records Address Count	2010 Census and Administrative Records Address Match	2010 Census and Administrative Records Address Count Ratio	2010 Census and Administrative Records Address Match Ratio
Total	131,704,730	151,277,043	121,967,283	114.9	92.6
Multi-unit building – 2 to 4 units	7,412,416	8,590,969	5,902,065	115.9	79.6
Multi-unit building – 5 to 9 units	3,807,849	5,540,284	3,529,097	145.5	92.7
Multi-unit building – 10 to 19 units	4,069,731	5,559,212	3,814,398	136.6	93.7
Multi-unit building – 20 or more units	14,184,728	16,838,161	13,137,945	118.7	92.6
Other - boat, recreation vehicle, van, etc.	125,493	61,966	34,409	49.4	27.4
Single-family Home	94,744,173	108,158,255	89,506,322	114.2	94.5
Trailer-Mobile home	7,360,340	6,528,196	6,043,047	88.7	82.1

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Single-family homes had the highest housing type match ratio at 94.5 percent. Most of the addresses in the United States were single-family homes in the 2010 Census at 94.7 million. Of these, administrative records matched to 89.5 million. After single-family homes, the next highest matches were in multi-unit buildings with ten to nineteen units (93.7 percent), five to nine units (92.7 percent), and 20 or more units (92.6 percent), followed by trailer-mobile homes (82.1 percent).

Multi-unit buildings with two to four units (79.6 percent) had a considerably lower percentage match relative to other multi-unit building categories. This lower match may be in part due to smaller multi-unit structures having potentially more problematic addresses in some parts of the country. In some geographic areas, units are added to single units or small multi-units, and these added units may lack unit designations or mail may be delivered to one box (Virgile 2012).

¹⁸ 2010 Census and administrative records address housing unit type was assigned based on unit type designation in the MAF, the structure point permanent ID, and the number of units assigned to the MAFID in the MAF.

These types of situations would make addresses more difficult to match between administrative records and 2010 Census data.

Race and Hispanic Origin of Householder and Census Operations

Thus far, the figures and tables that have been discussed focus on the 131.7 million addresses in the 2010 Census and 151.3 million addresses in administrative records, regardless of whether they were occupied or vacant. The universe for this sub-section is occupied housing units.

Table 7 shows 2010 Census match ratios by 2010 Census race and Hispanic origin of the householder and mode of data collection. Count ratios are not included because administrative records address data did not include demographic characteristics on the householder. The occupied housing unit universe in Table 7 is 116.7 million housing units. Of the occupied housing units in the 2010 Census, administrative records matched to 110.5 million.

Note that the characteristic, mode, count imputation, and proxy data in Table 7 is from the 2010 Census, thus the Hispanic origin and race of householder analysis is not based on matched Hispanic origin and race responses in the 2010 Census and administrative records. Matched demographic response data will be evaluated in section 5.4 of this report.

The proportion of 2010 Census addresses that administrative records matched was similar for both Hispanic and non-Hispanic householders. Of the 13.5 million addresses that had a Hispanic householder, administrative records matched to 12.7 million or 94.2 percent. Of the 103.3 million addresses that had a non-Hispanic householder in the 2010 Census, administrative records matched to 97.8 million or 94.7 percent.

For race, 95.8 percent of 2010 Census addresses with a householder that reported Asian alone matched to administrative records. Of the 4.6 million addresses that had a householder that reported Asian alone, administrative records matched to 4.4 million. Addresses that had householders who reported Black alone had the next highest percentage matches at 94.9 percent, followed by White alone (94.8 percent), Two or More Races (94.3 percent), SOR alone (93.6 percent), and Native Hawaiian or Other Pacific Islander (NHPI) alone (93.5 percent). Addresses that had AIAN alone householders had a much lower match relative to the other race groups, 82.3 percent.

Table 7. 2010 Census and Administrative Records Address Match by Race and Hispanic Origin of Householder, Mode, Imputation, and Proxy

Demographic Characteristics of Householder, Mode, Count Imputation, and Proxy	2010 Census Address Count	2010 Census and Administrative Records Address Match	2010 Census and Administrative Records Address Match Ratio
Total Occupied Housing Units	116,716,292	110,504,340	94.7
Hispanic or Latino Origin			
Hispanic	13,461,366	12,681,754	94.2
Not Hispanic	103,254,926	97,822,586	94.7
Race			
White Alone	89,754,352	85,078,408	94.8
Black Alone	14,129,983	13,403,061	94.9
American Indian or Alaska Native Alone	939,707	773,742	82.3
Asian Alone	4,632,164	4,438,090	95.8
Native Hawaiian or Other Pacific Islander Alone	143,932	134,599	93.5
Some Other Race Alone	4,916,427	4,602,454	93.6
Two or More Races	2,199,727	2,073,986	94.3
Mode			
Nonresponse Followup	23,584,428	21,039,269	89.2
Mailout/Mailback	82,780,761	80,345,450	97.1
Other ¹	10,351,103	9,119,621	88.1
Count Imputation			
Not Imputed	116,282,183	110,166,897	94.7
Imputed	434,109	337,443	77.7
Proxy			
Not by Proxy	109,800,016	104,480,943	95.2
By Proxy	6,916,276	6,023,397	87.1

¹The Mode category “Other” is a residual category that includes responses that were not obtained through either Nonresponse Followup or Mailout/Mailback.

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The areas and associated TEAs where the AIAN population lives may in part be why the address match was lower in households with a householder who reported AIAN alone. For instance, only 70.2 percent of addresses where the householder was AIAN alone were in the Mailout/Mailback TEA compared to 90 percent and above for all other race groups. The match was conducted by MAFID; future research will explore whether the census addresses with high proportions of the AIAN population contained matchable addresses or physical locations.

Administrative records matched to 80.3 million or 97.1 percent of the 82.8 million 2010 Census addresses enumerated by Mailout/Mailback.¹⁹ A lower percentage of administrative records addresses matched to 2010 Census addresses in NRFU and other modes. Of the 23.6 million addresses that responded in NRFU, administrative records matched to 21.0 million or 89.2 percent. Of the approximately 434,000 addresses for which a population count was imputed, administrative records matched to approximately 337,000 or 77.7 percent. There were 6.9 million addresses that had a form of proxy response meaning that the 2010 Census response may have come from neighbors, building managers, or new households reporting on previous households. Of these, administrative records matched to 6.0 million or 87.1 percent. Since the quality of address data should not vary significantly between NRFU and Mailout/Mailback universes or between proxy and non-proxy cases, future research should further evaluate the address match ratio differences between Mailout/Mailback and NRFU and also proxy and non-proxy responses.

5.2 Person Count and Match

Nation

In this section, match ratios must be interpreted slightly differently compared to the previous section on addresses. In the address count and match section, all 2010 Census addresses had MAFIDs, therefore all of the 131.7 million addresses had the potential to be matched to administrative records with MAFIDs. This is not the case for persons, as not all persons in the 2010 Census received a unique person identifier, or PIK. This reduces the number of persons in the 2010 Census that have the potential to match to administrative records, contributing to lower match ratios for persons relative to addresses.

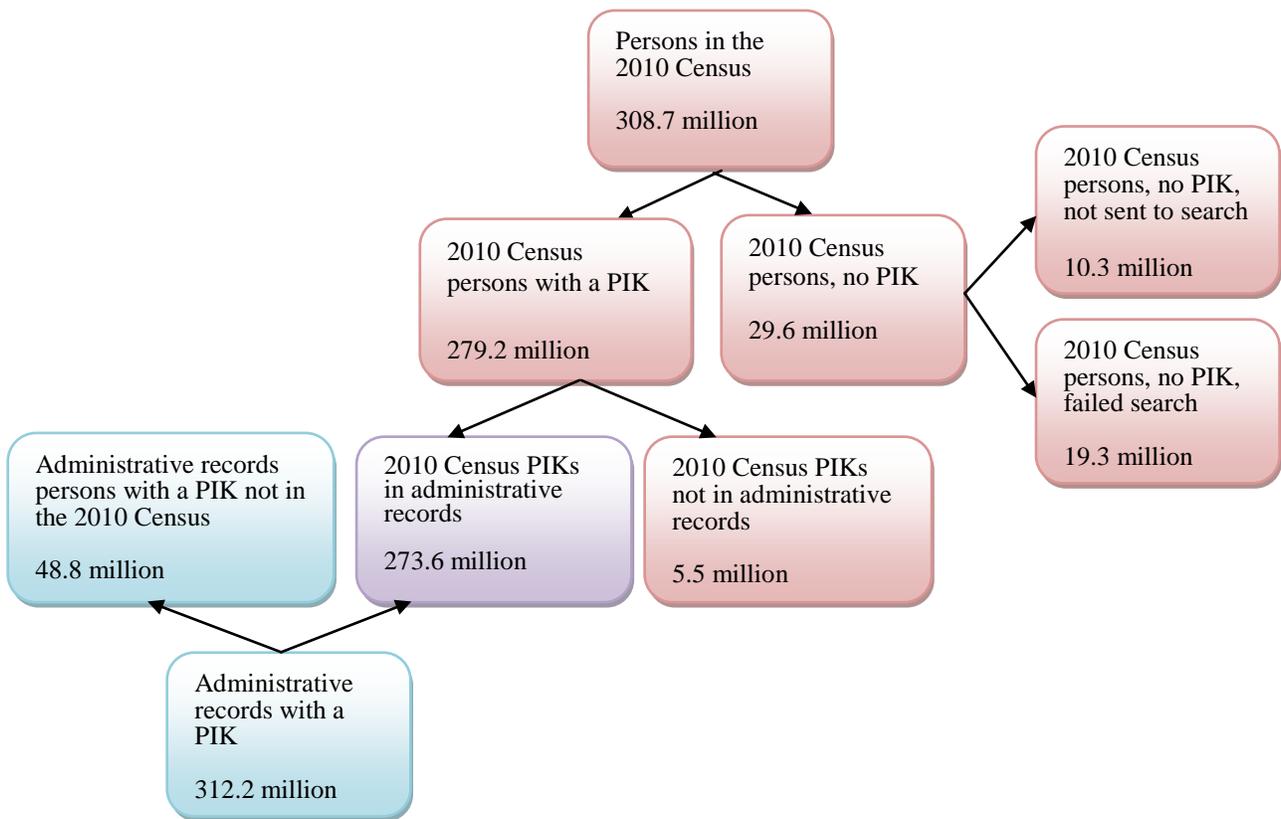
Figure 4 shows the number and match of 2010 Census and administrative records persons.²⁰ There were 308.7 million persons enumerated in the 2010 Census, 279.2 million of which had a

¹⁹ Mailout/Mailback for mode is different from Mailout/Mailback for TEA in this report, as the latter refers to collection blocks that are designated for Mailout/Mailback data collection in an effort to determine how to efficiently enumerate people living in various parts of the country, and the former refers to the mode by which the household was actually enumerated. For example, a household may be designated in a Mailout/Mailback TEA but that household may respond via Nonresponse Followup.

²⁰ The 2010 Census included duplicate PIKs whereas the administrative records contained unique PIKs. This resulted in instances where a single administrative record matched to multiple census records. Therefore, the sum of the count for persons in administrative records with a PIK not in the 2010 Census (48.8 million) and the count for 2010 Census PIKs in administrative records (273.6 million) does not equal the number of persons in administrative records with a PIK (312.2 million).

PIK. There were 312.2 million persons in administrative records that were alive on Census Day and had a PIK. Administrative records matched to the vast majority of 2010 Census PIKs, 273.6 million or 98.0 percent. The percentage of all 2010 Census persons, those with a PIK and those without, that matched to administrative records is about 10 percentage points lower at 88.6 percent. For the remainder of this section, unless otherwise specified, match ratios are based on the match of all persons in the 2010 Census relative to administrative records PIKs.

Figure 4. Count and Match of 2010 Census and Administrative Records Persons



Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

There were 29.6 million 2010 Census persons that failed the validation process and therefore did not receive a PIK, meaning that record linkage between these persons and administrative records was not possible.²¹ Of these 29.6 million persons, 10.3 million could not be sent through the PVS process as they lacked name and date of birth, and 19.3 million went through the PVS process but failed the validation process.

²¹ Future research will focus on direct matching of persons across files without validating against a reference file.

Of the 2010 Census unPIKed persons, there were 9.0 million persons whose 2010 Census response came from a form of proxy response wherein neighbors or new households reported on previous households. While many neighbors and new households may be able to provide name and date of birth information that would allow the validation of a record, other neighbors and new households were not able to provide this information adequately. There were also 1.2 million records that did not receive a PIK because the people in these households were imputed in the 2010 Census.

There were 48.8 million administrative records that were assigned a PIK but did not match to the 2010 Census. There is likely an overlap between the 29.6 million persons in the 2010 Census that did not receive a PIK and the 48.8 million persons in administrative records that received a PIK but did not match to the 2010 Census. Future research will study these two universes and their potential overlap.

There were 5.5 million 2010 Census persons with a PIK that were not in administrative records. About 4.0 million of these persons were children under the age of 17, and approximately 891,000 of these had an age of 0 in the 2010 Census. There are several reasons why this age group is less likely to be in administrative records compared to the 2010 Census. Tax data are one important source of information on children in administrative records. Therefore, how and when taxes are filed in combination with particular aspects of the tax data that the Census Bureau received from the IRS impact the coverage of children in administrative records. Children born on or after January 1, 2010 would not be claimed on 2009 taxes, therefore they may have been reported in the 2010 Census, but they would not likely be in the administrative records data used for this report. Additionally, tax forms such as 1040EZ do not collect data on dependents. There were also a number of dependents in administrative records that did not receive a PIK because there was not enough information to validate the records. Also, the IRS 1040 data used in the 2010 Census Match Study only had information on the first four dependents on a tax return, potentially limiting the number of children reported in larger households. Future research will include assessing other types of tax return data that include all dependents.

Region

Table 8 shows the 2010 Census person count, the number of PIKs in the 2010 Census, administrative records person count, the number of 2010 Census and administrative records that matched, and the 2010 Census and administrative records person count and match ratios by region.

The 2010 Census and administrative records person count ratio for the total U.S. population was 101.1 percent. All regions also had a person count ratio of about 101 percent. The Northeast and West had the same count ratio (101.4 percent). The Midwest had a slightly lower count ratio (101.1 percent), followed by the South (100.8 percent). These count ratios mirror the person

counts, where administrative records had a slightly higher count of persons relative to the 2010 Census for the total population and across all four regions.

Table 8. 2010 Census and Administrative Records Person Count and Match Numbers and Ratios by Region

	2010 Census Person Count	2010 Census Persons with a PIK	Administrative Records Person Count	2010 Census and Administrative Records Person Match	2010 Census and Administrative Records Person Count Ratio	2010 Census and Administrative Records Person Match Ratio
Total	308,745,538	279,179,329	312,214,325	273,643,411	101.1	88.6
Northeast	55,317,240	50,506,657	56,097,631	49,624,941	101.4	89.7
Midwest	66,927,001	62,498,752	67,672,118	61,340,240	101.1	91.7
South	114,555,744	102,720,450	115,504,373	100,766,768	100.8	88.0
West	71,945,553	63,453,470	72,940,203	61,911,462	101.4	86.1

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

As discussed above, 88.6 percent of all 2010 Census persons (PIKed and unPIKed) matched to administrative records. The Midwest had the highest percentage of 2010 Census persons that were PIKed (93.4 percent) and that matched to administrative records (91.7 percent). The Northeast had the second highest percentage of 2010 Census persons that were PIKed (91.3 percent) and that matched to administrative records (89.7 percent), followed by the South. The West had the lowest percentage of PIKed 2010 Census persons (88.2 percent) and 2010 Census records that matched to administrative records (86.1 percent).

State

Table 9 shows the 2010 Census person count, the number of PIKs in the 2010 Census, the administrative records person count, the number of 2010 Census and administrative records that matched, and the 2010 Census and administrative records count and match ratios by state.

The person count ratio ranged from 96.9 percent to 103.9 percent across states. Thirteen states had a count ratio below 100 percent, fifteen states had a count ratio of 100 percent, and twenty-three states had a count ratio greater than 100 percent. The states with the highest person count ratios were New Jersey (103.9 percent), Illinois (103.3 percent), Georgia (102.7 percent), California (102.4 percent), and Washington (102.4 percent). The states with the lowest person count ratios were Wyoming (96.9 percent), North Dakota (97.6 percent), Arizona (97.9 percent), Montana (98.2 percent), and New Mexico (98.3 percent). All of the regions were represented within the ten states that had the highest count ratios. Of the ten states with the lowest count ratios, half were in the West, two were in the South, two were in the Midwest, and one was in the Northeast.

Table 9. 2010 Census and Administrative Records Person Count and Match Numbers and Ratios by State

State	2010 Decennial Person Count	2010 Census Persons with a PIK	Administrative Records Person Count	2010 Census and Administrative Records Person Match	2010 Census and Administrative Records Person Count Ratio	2010 Census and Administrative Records Person Match Ratio
Total	308,745,538	279,179,329	312,214,325	273,643,411	101.1	88.6
Alabama	4,779,736	4,291,898	4,855,249	4,228,684	101.6	88.5
Alaska	710,231	640,013	716,305	635,613	100.9	89.5
Arizona	6,392,017	5,504,074	6,260,469	5,372,306	97.9	84.0
Arkansas	2,915,918	2,665,171	2,903,339	2,621,373	99.6	89.9
California	37,253,956	32,518,962	38,160,772	31,603,657	102.4	84.8
Colorado	5,029,196	4,482,335	5,039,949	4,391,915	100.2	87.3
Connecticut	3,574,097	3,307,240	3,608,268	3,253,223	101.0	91.0
Delaware	897,934	809,132	912,088	796,215	101.6	88.7
District of Columbia	601,723	522,688	606,137	511,746	100.7	85.0
Florida	18,801,310	16,800,443	19,008,662	16,493,170	101.1	87.7
Georgia	9,687,653	8,520,330	9,945,565	8,335,517	102.7	86.0
Hawaii	1,360,301	1,206,191	1,371,877	1,182,070	100.9	86.9
Idaho	1,567,582	1,428,711	1,546,532	1,397,038	98.7	89.1
Illinois	12,830,632	11,733,482	13,255,633	11,531,040	103.3	89.9
Indiana	6,483,802	6,054,511	6,572,141	5,958,989	101.4	91.9
Iowa	3,046,355	2,889,518	3,048,064	2,851,878	100.1	93.6
Kansas	2,853,118	2,670,501	2,873,274	2,624,387	100.7	92.0
Kentucky	4,339,367	3,994,765	4,397,339	3,934,626	101.3	90.7
Louisiana	4,533,372	4,065,851	4,583,043	3,996,293	101.1	88.2
Maine	1,328,361	1,256,619	1,340,538	1,239,680	100.9	93.3
Maryland	5,773,552	5,257,560	5,880,321	5,152,768	101.8	89.2
Massachusetts	6,547,629	6,087,938	6,651,229	5,990,853	101.6	91.5
Michigan	9,883,640	9,883,640	9,804,204	8,908,584	99.2	90.1
Minnesota	5,303,925	5,016,847	5,348,667	4,947,694	100.8	93.3
Mississippi	2,967,297	2,703,142	3,004,903	2,658,172	101.3	89.6
Missouri	5,988,927	5,578,535	5,987,199	5,493,569	100.0	91.7
Montana	989,415	902,296	971,295	890,441	98.2	90.0
Nebraska	1,826,341	1,705,041	1,832,976	1,681,487	100.4	92.1
Nevada	2,700,551	2,305,111	2,744,855	2,253,127	101.6	83.4
New Hampshire	1,316,470	1,244,718	1,335,435	1,228,380	101.4	93.3
New Jersey	8,791,894	7,976,238	9,138,823	7,836,027	103.9	89.1
New Mexico	2,059,179	1,783,742	2,023,747	1,749,475	98.3	85.0
New York	19,378,102	17,178,954	19,565,132	16,829,755	101.0	86.8
North Carolina	9,535,483	8,531,921	9,509,731	8,381,227	99.7	87.9
North Dakota	672,591	639,442	656,192	632,637	97.6	94.1
Ohio	11,536,504	10,811,996	11,740,953	10,654,439	101.8	92.4
Oklahoma	3,751,351	3,401,933	3,763,742	3,344,268	100.3	89.1
Oregon	3,831,074	3,485,866	3,868,850	3,422,049	101.0	89.3
Pennsylvania	12,702,379	11,893,542	12,779,595	11,704,799	100.6	92.1
Rhode Island	1,052,567	965,728	1,057,920	953,304	100.5	90.6
South Carolina	4,625,364	4,212,922	4,606,817	4,143,006	99.6	89.6
South Dakota	814,180	755,176	813,677	746,041	99.9	91.6
Tennessee	6,346,105	5,794,732	6,441,396	5,706,995	101.5	89.9
Texas	25,145,561	22,128,264	25,173,066	21,598,531	100.1	85.9
Utah	2,763,885	2,551,307	2,804,835	2,481,704	101.5	89.8
Vermont	625,741	595,680	620,691	588,920	99.2	94.1
Virginia	8,001,024	7,335,606	8,085,475	7,206,853	101.1	90.1
Washington	6,724,540	6,133,267	6,884,715	6,028,786	102.4	89.7
West Virginia	1,852,994	1,684,092	1,827,500	1,657,324	98.6	89.4
Wisconsin	5,686,986	5,379,630	5,739,138	5,309,495	100.9	93.4
Wyoming	563,626	511,595	546,002	503,281	96.9	89.3

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

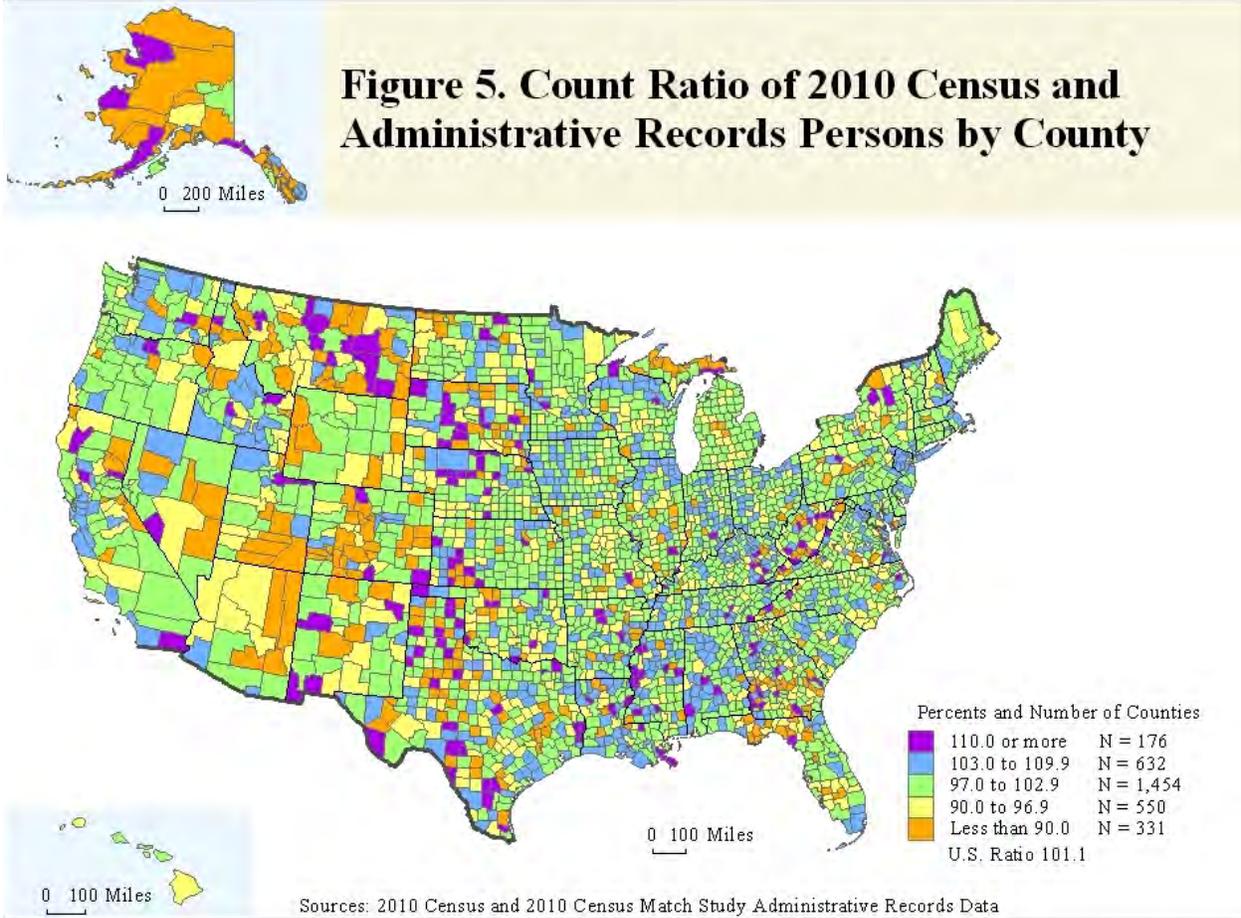
The match ratios ranged from 83.4 percent to 94.1 percent across states. Thirty states had match ratios below 90 percent and twenty-one states had match ratios at 90 percent or above. The states with the highest match ratios were Vermont (94.1 percent), North Dakota (94.1 percent), Iowa (93.6 percent), Wisconsin (93.4 percent), and Maine (93.3 percent). The states with the lowest match ratios were Nevada (83.4 percent), Arizona (84.0 percent), California (84.8 percent), New Mexico (85.0 percent), and the District of Columbia (85.0 percent). Of the ten states that had the highest percentages of 2010 Census and administrative records that matched, six were in the Midwest and four were in the Northeast. Of the ten states that had the lowest percentages of 2010 Census and administrative records that matched, six were in the West, three were in the South, and one was in the Northeast. These results are consistent with the region results, where the Midwest and Northeast had higher match ratios than the South and West.

County

For administrative records, the universe for this sub-section on counties is persons that had information on county of residence. This is slightly lower than the total number of people with PIKs in administrative records because some data sources provided state but not sub-state geographic information. Therefore, there are about 46,000 fewer persons in administrative records represented in this section relative to other sub-sections within the person count and match section.

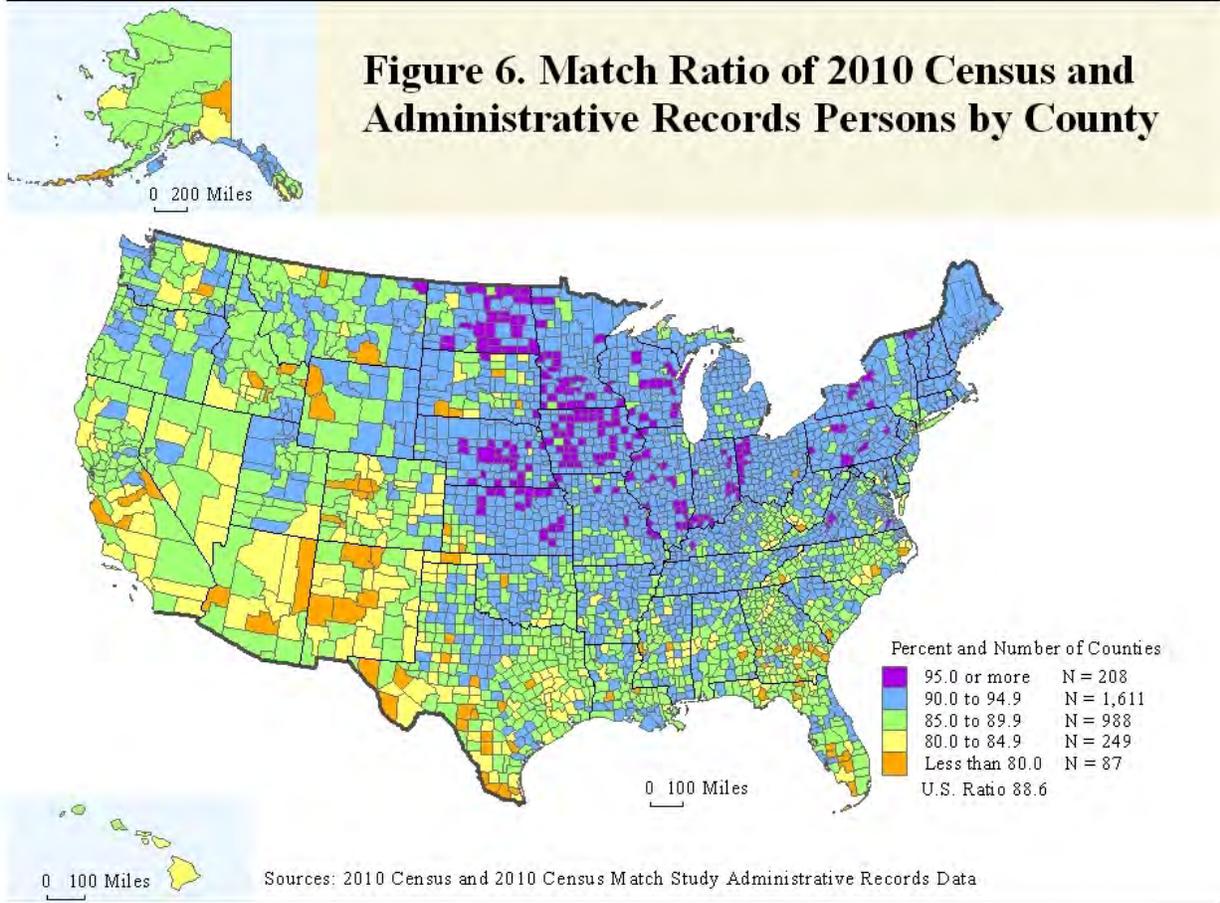
Figure 5 shows person count ratios for the 2010 Census and administrative records by county. Green indicates counties with a count ratio that is closer to 100 percent, yellow and orange indicate low count ratios, and blue and purple represent high count ratios. This map is different from the patterns observed with address county count ratios, where there was a discernible regional and state pattern. This map shows that there were 1,454 counties, almost half of all counties, that had a count ratio close to 100.0 percent and they were distributed relatively evenly across the United States. This is consistent with regional patterns where all region count ratios were similar to the United States count ratio of 101.0 percent.

The person count ratio range across counties was 48.6 percent to 355.2 percent. Of the ten counties with the lowest person count ratios, seven were in the West and three were in the South. Four of the counties in the West were in Colorado: Crowley (48.6 percent), San Juan (58.1 percent), Broomfield (63.4 percent), and Grand (66.2 percent). Three of the counties were in Alaska: Aleutians West (52.3 percent), Wrangell (57.5 percent), and North Slope (58.0 percent). The three counties that were in the South were all in Virginia—Radford (62.5 percent), Lexington (63.8 percent), and Williamsburg (66.5 percent).



Of the ten counties with the highest person count ratios, five were in the West, three in the Midwest, and two in the South. The five counties in the West were Bristol Bay, Alaska (355.2 percent); Lake and Peninsula, Alaska (335.5 percent); Kalawao, Hawaii (332.2 percent); Gilliam, Oregon (266.2 percent); and Sierra, California (209.8 percent). The three counties in the Midwest were Lane, Kansas (251.0 percent); Blaine, Nebraska (216.1 percent); and Hardin, Illinois (185.5 percent). The two counties in the South were McMullen, Texas (325.2 percent) and Roberts, Texas (199.9 percent).

Figure 6 shows 2010 Census and administrative records match ratios by county. Purple represents the counties with highest percent match, followed by blue. Green and yellow represent counties with mid-range match ratios, while orange represents low match ratios.



The person match ratio ranged from 59.4 percent to 97.1 percent across all counties. All states in the Midwest had counties with match ratios of 95.0 percent or above. Three states in the Northeast had counties with match ratios of 95.0 percent or above—Pennsylvania, New York, and Vermont. In the South, two states had counties with match ratios of 95 percent or above—Kentucky and Virginia. The only state in the West that had a county with a match ratio of 95.0 percent or above was Montana. The Midwestern and Northeastern states also had many counties that had match ratios between 90.0 percent and 94.9 percent. Many Southern states also had counties in this range, but less so compared to the Midwest and Northeast. All states in the West, except for Arizona and Hawaii, had at least one county that had a match ratio above 90.0 percent. The majority of counties that had match ratios below 80.0 percent were located in the West and South.

Of the ten counties that had the highest match ratios, nine were in the Midwest and one was in the Northeast. Two were in North Dakota: Foster (97.1 percent) and Emmons (96.6 percent). Two were in Kansas: Republic (96.9 percent) and Marshall (96.6 percent). Two were in Nebraska: Boone (96.9 percent) and Hooker (96.6 percent). Two were in Minnesota: Brown (96.8 percent) and Pope (96.6 percent). The remaining Midwestern county was Carroll, Iowa (96.7 percent). The county in the Northeast was Elk, Pennsylvania (96.8 percent).

Of the counties that had the lowest match ratios, eight of them were in the South. Four were in Texas: Garza (59.4 percent), Concho (60.2 percent), La Salle (63.4 percent), and Reeves (68.3 percent). Two were in Georgia: Stewart (68.4 percent) and Telfair (71.5 percent). The other two counties in the South were in Glades, Florida (70.4 percent) and Issaquena, Mississippi (71.1 percent). Kalawao, Hawaii (70.0 percent) and Shannon, South Dakota (70.3 percent) also were among the ten counties with the lowest match ratios.

The upper and lower bounds of the address count ratio range (12.1 percent to 208.2 percent) were considerably lower than the person count ratio range. The lower bound of the address match ratio range (8.0 percent) was sizably lower than the lower bound for the person match ratio range. Further research should investigate these differences.

Federal and Commercial Data

Table 10 shows person count and match ratios for the 2010 Census and federal and commercial data. In contrast to the federal and commercial address results, federal data had a higher number of persons and higher 2010 Census count and match ratios relative to commercial data. There were 302.2 million persons in the federal administrative records data and 222.0 million persons in the commercial data. The corresponding 2010 Census count ratios were 97.9 percent for federal data and 71.9 percent for commercial data. The match ratio for federal data was 87.4 percent compared to 64.6 percent for commercial data.

Table 10. 2010 Census and Federal and Commercial Administrative Records Person Count and Match Numbers and Ratios

Data Type	Administrative Records Person Count	2010 Census and Administrative Records Person Count Ratio	2010 Census and Administrative Records Person Match Ratio
Commercial	222,021,125	71.9	64.6
Federal	302,191,874	97.9	87.4
In both Commercial and Federal	211,998,674	68.7	63.4

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

There were 212.0 million persons that were in both federal and commercial data. There were a large number of persons that were only found in either commercial data or federal data. However, there were substantially more persons that were only in federal data. There were 10.0 million validated persons that were in commercial data but not in federal data. There were 90.2 million persons that were in federal data but not in commercial data.

Type of Enumeration Area

Table 11 shows 2010 Census and administrative records count and match ratios by TEA.

Table 11. 2010 Census and Administrative Records Person Count and Match Numbers and Ratios by Type of Enumeration Area

Type of Enumeration Area	2010 Census Person Count	Administrative Records Person Count	2010 Census and Administrative Records Person Match	2010 Census and Administrative Records Person Count Ratio	2010 Census and Administrative Records Person Match Ratio
Total	308,745,538	312,214,325	273,643,411	101.1	88.6
Mailout/Mailback	284,908,805	285,001,805	252,750,046	100.0	88.7
Military	922,712	869,278	797,116	94.2	86.4
Remote Alaska	60,261	55,291	51,203	91.8	85.0
Remote Update Enumerate	6,411	5,595	4,605	87.3	71.8
Update Enumerate	2,103,424	2,004,466	1,713,349	95.3	81.5
Update/Leave	15,636,992	14,834,417	13,936,170	94.9	89.1
Urban Update/Leave	5,106,933	4,820,539	4,390,922	94.4	86.0
No TEA	0	4,622,934	0	-	-

Note: A “-” indicates a ratio where the denominator was 0.

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

TEA count ratios for persons were higher than for addresses, and the range across TEAs showed less variation. This was to be expected given that TEA is defined by address characteristics, thus it is less likely to affect person counts. The range of TEA count ratios for addresses was 20.0 percent to 200.5 percent, while the TEA count ratio range for persons was 87.3 percent to 100.0 percent. Mailout/Mailback had a count ratio equal to 100.0 percent. There were 284.9 million people in the Mailout/Mailback TEA in the 2010 Census and 285.0 million in administrative records. Update Enumerate had the next highest count ratio (95.3 percent), followed by Update/Leave (94.9 percent), Urban Update/Leave (94.4 percent), and Military (94.2 percent) all of which had count ratios of about 95.0 percent. Remote Alaska had a slightly lower count ratio at 91.8 percent and Remote Update Enumerate had the lowest count ratio (87.3 percent).

The person match ratio also varied less than the address match ratio. The TEA address match ratio ranged from 16.8 percent to 94.6 percent, while the TEA person match ratio ranged from 71.8 percent to 89.1 percent. All TEAs except Remote Update Enumerate had a match ratio above 80.0 percent. Except for Mailout/Mailback and Military TEAs, the person match ratios were higher than the corresponding address match ratios. Update/Leave had the highest match ratio (89.1 percent), followed by Mailout/Mailback (88.7 percent), Military (86.4 percent), Urban Update/Leave (86.0 percent), and Remote Alaska (85.0 percent). The match ratio for Update Enumerate was slightly lower (81.5 percent), and Remote Update Enumerate had the lowest match ratio (71.8 percent).

Demographic Characteristics, Mode, and Proxy

Table 12 shows the number and percentage of PIKs in the 2010 Census and the 2010 Census/administrative records match by demographic characteristics, mode, and proxy.

Table 12. 2010 Census and Administrative Records Person Match by Demographic Characteristics, Mode, and Proxy

Demographic Characteristics, Mode, and Proxy	2010 Census Person Count	2010 Census Persons with a PIK						2010 Census Persons without a PIK	
		Total		2010 Census with a PIK not in Administrative Records		2010 Census and Administrative Records Person Match			
		Number	Number	Percent	Number	Percent	Number	Percent	Number
Total Population	308,745,538	279,179,329	90.4	5,535,918	1.8	273,643,411	88.6	29,566,209	9.6
Hispanic or Latino Origin									
Hispanic	50,477,594	40,554,012	80.3	1,602,206	3.2	38,951,806	77.2	9,923,582	19.7
Not Hispanic	258,267,944	238,625,317	92.4	3,933,712	1.6	234,691,605	90.9	19,642,627	7.6
Race									
White Alone	223,553,254	206,571,803	92.4	3,404,942	1.5	203,166,861	90.9	16,981,451	7.6
Black Alone	38,929,315	34,328,279	88.2	796,386	2.0	33,531,893	86.1	4,601,036	11.8
American Indian or Alaska Native Alone	2,932,370	2,542,640	86.7	45,712	1.6	2,496,928	85.2	389,730	13.3
Asian Alone	14,674,336	12,974,148	88.4	318,390	2.2	12,655,758	86.2	1,700,188	11.6
Native Hawaiian or Other Pacific Islander Alone	540,064	453,090	83.9	15,834	2.9	437,256	81.0	86,974	16.1
Some Other Race Alone	19,107,368	14,232,873	74.5	649,901	3.4	13,582,972	71.1	4,874,495	25.5
Two or More Races	9,008,831	8,076,496	89.7	304,753	3.4	7,771,743	86.3	932,335	10.3
Age									
0-2	12,019,146	10,776,958	89.7	1,337,667	11.1	9,439,291	78.5	1,242,188	10.3
3-17	62,162,321	56,554,181	91.0	2,647,192	4.3	53,906,989	86.7	5,608,140	9.0
18-24	30,646,519	26,147,233	85.3	478,323	1.6	25,668,910	83.8	4,499,286	14.7
25-44	82,123,330	72,072,154	87.8	670,314	0.8	71,401,840	86.9	10,051,176	12.2
45-64	81,499,596	75,765,796	93.0	284,406	0.3	75,481,390	92.6	5,733,800	7.0
65-74	21,727,578	20,502,704	94.4	59,034	0.3	20,443,670	94.1	1,224,874	5.6
75 and older	18,567,048	17,360,303	93.5	58,982	0.3	17,301,321	93.2	1,206,745	6.5
Sex									
Male	151,775,099	136,105,431	89.7	3,020,094	2.0	133,085,337	87.7	15,669,668	10.3
Female	156,970,439	143,073,898	91.1	2,515,824	1.6	140,558,074	89.5	13,896,541	8.9
Mode									
Nonresponse Followup	60,432,209	49,285,340	81.6	1,239,354	2.1	48,045,986	79.5	11,146,869	18.4
Mailout/Mailback	205,816,623	198,977,997	96.7	2,891,481	1.4	196,086,516	95.3	6,838,626	3.3
Other	42,496,706	30,915,992	72.7	1,405,083	3.3	29,510,909	69.4	11,580,714	27.3
Proxy									
Not by Proxy	295,163,226	274,587,574	93.0	5,463,417	1.9	269,124,157	91.2	20,575,652	7.0
By Proxy	13,582,312	4,591,755	33.8	72,501	0.5	4,519,254	33.3	8,990,557	66.2

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Note that the characteristic, mode, count imputation, and proxy data in Table 12 is from the 2010 Census, thus the Hispanic origin and race analysis is not based on matched Hispanic origin and race responses in the 2010 Census and administrative records. Matched demographic response data will be evaluated in section 5.4 of this report.

A higher percentage of the non-Hispanic population was PIKed in the 2010 Census relative to the Hispanic population. The non-Hispanic population also had a higher percentage that was in both the 2010 Census and administrative records relative to the Hispanic population. Of the 258.3 million non-Hispanics in the 2010 Census, 238.6 million or 92.4 percent were PIKed, and 234.7 million or 90.9 percent were in both the 2010 Census and administrative records.

While these results were lower for the Hispanic population, administrative records covered a substantial proportion of the Hispanic population in the 2010 Census. Of the 50.5 million Hispanics in the 2010 Census, 40.6 million or 80.3 percent were PIKed, and 39.0 million or 77.2 percent were in both the 2010 Census and administrative records.

The percentage of persons PIKed in the 2010 Census by race group ranged from 74.5 percent to 92.4 percent. The percentage of persons in the 2010 Census by race group who were also in administrative records was similar to, yet slightly lower than, the percentage PIKed in the 2010 Census, 71.1 percent to 90.9 percent.

The White alone population had the highest percentage PIKed in the 2010 Census and the highest percentage in both the 2010 Census and administrative records relative to all other race groups. Of the 223.6 million persons classified as White alone in the 2010 Census, 206.6 million or 92.4 percent were PIKed, and 203.2 million or 90.9 percent were in the 2010 Census and administrative records. The Two or More Races population had the second highest percentage PIKed in the 2010 Census and the second highest percentage also in administrative records. Of the 9.0 million persons classified as Two or More Races, 8.1 million or 89.7 percent were PIKed, and 7.8 million or 86.3 percent were in the 2010 Census and administrative records.

The Asian alone population had the third highest percentage PIKed (88.4 percent) in the 2010 Census and the third highest percentage that was in the 2010 Census and administrative records (86.2 percent), followed by the Black alone population, the AIAN alone population, and the NHPI alone population.

The SOR alone population had the lowest percentage (74.5 percent) PIKed in the 2010 Census and the lowest percentage in both the 2010 Census and administrative records (71.1 percent). This lower PIK percentage for the SOR alone population was largely driven by the Hispanic population, as 96.8 percent of those classified as SOR alone in the 2010 Census were of Hispanic origin (Humes et al. 2011).

The percentage of males PIKed in the 2010 Census was slightly lower than the percentage of females. Of the 151.8 million males in the 2010 Census, 136.1 million or 89.7 percent were PIKed, and 133.1 million or 87.7 percent were in both the 2010 Census and administrative records. Of the 157.0 million females in the 2010 Census, 143.1 million or 91.1 percent were PIKed, and 140.6 million or 89.5 percent were in both the 2010 Census and administrative records.

For age groups, the percentage PIKed in the 2010 Census ranged from 85.3 percent to 94.4 percent. The proportions in the 2010 Census and administrative records were slightly lower and ranged from 78.5 percent to 94.1 percent. Older age groups had higher proportions that were PIKed and in the 2010 Census and administrative records relative to younger age groups. The age group 65 to 74 had the highest percentage PIKed (94.4 percent) and in administrative records (94.1 percent). Of the 21.7 million persons aged 65 to 74, 20.5 million were PIKed and about the same number were found in administrative records. The age group of 75 and older had the second highest percentage PIKed (93.5 percent) and the second highest percentage in the 2010 Census and administrative records (93.2 percent). The age group 45 to 64 had the next highest percentages that were PIKed (93.0 percent) and also in administrative records (92.6 percent), followed by the age group 3 to 17 (91.0 percent and 86.7 percent). The age group 18 to 24 had the lowest percentage PIKed (85.3 percent) and the second lowest percentage in administrative records (83.8 percent).

For the age group 0 to 2, 89.7 percent were PIKed, but this age group had the lowest proportion in both the 2010 Census and administrative records at 78.5 percent. More than 11 percent of this age group was in the 2010 Census with a PIK but not in administrative records. This may be due in part to the tax filing issues discussed at the beginning of the person section. Those aged 3 to 17 were also less likely than other groups to be in both the 2010 Census and administrative records, where 4.3 percent of this age group was in the 2010 Census with a PIK but not in administrative records as compared to 1.6 percent or less for the age group 18 to 24.

A higher percentage of persons in the 2010 Census that lived in households that responded by mail were PIKed, and these persons were also more likely to be in administrative records compared to NRFU and other modes. Of the 205.8 million persons that were in households that responded by mail, 96.7 percent were PIKed and 95.3 percent were in administrative records. Of the 13.6 million proxy responses, a low percent were PIKed and were also in administrative records, about 33 percent. Of the 60.4 million persons in the 2010 Census that responded via NRFU, 49.3 million were PIKed and 48.0 million or 79.5 percent were in administrative records.

5.3 Person-Address Pair Count and Match

Nation

This section assesses administrative data relative to the 2010 Census after the best address model has been applied to select the best address for Census Day in the administrative data.²² As discussed above, the 2010 Census also has the same PIK at multiple addresses, and these duplicate person-address pairs in the 2010 Census are included in the following analysis.

Figure 7 shows the number and match of 2010 Census and administrative records person-address pairs.²³ All persons in the 2010 Census were associated with an address, thus all 2010 Census person count and PIK numbers discussed in the person count and match section are the same in Figure 7. For instance, there were 308.7 million people in the 2010 Census with an address.

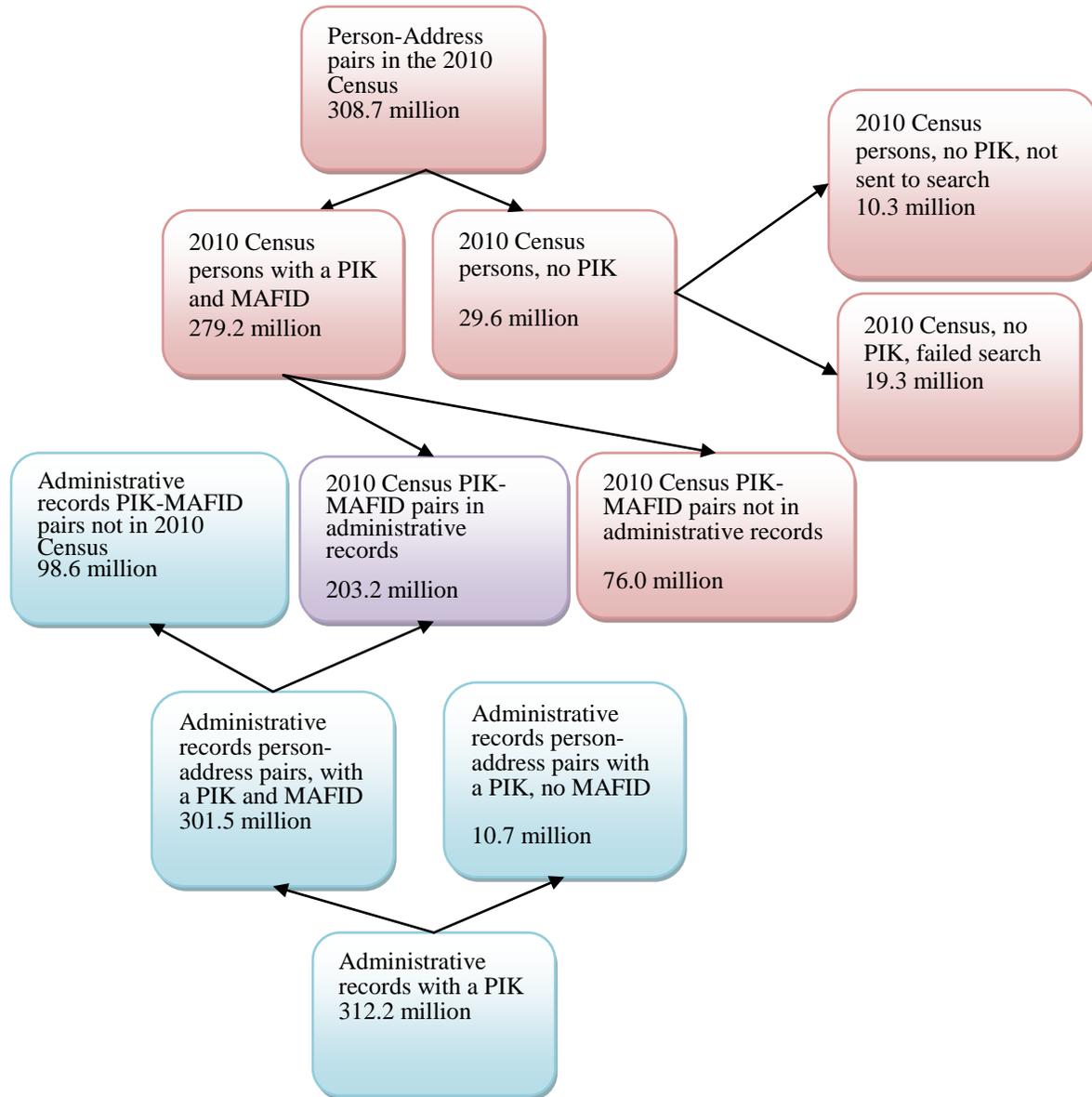
As noted in the person count and match section, there were 312.2 million persons in administrative records that had a PIK and were alive on Census Day. Of those, 301.5 million PIKed persons had one or more MAFIDs, and 10.7 million PIKed persons did not have a MAFID. Before we applied the best address model, there were 216.2 million 2010 Census person-address pairs that matched to administrative records. Of the 308.7 million persons in the 2010 Census, 70.0 percent matched to administrative records person-address pairs. Of the 279.2 million person-address pairs in the 2010 Census that had a PIK, 77.4 percent matched to administrative records person-address pairs. After applying the best address model to administrative records with multiple MAFIDs, there were 203.2 million 2010 Census person-address pairs that matched to administrative records. Of the 308.7 million persons in the 2010 Census, 65.8 percent matched to administrative records person-address pairs. Of the 279.2 million persons in the 2010 Census that had a PIK, 72.8 percent matched to administrative records person-address pairs.

There were 76.0 million 2010 Census person-address pairs with a PIK and MAFID that did not match to administrative records. There were 98.6 million administrative records person-address pairs with a PIK and MAFID that did not match to the 2010 Census.

²² The best address model was applied to the PIKs in administrative records with two or more MAFIDs. Among those PIKs with a MAFID, about 152.8 million PIKs (50.7 percent) had exactly one unique MAFID. Of those PIKs with multiple associated MAFIDs, 75.4 million (25.0 percent) had two MAFIDs, and 39.7 million (13.2 percent) had three MAFIDs. Another 19.2 million PIKs (6.4 percent) had four unique MAFIDs in the administrative records, and 8.5 million PIKs (2.8 percent) had five MAFIDs. The remaining 5.9 million PIKs with MAFIDs in the administrative records had six or more unique MAFIDs associated with them.

²³ The 2010 Census included duplicate person-address pairs whereas the administrative records contained unique person-address pairs. This resulted in instances where a single administrative record person-address pair matched to multiple census record person-address pairs. Therefore, the sum of the count for administrative records PIK-MAFID pairs not in 2010 Census (98.6 million) and the count for 2010 Census PIK-MAFID pairs in administrative records (203.2 million) does not equal the number of administrative records PIK-MAFID pairs (301.5 million).

Figure 7. Count and Match of 2010 Census and Administrative Records Person-Address Pairs



Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Region

Table 13 shows the 2010 Census person-address count, administrative records person-address count, the number of 2010 Census and administrative records person-address pairs that matched, and the 2010 Census and administrative records person-address count and match ratios by region.

Table 13. 2010 Census and Administrative Records Person-Address Count and Match Numbers and Ratios by Region

Region	2010 Census Person-Address Count	Administrative Records Person-Address Count	2010 Census and Administrative Records Person-Address Match	2010 Census and Administrative Records Person-Address Count Ratio	2010 Census and Administrative Records Person-Address Match Ratio
Total	308,745,538	301,516,209	203,157,426	97.7	65.8
Northeast	55,317,240	53,973,110	36,432,719	97.6	65.9
Midwest	66,927,001	66,094,806	47,943,123	98.8	71.6
South	114,555,744	111,709,332	73,198,676	97.5	63.9
West	71,945,553	69,738,961	45,582,908	96.9	63.4

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The person-address count ratio for the United States was 97.7 percent. Across all regions, the person-address count ratio was close to the national count ratio. The person-address count ratio was highest for the Midwest at 98.8 percent, followed by the Northeast (97.6 percent), South (97.5 percent), and West (96.9 percent).

The match ratio for the United States was substantially lower than the count ratio (65.8 percent), and this was reflected across the regions. The person-address match ratio ranking among regions was the same as for the count ratios, where the Midwest had the highest match ratio (71.6 percent), followed by the Northeast (65.9 percent), South (63.9 percent), and West (63.4 percent).

State

Table 14 shows the 2010 Census person-address count, administrative records person-address count, the number of 2010 Census and administrative records person-address pairs that matched, and the 2010 Census and administrative records person-address count and match ratios by state.

The five states that had the highest person-address count ratios were Maryland (100.4 percent), Ohio (100.1 percent), Illinois (99.9 percent), Delaware (99.3 percent), and New Jersey (99.3 percent). Of the ten states with the highest count ratios, five were in the Midwest, three in the South, and one in the West.

The five states with the lowest count ratios were Alaska (84.1 percent), Wyoming (85.2 percent), New Mexico (87.8 percent), Montana (89.2 percent), and West Virginia (91.2 percent). Of the ten states with the lowest count ratios, seven were in the West, one in the South, one in the Midwest, and one in the Northeast. These results are consistent with the region person-address count ratios, where the Midwest had the highest count ratios and the West had the lowest.

Table 14. 2010 Census and Administrative Records Person-Address Count and Match Numbers and Ratios by State

State	2010 Census Person-Address Count	Administrative Records Person-Address Count	2010 Census and Administrative Records Person-Address Match	2010 Census and Administrative Records Person-Address Count Ratio	2010 Census and Administrative Records Person-Address Match Ratio
Total	308,745,538	301,516,209	203,157,426	97.7	65.8
Alabama	4,779,736	4,680,999	2,981,411	97.9	62.4
Alaska	710,231	597,613	340,527	84.1	47.9
Arizona	6,392,017	5,882,725	3,702,602	92.0	57.9
Arkansas	2,915,918	2,769,483	1,795,591	95.0	61.6
California	37,253,956	36,895,430	23,858,501	99.0	64.0
Colorado	5,029,196	4,864,921	3,277,496	96.7	65.2
Connecticut	3,574,097	3,492,906	2,523,428	97.7	70.6
Delaware	897,934	891,639	623,461	99.3	69.4
District of Columbia	601,723	591,770	342,003	98.3	56.8
Florida	18,801,310	18,571,203	12,167,579	98.8	64.7
Georgia	9,687,653	9,548,384	5,996,844	98.6	61.9
Hawaii	1,360,301	1,253,669	741,802	92.2	54.5
Idaho	1,567,582	1,448,474	1,007,470	92.4	64.3
Illinois	12,830,632	12,822,700	8,630,674	99.9	67.3
Indiana	6,483,802	6,416,121	4,675,947	99.0	72.1
Iowa	3,046,355	2,977,126	2,266,850	97.7	74.4
Kansas	2,853,118	2,792,230	2,034,442	97.9	71.3
Kentucky	4,339,367	4,218,816	2,851,115	97.2	65.7
Louisiana	4,533,372	4,411,361	2,779,649	97.3	61.3
Maine	1,328,361	1,278,617	862,986	96.3	65.0
Maryland	5,773,552	5,794,145	4,121,327	100.4	71.4
Massachusetts	6,547,629	6,453,301	4,528,654	98.6	69.2
Michigan	9,883,640	9,667,350	7,092,248	97.8	71.8
Minnesota	5,303,925	5,245,597	4,014,818	98.9	75.7
Mississippi	2,967,297	2,857,348	1,722,241	96.3	58.0
Missouri	5,988,927	5,830,474	4,120,999	97.4	68.8
Montana	989,415	882,079	569,270	89.2	57.5
Nebraska	1,826,341	1,780,571	1,323,040	97.5	72.4
Nevada	2,700,551	2,654,172	1,616,682	98.3	59.9
New Hampshire	1,316,470	1,286,020	927,007	97.7	70.4
New Jersey	8,791,894	8,727,028	5,963,720	99.3	67.8
New Mexico	2,059,179	1,807,812	1,056,957	87.8	51.3
New York	19,378,102	18,666,689	11,472,664	96.3	59.2
North Carolina	9,535,483	9,169,433	6,191,068	96.2	64.9
North Dakota	672,591	623,567	448,212	92.7	66.6
Ohio	11,536,504	11,552,963	8,518,977	100.1	73.8
Oklahoma	3,751,351	3,577,427	2,219,125	95.4	59.2
Oregon	3,831,074	3,716,295	2,610,007	97.0	68.1
Pennsylvania	12,702,379	12,482,815	9,075,510	98.3	71.4
Rhode Island	1,052,567	1,005,285	692,881	95.5	65.8
South Carolina	4,625,364	4,475,235	3,022,905	96.8	65.4
South Dakota	814,180	766,213	534,715	94.1	65.7
Tennessee	6,346,105	6,290,515	4,319,859	99.1	68.1
Texas	25,145,561	24,293,996	15,479,039	96.6	61.6
Utah	2,763,885	2,693,874	1,884,028	97.5	68.2
Vermont	625,741	580,449	385,869	92.8	61.7
Virginia	8,001,024	7,877,584	5,648,319	98.5	70.6
Washington	6,724,540	6,561,481	4,598,158	97.6	68.4
West Virginia	1,852,994	1,689,994	937,140	91.2	50.6
Wisconsin	5,686,986	5,619,894	4,282,201	98.8	75.3
Wyoming	563,626	480,416	319,408	85.2	56.7

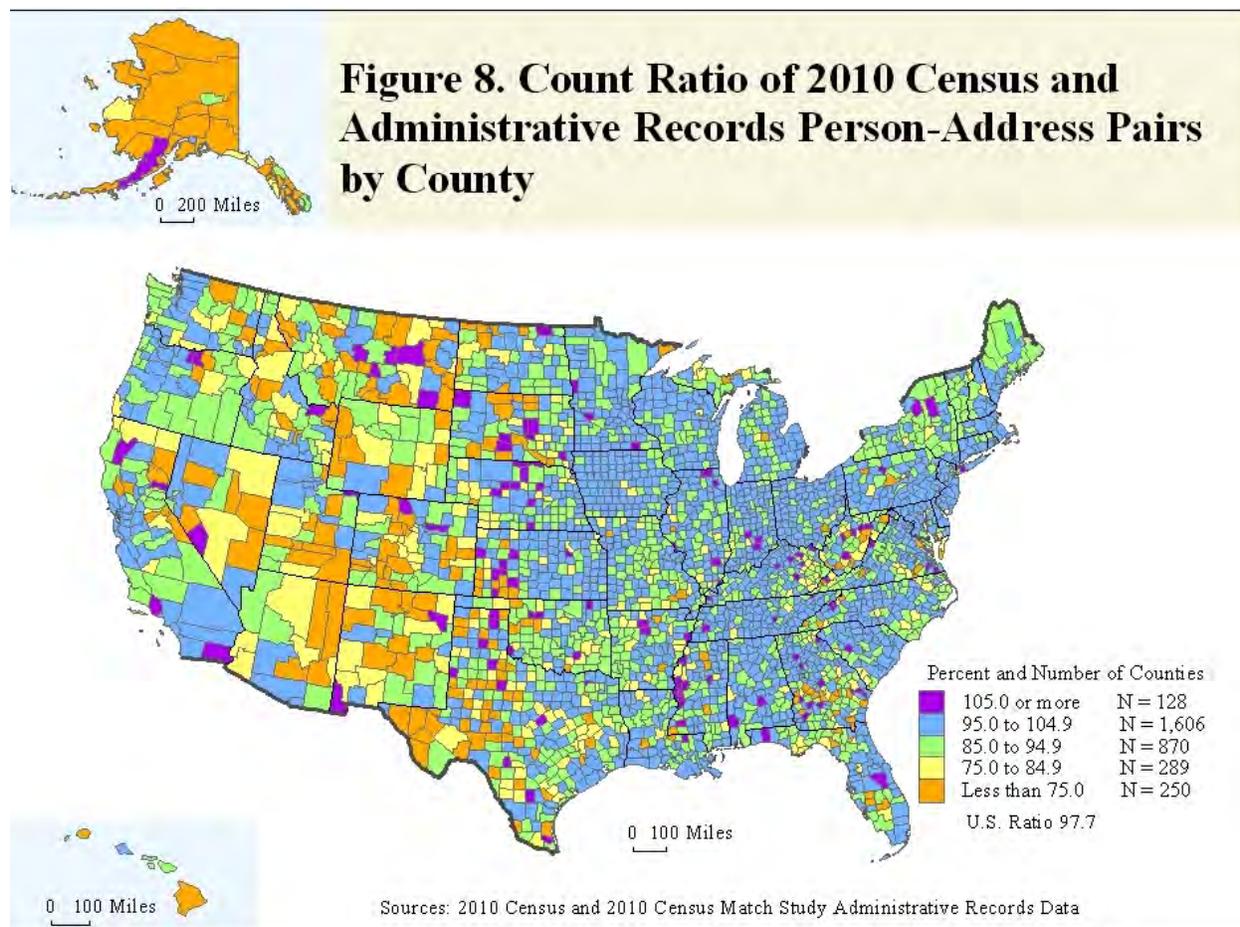
Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The five states with the highest person-address match ratios were all in the Midwest: Minnesota (75.7 percent), Wisconsin (75.3 percent), Iowa (74.4 percent), Ohio (73.8 percent), and Nebraska (72.4 percent). Of the ten states with the highest match ratios, eight were in the Midwest, one in the South, and one in the Northeast.

The five states with the lowest person-address match ratios were Alaska (47.9 percent), West Virginia (50.6 percent), New Mexico (51.3 percent), Hawaii (54.5 percent), and Wyoming (56.7 percent). Of the ten states with the lowest match ratios, six were in the West and four were in the South. Consistent with address results, states with low person-address count and match ratios tended to have fewer person-address pairs in Mailout/Mailback TEAs relative to states that had high count and match ratios.

County

Figure 8 shows the person-address count ratios by county. Blue indicates counties with a count ratio close to 100 percent.



Many states in the Midwest had counties with count ratios close to 100 percent, such as Iowa, Wisconsin, Illinois, Indiana, and Ohio. In the Northeast, a few states had counties with count

ratios around 100 percent such as Pennsylvania and New Jersey. In the South, states that had counties with count ratios around 100 percent included Maryland, Tennessee, Kentucky, Delaware, and Alabama. Many states in the West had counties with low count ratios relative to the Midwest and South. These states include Wyoming, Arizona, New Mexico, and Alaska.

Figure 9 displays person-address match ratios by county. Purple and blue indicate counties with higher match ratios, while yellow and orange represent low match ratios. States in the Midwest that had counties with high match ratios include Iowa, Minnesota, Wisconsin, Ohio, and Indiana. In the South, states such as Virginia, Maryland, and Tennessee had counties with high match ratios. In the Northeast, states with high match ratios included Pennsylvania and New Jersey. Many states in the West and South had a number of counties with low match ratios.

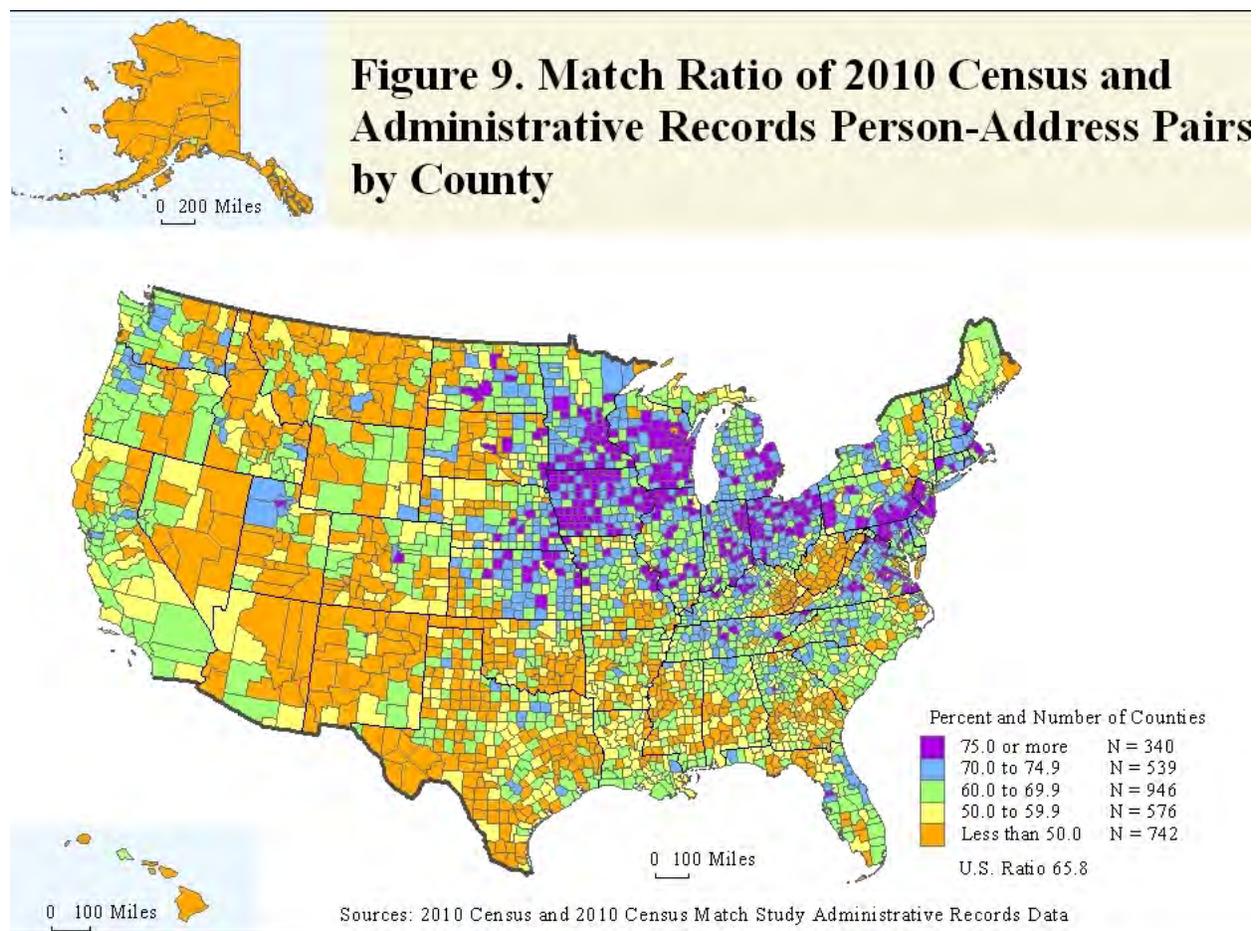


Table 15 shows count ratios, match ratios, and TEA by county. Of the ten counties in the United States that had the lowest count ratios, eight were in Alaska: North Slope (17.1 percent), Aleutians West (19.3 percent), Wrangell (21.7 percent), Bethel (25.2 percent), Nome (26.0 percent), Haines (26.3 percent), Petersburg (27.3 percent), and Yukon-Koyukuk (29.2 percent). One county in Wyoming and one county in South Dakota were also among the ten counties with the lowest count ratios, Teton (29.2 percent) and Todd (31.9 percent), respectively.

Table 15. 2010 Census and Administrative Records Person-Address Count Ratio, Match Ratio, and Type of Enumeration Area for the Ten Counties with the Lowest and Highest Ratios

County	Ratio	Type of Enumeration Area						
		Mailout / Mailback	Military	Remote Alaska	Remote Update Enumerate	Update Enumerate	Update / Leave	Urban Update / Leave
Lowest Count Ratios								
North Slope, Alaska	17.1	0.0	0.0	55.3	0.0	0.0	44.7	0.0
Aleutians West, Alaska	19.3	0.0	0.0	21.3	0.0	0.0	78.7	0.0
Wrangell, Alaska	21.7	0.0	0.0	0.0	7.0	0.0	93.0	0.0
Bethel, Alaska	25.2	0.0	0.0	64.3	0.0	0.0	35.7	0.0
Nome, Alaska	26.0	0.0	0.0	61.1	0.0	0.0	38.9	0.0
Haines, Alaska	26.3	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Petersburg, Alaska	27.3	0.0	0.0	0.0	7.4	0.0	92.6	0.0
Teton, Wyoming	29.2	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Yukon-Koyukuk, Alaska	29.2	0.0	0.0	100.0	0.0	0.0	0.0	0.0
Todd, South Dakota	31.9	0.0	0.0	0.0	0.0	100.0	0.0	0.0
Highest Count Ratios								
Kalawao, Hawaii	330.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Bristol Bay, Alaska	323.6	0.0	0.0	100.0	0.0	0.0	0.0	0.0
McMullen, Texas	300.7	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Lake and Peninsula, Alaska	296.4	0.0	0.0	100.0	0.0	0.0	0.0	0.0
Gilliam, Oregon	248.0	15.2	0.0	0.0	0.0	0.0	84.8	0.0
Lane, Kansas	232.0	17.8	0.0	0.0	0.0	0.0	82.2	0.0
Blaine, Nebraska	204.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Roberts, Texas	191.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Sierra, California	187.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Hardin, Illinois	170.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Lowest Match Ratios								
Aleutians East, Alaska	0.9	0.0	0.0	65.5	0.0	0.0	34.5	0.0
Aleutians West, Alaska	1.5	0.0	0.0	21.3	0.0	0.0	78.7	0.0
Kalawao, Hawaii	2.2	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Yukon-Koyukuk, Alaska	2.4	0.0	0.0	100.0	0.0	0.0	0.0	0.0
Shannon, South Dakota	2.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0
Yakutat, Alaska	3.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0
Northwest Arctic, Alaska	3.0	0.0	0.0	57.5	0.0	0.0	42.5	0.0
Dillingham, Alaska	3.1	0.0	0.0	51.9	0.0	0.0	48.1	0.0
Todd, South Dakota	3.4	0.0	0.0	0.0	0.0	100.0	0.0	0.0
Nome, Alaska	3.7	0.0	0.0	61.1	0.0	0.0	38.9	0.0
Highest Match Ratios								
Poquoson, Virginia	85.1	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Medina, Ohio	83.7	99.2	0.0	0.0	0.0	0.0	0.8	0.0
Ozaukee, Wisconsin	83.5	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Monroe, Illinois	83.5	95.6	0.0	0.0	0.0	0.0	4.4	0.0
Anoka, Minnesota	83.4	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Wood, Wisconsin	83.0	97.9	0.0	0.0	0.0	0.2	1.9	0.0
Washington, Wisconsin	82.9	100.0	0.0	0.0	0.0	0.0	0.0	0.0
Scott, Minnesota	82.8	99.9	0.0	0.0	0.0	0.0	0.1	0.0
Waukesha, Wisconsin	82.8	99.8	0.0	0.0	0.0	0.0	0.2	0.0
Washington, Minnesota	82.6	100.0	0.0	0.0	0.0	0.0	0.0	0.0

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Kalawao, Hawaii (330.0 percent) had the highest county count ratio, followed by Bristol Bay, Alaska (323.6 percent). Among the counties with the highest count ratios, three additional counties were in the West: Lake and Peninsula, Alaska (296.4 percent); Gilliam, Oregon (248.0 percent); and Sierra, California (187.0 percent). Two were in the South in Texas: McMullen (300.7 percent) and Roberts (191.0 percent). Three were in the Midwest: Lane, Kansas (232.0 percent); Blaine, Nebraska (204.0 percent); and Hardin, Illinois (170.0 percent).

Seven of the ten counties with the lowest match ratios were in Alaska: Aleutians East (0.9 percent), Aleutians West (1.5 percent), Yukon-Koyukuk (2.4 percent), Yakutat (3.0 percent), Northwest Arctic (3.0 percent), Dillingham (3.1 percent), and Nome (3.7 percent). Two counties were in South Dakota: Shannon (2.4 percent) and Todd (3.4 percent), and one county was in Hawaii: Kalawao (2.2 percent).

Of the ten counties with the highest match ratios, Poquoson, Virginia had the highest at 85.1 percent. The remaining nine counties were in the Midwest. Four of the counties were in Wisconsin: Ozaukee (83.5 percent), Wood (83.0 percent), Washington (82.9 percent), and Waukesha (82.8 percent). Three were in Minnesota: Anoka (83.4 percent), Scott (82.8 percent), and Washington (82.6 percent). One county was in Ohio: Medina (83.7 percent), and one county was in Illinois: Monroe (83.5 percent). For the person-address match ratios, as was observed for addresses, of the ten counties with the lowest and highest match ratios, counties that had more TEAs designated as Mailout/Mailback had higher matches. There was no discernible TEA pattern for count ratios.

Federal and Commercial Data

Table 16 shows count and match ratios for the 2010 Census and federal and commercial data.

Table 16. 2010 Census and Federal and Commercial Administrative Records Person-Address Count and Match Numbers and Ratios

Data Type	Administrative Records Person-Address Count	2010 Census and Administrative Records Person-Address Count Ratio	2010 Census and Administrative Records Person-Address Match Ratio
Commercial	219,466,721	71.1	48.8
Federal	292,328,979	94.7	65.4
In both Commercial and Federal	210,279,491	68.1	48.3

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Federal data had a higher number of person-address pairs and higher 2010 Census count and match ratios relative to commercial data. There were 292.3 million PIKs in federal data with a best address assigned in administrative records, resulting in a 2010 Census count ratio of 94.7 percent. There were 201.9 million 2010 Census records that matched to federal administrative records for a match ratio of 65.4 percent. There were 219.5 million PIKs in commercial data

with a best address assigned in administrative records, and the 2010 Census count ratio was 71.1 percent. There were 150.6 million 2010 Census records that matched commercial data for a match ratio of 48.8 percent.

There were 210.3 million person-address pairs that were found in both federal and commercial data. There were a large number of person-address pairs that were only found in either commercial data or federal data. However, similar to the person results, there were substantially more person-address pairs that were only in federal data relative to commercial data. There were 9.2 million person-address pairs that were in commercial data but not in federal data. There were 82.0 million person-address pairs that were in federal data but not in commercial data.

Type of Enumeration Area

Table 17 shows 2010 Census and administrative records person-address count and match ratios by TEA.

Table 17. 2010 Census and Administrative Records Person-Address Count and Match Numbers and Ratios by Type of Enumeration Area

Type of Enumeration Area	2010 Census Person-Address Count	Administrative Records Person-Address Count	2010 Census and Administrative Records Person-Address Match	2010 Census and Administrative Records Person-Address Count Ratio	2010 Census and Administrative Records Person-Address Match Ratio
Total	308,745,538	301,516,209	203,157,426	97.7	65.8
Mailout/Mailback	284,908,805	280,093,025	191,914,484	98.3	67.4
Military	922,712	619,979	358,116	67.2	38.8
Remote Alaska	60,261	35,019	2,902	58.1	4.8
Remote Update Enumerate	6,411	5,278	1,679	82.3	26.2
Update Enumerate	2,103,424	1,700,836	801,040	80.9	38.1
Update/Leave	15,636,992	12,922,334	7,787,827	82.6	49.8
Urban Update/Leave	5,106,933	4,210,134	2,291,378	82.4	44.9
No TEA	0	1,929,604	0	-	-

Note: A “-” indicates a ratio where the denominator was 0.

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The count ratios for TEA ranged from 58.1 percent to 98.3 percent. The Mailout/Mailback TEA had the highest count ratio at 98.3 percent, followed by Update/Leave (82.6 percent), Urban Update/Leave (82.4 percent), Remote Update Enumerate (82.3 percent), Update Enumerate (80.9 percent), Military (67.2 percent), and Remote Alaska (58.1 percent).

The match ratios were considerably lower than the count ratios. The match ratios ranged from 4.8 percent to 67.4 percent. The Mailout/Mailback (67.4 percent), Update/Leave (49.8 percent), and Urban Update/Leave (44.9 percent) TEAs had the highest match ratios; followed by Military (38.8 percent), Update Enumerate (38.1 percent), and Remote Update Enumerate (26.2 percent). Remote Alaska had the lowest match ratio at 4.8 percent.

Demographic Characteristics and Census Operations

Table 18 shows 2010 Census and administrative records person-address match ratios by race, Hispanic origin, age, sex, mode, and proxy.

Table 18. 2010 Census and Administrative Records Person-Address Match by Race, Hispanic Origin, Age, Sex, Mode, and Proxy

Demographic Characteristics, Mode, and Proxy	2010 Census Person-Address Count	2010 Census and Administrative Records Person-Address Match	2010 Census and Administrative Records Person-Address Match Ratio
Total Population	308,745,538	203,157,426	65.8
Hispanic or Latino Origin			
Hispanic	50,477,594	26,854,907	53.2
Not Hispanic	258,267,944	176,302,519	68.3
Race			
White Alone	223,553,254	155,730,544	69.7
Black Alone	38,929,315	21,472,380	55.2
American Indian or Alaska Native Alone	2,932,370	1,360,223	46.4
Asian Alone	14,674,336	9,831,674	67.0
Native Hawaiian or Other Pacific Islander Alone	540,064	287,415	53.2
Some Other Race Alone	19,107,368	9,052,400	47.4
Two or More Races	9,008,831	5,422,790	60.2
Age			
0-2	12,019,146	6,685,410	55.6
3-17	62,162,321	39,928,333	64.2
18-24	30,646,519	14,815,295	48.3
25-44	82,123,330	51,755,207	63.0
45-64	81,499,596	60,092,094	73.7
65-74	21,727,578	16,699,927	76.9
75 and older	18,567,048	13,181,160	71.0
Sex			
Male	151,775,099	97,583,770	64.3
Female	156,970,439	105,573,656	67.3
Mode			
Nonresponse Followup	60,432,209	28,721,088	47.5
Mailout/Mailback	205,816,623	158,248,584	76.9
Other	42,496,706	16,187,754	38.1
Proxy			
Not by Proxy	295,163,226	200,630,386	68.0
By Proxy	13,582,312	2,527,040	18.6

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Similar to the person results, a higher percentage of non-Hispanic person-address pairs in the 2010 Census matched to administrative records relative to Hispanics. Of the 258.3 million non-Hispanics in the 2010 Census, 176.3 million or 68.3 percent matched to administrative records person-address pairs. Of the 50.5 million Hispanics in the 2010 Census, 53.2 percent matched to administrative records person-address pairs.

The match ratio ranged from 46.4 percent to 69.7 percent across race groups. Similar to the person results, the White alone population had the highest percentage of 2010 Census records that matched to administrative records person-address pairs. Of the 223.6 million persons in the 2010 Census that were classified as White alone, 155.7 million or 69.7 percent matched to administrative records person-address pairs. The Asian alone population had the second highest match ratio at 67.0 percent, followed by the Two or More Races population (60.2 percent), the Black alone population (55.2 percent), the NHPI alone population (53.2 percent), and SOR alone population (47.4 percent). The AIAN alone population had the lowest match ratio at 46.4 percent.

The person-address match ratio ranged from 48.3 percent to 76.9 percent across age groups. The person-address results follow the same pattern as the person results for age, where match ratios were higher for the older age groups and lower for younger age groups. The age group 65 to 74 had the highest match ratio (76.9 percent), followed by those aged 45 to 64 (73.7 percent). The age group 18 to 24 had the lowest match ratio at 48.3 percent. The age group 0 to 2 had the second lowest match ratio (55.6 percent).

Consistent with the person results, the match ratios for males and females were similar, and females had a slightly higher match ratio. The match ratio for females was 67.3 percent, and the match ratio for males was 64.3 percent.

Similar to the address and person results, a larger number and percentage of 2010 Census person-address pairs that responded via Mailout/Mailback matched to administrative records compared to NRFU and other modes. Of the 205.8 million persons in the 2010 Census that responded via Mailout/Mailback, 158.2 million or 76.9 percent were in administrative records. Of the 60.4 million 2010 Census person-address pairs in NRFU, 28.7 million or 47.5 percent matched to administrative records.

Similar to but even lower than the person results, a low number and percentage of 2010 Census person-address pairs that had a proxy response were in administrative records. Of the 13.6 million responses in the 2010 Census that were provided via proxy, administrative record person-address pairs matched to 2.5 million or 18.6 percent.

The preceding results indicate that direct replacement of administrative records data would result in variable coverage across states and could produce undercounts for various race, Hispanic origin, and age groups. The 2010 Census Match Study was designed to evaluate the quality and

coverage of administrative records data relative to the 2010 Census. The person-address section, as with the address and person sections, reflect different dimensions of the administrative records data to inform future planning and operational uses.

Occupancy Status

Table 19 shows 2010 Census and administrative records by occupancy status.

Table 19. 2010 Census and Administrative Records by Housing Unit Status

Housing Unit Status	2010 Census Housing Unit Count	2010 Census and Administrative Records Same Housing Unit Status		2010 Census and Administrative Records Different Housing Unit Status	
	Number	Number	Percent	Number	Percent
Total	136,592,084	111,659,541	81.7	24,932,543	18.3
Occupied	116,716,292	96,083,076	82.3	20,633,216	17.7
Vacant	14,988,438	11,404,442	76.1	3,583,996	23.9
Delete	4,887,354	4,172,023	85.4	715,331	14.6

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

There were 136.6 million addresses in the 2010 Census that had an occupancy status of occupied, vacant, or delete. Administrative records can inform whether a housing unit is occupied if there is a person in administrative records that lives at a particular housing unit. Administrative records can indicate whether a unit is not occupied if there is no person at that address in federal or commercial files. Units not occupied in administrative records may have either vacant or delete status in the 2010 Census.

Of the 136.6 million 2010 Census addresses, administrative record person-addresses pairs had the same housing unit status for 111.7 million or 81.7 percent of addresses. Of the 116.7 million housing units that were designated as occupied in the 2010 Census, administrative records indicated that 96.1 million or 82.3 percent of these addresses were occupied. Administrative records indicated that the remaining 20.6 million addresses were not occupied.

The 2010 Census had 15.0 million addresses that were designated as vacant. Administrative records indicated that 11.4 million or 76.1 percent of these 15.0 million addresses were not occupied, but that 3.6 million or 23.9 percent were occupied. In the 2010 Census, there were 4.9 million addresses that were designated as deletes. Administrative records found that 4.2 million addresses or 85.4 percent were not occupied and approximately 715,000 addresses or 14.6 percent were occupied in administrative records.

Table 20 shows 2010 Census and administrative records housing unit status by mode.

Of the occupied housing units in the 2010 Census (116.7 million), 82.3 million responded via Mailout/Mailback. For 72.1 million or 87.6 percent of these addresses, administrative records

also found the address to be occupied and 10.2 million or 12.4 percent were vacant. This percentage is lower for both the other and Nonresponse Followup mode categories. Of the 23.6 million addresses in Nonresponse Followup, administrative records indicated that 16.2 million addresses or 68.5 percent were occupied, and 7.4 million addresses or 31.5 percent were vacant.

Table 20. 2010 Census and Administrative Records Housing Unit Status by Mode

Mode	2010 Census Housing Unit Count	Occupied in Administrative Records		Vacant in Administrative Records	
	Number	Number	Percent	Number	Percent
Total	116,716,292	96,083,076	82.3	20,633,216	17.7
Nonresponse Followup	23,584,428	16,163,930	68.5	7,420,498	31.5
Mailout/Mailback	82,315,147	72,141,619	87.6	10,173,528	12.4
Other	10,816,717	7,777,527	71.9	3,039,190	28.1

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Population Count

Table 21 shows whether the population count at an address is the same, lower, or higher in administrative records relative to the 2010 Census.

Table 21. 2010 Census and Administrative Records Population Count at an Address

	Occupied Housing Units in 2010 Census and Administrative Records	Population Count Lower in Administrative Records		Population Count the Same in Administrative Records		Population Count Higher in Administrative Records	
		Number	Percent	Number	Percent	Number	Percent
Housing units	96,083,076	17,122,713	17.8	55,469,632	57.7	23,490,731	24.4

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Of the 116.7 million 2010 Census occupied units, 96.1 million were also designated as occupied in administrative records. Of these, 55.5 million or 57.7 percent of the 2010 Census and administrative records addresses had the same population count. For 17.1 million or 17.8 percent of addresses, administrative records had a lower population count relative to the 2010 Census. For 23.5 million or 24.4 percent of addresses, administrative records had a higher population count relative to the 2010 Census.

Table 22 shows the difference in the population counts when administrative records had a higher or lower population count at an address relative to the 2010 Census.

Table 22. Difference in Population Count, when Administrative Records had a Higher or Lower Population Count Relative to the 2010 Census

Difference in Population Count, when Administrative Records had a Higher or Lower Population Count Relative to 2010 Census	Total Housing Units Occupied in Both the 2010 Census and Administrative Records, where Administrative Records had Higher or Lower Population Count		Population Count Lower in Administrative Records		Population Count Higher in Administrative Records	
	Number	Percent	Number	Percent	Number	Percent
Total	40,613,444	100.0	17,122,713	100.0	23,490,731	100.0
1	25,851,974	63.7	10,947,832	63.9	14,904,142	63.4
2	8,329,611	20.5	3,475,349	20.3	4,854,262	20.7
3	3,399,243	8.4	1,568,248	9.2	1,830,995	7.8
4	1,518,342	3.7	663,782	3.9	854,560	3.6
5	694,777	1.7	266,772	1.6	428,005	1.8
6 or More	819,497	2.0	200,730	1.2	618,767	2.6

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

When administrative records had either a lower or higher number of people at an address relative to the 2010 Census, for the majority of addresses, the administrative records population count was either higher or lower by one person. Of the 17.1 million records that administrative data had a lower population count relative to the 2010 Census, 10.9 million or 63.9 percent of these records were lower by one person. Similarly, of the 23.5 million records where administrative data had a higher population count, 63.4 percent of these records were higher by one person. About 20 percent of the records were either lower or higher by two persons. About 8 percent of the records were either lower or higher by three persons, and the percentages were successively lower for four, five, and six or more persons. Future research is needed to explore the sources and reasons for the count differences.

5.4 Demographic Quality and Coverage Assessment

Since agreements with commercial data vendors prohibit direct comparisons of data across sources, commercial file names will not be used when presenting analysis comparing the commercial data sources. Instead, commercial data files will be called commercial file 1, commercial file 2, etc. in this section. Some commercial data files do not have data for Hispanic origin, race, or sex.

Quality Assessment

This section discusses the quality of demographic characteristics in the federal and commercial files, using 2010 Census unedited demographic characteristics as the gold standard for comparison purposes. For each data source in the 2010 Census Match Study, persons were matched to the 2010 Census by PIK and then responses from the 2010 Census were compared to the demographic data provided by federal agencies and commercial data vendors.

In addition, Numident and previous census records' demographic data were evaluated, specifically the Census 2000 and 2001-2009 ACS data as these are large sources of demographic data that could be used in conjunction with other administrative data to assist in census operations.²⁴ Tax files are not included in this analysis as they do not contain demographic characteristics, and other federal files only include some demographic characteristics.

Quality of Hispanic Origin Data in Administrative Records

Table 23 shows the number and percentage of persons that had the same Hispanic origin response in administrative records and the 2010 Census by administrative records source. While the terminology “response” is used in this section, the data from some sources were modeled for Hispanic origin and race and therefore were not based on a response from a resident of the household.

Table 23. Number and Percentage of Administrative Records Hispanic Origin Response Data that Matched to the 2010 Census

2010 Census and Administrative Records Hispanic Origin Response Match by Source File	Hispanic		Not Hispanic	
	Number	Percent	Number	Percent
Federal Files				
Previous Census Records	18,137,918	93.1	162,270,334	99.4
Numident	18,898,237	54.2	215,259,972	99.7
HUD CHUMS	507,655	80.0	3,987,563	98.5
HUD PIC	1,009,383	86.0	4,405,539	98.1
HUD TRACS	14,181	78.6	105,010	98.6
TANF	220,988	70.7	1,659,036	98.3
MEDB	812,807	29.4	37,825,607	99.9
Commercial Files				
Commercial File 1	8,260,777	83.5	94,604,335	98.2
Commercial File 2	11,868,492	77.3	140,335,009	98.0
Commercial File 3	9,206,375	80.2	114,014,452	98.0
Commercial File 4	4,510,662	77.1	50,604,881	97.9

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The quality of data for non-Hispanics in federal files was considerably higher compared to Hispanics. The quality range was also less variable for non-Hispanics compared to Hispanics. The quality of Hispanic origin data in federal files ranged from 29.4 percent to 93.1 percent for the Hispanic population and 98.1 percent to 99.9 percent for the non-Hispanic population.

²⁴ For the 2010 Census, previous census records (Census 2000 and 2001-2009 ACS data) were used in race and Hispanic origin item imputation processes.

Previous census data had the highest match for Hispanic response data in federal sources at 93.1 percent, followed by HUD PIC (86.0 percent) and HUD CHUMS (80.0 percent). MEDB had the lowest percentage of Hispanic response data that matched the 2010 Census at 29.4 percent.

The percentage of data for Hispanics in commercial files that matched to the 2010 Census ranged from 77.1 percent to 83.5 percent. For Hispanics, commercial file 4 had the lowest percentage that matched to the 2010 Census and commercial file 1 had the highest percentage that matched. Similar to federal files, commercial sources also had high quality response data for non-Hispanics.

Quality of Race Responses in Administrative Records

Table 24 shows the percentage of federal and commercial race response data that matched to the 2010 Census (see Appendix 2 for numbers).

Table 24. Percentage of Administrative Records Race Response Data that Matched to the 2010 Census

2010 Census and Administrative Records Race Response Match by Source File	White Alone	Black Alone	American Indian or Alaska Native Alone	Asian Alone	Native Hawaiian or Other Pacific Islander Alone	Some Other Race Alone	Two or More Races
Federal Files							
Previous Census Records	96.8	96.2	63.2	94.1	59.7	54.9	36.3
Numident	99.1	98.3	51.4	84.3	74.4	17.7	N/A
IHS	N/A	N/A	97.6	N/A	N/A	N/A	N/A
HUD CHUMS	98.0	87.4	24.6	65.0	46.9	N/A	3.6
HUD PIC	97.2	96.3	41.7	89.3	62.5	N/A	6.9
HUD TRACS	96.1	95.4	46.9	87.3	37.0	14.5	9.7
TANF	97.6	95.9	73.0	80.9	76.0	N/A	12.8
MEDB	99.0	97.9	49.1	58.0	N/A	14.1	N/A
Commercial Files							
Commercial File 1	97.9	43.6	N/A	85.2	14.3	3.0	N/A
Commercial File 2	97.8	37.3	6.4	73.6	19.2	1.1	N/A
Commercial File 3	94.9	61.1	13.2	79.7	17.0	3.4	N/A
Commercial File 4	94.7	58.2	8.6	79.8	16.6	3.4	N/A

Note: N/A in tables in this report indicates that data were not available for a demographic group. Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The White alone population had the highest quality response data in both federal and commercial files relative to other race groups. In federal files, the quality of race response data ranged from 96.1 percent to 99.1 percent for the White alone population. Commercial files had a similar though slightly lower range, from 94.7 percent to 97.9 percent. Among the federal files, Numident had the highest percentage of White alone response data that matched to the 2010 Census (99.1 percent), followed by MEDB (99.0 percent), and HUD CHUMS (98.0 percent). HUD TRACS had the lowest percentage match for White alone response at 96.1 percent. For the

commercial files, commercial file 4 had the lowest percentage match (94.7 percent) while commercial file 1 had the highest match (97.9 percent) for the White alone response.

The quality of response data was lower for the Black alone population relative to the White alone population in federal data. The quality of the race response data for the Black alone population ranged from 87.4 percent to 98.3 percent. The commercial files had a considerably lower percentage of the Black alone population that matched to the 2010 Census relative to the White alone population, a range from 37.3 percent to 61.1 percent. Among federal files, similar to the White alone population, the Numident had the highest percentage match for the Black alone population at 98.3 percent. This was followed by MEDB (97.9 percent) and HUD PIC (96.3 percent). HUD CHUMS had the lowest percentage Black alone response match to the 2010 Census (87.4 percent). Commercial file 2 had the lowest percentage match for the Black alone population, and commercial file 3 had the highest percentage that matched.

The quality of federal file race response data was considerably lower for the AIAN alone population compared to the White alone and Black alone populations. The percentage of AIAN alone race responses that matched to the 2010 Census in the federal files ranged from 24.6 percent to 97.6 percent. IHS and TANF were the two federal files that had a relatively high percentage of AIAN alone responses that matched, 97.6 percent and 73.0 percent respectively, whereas 63.2 percent of the responses in previous census records matched, and 51.4 percent or fewer of the responses for the remaining federal data sources matched the 2010 Census. Similar to the Black alone population, HUD CHUMS had the lowest percentage of AIAN matches (24.6 percent). Commercial file 1 did not have any data on the AIAN population. Among the commercial files that had data on this population, the percentages of responses that matched the 2010 Census were low, 6.4 percent to 13.2 percent. Similar to the Black alone population, commercial file 2 had the lowest percentage of AIAN alone responses that matched, and commercial file 3 had the highest.

For the federal files, the Asian alone population had higher percentages of race responses that matched the 2010 Census relative to the AIAN alone population, but lower percentages compared to the White alone and Black alone populations, 58.0 percent to 94.1 percent. Previous census records had the highest percentage match (94.1 percent), followed by HUD PIC (89.3 percent) and HUD TRACS (87.3 percent). MEDB had the lowest percentage of Asian alone responses that matched at 58.0 percent. For commercial files, the Asian alone population had higher percentages that matched the 2010 Census relative to both the Black alone and AIAN alone populations, but lower matches relative to the White alone population. The percentage of commercial data responses that matched the 2010 Census for the Asian alone population ranged from 73.6 percent to 85.2 percent. Similar to the Black alone and AIAN alone populations, commercial file 2 had the lowest match for the Asian alone population. Similar to the White alone population, commercial file 1 had the highest match.

For the NHPI alone population, 59 percent or higher of the responses in four of the seven federal datasets matched the 2010 Census. TANF had the highest percentage of NHPI alone responses that matched (76.0 percent), followed by the Numident (74.4 percent), HUD PIC (62.5 percent), and previous census records (59.7 percent). HUD TRACS had the lowest percentage of responses that matched for this population at 37.0 percent. The percentage of responses that matched in the commercial files for the NHPI alone community was considerably lower than the White alone, Black alone, and Asian alone populations, but higher than the AIAN alone population. For the NHPI alone population, 14.3 percent to 19.2 percent of the responses in the commercial files matched to the 2010 Census. Commercial file 1 had the lowest match and commercial file 2 had the highest match.

Only four of the seven federal files had a race category equivalent to SOR. Of these four data sources, MEDB had the lowest percentage of SOR alone responses that matched to the 2010 Census (14.1 percent), and previous census records had the highest percentage (54.9 percent). About 14.5 percent of HUD TRACS SOR alone responses matched to the 2010 Census and the Numident matched to 17.7 percent. These match percentages were the second lowest matches across all race groups for the federal data. In the commercial files, 1.1 percent to 3.4 percent of the SOR alone responses matched to the 2010 Census. This was the lowest match percentage of all the race groups represented in the commercial files. Similar to the majority of race groups, commercial file 2 had the lowest percentage of SOR alone responses that matched to the 2010 Census. Commercial file 3 and commercial file 4 had the highest percentages that matched.

The multiracial population had the lowest percentage of responses that matched in the federal files to the 2010 Census relative to other race groups. Of the five federal files that had data on the multiracial population, previous census records had the highest percentage that matched at 36.3 percent. HUD CHUMS had the lowest percentage that matched at 3.6 percent. TANF, HUD TRACS, and HUD PIC matched the 2010 Census multiracial population at 12.8 percent, 9.7 percent, and 6.9 percent respectively. The commercial files did not classify individuals as multiracial.

Quality of Age Responses in Administrative Records

Table 25 shows the percentage of federal and commercial age response data that matched to the 2010 Census overall and by age group (see Appendix 3 for numbers). The percentage of records that matched the age data in the 2010 Census was 95.2 percent or higher for all federal source files except HUD CHUMS. MEDB had the highest percentage match on age at 98.5 percent, followed by the Numident (97.9 percent) and SSS (97.8 percent). HUD CHUMS had the lowest age response match at 24.4 percent. The match is low because the HUD CHUMS file only included persons' year of birth, while the other files provided date of birth which more accurately can be matched to the age of persons in the 2010 Census. Relative to the federal files, the commercial files had lower percentages of age responses that matched to the 2010 Census.

Commercial file 4 had the highest percentage of age responses that matched (90.5 percent) whereas commercial file 1 had the lowest percentage match (79.0 percent).

Table 25. Percentage of Administrative Records Age Response Data that Matched to the 2010 Census

2010 Census and Administrative Records Age Response Match by Source File	Age							
	Total	0-2	3-17	18-24	25-44	45-64	65-74	75 and older
Federal Files								
Previous Census Records	95.7	85.7	94.7	95.3	95.6	96.1	96.5	96.3
Numident	97.9	97.6	98.0	97.8	98.0	98.1	98.6	96.6
IHS	96.6	95.3	96.3	96.6	97.0	96.8	96.3	94.9
HUD CHUMS	24.4	N/A	N/A	19.1	24.5	25.0	25.9	26.8
HUD PIC	97.0	95.8	96.9	97.1	97.4	97.3	97.0	96.2
HUD TRACS	96.9	96.5	96.7	97.1	97.1	96.9	97.4	96.9
SSR	95.2	97.0	97.3	97.6	97.0	95.6	92.3	89.4
SSS	97.8	N/A	N/A	98.0	97.7	N/A	N/A	N/A
TANF	96.7	96.3	96.7	97.0	97.2	96.4	94.4	88.1
MEDB	98.5	97.5	96.0	97.5	98.0	98.1	98.8	98.3
Commercial Files								
Commercial 1	79.0	0.3	6.4	77.2	78.6	79.5	79.2	78.3
Commercial 2	88.9	16.8	59.3	83.3	87.6	90.1	91.1	89.8
Commercial 3	89.1	N/A	N/A	81.4	88.6	90.2	90.8	89.9
Commercial 4	90.5	N/A	N/A	85.4	90.3	91.5	92.2	91.0
Commercial 5	88.6	N/A	3.1	79.1	90.3	88.4	87.5	86.1
Commercial 6	80.9	71.4	0.3	75.4	82.0	80.9	84.2	84.0
Commercial 7	87.2	N/A	N/A	78.6	88.1	87.5	87.1	85.9
Commercial 8	90.4	20.0	73.5	92.0	90.6	90.3	90.7	90.4

Note: N/A indicates that data were not available for a demographic group.

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Across the federal files, the quality of age response data showed some slight variation according to age group. Where differences existed was in the presence of age response data. The HUD CHUMS file did not include anyone under the age of 18, MEDB included relatively few persons under 18, and the SSS file only included data on those between the ages of 18 to 25. Similarly, the commercial records had relatively few persons under the age of 18 and had lower match rates for those who were included. Commercial file 2 included more people under age 18 but the quality of the age data was lower relative to other age groups.

Quality of Sex Responses in Administrative Records

Table 26 shows the number and percentage of federal and commercial sex response data that matched to the 2010 Census.

Table 26. Number and Percentage of Administrative Records Sex Response Data that Matched to the 2010 Census

2010 Census and Administrative Records Sex Response Match by Source File	Female		Male	
	Number	Percent	Number	Percent
Federal Files				
Previous Census Records	99,582,513	99.5	91,377,033	99.5
Numident	132,710,367	99.4	125,356,726	99.4
HUD CHUMS	2,310,839	98.1	2,437,053	98.7
HUD PIC	3,742,607	99.0	2,199,033	97.9
HUD TRACS	1,341,994	98.9	695,095	98.2
IHS	1,117,176	99.4	995,603	99.2
MEDB	23,691,186	99.6	19,068,303	99.7
SSS	N/A	N/A	11,994,797	100.0
TANF	1,298,748	99.1	768,904	98.1
Commercial Files				
Commercial File 1	63,605,178	98.8	55,906,815	97.0
Commercial File 2	81,263,837	98.6	72,248,387	98.6
Commercial File 3	67,065,482	97.0	59,346,369	97.7
Commercial File 4	31,208,537	97.0	25,412,404	97.4
Commercial File 5	76,293,351	97.2	68,872,874	97.9
Commercial File 6	412,740	95.6	324,334	94.7
Commercial File 7	50,177,060	97.2	45,989,876	98.4

Note: N/A indicates that data were not available for a demographic group.

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The quality of sex response data ranged from 94.7 percent to 100.0 percent across both federal and commercial files for both sexes. Among the federal administrative files, HUD PIC had the lowest percentage that matched for males at 97.9 percent. SSS had the highest match rate for males at 100.0 percent. HUD CHUMS had the lowest percentage that matched for females at 98.1 percent, and MEDB had the highest at 99.6 percent. For the commercial administrative files, commercial file 6 had the lowest percentage match for both males at 94.7 percent and females at 95.6 percent. Commercial file 2 had the highest match for males at 98.6 percent, and commercial file 1 had the highest match for females at 98.8 percent.

Demographic Coverage Assessment

This section discusses demographic characteristic coverage of the 2010 Census by the federal and commercial files, including the Numident and previous census records. Persons in the 2010 Census were matched by PIK to each data source to determine if the federal or commercial files provided any demographic data for that person on Hispanic origin, race, age, and sex regardless of the quality. This assessment indicates whether data are present for demographic groups in the 2010 Census, not whether the demographic data are the same in the 2010 Census and administrative records.

Table 27 shows whether demographic data were present in administrative records by demographic group. Administrative records had Hispanic origin response data for 278.0 million persons in the 2010 Census (90.1 percent). A higher percentage of non-Hispanics had Hispanic origin response data in administrative records relative to Hispanics. Of the 258.3 million non-Hispanics in the 2010 Census, administrative records had Hispanic origin response data for 238.2 million or 92.2 percent. Of the 50.5 million Hispanics in the 2010 Census, 39.8 million or 78.9 percent had Hispanic origin response data in administrative records.

Table 27. Coverage of 2010 Census Demographic Data by Administrative Records Demographic Response Data

Demographic Characteristics	2010 Census		Coverage of 2010 Census Demographic Data by Administrative Records Demographic Response Data	
	Number	Percent	Number	Percent
	Total Population	308,745,538	100.0	278,484,228
Hispanic or Latino Origin	308,745,538	100.0	278,045,021	90.1
Hispanic	50,477,594	100.0	39,814,879	78.9
Not Hispanic	258,267,944	100.0	238,230,142	92.2
Race	308,745,538	100.0	239,489,480	77.6
White Alone	223,553,254	100.0	181,023,292	81.0
Black Alone	38,929,315	100.0	30,456,240	78.2
American Indian or Alaska Native Alone	2,932,370	100.0	2,256,067	76.9
Asian Alone	14,674,336	100.0	10,839,299	73.9
Native Hawaiian or Other Pacific Islander Alone	540,064	100.0	377,663	69.9
Some Other Race Alone	19,107,368	100.0	8,799,778	46.1
Two or More Races	9,008,831	100.0	5,737,141	63.7
Age	308,745,538	100.0	278,123,833	90.1
0-2	12,019,146	100.0	10,771,945	89.6
3-17	62,162,321	100.0	56,522,460	90.9
18-24	30,646,519	100.0	26,032,464	84.9
25-44	82,123,330	100.0	71,307,164	86.8
45-64	81,499,596	100.0	75,632,822	92.8
65-74	21,727,578	100.0	20,498,121	94.3
75 and older	18,567,048	100.0	17,358,857	93.5
Sex	308,745,538	100.0	278,038,511	90.1
Male	151,775,099	100.0	135,515,017	89.3
Female	156,970,439	100.0	142,523,494	90.8

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Data on race were available for 239.5 million or 77.6 percent of 2010 Census respondents. Administrative records provided the greatest level of race data coverage for the White alone population and the lowest level of race data coverage for the SOR alone population in the 2010

Census. Of the 223.6 million persons classified as White alone in the 2010 Census, 181 million or 81.0 percent had race data in administrative records. The next highest level of race data coverage was for the Black alone population (78.2 percent), followed by AIAN alone (76.9 percent), Asian alone (73.9 percent), NHPI alone (69.9 percent), and the Two or More Races population (63.7 percent). Administrative records contained race data for just under half (46.1 percent) of the SOR alone population.

Administrative records provided coverage of age data for 278.1 million or 90.1 percent of all persons on the 2010 Census. Coverage by age group in the 2010 Census ranged from 84.9 percent to 94.3 percent with older age groups more likely to have age data present in administrative records relative to younger age groups. Age coverage by administrative records was greatest for those in the 65 to 74 age group (94.3 percent), followed by 75 and older (93.5 percent), 45 to 64 (92.8 percent), 3 to 17 (90.9), 0 to 2 (89.6 percent), and 25 to 44 (86.8 percent) age groups. The age group with the lowest coverage was those aged 18 to 24 at 84.9 percent.

Sex data were available in the administrative records for 278.0 million or 90.1 percent of all persons on the 2010 Census. Coverage was slightly higher for females in the 2010 Census than for males. For females in the 2010 Census, 90.8 percent had data on sex in administrative data. For males in the 2010 Census, 89.3 percent also had data on sex in administrative records.

Coverage by Mode by Demographic Group

Table 28 shows whether Hispanic origin data were present in administrative records by mode.

Table 28. Coverage of 2010 Hispanic Origin Data by Administrative Records Hispanic Origin Response Data by Mode

Coverage of 2010 Hispanic Origin Data by Administrative Records Hispanic Origin Response Data	2010 Census		Administrative Records	
	Number	Percent	Number	Percent
NRFU	60,432,209	100.0	48,868,213	80.9
Hispanic	12,474,326	100.0	8,673,291	69.5
Not Hispanic	47,957,883	100.0	40,194,922	83.8
Mailout/Mailback	205,816,623	100.0	198,842,905	96.6
Hispanic	28,619,508	100.0	25,137,353	87.8
Not Hispanic	177,197,115	100.0	173,705,552	98.0
Other	42,496,706	100.0	30,333,903	71.4
Hispanic	9,383,760	100.0	6,004,235	64.0
Not Hispanic	33,112,946	100.0	24,329,668	73.5

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Administrative data had Hispanic origin response data for 96.6 percent of persons whose response was obtained via Mailout/Mailback in the 2010 Census. There were 80.9 percent of NRFU respondents in the 2010 Census that had Hispanic origin response data in administrative records. Administrative records covered about 10 percent more of the non-Hispanic population compared to the Hispanic population regardless of mode.

Table 29 shows whether race data were present in administrative records by mode.

Table 29. Coverage of 2010 Race Data by Administrative Records Race Response Data by Mode

Coverage of 2010 Race Data by Administrative Records Race Response Data	2010 Census		Administrative Records	
	Number	Percent	Number	Percent
	NRFU	60,432,209	100.0	40,596,485
White Alone	38,193,839	100.0	27,279,990	71.4
Black Alone	9,665,248	100.0	6,828,025	70.6
American Indian or Alaska Native Alone	614,416	100.0	466,097	75.9
Asian Alone	2,935,599	100.0	1,836,450	62.6
Native Hawaiian or Other Pacific Islander Alone	170,657	100.0	111,437	65.3
Some Other Race Alone	6,574,514	100.0	2,658,243	40.4
Two or More Races	2,277,936	100.0	1,416,243	62.2
Mailout/Mailback	205,816,623	100.0	173,992,345	84.5
White Alone	158,738,870	100.0	137,265,519	86.5
Black Alone	22,179,559	100.0	19,345,638	87.2
American Indian or Alaska Native Alone	1,367,303	100.0	1,117,407	81.7
Asian Alone	9,415,785	100.0	7,614,070	80.9
Native Hawaiian or Other Pacific Islander Alone	234,376	100.0	190,972	81.5
Some Other Race Alone	8,587,123	100.0	4,868,058	56.7
Two or More Races	5,293,607	100.0	3,590,681	67.8
Other	42,496,706	100.0	24,900,650	58.6
White Alone	26,620,545	100.0	16,477,783	61.9
Black Alone	7,084,508	100.0	4,282,577	60.4
American Indian or Alaska Native Alone	950,651	100.0	672,563	70.7
Asian Alone	2,322,952	100.0	1,388,779	59.8
Native Hawaiian or Other Pacific Islander Alone	135,031	100.0	75,254	55.7
Some Other Race Alone	3,945,731	100.0	1,273,477	32.3
Two or More Races	1,437,288	100.0	730,217	50.8

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Data on race collected via Mailout/Mailback was most likely to be covered by administrative records (84.5 percent), followed by NRFU (67.2 percent), and other response operations (58.6 percent).

All race categories had the highest levels of coverage in Mailout/Mailback mode. Administrative records race response coverage for 2010 Census respondents in Mailout/Mailback ranged from a high of 87.2 percent for the Black alone population to a low of 56.7 percent for SOR alone. Persons reporting White alone via Mailout/Mailback had the second highest administrative records race coverage (86.5 percent), followed by AIAN alone (81.7 percent), NHPI alone (81.5 percent), Asian alone (80.9), and Two or More Races (67.8 percent).

The coverage rate for race responses collected via NRFU was highest for AIAN alone. Of the approximately 614,000 persons who reported AIAN alone in NRFU, administrative records had race data for approximately 466,000 or 75.9 percent of respondents. The White alone population had the next highest coverage rate (71.4 percent), followed by the Black alone (70.6 percent), NHPI alone (65.3 percent), Asian alone (62.6 percent), and Two or More Races (62.2 percent) populations in NRFU. The SOR alone population had the lowest coverage rate in NRFU at 40.4 percent.

Table 30 shows whether age data were present in administrative records by mode.

Of 2010 Census respondents with a PIK in Mailout/Mailback, 96.6 percent had age data in administrative records. Age response coverage was lower for NRFU (80.9 percent) and other modes (71.4 percent). Among NRFU respondents, the age groups 3 to 17 and 0 to 2 had the highest age response coverage in administrative records at 84.8 percent and 83.3 percent respectively. This was followed by age groups 45 to 64 (82.3 percent), 65 to 74 (81.5 percent), and 75 and older (80.3 percent). Administrative record coverage for age data was lowest in NRFU for the 18 to 24 (76.4 percent) and 25 to 44 (78.4 percent) age groups.

Table 30. Coverage of 2010 Age Data by Administrative Records Age Response Data by Mode

Coverage of 2010 Age Data by Administrative Records Age Response Data	2010 Census		Administrative Records	
	Number	Percent	Number	Percent
NRFU	60,432,209	100.0	48,867,705	80.9
0-2	2,713,417	100.0	2,261,220	83.3
3-17	13,959,494	100.0	11,839,104	84.8
18-24	7,322,346	100.0	5,594,530	76.4
25-44	19,498,293	100.0	15,293,653	78.4
45-64	12,498,785	100.0	10,283,837	82.3
65-74	2,447,491	100.0	1,994,655	81.5
75 and older	1,992,383	100.0	1,600,706	80.3
Mailout/Mailback	205,816,623	100.0	198,892,28	96.6
0-2	7,161,233	100.0	6,894,732	96.3
3-17	39,058,528	100.0	37,769,055	96.7
18-24	15,982,399	100.0	15,164,326	94.9
25-44	52,033,098	100.0	49,279,405	94.7
45-64	60,075,645	100.0	58,829,943	97.9
65-74	17,372,352	100.0	17,101,837	98.4
75 and older	14,133,368	100.0	13,852,987	98.0
Other	42,496,706	100.0	30,363,843	71.4
0-2	2,144,496	100.0	1,615,993	75.4
3-17	9,144,299	100.0	6,914,301	75.6
18-24	7,341,774	100.0	5,273,608	71.8
25-44	10,591,939	100.0	6,734,106	63.6
45-64	8,925,166	100.0	6,519,042	73.0
65-74	1,907,735	100.0	1,401,629	73.5
75 and older	2,441,297	100.0	1,905,164	78.0

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Table 31 shows whether sex data were present in administrative records by mode. Similar to other demographic characteristics, administrative record coverage was highest for sex in the Mailout/Mailback universe (96.6 percent) and lower in the NRFU universe (80.9 percent) and via other modes (71.4 percent). For each of the three response mode categories, administrative record coverage of females in the 2010 Census was slightly higher than for males.

**Table 31. Coverage of 2010 Sex Data by Administrative Records
Sex Response Data by Mode**

Coverage of 2010 Sex Data by Administrative Records Sex Response Data	2010 Census		Administrative Records	
	Number	Percent	Number	Percent
NRFU	60,432,209	100.0	48,866,122	80.9
Male	30,490,505	100.0	24,352,259	79.9
Female	29,941,704	100.0	24,513,863	81.9
Mailout/Mailback	205,816,623	100.0	198,838,820	96.6
Male	99,125,339	100.0	95,563,261	96.4
Female	106,691,284	100.0	103,275,559	96.8
Other	42,496,706	100.0	30,333,569	71.4
Male	22,159,255	100.0	15,599,497	70.4
Female	20,337,451	100.0	14,734,072	72.4

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Coverage by Source File

Table 32 shows administrative records coverage of Hispanic origin response data by federal and commercial data source. For all demographic characteristics, the size of the source file strongly influenced the coverage of demographic data in the 2010 Census.

The range of coverage for the 2010 Census Hispanic population in federal data was 0.04 percent to 78.1 percent and 13.0 percent to 33.9 percent for commercial data. The Numident file had the highest percent coverage of Hispanic origin response data for the Hispanic population (78.1 percent) and non-Hispanic population (92.1 percent). Previous census records had the second highest coverage at 43.1 percent for the Hispanic population and 69.1 percent for non-Hispanics. HUD TRACS had the lowest coverage for Hispanics (0.04 percent) and non-Hispanics (0.05 percent).

Commercial data sources covered 13.0 percent to 33.9 percent of Hispanics in the 2010 Census and 22.0 percent to 60.6 percent of non-Hispanics. Among the commercial sources, commercial file 2 provided the highest level of Hispanic origin response coverage at 33.9 percent for Hispanics and 60.6 percent for non-Hispanics.

Table 32. Number and Percent Coverage of 2010 Hispanic Origin Data by Administrative Records Source Files

Coverage of 2010 Hispanic Origin Data by Administrative Records Hispanic Origin Response Data by Source	Hispanic		Not Hispanic	
	Number	Percent	Number	Percent
	2010 Census	50,477,594	100	258,267,944
Federal Files				
Previous Census Records	21,764,183	43.1	178,348,197	69.1
Numident	39,399,214	78.1	237,807,990	92.1
HUD CHUMS	697,169	1.4	4,316,851	1.7
HUD PIC	1,364,197	2.7	5,377,679	2.1
HUD TRACS	20,987	0.0	127,991	0.0
MEDB	3,070,925	6.1	42,825,729	16.6
TANF	365,626	0.7	1,963,550	0.8
Commercial Files				
Commercial File 1	11,349,460	22.5	122,397,813	47.4
Commercial File 2	17,093,059	33.9	156,451,837	60.6
Commercial File 3	12,732,083	25.2	126,544,309	49.0
Commercial File 4	6,540,972	13.0	56,774,215	22.0

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Table 33 shows administrative records coverage of race response data by federal and commercial data source (see Appendix 4 for numbers).

With few exceptions, the White alone population had higher coverage rates across the sources relative to other race groups. The coverage rate for the White alone population ranged from 0.1 percent to 71.1 percent in federal data and 18.5 percent to 55.2 percent in commercial data. Previous census records had the highest coverage rate (71.1 percent) for the White alone population, followed by the Numident at 66.0 percent. The IHS had the lowest coverage rate at 0.1 percent. Of commercial files, commercial file 4 had the lowest coverage rate for the White alone population, and commercial file 2 had the highest. Commercial file 4 had the lowest coverage rate and commercial file 2 had the highest for all race groups.

The coverage rate for the Black alone population ranged from 0.03 percent to 66.9 percent across federal sources and 16.9 percent to 45.9 percent in commercial data sources. The Numident had the highest coverage rate for the Black alone population (66.9 percent), followed by previous census records (57.0 percent). Similar to the White alone population, IHS had the lowest coverage rate at 0.03 percent.

Table 33. Percent Coverage of 2010 Race Data by Administrative Records Source Files

Coverage of 2010 Race Data by Administrative Records Race Response Data by Source	White Alone	Black Alone	American Indian or Alaska Native Alone	Asian Alone	Native Hawaiian or Other Pacific Islander Alone	Some Other Race Alone	Two or More Races
Federal Files							
Previous Census Records	71.1	57.0	55.3	49.5	43.7	32.7	48.3
Numident	66.0	66.9	54.0	64.1	57.6	6.7	36.8
HUD CHUMS	1.7	1.4	1.0	1.0	1.2	1.1	1.0
HUD PIC	1.1	8.3	2.9	1.2	3.7	2.6	4.0
HUD TRACS	0.4	2.1	0.8	0.6	0.5	0.6	1.0
IHS	0.1	0.0	41.4	0.0	0.1	0.1	2.7
MEDB	16.9	11.6	9.2	8.5	6.4	2.4	5.3
TANF	0.5	2.0	2.3	0.2	3.2	0.6	1.7
Commercial Files							
Commercial File 1	38.9	28.9	15.5	27.0	12.1	2.1	14.4
Commercial File 2	55.2	45.9	35.8	41.6	27.0	27.8	31.1
Commercial File 3	43.6	32.6	22.6	29.9	16.5	2.6	18.2
Commercial File 4	18.5	16.9	10.6	13.0	8.2	1.3	9.2

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

For the AIAN alone population, the federal coverage rate ranged from 0.8 percent to 55.3 percent, and the commercial coverage rate ranged from 10.6 percent to 35.8 percent. Similar to the White alone and Black alone populations, the Numident and previous census records had the two highest coverage rates. Previous census records had the highest coverage at 55.3 percent, and the Numident had the second highest coverage rate at 54.0 percent. IHS also covered a relatively substantial proportion of response data at 41.4 percent. HUD TRACS had the lowest coverage rate at 0.8 percent.

The federal coverage rate for the Asian alone population ranged from 0.01 percent to 64.1 percent, and the commercial coverage rate ranged from 13.0 percent to 41.6 percent. As with the previous race groups discussed, the Numident and previous census records had the greatest coverage for the Asian alone population. The Numident covered 64.1 percent of the 2010 Census Asian alone population, and previous census records covered 49.5 percent.

For the NHPI population, the federal coverage rate range was 0.1 percent to 57.6 percent, and the commercial coverage rate range was 8.2 percent to 27.0 percent. The Numident and previous census records had the highest coverage rates, 57.6 percent and 43.7 percent respectively. IHS had the lowest coverage rate at 0.1 percent.

With few exceptions, the SOR alone population had the lowest coverage rates across federal and commercial data sources. The federal coverage rate ranged from 0.1 percent to 32.7 percent, and

commercial data covered 1.3 percent to 27.8 percent. Previous census records had the highest coverage at 32.7 percent, followed by the Numident at 6.7 percent.

The federal coverage rate for the Two or More Races population ranged from 1.0 percent to 48.3 percent, and the commercial coverage rate ranged from 9.2 percent to 31.1 percent. Previous census records covered 48.3 percent of the 2010 Census Two or More Races population, followed by the Numident at 36.8 percent.

Table 34 shows administrative records coverage of age response data by federal and commercial data source (see Appendix 5 for numbers).

Table 34. Percent Coverage of 2010 Age Data by Administrative Records Source Files

Coverage of 2010 Age Data by Administrative Records Age Response Data by Source	Age						
	0-2	3-17	18-24	25-44	45-64	65-74	75 and older
Federal Files							
Previous Census Records	1.5	42.1	69.9	67.7	79.9	84.0	85.0
Numident	89.5	90.9	84.9	86.8	92.8	94.3	93.5
HUD CHUMS	0.0	0.0	0.9	3.5	1.7	1.0	0.5
HUD PIC	2.9	4.1	2.3	1.7	1.4	1.5	1.6
HUD TRACS	1.2	0.9	0.7	0.4	0.5	1.3	2.2
IHS	0.6	0.9	0.9	0.8	0.7	0.6	0.4
MEDB	0.0	0.0	0.5	2.2	8.9	90.5	91.4
SSR	0.8	1.7	1.9	1.7	2.8	3.9	4.4
SSS	0.0	0.1	37.4	2.1	0.0	0.0	0.0
TANF	2.9	1.7	0.9	0.6	0.2	0.1	0.0
Commercial Files							
Commercial File 1	0.1	0.1	9.7	31.7	49.8	55.7	53.4
Commercial File 2	0.2	0.9	25.9	39.2	65.1	70.7	66.9
Commercial File 3	0.1	0.5	25.9	42.2	62.2	67.9	65.3
Commercial File 4	0.0	0.2	12.7	22.9	25.1	26.5	26.0
Commercial File 5	0.1	0.1	1.7	45.4	74.1	77.2	73.3
Commercial File 6	0.0	0.0	0.2	0.6	0.4	0.1	0.0
Commercial File 7	0.0	0.1	4.5	24.4	48.9	58.9	59.6
Commercial File 8	0.1	0.1	1.2	40.0	66.4	67.8	62.2

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The Numident age response data covered a substantial proportion of 0 to 2 year olds in the 2010 Census at 89.5 percent. All other federal and commercial data sources covered less than 3 percent each. The Numident age response data also covered a substantial proportion of those 3 to 17 years old in the 2010 Census at 90.9 percent. Previous census records covered 42.1 percent. All other data covered less than 4.2 percent.

The Numident covered 84.9 percent of the 18 to 24 age group, followed by previous census records at 69.9 percent. Commercial file 2 and commercial file 3 had the highest coverage rates

for the 18 to 24 age group among commercial files at 25.9 percent each. The Numident covered 86.8 percent of the 25 to 44 age group, and previous census records covered 67.7 percent. Commercial file 5 and commercial file 3 had the highest coverage for this age group at 45.4 percent and 42.2 percent respectively. The Numident covered the highest percentage of age responses for the age groups 45 to 64, 65 to 74, and 75 and older. Commercial file 5 had the highest coverage for all three of these age groups among the commercial data.

Table 35 shows administrative records coverage of sex response data by federal and commercial data source.

Table 35. Number and Percent Coverage of 2010 Sex Data by Administrative Records Source Files

Coverage of 2010 Sex Data by Administrative Records Sex Response Data by Source	Male		Female	
	Number	Percent	Number	Percent
2010 Census	151,775,099	100.0	156,970,439	100.0
Federal Files				
Previous Census Records	98,056,250	64.6	106,215,624	67.7
Numident	135,270,982	89.1	142,309,140	90.7
HUD CHUMS	2,607,763	1.7	2,472,911	1.6
HUD PIC	2,535,359	1.7	4,212,021	2.7
HUD TRACS	817,071	0.5	1,537,300	1.0
IHS	1,096,844	0.7	1,219,319	0.8
MEDB	20,481,253	13.5	25,415,378	16.2
SSS	13,211,190	8.7	70,171	0.0
TANF	874,359	0.6	1,455,174	0.9
Commercial Files				
Commercial File 1	60,929,919	40.1	67,686,745	43.1
Commercial File 2	77,959,856	51.4	87,230,172	55.6
Commercial File 3	64,421,794	42.4	73,002,480	46.5
Commercial File 4	27,970,377	18.4	34,345,858	21.9
Commercial File 5	74,729,309	49.2	82,823,112	52.8
Commercial File 6	370,287	0.2	462,087	0.3
Commercial File 7	49,329,354	32.5	54,231,282	34.5

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

The federal coverage rate for males ranged from 0.5 percent to 89.1 percent, and the commercial coverage rate ranged from 0.2 percent to 51.4 percent. For females, the federal data covered 0.04 percent to 90.7 percent, and commercial data covered 0.3 percent to 55.6 percent. Numident had the highest coverage for both males (89.1 percent) and females (90.7 percent). Previous census records had the second highest coverage at 64.6 percent for males and 67.7 percent for females. Commercial file 6 had the lowest coverage rate for males and females, and commercial file 2 had the highest coverage.

Overall, the Numident and previous census records had the highest coverage of demographic response data across all demographic groups. For many demographic groups such as age and sex, and for the White alone, Black alone, and Asian alone populations, these datasets also tended to have relatively high quality response data.

6. Related Census Program for Evaluations and Experiments Reports

The following Census Program for Evaluations and Experiments reports are related to the Census Match Study.

- 2010 Census Evaluation of Small Multi-Unit Structures Report
- 2010 Census Nonresponse Followup Operations Assessment
- 2010 Census Operational Assessment for Type of Enumeration Area Delineation

7. Lessons Learned, Conclusions, and Research Implications

Administrative records data are **available** for use in census operations. Data with a reference date appropriate for Census Day can be identified. Once acquired, federal and commercial data can be processed, unduplicated, and ready to use for Census purposes within two to four weeks. The 2010 Census Match Study used twenty files from eight federal agencies and five commercial data vendors.

Administrative records data are **reliable** for address and count confirmation for persons and addresses. Administrative records data confirmed person data in the 2010 Census for 273.6 million persons or 98.0 percent of census respondents with a PIK. Administrative records failed to match 2010 Census records lacking name data. 2010 Census address data were confirmed for 122.0 million addresses or 92.6 percent.

Administrative records data can **improve** census data quality for respondent characteristics and treatments of missing data. Census data quality can be improved by integrating administrative records information into item imputation methods. For instance, administrative data, including the Numident and previous census records had high quality age and sex data. They also contain age and sex response data for about 278 million persons in the 2010 Census.

Administrative data use can **reduce the cost** of future data collections by enhancing the MAF and through strategies addressing non-response. Administrative records can help direct field operations to areas with low person and address confirmation and areas of new construction with an operation such as targeted address canvassing. Administrative records data can be used to confirm housing unit status and to identify or confirm occupied status. Of the 116.7 million occupied housing units in the 2010 Census, administrative records showed agreement for 96.1 million. Administrative records show potential for use in household size imputations. About 55.5 million housing units in the 2010 Census had the same population count in administrative

records. When administrative records and the 2010 Census differed in population count for housing units, the population count differed by one person for 63.7 percent of those housing units.

The 2010 Census Match Study was designed to compile an unduplicated list of administrative records addresses and persons. The lists were counted and compared to 2010 Census results. Validated records in the lists were matched by unique housing unit and person identifiers. This matching was done to assess the quality and coverage of information in the administrative records files, but in essence simulated an administrative records census. The results indicate that the United States does not have an administrative records infrastructure suitable for an administrative records census. The 2010 Census Match Study sought to find the same person in the same housing unit, but the complexities of the administrative records data made the comparisons difficult and at times suspect. The complexities ranged from missing and false name, address, and date of birth information to data universe and timing discrepancies. Efforts to mitigate these challenges, such as only including validated (PIKed) persons in the comparisons introduced new problems, since the PIKed persons are likely different from the unPIKed persons in terms of characteristics and response propensities. Yet overall, the results indicate sufficient promise in administrative records to pursue operational designs for future frames and censuses.

The 2010 Census Match Study should be viewed as a national-level proof of concept for household administrative records, demonstrating the Census Bureau's ability to acquire and process public and private administrative records. The results indicate that the additions to the federal files used in StARS were worthwhile. Commercial data were a useful addition for address coverage, but more work is needed to understand how the data can enhance person coverage or person follow up operations. The unduplicated administrative records files provide high coverage, high quality information to inform occupied status imputations, and more work is needed to explore how administrative records data can be used in household size imputations without creating overcounts and undercounts of key populations. The demographic data quality analyses revealed that administrative records files contain high coverage, high quality information on age and sex, and that federal files can enhance previously collected census data for race and Hispanic origin information.

Future operational uses of administrative data need to focus on which files are fit for their particular needs; this study's results indicate that neither one file nor one composite will be adequate for both item and count imputations.

Research Implications

1. **Administrative records can enhance, but not replace the decennial census.** While the quality and coverage of administrative records relative to the 2010 Census suggests that

administrative records can be utilized in decennial census operations, the quality is not high enough and the coverage is not expansive enough to replace a traditional census.

2. Use of administrative records in Nonresponse Followup can reduce costs.

Administrative records cover a substantial number of Nonresponse Followup addresses and persons, and nearly half of person-address pairs. Of the 23.6 million addresses that responded in Nonresponse Followup in the 2010 Census, administrative records matched to 21.0 million or 89.2 percent. Administrative records also matched to a substantial number of persons that were in Nonresponse Followup in the 2010 Census. Of the 60.4 million persons in Nonresponse Followup in the 2010 Census, 48.0 million or 79.5 percent were in administrative records. Administrative records matched to a lower number and proportion of person-address pairs in Nonresponse Followup compared to addresses and persons. Of the 60.4 million 2010 person-address pairs in Nonresponse Followup, there were 28.7 million or 47.5 percent that matched to administrative records. Research and improvements in record linkage, refinements of the best address model, and acquiring data that cover those most likely to be in Nonresponse Followup may enhance the person-address match between the 2010 Census and administrative records.

3. Administrative records can assist in determining housing unit and occupancy status.

Administrative records can assist to verify whether a housing unit is a valid livable housing unit and whether it is occupied. Occupancy status results demonstrate the value of administrative records for these purposes. Of the 116.7 million occupied housing units in the 2010 Census, administrative records indicated that 96.1 million or 82.3 percent were occupied. The 2010 Census designated 15.0 million housing units as vacant, of which administrative records found that 11.4 million or 76.1 percent were not occupied. Of the 4.9 million housing units designated as deletes in the 2010 Census, administrative records indicated that 4.2 million or 85.4 percent were not occupied.

4. Administrative records can inform household population count assignment.

Administrative records had the same population count for the majority of 2010 Census housing units that matched to administrative records. Of the 116.7 million 2010 Census occupied housing units, 96.1 million matched to administrative records. Of these, 55.5 million or 57.7 percent of housing units had the same population count. When administrative records and the 2010 Census did not have the same population count, the count differed by one person for 63.7 percent of the housing units. Further research should be conducted on this universe.

5. Acquiring additional federal, state, and commercial data can improve address, person, and demographic characteristic coverage. Administrative data do not cover children as well as they cover adults. Also, the quality of race and Hispanic origin response data from federal and commercial sources varies considerably by race and Hispanic origin group. The Census Bureau should partner with federal agencies, state

agencies, community groups, and other organizations to obtain data that contain information on children living in households, and additional race and Hispanic origin response data should be acquired, particularly for groups where the quality of race or Hispanic origin response data is low in administrative records. Obtaining data for the following groups should be a priority: Two or More Races, Native Hawaiian or Other Pacific Islander, and American Indian or Alaska Native.

6. **Administrative records can inform race and Hispanic origin determination.** For some race and Hispanic origin groups, the quality of administrative records response data was high. For instance, the White alone, Black alone, and Asian alone populations had relatively high quality race response data in administrative records compared to other race groups. The quality of administrative records files ranged from 94.7 percent to 99.1 percent for the White alone population. The quality of federal data for the Black alone population ranged from 87.4 percent to 98.3 percent. The range was considerably lower for commercial data. For the Asian alone population, the quality of both federal and commercial data ranged from 58.0 percent to 94.1 percent. Data could also be used for other race groups from administrative records, but the quality was generally lower. Research should be conducted on how administrative records can assist with race and Hispanic origin determination for censuses and surveys.
7. **Administrative records can assist age and sex determination.** The quality of age and sex response data in administrative records is high. For sex, the quality of administrative data ranged from 94.7 percent to 100.0 percent across administrative records files. For age, in data sources that contained date of birth, the quality of administrative records ranged from 79.0 percent to 98.5 percent. Research should be conducted on how administrative data can assist with age and sex determination for censuses and surveys.
8. **Conduct additional record linkage research with the aim of improving match results for unvalidated person records.** Many improvements were made to the Person Identification Validation System to enhance the assignment of protected identification keys and master address file identification numbers to administrative records data. Continued record linkage research on the Person Identification Validation System should be conducted to further enhance the assignment of protected identification keys and master address file identification numbers to persons and addresses, potentially increasing the universe of persons and addresses that can be matched and unduplicated between censuses and surveys and administrative records. For instance, of the 308.7 million persons in the 2010 Census, 29.6 million did not receive a protected identification key. Of these, 10.3 million could not be sent through Person Identification Validation System processing because they lacked name and date of birth, and 19.3 million went through Person Identification Validation System processing but failed to receive a protected identification key. Additional research should be conducted on how to minimize this latter universe.

9. **Conduct record linkage research to improve match results for records with incomplete name and date of birth data.** Commercial data sources often lack complete name and date of birth information. Research to unduplicate these records that failed the Person Identification Validation System, and assess the quality of the data is needed. Research on how to use records that lack personally identifiable information is needed, moving the matching approach beyond validation using the Social Security Administration Numerical Identification File.
10. **Conduct record linkage research that improves person record unduplication.** Current record linkage techniques must determine whether two people that look similar are indeed the same person or if they are two different people. Refinements on record linkage techniques will help to more accurately unduplicate person records.
11. **Develop partnerships with federal and state agencies to better understand administrative records and enhance record linkage research.** Partnering with federal and state agencies will facilitate knowledge sharing on the availability of data that could enhance record linkage processes. This knowledge sharing will also benefit administrative records research. For instance, a better understanding of how data were collected could assist in the validation and unduplication process and improve understanding of resulting linkages.
12. **Assess whether an administrative records composite improves missing data assignment.** Building an administrative records composite involves unduplicating records, assigning persons at multiple addresses to one address, and assigning one characteristic to people that have different characteristics across source files. Research should assess the quality of missing data assignment using a composite compared to using all available administrative data.
13. **Analyze linked survey data, especially the American Community Survey, to explore characteristics associated with data coverage and consistency.** Evaluating administrative records relative to the 2010 Census provided important information, at different levels of geography and by certain characteristics, about the quality and coverage of administrative data. Other evaluations using survey data such as the American Community Survey can provide additional insights because the American Community Survey has many additional characteristics that can be analyzed.

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Appendix 1. 2010 Census and Administrative Records Address Count and Match Numbers and Ratios by State

State	2010 Census Address Count	Administrative Records Address Count	2010 Census and Administrative Records Address Match	2010 Census and Administrative Records Address Count Ratio	2010 Census and Administrative Records Address Match Ratio
Total	131,704,730	151,277,043	121,967,283	114.9	92.6
Alabama	2,171,853	2,631,070	1,958,393	121.1	90.2
Alaska	306,967	284,581	216,396	92.7	70.5
Arizona	2,844,526	3,181,603	2,579,685	111.9	90.7
Arkansas	1,316,299	1,563,799	1,187,413	118.8	90.2
California	13,680,081	15,636,385	13,048,320	114.3	95.4
Colorado	2,212,898	2,548,541	2,053,765	115.2	92.8
Connecticut	1,487,891	1,657,153	1,413,863	111.4	95.0
Delaware	405,885	498,142	374,029	122.7	92.2
District of Columbia	296,719	350,341	285,015	118.1	96.1
Florida	8,989,580	10,626,269	8,517,678	118.2	94.8
Georgia	4,088,801	4,981,082	3,768,449	121.8	92.2
Hawaii	519,508	577,083	446,412	111.1	85.9
Idaho	667,796	738,029	586,574	110.5	87.8
Illinois	5,296,715	6,139,013	4,998,755	115.9	94.4
Indiana	2,795,541	3,257,283	2,675,370	116.5	95.7
Iowa	1,336,417	1,585,541	1,290,013	118.6	96.5
Kansas	1,233,215	1,451,380	1,177,071	117.7	95.4
Kentucky	1,927,164	2,272,290	1,740,059	117.9	90.3
Louisiana	1,964,981	2,364,806	1,820,451	120.3	92.6
Maine	721,830	771,113	581,006	106.8	80.5
Maryland	2,378,814	2,681,983	2,279,666	112.7	95.8
Massachusetts	2,808,254	3,164,933	2,644,298	112.7	94.2
Michigan	4,532,233	5,180,638	4,272,367	114.3	94.3
Minnesota	2,347,201	2,647,850	2,207,463	112.8	94.0
Mississippi	1,274,719	1,580,466	1,137,206	124.0	89.2
Missouri	2,712,729	3,145,375	2,492,094	115.9	91.9
Montana	482,825	523,045	391,384	108.3	81.1
Nebraska	796,793	931,234	753,912	116.9	94.6
Nevada	1,173,814	1,331,766	1,073,041	113.5	91.4
New Hampshire	614,754	676,146	537,997	110.0	87.5
New Jersey	3,553,562	3,997,308	3,316,124	112.5	93.3
New Mexico	901,388	973,685	738,415	108.0	81.9
New York	8,108,103	8,679,561	7,135,118	107.0	88.0
North Carolina	4,327,528	5,106,116	3,985,836	118.0	92.1
North Dakota	317,498	349,441	280,019	110.1	88.2
Ohio	5,127,508	5,843,980	4,928,956	114.0	96.1
Oklahoma	1,664,378	1,936,908	1,465,664	116.4	88.1
Oregon	1,675,562	1,907,428	1,585,086	113.8	94.6
Pennsylvania	5,567,315	6,289,674	5,095,426	113.0	91.5
Rhode Island	463,388	509,921	429,334	110.0	92.7
South Carolina	2,137,683	2,522,339	1,961,875	118.0	91.8
South Dakota	363,438	400,931	320,781	110.3	88.3
Tennessee	2,812,133	3,336,464	2,647,011	118.6	94.1
Texas	9,977,436	11,800,449	9,219,315	118.3	92.4
Utah	979,709	1,103,249	885,863	112.6	90.4
Vermont	322,539	344,442	257,772	106.8	79.9
Virginia	3,364,939	3,833,196	3,177,164	113.9	94.4
Washington	2,885,677	3,270,218	2,711,528	113.3	94.0
West Virginia	881,917	916,389	641,667	103.9	72.8
Wisconsin	2,624,358	2,894,197	2,454,964	110.3	93.5
Wyoming	261,868	282,207	221,220	107.8	84.5

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Appendix 2. Number of Administrative Records Race Response Data that Matched to the 2010 Census

2010 Census and Administrative Records Race Response Match by Source File	White Alone	Black Alone	American Indian or Alaska Native Alone	Asian Alone	Native Hawaiian or Other Pacific Islander Alone	Some Other Race Alone	Two or More Races
Federal Files							
Previous Census Records	143,932,741	19,590,220	924,308	6,438,417	127,055	2,533,345	1,424,434
Numident	137,393,038	23,441,066	746,723	7,463,346	211,511	169,495	N/A
IHS	N/A	N/A	1,118,731	N/A	N/A	N/A	N/A
HUD CHUMS	3,453,455	456,376	6,375	86,759	2,747	N/A	2,925
HUD PIC	1,992,676	2,768,089	30,164	140,313	10,985	N/A	21,697
HUD TRACS	826,971	659,247	8,872	68,696	789	11,021	7,359
TANF	879,503	662,025	43,363	22,129	11,578	N/A	17,428
MEDB	35,061,707	4,084,997	119,988	680,144	N/A	46,696	N/A
Commercial Files							
Commercial File 1	80,838,100	4,576,674	N/A	3,212,143	8,512	9,411	N/A
Commercial File 2	104,760,397	6,023,253	49,702	3,818,328	19,317	6,865	N/A
Commercial File 3	87,472,679	7,182,423	80,738	3,306,341	13,804	13,203	N/A
Commercial File 4	36,691,939	3,514,892	24,430	1,428,767	6,666	6,654	N/A

Note: N/A indicates that data were not available for a demographic group.

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Appendix 3. Number of Administrative Records Age Response Data that Matched to the 2010 Census

2010 Census and Administrative Records Age Response Match by Source File	Age							
	Total	0-2	3-17	18-24	25-44	45-64	65-74	75 and older
Federal Files								
Previous Census Records	177,391,205	112,085	22,721,169	17,981,703	48,621,085	57,993,070	16,294,058	13,668,035
Numident	247,246,597	9,437,770	50,571,159	22,276,150	63,311,618	68,127,690	18,537,623	14,984,587
IHS	1,982,375	58,605	461,447	235,454	594,965	471,707	103,237	56,960
HUD CHUMS	1,102,445	N/A	N/A	45,498	662,649	318,821	51,624	23,853
HUD PIC	5,629,036	282,150	2,138,739	576,799	1,157,731	953,821	278,559	241,237
HUD TRACS	1,933,895	117,310	458,322	184,889	292,834	303,777	241,166	335,597
SSR	5,752,842	77,311	917,048	487,295	1,130,532	1,875,155	655,365	610,136
SSS	11,362,121	N/A	N/A	9,925,993	1,436,128	N/A	N/A	N/A
TANF	1,962,999	284,341	924,045	218,901	396,722	124,740	11,724	2,526
MEDB	40,976,596	154	3,050	109,286	1,482,235	6,285,208	18,055,914	15,040,749
Commercial Files								
Commercial File 1	67,267,479	2	464	2,026,853	19,023,391	30,180,482	8,947,185	7,089,102
Commercial File 2	99,550,908	2,869	264,000	5,815,815	25,918,317	44,461,470	12,992,241	10,096,196
Commercial File 3	99,034,982	N/A	N/A	5,691,945	28,355,217	42,634,879	12,458,996	9,893,945
Commercial File 4	44,394,816	N/A	N/A	2,913,010	15,573,662	17,211,069	4,832,777	3,864,298
Commercial File 5	105,057,114	N/A	45	306,784	31,025,912	49,538,772	13,600,440	10,585,161
Commercial File 6	672,329	5	10	47,364	367,703	231,700	22,390	3,157
Commercial File 7	69,141,668	N/A	N/A	959,538	16,433,959	32,667,361	10,405,506	8,675,304
Commercial File 8	94,729,380	2	4,865	227,067	27,324,495	45,364,561	12,381,914	9,426,476

Note: N/A indicates that data were not available for a demographic group.

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Appendix 4. Number Coverage of 2010 Census Race Data by Administrative Records Source Files

Coverage of 2010 Race Data by Administrative Records Race Response Data by Source File	White Alone	Black Alone	American Indian or Alaska Native Alone	Asian Alone	Native Hawaiian or Other Pacific Islander Alone	Some Other Race Alone	Two or More Races
Federal Files							
Previous Census Records	158,912,424	22,172,600	1,622,741	7,262,106	236,058	6,240,160	4,347,896
Numident	147,538,811	26,032,144	1,584,438	9,410,029	310,889	1,273,753	3,317,079
HUD CHUMS	3,737,173	553,772	28,399	141,411	6,371	211,123	89,764
HUD PIC	2,354,609	3,236,689	83,620	172,802	20,131	495,651	356,228
HUD TRACS	980,146	798,188	22,003	86,587	2,583	109,232	87,265
IHS	184,336	10,859	1,213,533	1,525	557	12,263	243,411
MEDB	37,838,250	4,525,110	268,365	1,248,345	34,817	457,020	481,100
TANF	1,014,945	781,662	66,149	31,426	17,247	105,998	151,340
Commercial Files							
Commercial File 1	86,991,717	11,239,910	455,389	3,961,908	65,395	400,642	1,300,500
Commercial File 2	123,505,687	17,879,478	1,048,547	6,103,276	145,686	5,309,302	2,799,946
Commercial File 3	97,488,071	12,694,945	663,084	4,381,886	89,047	487,464	1,636,702
Commercial File 4	41,413,258	6,574,714	309,933	1,906,532	44,160	246,747	831,043

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

Appendix 5. Number Coverage of 2010 Census Age Data by Administrative Records Source Files

Coverage of 2010 Age Data by Administrative Records Age Response Data by Source File	Age						
	0-2	3-17	18-24	25-44	45-64	65-74	75 and older
Federal Files							
Previous Census Records	181,917	26,175,297	21,416,592	55,633,830	65,122,878	18,253,613	15,773,075
Numident	10,755,280	56,519,662	26,024,257	71,248,022	75,612,369	20,497,398	17,357,698
HUD CHUMS	464	2,530	260,965	2,904,253	1,385,413	219,255	101,905
HUD PIC	346,868	2,526,583	708,426	1,382,735	1,147,854	336,633	298,257
HUD TRACS	146,157	557,649	229,341	358,202	370,604	288,031	405,192
IHS	70,172	537,573	282,007	690,349	546,098	120,249	69,654
MEDB	2,467	17,131	150,614	1,805,897	7,278,641	19,674,307	16,967,643
SSR	95,226	1,077,384	585,922	1,383,920	2,316,885	839,000	813,067
SSS	5,599	63,968	11,464,531	1,710,190	27,464	5,366	4,243
TANF	342,572	1,086,642	262,594	468,505	149,436	14,908	4,305
Commercial Files							
Commercial File 1	6,757	48,352	2,968,988	26,060,043	40,555,390	12,096,480	9,912,223
Commercial File 2	29,025	550,213	7,922,515	32,154,081	53,039,219	15,361,780	12,416,700
Commercial File 3	9,894	317,884	7,927,196	34,646,629	50,699,174	14,763,017	12,121,167
Commercial File 4	5,668	129,303	3,885,747	18,792,309	20,482,692	5,752,650	4,823,882
Commercial File 5	8,631	58,890	520,819	37,306,506	60,386,506	16,774,769	13,617,147
Commercial File 6	173	5,328	72,300	497,604	315,476	29,811	5,150
Commercial File 7	4,500	31,905	1,391,778	20,070,632	39,821,425	12,793,870	11,066,280
Commercial File 8	7,719	59,100	355,481	32,820,483	54,107,625	14,729,763	11,540,612

Sources: 2010 Census and 2010 Census Match Study Administrative Records Data.

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Start here or go online [get the 2018 Census Test](#) to complete the 2018 Census Test.
Use a blue or black pen.

Before you answer Question 1, you must be living in this house, apartment, or mobile home, including those who are:

- Count all people, including babies, who live at this place at the time.
- If no one lives and sleeps at this place at the time, go online at [BUREAUCENSUS.GOV](#) or call the number on page 8.

The census must also include people without a permanent place to live, see:

- If someone who does not have a permanent place to live is staying here on April 1, 2018, count that person.

The Census Bureau also conducts counts in institutions and other places, see:

- Do not count anyone living away from here, either at college or in the Armed Forces.
- Do not count anyone in a nursing home, jail, prison, detention facility, etc., on April 1, 2018.
- Leave these people off your questionnaire, even if they will return to the home after they leave college, the nursing home, the military jail, etc. Otherwise, they may be counted twice.

1. How many people were living or staying in this house, apartment, or mobile home on April 1, 2018?
Number of people =

2. Were there any additional people staying here on April 1, 2018 that you did not include in Question 1?
Mark all that apply.

- Children, related or unrelated, such as newborn babies, grandchildren, or foster children
- Relatives, such as adult children, cousins, or in-laws
- Housemates, such as roommates or house-sitters
- People staying here temporarily
- No additional people

3. Is this house, apartment, or mobile home — Mark ONE box.

- Owned by you or someone in the household with a mortgage or loan? Include home equity loans.
- Owned by you or someone in the household free and clear (without a mortgage or loan)?
- Rented?
- Occupied without payment of rent?

4. What is your telephone number?
We will only contact you if needed for official Census Bureau business.

Telephone Number:

FORM DH-1 (2018)



Person 1

5. Please provide information for each person living here. If there is someone living here who pays the rent or owns this residence, start by listing him or her as Person 1. If the owner or the person who pays the rent does not live here, start by listing any adult living here as Person 1.

What is Person 1's name? *Print name below.*

First Name

Last Name

6. What is Person 1's sex? Mark ONE box.

Male Female

7. What is Person 1's age and what is Person 1's date of birth? For babies less than 1 year old, do not write the age in months. Write 0 as the age.

Age on April 1, 2018 years

Print numbers in boxes.

Month Day Year of birth

8. Is Person 1 of Hispanic, Latino, or Spanish origin?
Mark one or more boxes AND print 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, for example, Puerto Rican, Dominican, Colombian, Guatemalan, Salvadoran, Ecuadorian, etc.

9. What is Person 1's race?
Mark one or more boxes AND print origin.

White, English, American, German, Irish, English, Italian, Welsh, English, etc.

Black or African Am. — Print, for example, African American, Black, African, Algerian, Egyptian, Senegal, etc.

American Indian or Alaska Native — Print name of enrolled or principal ancestry, for example, Navajo Nation, Blackfoot Tribe, Mayan, Aztec, Navajo Village of Burney Island, Traditional Government, Navajo Eastern Community, etc.

Chinese Vietnamese Native Hawaiian

Filipino Korean Samoan

Asian Indian Japanese Chamorro

Other Asian — Print, for example, Pakistani, Cambodian, Hmong, etc.

Other Pacific Islander — Print, for example, Tongan, Fijian, Marshallese, etc.

Some other race — Print race or origin

→ If more people were counted in Question 1 on the front page, continue with Person 2 on the next page.

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Person 2

1. Print name of **MI**
 First Name
 Last Name(s)

2. Does this person usually live or stay somewhere else?
 Mark all that apply.
 No Yes, with a parent or other relative Yes, at a seasonal or second residence Yes, in a jail or prison Yes, for college Yes, for a military assignment Yes, for a job or business Yes, in a nursing home Yes, for another reason

3. How is this person related to Person 1? Mark ONE box.
 Opposite-sex husband/wife/spouse Opposite-sex unmarried partner Same-sex husband/wife/spouse Same-sex unmarried partner Biological son or daughter Adopted son or daughter Stepson or stepdaughter Brother or sister Father or mother Grandchild Parent-in-law Son-in-law or daughter-in-law Other relative Roommate or housemate Foster child Other nonrelative

4. What is this person's sex? Mark ONE box.
 Male Female

5. What is this person's age and what is this person's date of birth? For babies less than 1 year old, do not write the age in months. Write 0 as the age.
 Part numbers at boxes:
 Age on April 1, 2018 Month Day Year of birth
 years

NOTE: Please answer BOTH Question 6 about Hispanic origin and Question 7 about race. For this census, Hispanic origins are not races.

6. Is this person of Hispanic, Latino, or Spanish origin?
 Mark one or more boxes AND print origins.
 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, for example, Salvadoran, Dominican, Colombian, Guatemalan, Guinean, Ecuadorian, etc. 2

7. What is this person's race?
 Mark one or more boxes AND print origins.
 White - Print, for example, German, Irish, English, Italian, Lebanese, Greek, Russian, etc. 2
 Black or African Am. - Print, for example, African American, Black, African, Nigerian, Ethiopian, Somali, etc. 2
 American Indian or Alaska Native - Print name of enrolled or principal ancestry, for example, Navajo Nation, Blackfoot Tribe, Alyan, Aztec, Navajo Village of Burner Inupiat Traditional Government, Hone Ekaara Community, etc. 2
 Chinese Vietnamese Native Hawaiian Filipino Korean Samoan Asian Indian Japanese Chamorro Other Asian - Print, for example, Pakistani, Cambodian, Hmong, etc. 2
 Other Pacific Islander - Print, for example, Tongan, Fijian, Marshallese, etc. 2
 Some other race - Print race or origin. 2

If more people were counted in Question 1 on the front page, continue with Person 3 on the next page.

Person 3

1. Print name of **MI**
 First Name
 Last Name(s)

2. Does this person usually live or stay somewhere else?
 Mark all that apply.
 No Yes, with a parent or other relative Yes, at a seasonal or second residence Yes, in a jail or prison Yes, for college Yes, for a military assignment Yes, for a job or business Yes, in a nursing home Yes, for another reason

3. How is this person related to Person 1? Mark ONE box.
 Opposite-sex husband/wife/spouse Opposite-sex unmarried partner Same-sex husband/wife/spouse Same-sex unmarried partner Biological son or daughter Adopted son or daughter Stepson or stepdaughter Brother or sister Father or mother Grandchild Parent-in-law Son-in-law or daughter-in-law Other relative Roommate or housemate Foster child Other nonrelative

4. What is this person's sex? Mark ONE box.
 Male Female

5. What is this person's age and what is this person's date of birth? For babies less than 1 year old, do not write the age in months. Write 0 as the age.
 Part numbers at boxes:
 Age on April 1, 2018 Month Day Year of birth
 years

NOTE: Please answer BOTH Question 6 about Hispanic origin and Question 7 about race. For this census, Hispanic origins are not races.

6. Is this person of Hispanic, Latino, or Spanish origin?
 Mark one or more boxes AND print origins.
 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, for example, Salvadoran, Dominican, Colombian, Guatemalan, Guinean, Ecuadorian, etc. 2

7. What is this person's race?
 Mark one or more boxes AND print origins.
 White - Print, for example, German, Irish, English, Italian, Lebanese, Greek, Russian, etc. 2
 Black or African Am. - Print, for example, African American, Black, African, Nigerian, Ethiopian, Somali, etc. 2
 American Indian or Alaska Native - Print name of enrolled or principal ancestry, for example, Navajo Nation, Blackfoot Tribe, Alyan, Aztec, Navajo Village of Burner Inupiat Traditional Government, Hone Ekaara Community, etc. 2
 Chinese Vietnamese Native Hawaiian Filipino Korean Samoan Asian Indian Japanese Chamorro Other Asian - Print, for example, Pakistani, Cambodian, Hmong, etc. 2
 Other Pacific Islander - Print, for example, Tongan, Fijian, Marshallese, etc. 2
 Some other race - Print race or origin. 2

If more people were counted in Question 1 on the front page, continue with Person 4 on the next page.

Person 4

1. Print name of MI
 First Name
 Last Name(s)

2. Does this person usually live or stay somewhere else?
 Mark all that apply.
 No
 Yes, for college
 Yes, for a military assignment
 Yes, for a job or business
 Yes, in a nursing home
 Yes, with a parent or other relative
 Yes, at a seasonal or second residence
 Yes, in a jail or prison
 Yes, for another reason

3. How is this person related to Person 1? Mark ONE box.
 Opposite-sex husband/wife/spouse
 Opposite-sex unmarried partner
 Same-sex husband/wife/spouse
 Same-sex unmarried partner
 Biological son or daughter
 Adopted son or daughter
 Stepson or stepdaughter
 Brother or sister
 Father or mother
 Grandchild
 Parent-in-law
 Son-in-law or daughter-in-law
 Other relative
 Roommate or housemate
 Foster child
 Other nonrelative

4. What is this person's sex? Mark ONE box.
 Male Female

5. What is this person's age and what is this person's date of birth? For babies less than 1 year old, do not write the age in months. Write 0 as the age.
 Print numbers in boxes.
 Age on April 1, 2018: years
 Month: Day: Year of birth:

NOTE: Please answer BOTH Question 6 about Hispanic origin and Question 7 about race. For this census, Hispanic origins are not races.

6. Is this person of Hispanic, Latino, or Spanish origin?
 Mark one or more boxes AND print 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, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spanish, Ecuadorian, etc. ²

7. What is this person's race?
 Mark one or more boxes AND print origin.
 White - Print, for example, German, Irish, English, Italian, Latvian, etc. ²
 Black or African Am. - Print, for example, African American, African, Haitian, Nigerian, Ethiopian, Somali, etc. ²
 American Indian or Alaska Native - Print name of enrolled or principal tribal group, for example, Navajo Nation, Blackfoot Tribe, Mojave, Aztec, Navajo Village of Burney Inupat Traditional Government, Nome Eskimo Community, etc. ²
 Chinese
 Filipino
 Asian Indian
 Japanese
 Korean
 Vietnamese
 Other Asian - Print, for example, Pakistani, Cambodian, Hmong, etc. ²
 Native Hawaiian
 Samoan
 Chamorro
 Other Pacific Islander - Print, for example, Tongan, Fijian, Marshallese, etc. ²
 Some other race - Print race or origin. ²

If more people were counted in Question 1 on the front page, continue with Person 5 on the next page.

Person 5

1. Print name of MI
 First Name
 Last Name(s)

2. Does this person usually live or stay somewhere else?
 Mark all that apply.
 No
 Yes, for college
 Yes, for a military assignment
 Yes, for a job or business
 Yes, in a nursing home
 Yes, with a parent or other relative
 Yes, at a seasonal or second residence
 Yes, in a jail or prison
 Yes, for another reason

3. How is this person related to Person 1? Mark ONE box.
 Opposite-sex husband/wife/spouse
 Opposite-sex unmarried partner
 Same-sex husband/wife/spouse
 Same-sex unmarried partner
 Biological son or daughter
 Adopted son or daughter
 Stepson or stepdaughter
 Brother or sister
 Father or mother
 Grandchild
 Parent-in-law
 Son-in-law or daughter-in-law
 Other relative
 Roommate or housemate
 Foster child
 Other nonrelative

4. What is this person's sex? Mark ONE box.
 Male Female

5. What is this person's age and what is this person's date of birth? For babies less than 1 year old, do not write the age in months. Write 0 as the age.
 Print numbers in boxes.
 Age on April 1, 2018: years
 Month: Day: Year of birth:

NOTE: Please answer BOTH Question 6 about Hispanic origin and Question 7 about race. For this census, Hispanic origins are not races.

6. Is this person of Hispanic, Latino, or Spanish origin?
 Mark one or more boxes AND print 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, for example, Salvadoran, Dominican, Colombian, Guatemalan, Spanish, Ecuadorian, etc. ²

7. What is this person's race?
 Mark one or more boxes AND print origin.
 White - Print, for example, German, Irish, English, Italian, Latvian, etc. ²
 Black or African Am. - Print, for example, African American, African, Haitian, Nigerian, Ethiopian, Somali, etc. ²
 American Indian or Alaska Native - Print name of enrolled or principal tribal group, for example, Navajo Nation, Blackfoot Tribe, Mojave, Aztec, Navajo Village of Burney Inupat Traditional Government, Nome Eskimo Community, etc. ²
 Chinese
 Filipino
 Asian Indian
 Japanese
 Korean
 Vietnamese
 Other Asian - Print, for example, Pakistani, Cambodian, Hmong, etc. ²
 Native Hawaiian
 Samoan
 Chamorro
 Other Pacific Islander - Print, for example, Tongan, Fijian, Marshallese, etc. ²
 Some other race - Print race or origin. ²

If more people were counted in Question 1 on the front page, continue with Person 6 on the next page.

United States Census 2020

2020 Census Life-cycle Cost Estimate Executive Summary Version 1.0

For Official Use Only

This estimate has been prepared in support of the Version 3.0 release of the 2020 Operational Plan. Estimates contained herein are as of October 10, 2017



December 21, 2017

Approval of Estimate

Approved and Submitted by:

Associate Director for Decennial Programs

Date

Endorsed by:

Chief Financial Officer

Date

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1. Introduction

The goal of the 2020 Census is to count everyone once, only once, and in the right place. As the cost of completing this goal has significantly increased each decade since 1970 as the population becomes more challenging to count, the Census Bureau undertook a challenge this decade to design the 2020 Census to cost less per housing unit than the 2010 Census (when adjusted for inflation), while continuing to maintain high quality results. The cost of repeating the 2010 Census methodology in 2020 is \$120 per housing unit and the 2020 Census, as currently designed, is expected to cost \$107 per housing unit (including contingency)¹. The Census Bureau plans to achieve this through the most automated, modern, and dynamic decennial census in history.

The 2020 Census embraces technology to ensure a fair and accurate count that will lay the framework for censuses for decades to come. The 2020 Census Operational Plan Version 3.0 released in October 2017 details plans for the first decennial census to update the Census Bureau's address frame using geographic information systems and aerial imagery instead of sending census employees to walk and physically check all 11 million census blocks; the first to encourage the population to respond to the 2020 Census using the Internet and over the telephone, reducing the need for expensive paper data capture; the first to use data the public has already provided to the government and data available from commercial sources to enable focusing of additional visits in areas that have traditionally been hard to enumerate; and the first to use sophisticated operational control systems to send Census Bureau employees to follow up with nonresponding housing units and to track daily progress.

1.1 Executive Summary Purpose

This executive summary of the 2020 Census Lifecycle Cost Estimate (LCCE) is intended to provide the public with a high-level overview of the November 2017 version of 2020 Census LCCE and the supporting 2020 Census LCCE Basis of Estimate (BoE) and related documentation artifacts. The executive summary does not contain a detailed breakout of the costs, assumptions, etc. Detailed documentation of the 2020 Census LCCE is contained in the BoE and its accompanying suite of artifacts. This suite is the detailed formal documentation of the cost estimate that is not published for the general public but rather is intended for official government use including for auditors and oversight bodies.

¹ Note that all costs are presented in then-year (also called current-year) dollars. Then-year dollars are those that have been inflated using an established inflation rate that are expressed in the year when the disbursements or expenditures are expected to occur. The 2020 Census uses the Chained Price Index (CPI) from the Office of Management and Budget's (OMB's) Table 10.1 entitled Gross Domestic Product and Deflators Used in the Historic Tables: 1940-2022.

2. Background

2.1 The 2020 Census

The purpose of the 2020 Census is to conduct a census of population and housing and disseminate the results to the President, the States, and the American people in keeping with Article I and the Fourteenth Amendment of the U.S. Constitution. To accomplish this, the Census Bureau must count everyone once, only once, and in the right place. As the 2020 Census draws near, the Census Bureau has designed a 2020 Census that ensures the coverage of the population and housing is as complete as possible. The design will serve to minimize the undercounting or overcounting the population, particularly as related to the differential impact on subgroups of the population.² The Census Bureau is fully committed to designing and conducting a 2020 Census that accurately counts every person residing in America.

The primary requirement served by the decennial census is the apportionment of seats allocated to the states for the House of Representatives. This requirement is mandated in the U.S. Constitution:

Article I, Section 2, “The actual enumeration shall be made within three years after the first meeting of the Congress of the United States, and within every subsequent Term of ten Years”

Fourteenth Amendment, Section 2, “Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State”

2.2 Uses of Decennial Census Data

As discussed above, decennial data are used to apportion the number of seats in Congress among the states. Decennial data at the census block level are also used by governmental entities for redistricting, i.e., defining the representative boundaries for congressional districts, state legislative districts, school districts, and voting precincts. Additionally, decennial data are used to enforce voting rights and civil rights legislation.

The Census Bureau also uses the decennial census results to determine the statistical sampling frames for the American Community Survey (ACS), which replaced the long form in the decennial census, and the dozens of current household surveys conducted by the Census Bureau. The results of these surveys are used to support important functions, such as appropriating

² A detailed discussion of the quality implications of the 2020 Census design can be found in Chapter 7 of the 2020 Census Operational Plan Version 3.0.

federal funds to local communities (an estimated \$675 billion annually³); calculating monthly unemployment, crime, and poverty rates; and publishing health and education data.

Finally, Census Bureau data, including decennial data, play an increasingly important role in the United States economy. As people expand their use of data to make decisions at the local and national levels, they increasingly depend on data from the Census Bureau. Today, local businesses look at data provided by the Census Bureau on topics like population growth and income levels to make decisions about whether or where to locate their restaurants or stores. Similarly, a real estate investor, who is considering investing significant funds to develop a piece of land in the community relies on Census Bureau data to measure the demand for housing, predict future need, and review aggregate trends. Big businesses also rely heavily on Census Bureau data to make critical decisions that impact their success and shape the economy at the national level. As noted above, the decennial census is the foundation for the Census Bureau's demographic survey data.

2.3 Challenging Environmental Factors

Multiple environmental factors have the potential to impact the Census Bureau's ability to conduct a fair and accurate count. The Census Bureau is committed to proactively addressing the challenges outlined below in Figure 1 and further elucidated in greater detail in the section below.

³ Marisa Hotchkiss and Jessica Phelan, *Uses of Census Bureau Data in Federal Funds Distribution: A New Design for the 21st Century*, Census Working Papers, 2017 (Washington, DC: U.S. Census Bureau, September 2017), p. 3.

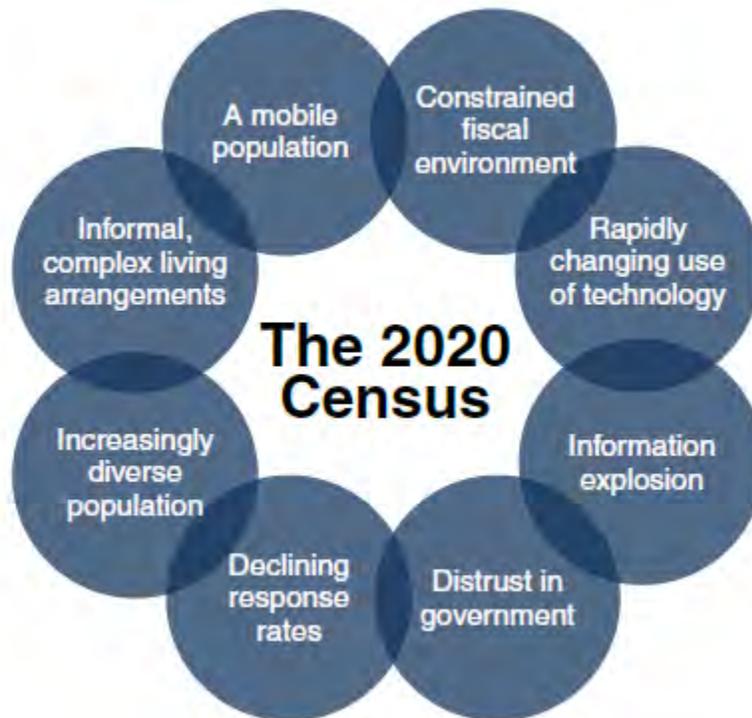


Figure 1: 2020 Census Environment

- Constrained fiscal environment:** Discretionary caps and sequestration through 2021 have placed pressure on funding available for the research, testing, design and implementation work for the 2020 Census that is especially important during 2016 through 2018 to ensure successful innovation in the 2020 Census. Each fiscal year during the 2020 Census lifecycle, appropriated funding has been less than requested or not provided at the start of each fiscal year. The Census Bureau has had to reprioritize its projects, either by cancelling certain activities like field testing or postponing activities to later in the decade, increasing operational risk to the program.⁴
- Rapidly changing use of technology:** Stakeholders expect the decennial census to leverage technological innovation, yet the rapid pace of change makes it challenging to plan for and adequately test the use of these technologies before they become obsolete.
- Information explosion:** Rapid changes in information technology create stakeholder expectations for how the Census Bureau interacts with the public to obtain and disseminate data products. This creates the possibility of gaps between stakeholder

⁴ A detailed discussion of the major program risks can be found in Chapter 6 of the *2020 Census Operational Plan*.

desires that the Census Bureau uses the latest technology and the program's ability to meet those expectations.

- **Declining response rates:** Response rates for Census Bureau surveys and for outside surveys have declined over the past few decades as people are overloaded with requests for information and become increasingly concerned about sharing information. The 2020 Census has a direct impact on cost because lower self-response rates require greater uses of expensive field operations to contact nonresponding households.
- **Distrust in government:** Concerns continue to grow about information security and privacy, the confidentiality of information given to the government, and how government programs will use the information collected. This makes it more difficult to collect important demographic survey information. This problem is magnified by the general concern around data security that is intensified whenever a high-profile data breach occurs. If a substantial segment of the public is not convinced that the Census Bureau can safeguard their response data against data breaches and unauthorized use, then response rates may be lower than projected, leading to an increase in cases for follow-up and costs.
- **Increasingly diverse population:** The demographic and cultural make-up of the United States continues to increase in complexity, including a growing number of households and individuals of limited English proficiency, who may experience language barriers to enumeration and varying levels of comfort with government involvement. The program is working to form partnerships with these communities to communicate the benefits of responding and engender their trust. In the absence of such partnerships, the program risks that these communities will not be fully covered by the 2020 Census.
- **Informal, complex living arrangements:** Households are becoming more diverse and dynamic, making it a challenge to associate an identified person with a single location. For example, blended families may include children who have two primary residences. Additionally, some households include multiple relationships and generations. This makes it more difficult for the Census Bureau to reach respondents, as well as creates a risk that people will either be missed by the census, or counted twice.
- **A mobile population:** The United States continues to be a highly mobile nation. Based on results from the 2015 American Community Survey, approximately 15 percent of the population moves in a given year. The continued growth in cellular telephone technology and the reduction in landline telephones tied to physical locations also make it more difficult for the Census Bureau to reach respondents, as

well as creates a risk that individuals will either be missed by the census, or counted twice.

2.4 A New Design for the 21st Century

The societal, demographic, and technological trends listed above can result in a population that is harder and more expensive to enumerate. The Census Bureau has, decade after decade, spent more money to maintain the same level of accuracy as previous censuses, as it has become more challenging to locate individuals and solicit their participation through traditional methods. The innovations described in the 2020 Census Operational Plan Version 3.0, estimates that cost avoidance can be realized relative to replicating a design similar to that of the 2010 Census. Estimates for expected total costs for the 2020 Census are approximately \$17.5B in 2020 if the Census Bureau repeats the 2010 Census design and methods. With the innovations described below, as of October 2017 the Census Bureau estimates that it can conduct the 2020 Census for approximately \$15.6B⁵.

Field costs associated with Address Canvassing and Nonresponse Followup operations comprise the most expensive aspects of the 2020 Census. Four innovation areas are aimed at reducing the costs of fieldwork to support a complete and accurate count. A reengineered Address Canvassing operation is expected to reduce the field workload for address updating by 70 percent. Self-response innovations, which are aimed at generating the largest possible self-response rate, coupled with the use of administrative records and third-party data, are intended to reduce the field workload associated with Nonresponse Followup. Finally, the reengineered field operations are intended to increase the efficiency of those operations, allowing managers and fieldworkers to be more productive and effective.

Figure 2 describes at a high-level how the 2020 Census will be conducted. This design reflects a flexible approach that takes advantage of new technologies and data sources while minimizing risk.

⁵ Note that all costs are presented in then-year (also called current-year) dollars. Then-year dollars are those that have been inflated using an established inflation rate that are expressed in the year when the disbursements or expenditures are expected to occur. The 2020 Census uses the Chained Price Index (CPI) from the Office of Management and Budget's (OMB's) Table 10.1 entitled Gross Domestic Product and Deflators Used in the Historic Tables: 1940-2022.

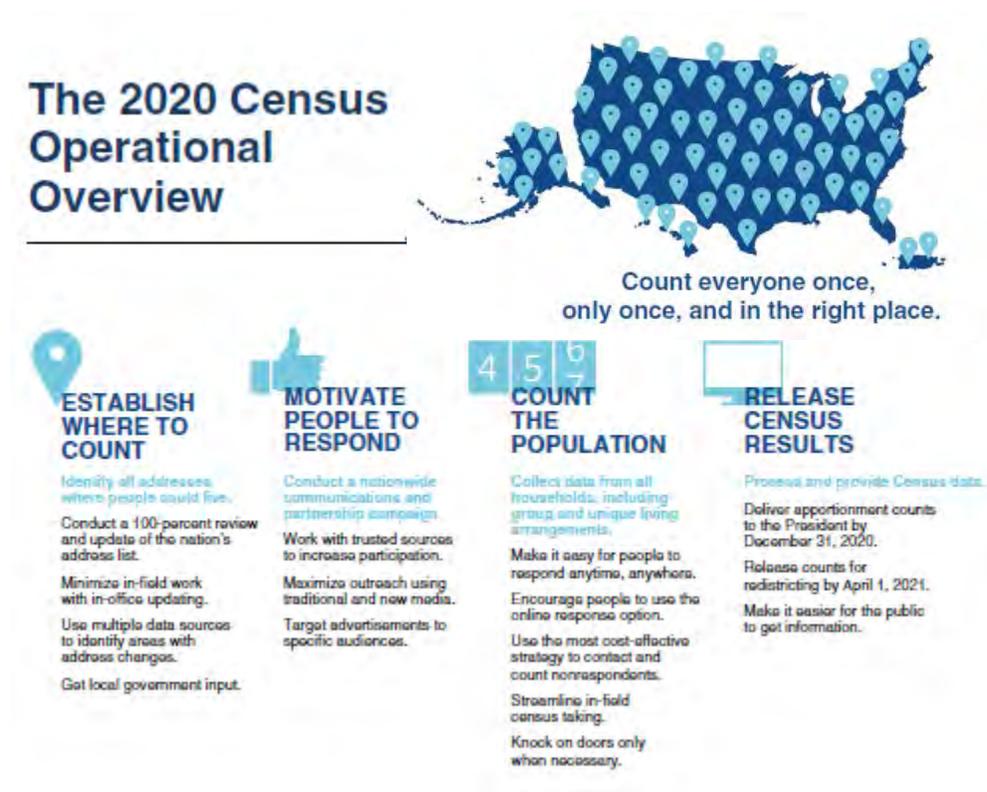


Figure 2: The 2020 Census - A New Design for the 21st Century

The first step in conducting the 2020 Census is to identify all of the addresses where people could live, or **Establish Where to Count**. An accurate address list helps ensure that everyone is counted. For the 2020 Census, the Census Bureau began an in-office review of 100 percent of the nation's addresses in September 2015 and is continually updating the address list based on data from multiple sources, including the U.S. Postal Service, tribal, state, and local governments, satellite imagery, and third-party data providers. The Census Bureau has already completed the first pass of the entire nation with this in-office Address Canvassing operation. This office work will also determine which parts of the country require fieldwork to verify address information. In-Field Address Canvassing will begin in 2019 and is anticipated to cover approximately 30 percent of all addresses where in-office address canvassing methods do not work well like where tree cover interferes with the use of imagery or in cities where high-rise construction makes address change difficult to detect using aerial imagery.

As discussed earlier, response rates to surveys and censuses have been declining. To **Motivate People to Respond**, the 2020 Census will include a nation-wide communications and partnership campaign. This campaign is focused on getting people to respond on their own (self-respond). It costs significantly less to process a response provided via the Internet or through a paper form than it does to send a fieldworker to someone's home to collect their response. Advertising will make heavy use of digital media, tailoring the message to the audience. The partnership program will use trusted voices in the community to explain the importance of the 2020 Census and encourage wide participation.

The Census Bureau **Counts the Population** by collecting information from all households, including those residing in group or unique living arrangements. The Census Bureau wants to make it easy for people to respond anytime and anywhere. To this end, the 2020 Census will offer the opportunity and encourage people to respond via the Internet and will encourage, but not require, people to enter a unique Census Identification with their response. Online responses will be accurate, secure, and convenient.

The goal for the 2020 Census is to reduce the average number of visits to nonresponding households relative to prior decennial censuses by using available data from government administrative records and third-party sources. The Census Bureau plans to use these data to identify vacant households, to determine the best time of day to visit a particular household, and to count the people and fill in the responses with existing high-quality data from trusted sources. These uses of government administrative records and third-party sources have shown promise during our testing throughout the decade and will be tested again in the 2018 End to End Census Test. Deploying our resources in the field in the most cost-effective ways allows the Census Bureau to focus time and manpower to maximize response rates across geographic areas and demographic groups.

In addition, the majority of fieldworkers will use mobile devices for collecting the data. Operations such as recruiting, training, and payroll will be automated, reducing the time required for these activities. New operational control centers will rely on automation to manage most of the fieldwork, enabling more efficient case assignment, automatic determination of optimal travel routes, and reduction of the number of physical offices. In general, a streamlined operation and management structure is expected to increase productivity and save costs, such that Census Bureau staff may focus on their core mission of conducting a complete and accurate count.

The last step in the 2020 Census is to **Release the 2020 Census Results**. The 2020 Census data will be processed and sent to the President for apportionment by December 31, 2020, to the states for redistricting by April 1, 2021, and to the public beginning in December 2021.

2.5 The Role of the LCCE

The LCCE is the estimated cost of developing, producing, deploying, maintaining, operating and disposing of a system or program over its entire lifespan. The LCCE is prepared to support and inform budget requirements, source selections, resource allocation trade-off analyses, program change decisions, and major program reviews. The LCCE provides the basis for the official projected cost for a system or program that is communicated to the Department of Commerce (DOC), the Office of Management and Budget (OMB), Congress, the Government Accountability Office (GAO) and the public.

As the basis for the official projected cost of the program, the LCCE provides Census Bureau and Department of Commerce leadership with critical information for making program decisions, establishing executable budgets, and proactively addressing financial issues.

Section 3 of this document provides an overview of the approach, methodology, major assumptions, cost drivers and cost profile of the 2020 Census LCCE.

2.6 Improving the LCCE

As discussed in Chapter 2 of the GAO Cost Estimation and Assessment Guide, entitled *Why Government Programs Need Cost Estimates and the Challenges in Developing Them*⁶, developing a quality cost estimate is a significant challenge.

Developing a good cost estimate requires stable program requirements, access to detailed documentation and historical data, well-trained and experienced cost analysts, a risk and uncertainty analysis, the identification of a range of confidence levels, and adequate contingency and management reserves. Even with the best of these circumstances, cost estimating is difficult. It requires both science and judgment. And, since answers are seldom if ever precise, the goal is to find a ‘reasonable’ answer.

In June 2016, the GAO released a report⁷ on its May 2016 assessment of the 2020 Census LCCE and judged the estimate as “not reliable.” GAO provided a set of recommendations for the Census Bureau to implement that would facilitate the improvement of the 2020 Census LCCE. Specifically, the GAO recommended that the 2020 Census LCCE ensure that:

1. The estimate includes all life-cycle costs and documents all cost-influencing assumptions.
2. The planned documentation plan captures the source data used; contains the calculations performed and the estimating methodologies used for each element; and describes step by step how the estimate was developed.
3. The estimating technique for each cost element is used appropriately and that variances between planned and actual cost are documented, explained, and reviewed.
4. The estimate includes a sensitivity analysis, major cost elements are cross-checked to see whether results are similar, and an independent cost estimate is conducted to determine whether other estimating methods produce similar results.

As a result, the Census Bureau developed a Cost Estimation Enhancement Plan to mature the 2020 Census LCCE and its associated processes via a series of three-month sprints. The action plan covers four enhancement areas. These areas are: 1) Documentation Enhancement, 2) Process Enhancement, 3) Cost Estimate Enhancement, and 4) Cost Integration Enhancement. The specific artifacts associated with the enhancement efforts are shown below.

- 2020 Census LCCE BoE – a document that describes, step by step, the scope of the estimate, the cost estimating process, and the data sources, assumptions, and methods used so that a cost analyst unfamiliar with the program could understand what was done

⁶ GAO Cost Estimating and Assessment Guide, March 2009, GAO-09-SP, page 15.

⁷ 2020 Census: Census Bureau Needs to Improve Its Life-Cycle Cost Estimating Process, June 30, 2016, GAO-16-628

and replicate it. This artifact directly addresses most of the GAO recommendations on the need for improved documentation.

- 2020 Decennial Census Program Cost Estimation and Assessment Process (CEAP) – a document that establishes a cost estimation and analysis process that will provide a common framework for planning, developing, and managing cost estimates in alignment with GAO and other best practices. This process directly addresses the GAO recommendations for improved cost estimation practices.
- Cost Center of Excellence (CCOE) Charter – charter that lays out roles and responsibilities for a body of 2020 Census Programs cost estimation subject matter experts and stakeholders. This body will support the improvement of cost estimation practices and usage across the program. This charter directly addresses the GAO recommendations for improved internal practices and internal controls.
- Decennial Directorate Cost Guidance – guidance document to support the implementation and governance associated with the CEAP and the CCOE. This guidance directly addresses the GAO recommendations for improved internal practices and internal controls.
- 2020 Census Work Breakdown Structure (WBS) Dictionary – document that defines the WBS elements and a platform to guide more effective understanding of how to categorize costs in a consistent manner. This artifact directly addresses the GAO recommendations for improved documentation and the need to ensure that the estimate covers the entire scope of the program.
- 2020 LCCE Version Control Plan – document that establishes a disciplined approach to cost estimate updates, changes and releases. This artifact directly addresses the GAO recommendation to improve documentation and internal controls.

In addition to reflecting GAO best practices, the revised 2020 Census Life Cycle Cost Estimate provided in this document reflects an extensive 2020 Census program management and cost assessment review conducted by Secretary Wilbur L. Ross and Under Secretary for Economic Affairs Karen Dunn Kelley during 2017. Additional details concerning this assessment can be found in the October 31, 2017 Senate Homeland Security and Governmental Affairs Committee testimony of Secretary Ross.⁸

3. Overview of the 2020 Census LCCE

The 2020 Census LCCE has been developed by a team within the Decennial Budget Office (DBO). This small team is comprised of certified cost estimators and experienced subject matter experts from the Census Bureau and supporting contractor resources. The team has consulted with independent cost estimators from the Department of Commerce in detail in developing the estimate.

Note that all costs are presented in then-year (also called current-year) dollars. Then-year dollars are those that have been inflated using an established inflation rate that are expressed in the year when the disbursements or expenditures are expected to occur. The 2020 Census uses the

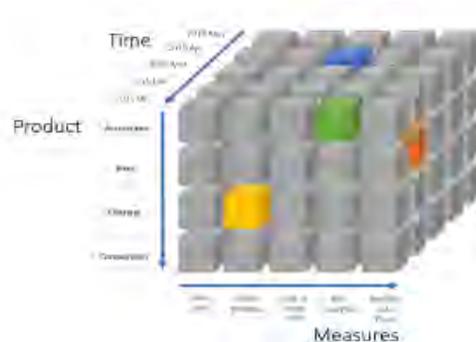
⁸ This testimony can be reviewed at the following URL: <http://www.hsgac.senate.gov/download/testimony-ross-2017-10-31>

Chained Price Index (CPI) from the Office of Management and Budget's (OMB's) Table 10.1 entitled Gross Domestic Product and Deflators Used in the Historic Tables: 1940-2022.

The 2020 Census is a large and complex operation, and therefore the cost estimate that supports it is also large and complex. To accommodate the operation, the 2020 Census LCCE is built using a multi-dimensional database and data manipulation and reporting tools. The tool the 2020 Census LCCE is built upon is called the Decennial Budget Integration Tool (DBiT). DBiT is used by the Decennial Programs to develop cost estimates and to perform budgeting, planning, and execution management functions for the 2020 Census using the IBM Cognos TM1 platform. IBM Cognos TM1 is an enterprise planning software platform that can accommodate the entire planning cycle by taking advantage of advanced OLAP and reporting capabilities.⁹ The current DBiT platform provides two major capabilities: i) Enterprise Planning, which is used by the DBO for cost modeling and estimation, budget planning, formulation and execution; and ii) Business Intelligence, which enables highly-capable analysis and interactive reporting. Within the 2020 Census LCCE there are 1,151 data cubes and over 1,859 inputs and assumptions. There are over 77,000 summary cost records.

The use of the IBM TM1 Cognos platform's data warehousing capabilities provides the 2020 Census LCCE with the ability to use multi-dimensional cubes to bring data sets to bear for calculations, analyses and reference. This has allowed for the Census Bureau to develop a cost estimate with a high degree of rigor and complexity while maintaining the ability to fully document and analyze the data and results. In the example cube shown in Figure 3 below, the dimensions of Time, Product and Measures are drawn into a cube that can then be used for variety of analyses.

- **Dimensional Model:** a database design technique for optimizing data querying
- **Online Analytical Processing (OLAP):** category of software tools that perform calculations upon multi-dimensional data sets
- **Cube:** multi-dimensional array of data
- **Star schema:** a type of data warehousing schema that separates business data into facts and dimensions
- **Fact:** measurable, quantitative, additive values that act as independent variables by which descriptive attributes are analyzed
- **Dimension:** description attributes that provide structured labeling information for grouping and filtering data



⁹ TM1 is an IBM tool that enables the generation of cost estimates with higher levels of dimensionality, precision, accountability, and reporting. The enterprise planning capabilities of TM1 are well-suited for detailed modeling of the cost of complex programs comprised of multiple products and operations, which require hundreds or thousands of variables. TM1 Performance Modeler can produce estimates under multiple model scenarios using groups of inputs that conform an internally-consistent regarding the estimate. TM1 Performance Modeler also supports cost model sensitivity and uncertainty analysis around key input variables by enabling the ingestion of parameters that define simple statistical distributions around a central estimate for each variable (i.e., minimum, median, and maximum), as well as an interface to support quick model re-estimation and Monte Carlo simulations.

Figure 3 Example Data Cube and Associated Concepts

3.1 Scope of the Estimate

The time frame covered by the 2020 Census LCCE is a 12-year period from fiscal years 2012 to 2023. The scope of the 2020 Census includes 35 operations.¹⁰ The 2020 Census operations are organized into eight major areas that correspond with the Census Bureau standard WBS as shown in Figure 4 below.

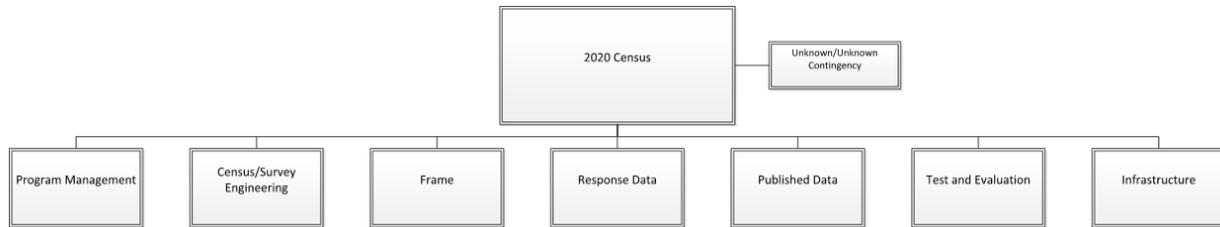


Figure 4: 2020 Census LCCE WBS Top-level WBS Elements

The 35 operations needed to conduct the 2020 Census are shown in Figure 5 later in this section. The graphic is organized into the major areas that correspond with the 2020 Census Program WBS shown above. Program Management, Census/Survey Engineering, and Infrastructure are combined into one general group called Support, which is shown at the top of the diagram. In addition, a separate area, Other Censuses, accounts for the Island Areas Censuses operation, which is unique to the Decennial Census programs.

¹⁰ The term operation refers to both support and business functions. For example, Program Management is considered a support function, and Address Canvassing is considered a business function.

SUPPORT				
Program Management	Census/Survey Engineering			
1. Program Management (PM)	2. Systems Engineering and Integration (SEI)	3. Security, Privacy, and Confidentiality (SPC)	4. Content and Forms Design (CFD)	5. Language Services (LNG)
Infrastructure				
31. Decennial Service Center (DSC)	32. Field Infrastructure (FLDI)	33. Decennial Logistics Management (DLM)	34. IT Infrastructure (ITIN)	
FRAME	RESPONSE DATA			PUBLISH DATA
6. Geographic Programs (GEOP)	9. Forms Printing and Distribution (FPD)	13. Non-ID Processing (NID)	17. Census Questionnaire Assistance (CGA)	21. Data Products and Dissemination (DPD)
7. Local Update of Census Addresses (LUCA)	10. Paper Data Capture (PDC)	14. Update Enumerate (UE)	18. Nonresponse Followup (NRFU)	22. Redistricting Data Program (RDP)
8. Address Canvassing (ADC)	11. Integrated Partnership and Communications (IPC)	15. Group Quarters (GQ)	19. Response Processing (RPO)	23. Count Review (CRO)
	12. Internet Self-Response (ISR)	16. Enumeration at Transitory Locations (ETL)	20. Federally Affiliated Count Overseas (FACO)	24. Count Question Resolution (CQR)
			35. Update Leave (UL)	25. Archiving (ARC)
OTHER CENSUSES	TEST AND EVALUATION			
26. Island Areas Censuses (IAC)	27. Coverage Measurement Design and Estimation (CMDE)	28. Coverage Measurement Matching (CMM)	29. Coverage Measurement Field Operations (CMFO)	30. Evaluations and Experiments (EAE)

Figure 5: 2020 Census Operations

3.2 Cost Estimation Approach

The 2020 Census LCCE’s methodology is primarily based on a bottoms-up cost estimation approach. Other methodologies (such as historical data, subject matter expertise, and analogous systems) are used when appropriate. The 2020 Census Program cost estimation team followed the guidance contained in the GAO’s, *GAO Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Capital Program Costs* (GAO-09-3SP)¹¹. Specifically, the 2020 Census LCCE’s methodology aligns to GAO’s 12-step Cost Estimating Process as shown in Figure 6 below (with the steps enumerated to better demonstrate the process flow).

¹¹ GAO Cost Estimating and Assessment Guide, March 2009, GAO-09-SP, page 8.

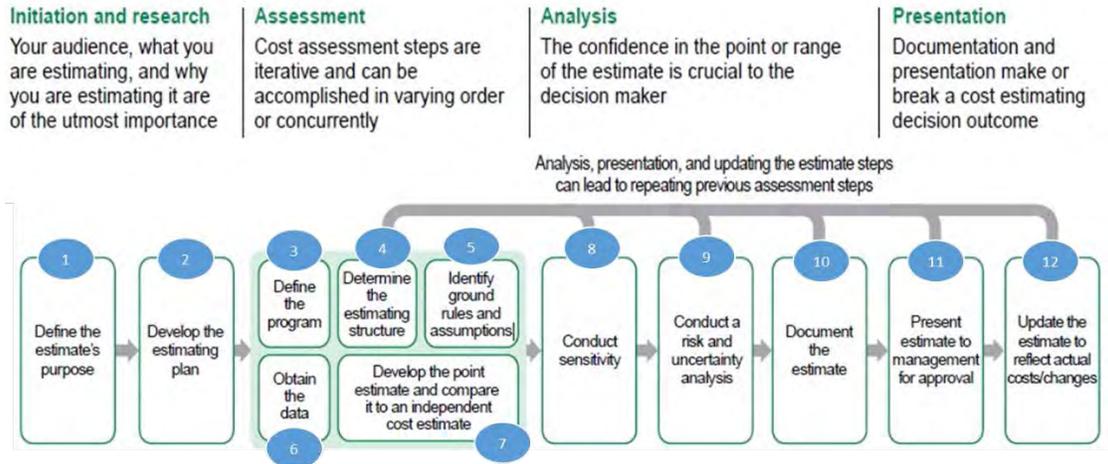


Figure 6: GAO 12-step Cost Estimation Process

The 2020 Census LCCE utilizes an approach designed to produce a quality cost estimate in line with best practices and GAO guidelines. This calculation flow enables a clear understanding to facilitate a line-of-sight of how the assumptions, the inputs, and the processes/calculations to the outputs/results. By following the cost estimate, the process can be effectively replicated and understood. An illustration of this approach along with a brief description of each of the four primary process areas is shown in Figure 7 below.

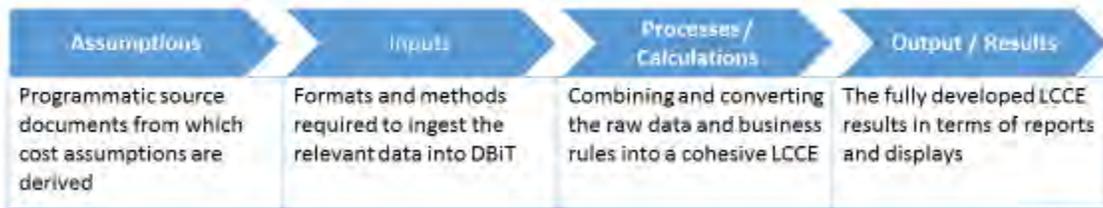


Figure 7: 2020 Census LCCE Documentation Approach

3.3 Cost Estimation Methodology

The 2020 Census Program cost estimators worked with subject matter experts to obtain data and document the variables that influence the cost of the 2020 Census. Subject matter experts aided the identification of parameters associated with each variable, including historical data collected from the 2010 Census, the American Community Survey, and the 2020 Census Research and Testing Program. The 2020 Census LCCE team used the inputs after reviewing them for relevancy and credibility in consultation with Decennial Programs leadership.

The parameters for the variables were entered into the Decennial Budget Integration Tool (DBiT).¹² The DBiT Enterprise Planning capability allows for modeling the cost of complex programs such as the 2020 Census. Hundreds of variables across the 35 operations were incorporated into the model to generate a total cost estimate for the 2020 Census. The cost model required three parameters for each variable (minimum, median, and maximum) derived from historical data, test results, or expert opinion. For example, one input parameter used to estimate the Nonresponse Followup workload included an estimated overall self-response rate after six weeks, using the following values: minimum of 55.5 percent, median of 60.5 percent and maximum of 65.5 percent. These values were based on findings from the 2010 Census, the American Community Survey, and the 2020 Census Research and Testing Program.

Major Assumptions

Table 1 lists the major assumptions, how they have changed from the December 2015 version of the LCCE, the reasons for the change, and the relative impact of the change on the overall cost.

Table 1: Major Assumptions and Impact of Changes

Item	Change	Reason	Impact
Overall Response Rate	Decreased from 63.5% to 60.5%	More conservative assumption due to increased burden for internet self-response including expectation that authentication steps will be added at the log in for internet self-response and the elimination of Save and Return functionality for self-response.	Major +
Major Contracts	Increased due to re-estimation	Updated cost data from contract award system, reconciliation with the DOC ICE and greater ability to define requirements at low levels.	Major +
NRFU Pay Rates	Reduced -\$3.65 (in 2020) to \$18.85 (was \$22.50)	Updated pay analysis showed an expected lower pay rate.	Major -
AdCan Pay Rates	Reduced: -\$5.35 (in 2019) to \$17.06 (was \$22.42)	Updated pay analysis showed an expected lower pay rate.	Major -
NRFU Productivity	Decreased as result of more conservative approach	Use of historical 2010 data rather than research and test data.	Major +

¹² DBiT is a system of applications developed on the IBM Cognos platform comprised of two major capabilities. Enterprise Planning is a modeling tool used for cost modeling and estimation, and the Business Intelligence capability is used to analyze and report cost information.

In-Field AdCan	Increased from 25% to 30%	Updated operational assumption based on stopping Active Block Resolution in in-office Address Canvassing.	Major +
CQA Call Volume	Increased by 5%	Expected increased calls to CQA due to elimination of Save and Return for internet self-response.	Major +
ACO Staffing	Adjusted assumed staff levels to match durations	Updated analysis of schedule to align work with task timing.	Major -
Early Census Area Offices	Increased 31 to 40	Updated for higher in-field Address Canvassing workload driven by pausing Active Block Resolution portion of In-Office Address Canvassing.	Minor +
ACO Office Size	Increased 890 square feet	Updated for re-planned operations, staff increases, and use of laptops.	Minor +
Device as a Service	Switched multiple operations from handhelds to laptops	Updated operational assumptions to align with updated operational plans.	Major -

To account for uncertainty around the various parameters, the cost estimators ran a Monte Carlo simulation. This method randomly samples parameters from a probability distribution for each variable (based on the minimum, median, and maximum) and then uses those values to calculate a cost estimate. Repeating this process thousands of times yields a distribution of cost estimates. Monte Carlo outputs (a cost estimated value) were identified at the 80th percentile level, a point estimate at which 80 percent of all the cost estimates were equal to or less than this estimate. This translates to an 80 percent probability that funding at this level will be adequate to conduct the 2020 Census.

Additionally, acknowledging the inherent uncertainty of many of these assumptions, funding has been added throughout the WBS to manage discrete risks. Known areas of risk that have been mitigated with this funding include the assumption for the response rate, the pay rates for temporary field staff, and the field supervisory-staff ratio. The 2020 Census program will manage the program to the estimates included in the LCCE, and will only need to utilize the additional funding, if these estimates prove to be incorrect. This is shown further in section 3.5.

3.4 Independent Cost Reviews

The 2020 Census LCCE has been compared to two independent cost estimates (ICEs)¹³ in its developmental history. GAO treats an ICE as a useful tool to determine the fidelity of a cost estimate. Specifically, the GAO states:

¹³ An ICE is conducted by an independent organization using the same technical and procurement information used to develop the POE. The ICE provides an unbiased test of a LCCE's reasonableness in terms of cost, risk, etc.

An ICE is considered one of the best and most reliable validation methods. ICEs are typically performed by organizations higher in the decision-making process than the office performing the baseline estimate. They provide an independent view of expected program costs that tests the program office's estimate for reasonableness. Therefore, ICEs can provide decision-makers with additional insight into a program's potential costs – in part, because they frequently use different methods and are less burdened with organizational bias. Moreover, ICEs tend to incorporate adequate risk and, therefore, tend to be more conservative in forecasting higher costs than the program office.¹⁴

In both comparisons of the cost estimates, there were differences in individual cost categories, but the overall (total) cost was similar between the ICE and the 2020 Census Program Office Estimate (POE).¹⁵ The primary reason for the differences were the estimating method and the different application of contingency and uncertainty. The results of the ICE to POE comparisons are shown in Figure 8 below.

Following the completion of the first POE by the Decennial Budget Office in early 2016, the Census Bureau's Office of Cost Estimation and Assessment (OCEAA) conducted the first ICE beginning in FY 2015 and ending prior to the 2020 Census Milestone 2 Review in June 2016. The differences between the point estimate (direct cost) was approximately two percent. The OCEAA ICE used more conservative costs for mitigating risks and uncertainty, and therefore the difference for mitigating risk and uncertainty was just over 30 percent. The total delta between the May 2016 POE and the June 2016 ICE was 6.4 percent. The differences between the ICE and the POE were reconciled through a series of meetings between the OCEAA ICE team and the 2020 Census LCCE. The information from the reconciliation was used to update the POE.

The second comparison of the 2020 Census POE to an ICE was conducted during September 2017. The second ICE, which was completed in August of 2017, was conducted by the DOC's Office of Acquisition Management (OAM). Following reconciliation with the 2020 Census POE, it informed the LCCE released by the Office of the Secretary (OS). The OAM ICE utilized a top-down approach that made use of newly available Census data on IT and contract costs. The difference in direct costs (the point estimate) was over nine percent; largely due to more direct reliance on 2010 Census historical operational assumptions. However, the OAM ICE assumed less costs to mitigate risk and uncertainty. The overall difference was approximately 4.2 percent.

Following reconciliation between the April 2017 POE and the August 2017 ICE, additional reconciliation occurred with the Office of the Secretary estimate in September 2017. The difference in risk and uncertainty between this latest estimate and the April 2017 POE accounted for the addition of \$1.1B in Secretarial-controlled contingency. The results of the reconciliation

¹⁴ GAO Cost Estimating and Assessment Guide, March 2009, GAO-09-3SP, page 186

¹⁵ A POE is the official projected cost for a system or program that is formally submitted to justify budget requirements to higher headquarters, Congress, GAO and others.

between the DOC OAM/OS ICE and the April 2017 version of the 2020 Census POE are shown in the bottom row of the table and became the November 2017 2020 Census POE being presented in this document. The delta between the two estimates is under one percent.

Date	Model	Developer	Direct Cost	Delta ¹⁶	Risk & Uncertainty	Delta	Total Cost	Total Delta
May-16	POE	DBO	\$ 10,989	-2%	\$ 1,323	-31%	\$12,312	-6%
Jun-16	ICE	OCEAA	\$ 11,229	N/A	\$ 1,931	N/A	\$13,160	N/A
Apr-17	POE	DBO	\$ 10,284	-10%	\$ 3,196	106%	\$13,480	-4%
Aug-17	ICE	DOC OAM	\$ 11,406	N/A	\$ 1,551	N/A	\$14,074	N/A
Sep-17	ICE	DOC OAM/OS	\$ 11,406	N/A	\$ 4,218	N/A	\$15,625	N/A
Nov-17	POE	DBO	\$ 11,405	0%	\$ 4,220	0%	\$15,625	0%

Figure 8: Comparison to Independent Cost Estimates

3.5 Cost Sensitivity Analysis

After the updated point estimate was compared to the ICE (Step 7 of the GAO 12-step cost estimation process) and updated as a result, the point estimate cost was then adjusted for risk and uncertainty (to include contingency) in Step 8 and Step 9 of the GAO process. A description of the program risk and uncertainty in the form of Secretarial-Controlled Contingency is outlined below.

Program Risk

Program Risk comprises two areas of costs to mitigate risk in the estimate – Monte Carlo Uncertainty and Discrete Risks – and totals \$1.42 billion spread across the WBS level 2 framework.

Monte Carlo Uncertainty

To account for uncertainty around the various parameters, the cost estimators ran a Monte Carlo simulation. This method randomly samples parameters from a probability distribution for each variable (based on the minimum, median, and maximum) and then uses those values to calculate a cost estimate. Monte Carlo uncertainty is applied to the Program Management WBS element. The Program Management WBS covers elements associated with the definition and implementation of program management policies, processes, and the control functions for

¹⁶ Delta columns represent percent change for each POE relative to its proximal ICE.

planning and implementing the 2020 Census to ensure an efficient and well-managed program. The estimated costs for Monte Carlo uncertainty was approximately \$292M.

Discrete Risks

Discrete risks are those specifically referenced in the 2020 Census Program Risk Register. Each of these official risks have their own risk range assigned to them in the LCCE. The following discrete program risks have been reflected in the risk-adjusted cost estimate via additional sensitivity analyses:

1. Self-response rates are critical variables with expected large impacts in the Response Data life-cycle costs. The self-response rate was assumed to decline below modeled levels, which causes an increase in the Nonresponse Followup Workload. The impact of this risk was estimated by decreasing self-response rates from 60.5% to 55.0%. The estimated cost for this risk was \$247.6M.
2. The cost of field operations is considered sensitive to the size and cost of new recruits in specific geographic areas, so this risk models recruitment size and wage rate of the temporary workforce as not adequate for a given geographic area. This risk was modeled by increasing the wage rate of the temporary workforce by \$0.50. The estimated cost for this risk was estimated to be \$76.7M.
3. The Census Bureau has postulated a significant increase in the efficiency of field operations, with a higher Enumerator-to-Supervisor staffing ratio than in the 2010 Census. This assumption used to generate the point cost estimate is contingent on the proper implementation and management of resources, and the risk that planned efficiencies from field management staffing are inadequate to support the temporary workforce. The impact of this risk was estimated by assuming a decrease in the Enumerator-to-Management staffing ratio from 20:1 to 16:1. The cost for this risk was estimated to be \$44.4M.
4. Risks identified in the 2020 Life-Cycle Risk Register were analyzed, quantified, integrated into the estimate; mitigations were also evaluated and incorporated in the estimate when relevant, as part of the 2020 LCCE process. The Census Bureau Enterprise Risk Management (ERM) process was followed to ensure the integration/linkage of the 2020 Decennial Program risks into the cost estimation process. The costs for these risks was estimated to be \$763.5M. Examples of the risks in the risk register include cybersecurity incidents, system scalability, and internet data collection.

Careful research, testing and planning throughout the decade has led the Census Bureau to establish a higher self-response rate and operate effectively with a lower wage and higher supervisory ratio. However, due to the cost sensitivity of each of these assumptions, further evidence is needed before the Census Bureau can retire these risks and reduce the estimates appropriately and responsibly without endangering a high quality 2020 Census. The current supervisory to staffing ratio assumption is the assumption that can be refined the most through additional testing. As such, it will be managed to 20:1 in the 2018 End-to-End Census Test, and it is likely the observations and analysis of its effectiveness will inform and refine the estimates for this discrete risk.

Even with research, testing and planning, response rates and wages are more difficult to predict with precision, as the exact value for each that will be experienced in the 2020 Census lie further from the direct control of the 2020 Census program managers. The response rate could be affected unpredictably by both public and private data breaches, the public's overall opinion of the government, and the Census Bureau's commitment to confidentiality. Wage rates for a temporary work force are impacted by the strength of the economy and the competitiveness of the job market. As a result of these external factors, it is unlikely these risks could be retired and the corresponding estimates included for these discrete risks reduced until very late in the cycle. The Census Bureau will continue to manage the 2020 Census Program to the objective assumptions contained within the LCCE that is based on the higher threshold assumptions noted in items one through three above and be continuously monitoring external conditions and their impact on the self-response rate and wage rate assumptions.

Even though the program may carry these risks throughout the entire lifecycle, the Bureau is committed to managing this risk and minimizing the use of contingency funding. For example, the Census Bureau will invest in a robust communications and partnership program designed to promote self-response through accurate and timely information about data security and confidentiality.

Secretarial-Controlled Contingency

The Secretarial-Controlled Contingency represents the unknown-unknown category of risk to account for unforeseen risks, such as a natural disaster driving residents of an area away from their residences leading up to Census Day for the 2020 Census. This category is a 10 percent addition to the risk-adjusted cost. The Department of Commerce will only approve use of this contingency following a formal governance process involving the Department's oversight bodies. The cost assigned to the unknown-unknown risk was \$1.2B.

At the end of the risk and uncertainty analyses, the risks and uncertainty were added to the point estimate to produce a total risk-adjusted cost estimate for the 2020 Census Program the life-cycle cost was determined to be approximately \$15.6B.

4. LCCE Summary

4.1 The Cost Estimation Results

This section discusses the summary costs of the 2020 Census LCCE. The figure below presents estimated life-cycle cost for each of the WBS level-2 elements of the Census Bureau WBS. Response Data, which includes most costs associated with the actual collection of data by multiple means, and other supporting activities such as printing, distribution, and questionnaire support, accounts for over one third of the total cost of the 2020 Census at \$5.8B. Infrastructure, with a cost of \$3.8B, is the second largest cost component; this WBS element includes the required IT and field operations investments, as well as the infrastructure required to support

logistic management and service centers. Census Survey and Engineering, which includes systems engineering and integration, system security, content and forms design, and language services, comes third with \$1.8B, followed by \$1.3B in program management and \$1.2B in contingencies. Note, the years FY12-FY16 are actuals from Commerce Business System (CBS) taken in August 2017. The cost estimate summary is shown in Table 2 below.

Table 2: Cost Estimate Summary (\$K)

Fiscal Year	1 Program Management	2 Census / Survey Engineering	3 Frame	4 Response Data	5 Published Data	6 Test, Evaluation, Special Censuses	7 Infrastructure	8 Secretarial-Controlled Contingency	Grand Total
FY 2012	\$8,553	\$15,986	\$3,114	\$5,574	\$1,082	\$17,119	\$11,584		\$63,012
FY 2013	\$8,256	\$8,076	\$3,946	\$7,760	\$3,428	\$25,590	\$41,481		\$98,537
FY 2014	\$19,660	\$18,411	\$26,613	\$18,163	\$11,175	\$48,076	\$85,330		\$227,427
FY 2015	\$40,651	\$16,186	\$26,133	\$55,527	\$14,830	\$94,125	\$92,838		\$340,289
FY 2016	\$84,797	\$117,667	\$82,232	\$91,348	\$31,940	\$82,526	\$159,132		\$649,641
FY 2017 ¹⁷	\$63,214	\$199,902	\$58,632	\$246,285	\$20,857	\$39,080	\$127,723		\$755,693
FY 2018 ¹⁸	\$60,210	\$257,117	\$98,402	\$218,367	\$18,078	\$54,544	\$281,355	\$49,000	\$1,037,073
FY 2019	\$310,227	\$356,264	\$312,228	\$1,088,377	\$17,130	\$76,265	\$977,298	\$314,000	\$3,451,788
FY 2020	\$486,771	\$343,959	\$64,104	\$3,894,973	\$13,191	\$180,700	\$1,710,421	\$669,000	\$7,363,119
FY 2021	\$107,776	\$263,227	\$36,018	\$118,368	\$33,047	\$122,594	\$232,745	\$91,000	\$1,004,776
FY 2022	\$48,561	\$165,900	\$14,017	\$28,513	\$36,679	\$35,929	\$59,771	\$39,000	\$428,370
FY 2023	\$25,097	\$59,770	\$12,474	\$17,819	\$17,656	\$16,060	\$37,387	\$19,000	\$205,263
Grand Total	\$1,263,772	\$1,822,466	\$737,914	\$5,791,073	\$219,093	\$792,608	\$3,817,063	\$1,181,000	\$15,624,989

4.2 Detailed Costs by WBS Category

The figures below chart the level-3 WBS elements that make up each of the level-2 WBS elements discussed above, along with one or more bullet points that stress the key recommendations or takeaways depicted in the charts.

As illustrated in Figure 9 below, \$10.8B (close to 70 percent) of the projected \$15.6B 2020 Census costs are expected to be incurred in FY19 to FY20; this highlights the significant concentration of expenditure in those years, as well as the importance of prior preparation to deploy investments and operations efficiently over this period of intense activity, and the potential for significant deviations in cost.

¹⁷ FY17 reflects the enacted spending profile as of August 2017.

¹⁸ FY18 reflects the \$187M budget adjustment to the original \$800.2M for an adjusted total of \$987M. An approximately \$50M was added for contingency for a total of \$1,037M.

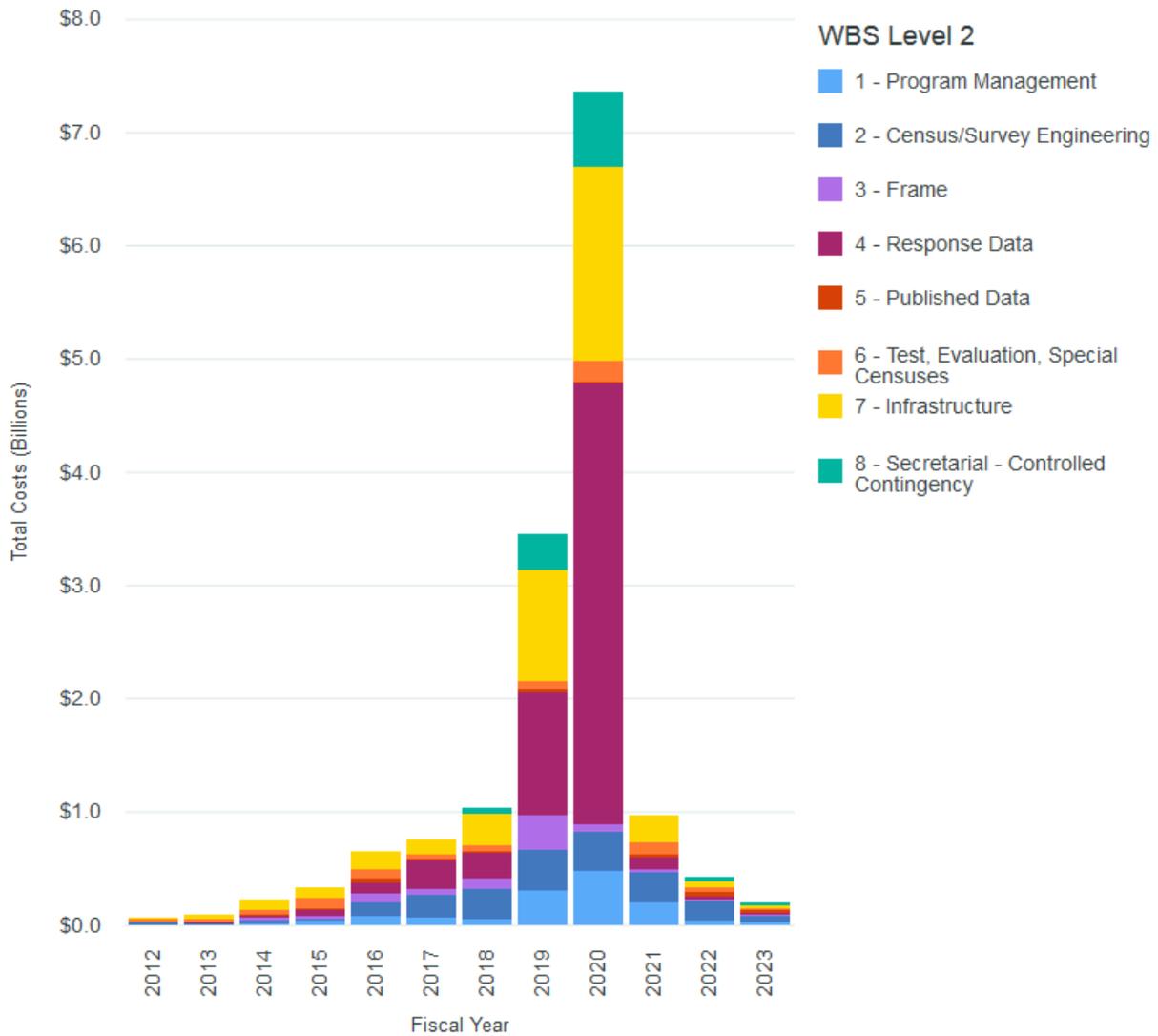


Figure 9: 2020 LCCE Costs by Level-2 WBS

Program Management Costs

The program management element, which includes all activities that implement and support policies, processes, and control functions oriented to improve the efficiency of operations and management of the program, accounts for \$1.26B over the lifespan of the 2020 Census Program (above eight percent of total program cost). The program management costs are shown in Figure 10 below.

Program management costs to mitigate risk and uncertainty are the largest program management cost and are especially high during the program implementation phase (FY19-FY20). This area includes the Monte Carlo uncertainty funding, as well as certain discrete risks from the risk

register that could require the inclusion of additional program oversight, scheduling, or similar program management efforts.

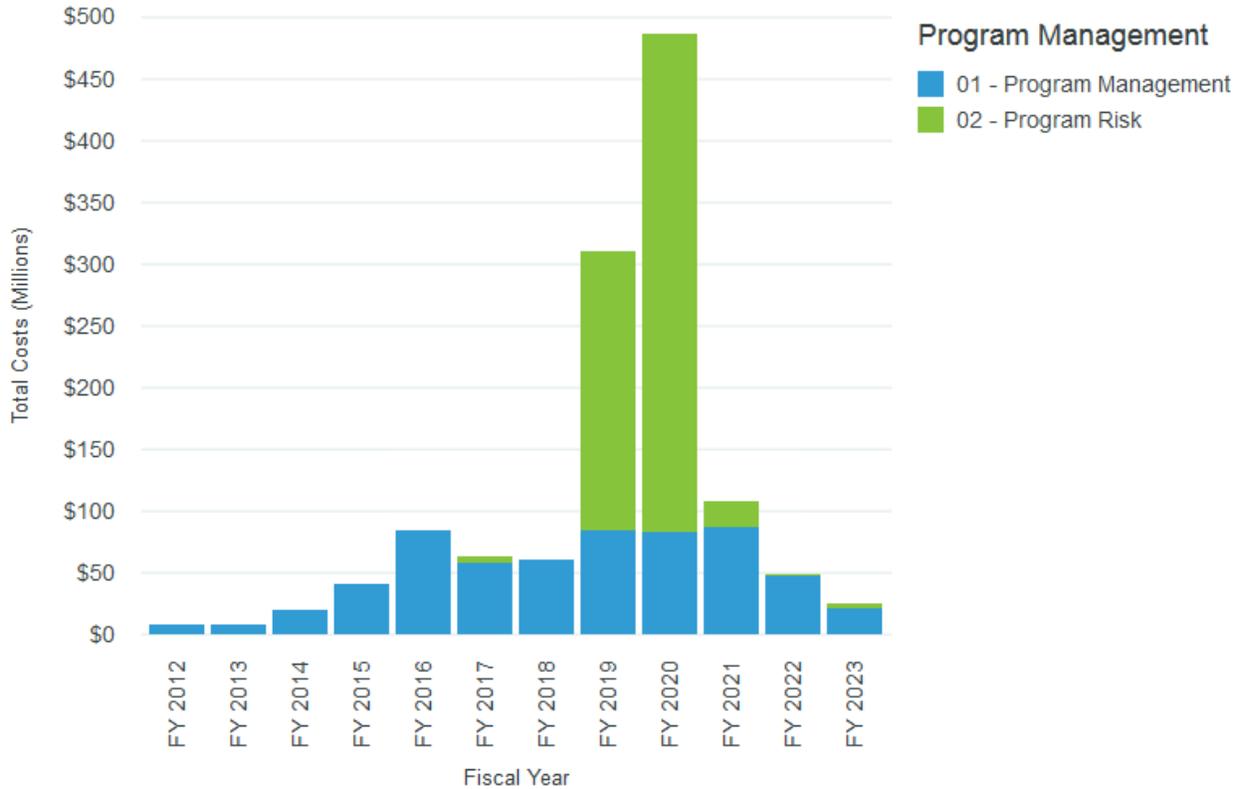


Figure 10: Program Management Costs by WBS Level 3

Census / Survey Engineering Costs

Census/Survey Engineering costs are estimated at \$1.8B over the lifespan of the 2020 Census Program, representing around 12 percent of the life-cycle cost of the program. An overview of the Census / Survey Engineering costs is shown below in Figure 11.

Systems Design and Integration (SEI) is by far the main driver of program costs associated with Census/Survey Engineering. This is consistent with expectations for a program of this size, which is developing an integrated system-of-systems to complete its innovative redesign. The concentration of SEI costs around the implementation phase of the program is indicative of potential high technical integration and testing costs and risks to deliver the 2020 Census system of systems. The total life-cycle cost for the Technical Integration contract in the LCCE is \$1.5B (including overhead).

Census/Survey design is the second component of costs under this WBS category. Though much smaller than SEI, it includes the operational (readiness, integration, and testing) and demographic (content and forms) design of surveys.

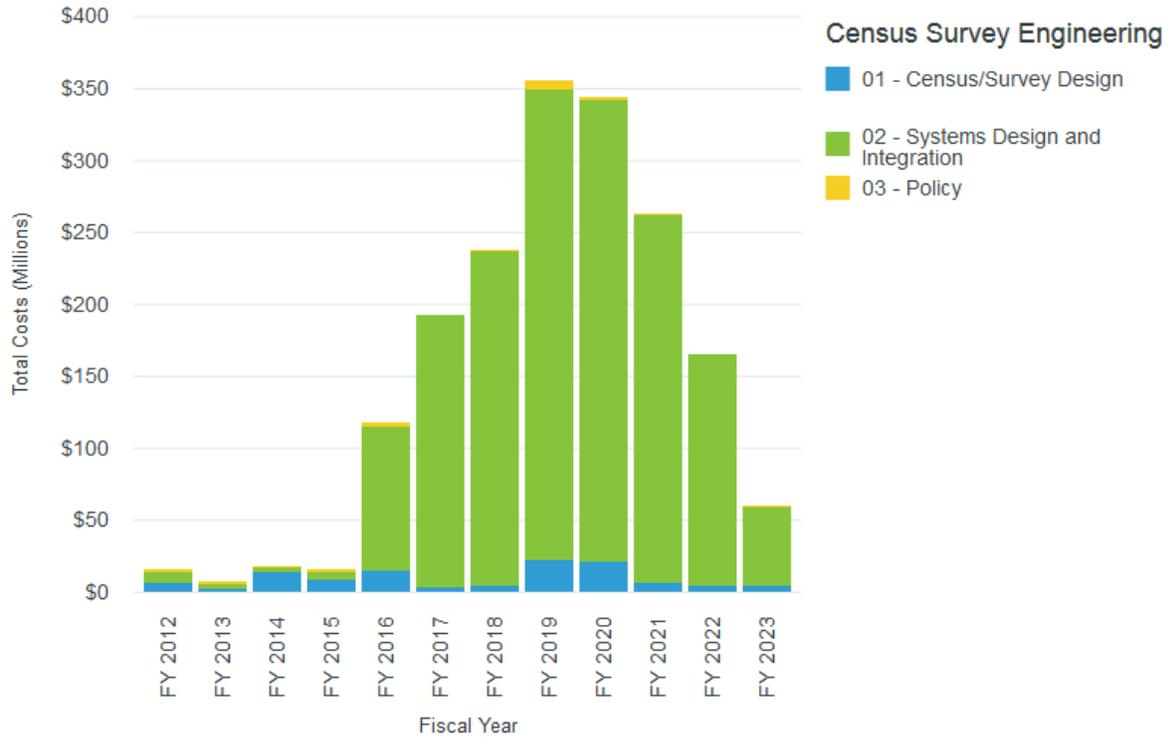


Figure 11: Census / Survey Engineering Costs by WBS Level 3

Frame Costs

Frame activities are expected to cost the Decennial Program around \$738M, which represent 4.7 percent of the life-cycle cost of the program. These are the costs spent by the program with the goal of developing a high-quality address and geospatial frame that serves as the universe for the enumeration activities. Figure 12 below provides an overview of the Frame costs.

Address frame, the delivery of a complete and accurate address list and spatial database for enumeration, including the type and characteristics of each living quarter, is the main driver of the cost associated with frame activities, followed by geospatial frame, which provides the geographic foundation to support data collection and tabulation activities.

The spike in address frame in FY19 is associated with in-field address canvassing executed prior to the deployment of 2020 Census field enumeration operations.

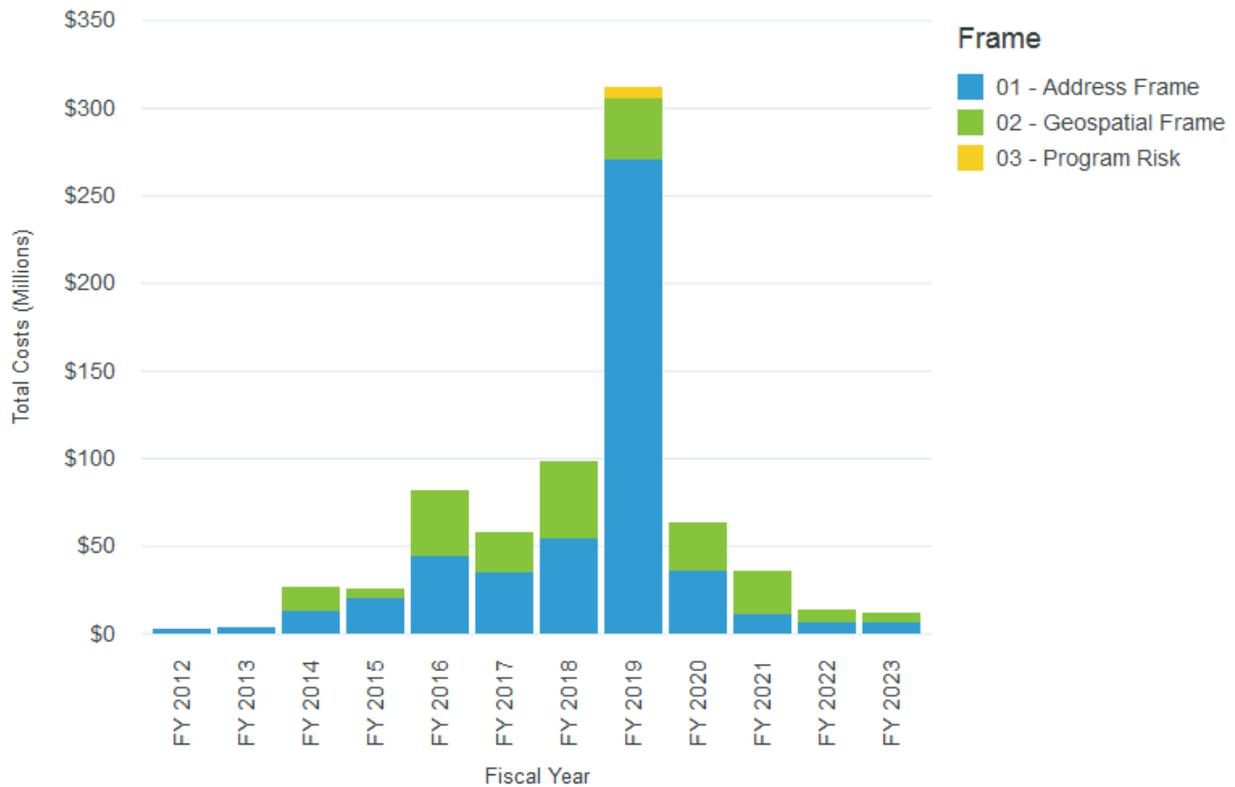


Figure 12: Frame Costs by WBS Level 3

Response Data Costs

The Response Data, a cost of \$5.8B (approximately 37 percent of the total 2020 Census estimate), is the largest driver of costs for the Decennial Census Program. It consists of activities to perform the collection of information from 2020 Census respondents by multiple means of communication, including; all operations associated with the gathering of responses, management of cases, and initial processing of the data. Figure 13 below provides an overview of the Response Data costs. One of the larger cost drivers of this area are the costs for Census Questionnaire Assistance (CQA). The life-cycle cost of CQA contract is included in the LCCE is \$817M (including overhead).

The concentration of expected expenses in FY20 reflects the nature of Response Data, which comprises a large portion of the activities connected to the actual deployment of resources in the field to perform the collection of Census data.

Over half of the Response Data cost in FY20 correspond to computer-assisted personal interviewing (CAPI) files, which includes nonresponse followup; one of the costliest activities of the 2020 Census. Computer-assisted telephone interviewing (CATI) files, or the initial response processing (which includes Census questionnaire assistance), is the second largest cost in FY20.

This is followed by advertising and partnerships campaigns grouped under Respondent Outreach activities. The costs for advertising and partnership in the LCCE is \$822M (including overhead).

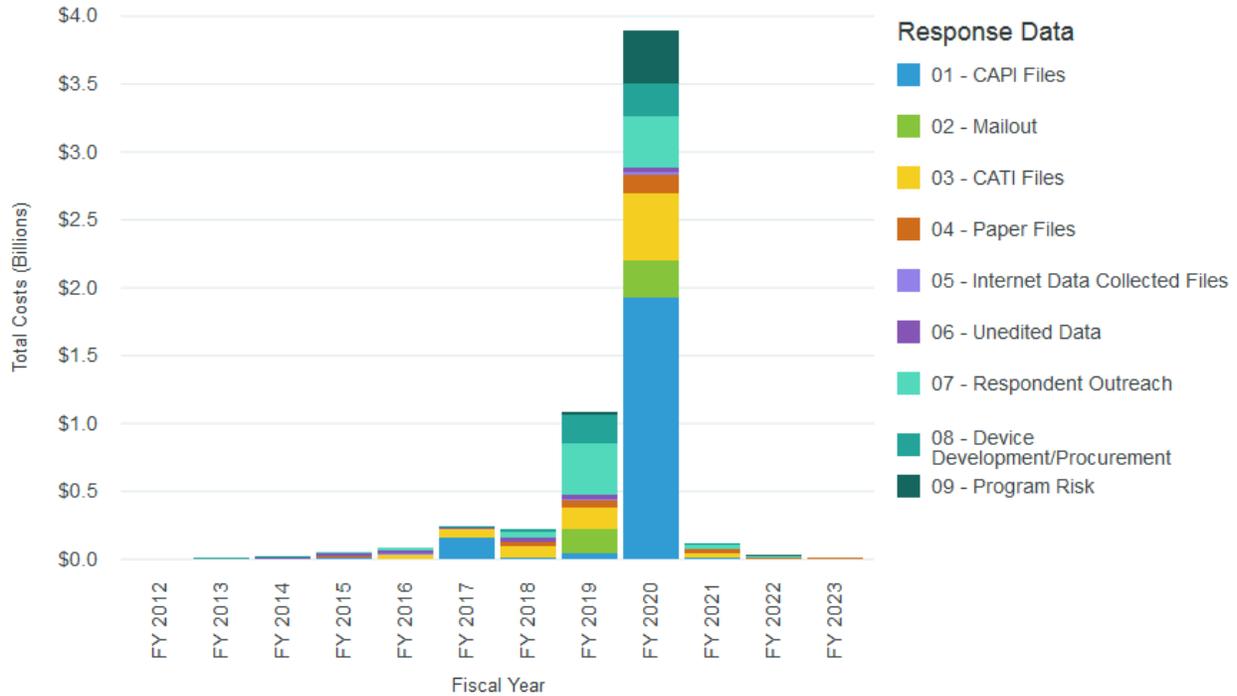


Figure 13: Response Data Costs by WBS Level 3

Published Data Costs

Published Data is the least expensive level-2 WBS activity with life-cycle costs of \$219M, which represents less than 1.5 percent of the 2020 Census life-cycle cost. Even though Published Data is a relatively inexpensive component, it is a high-value one that includes activities that support imputation of data and adjustments, data review and analysis, tabulation, and data product dissemination. An overview of the Published Data costs is shown in Figure 14 below.

The highest cost within Published Data is Data Products, which includes the preparation, review, approval, and dissemination of final data products; it spikes in FY16 and FY22, when the most relevant intermediate and final products are completed and released. Tabbed data, which includes data reviews, analysis, and tabulation is the second highest cost within this category; its time profile is smoother than Data Products given the more continuous nature of the activities under it.

CEDSCI, the system that will be used to disseminate the 2020 Census data, is not part of this cost estimate. CEDSCI is an enterprise system. Its separate cost estimate is maturing as the requirements are further defined as supporting contracts are awarded.

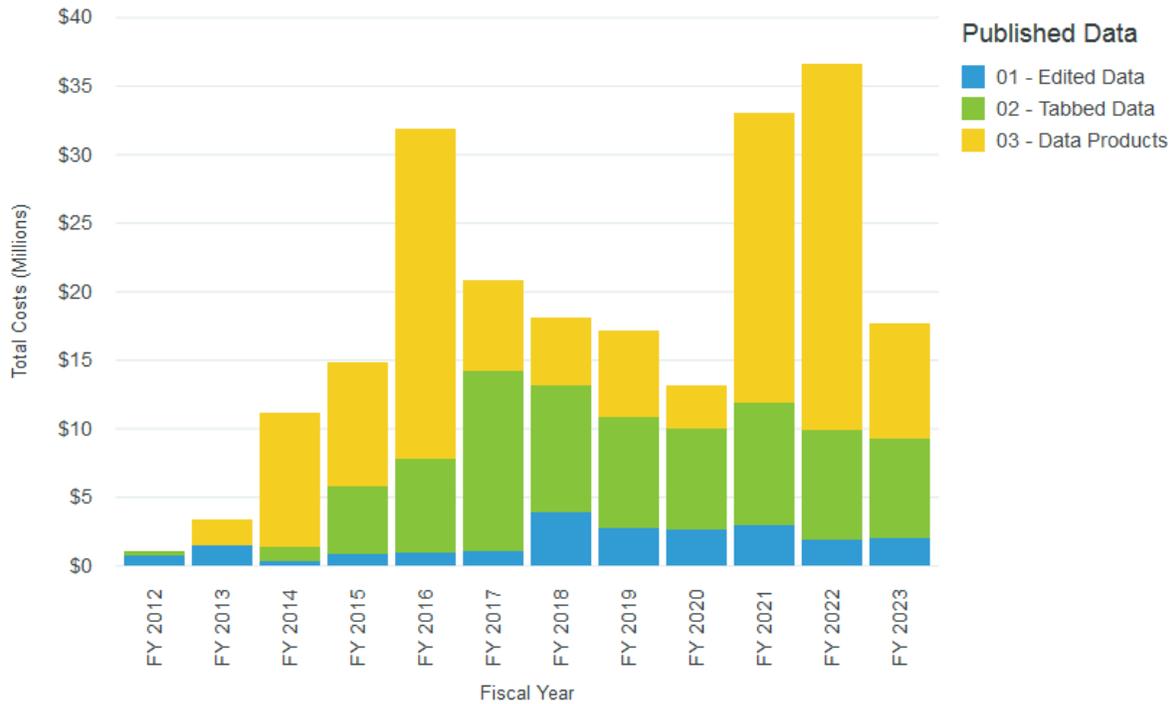


Figure 14: Published Data Costs by WBS Level 3

Test, Evaluation and Special Census Costs

Test, Evaluation, and Special Censuses is a level-2 WBS that account for costs that approach \$793M or five percent of the 2020 Census life-cycle cost. This level-2 WBS element comprises two relatively unrelated sets of activities: Test and Evaluation, and Special Censuses. Figure 15 illustrates the Test and Evaluation, and Special Censuses costs.

Test and Evaluation assesses the quality of the 2020 Census and prepares the Decennial Program for the 2030 Census. It includes coverage measurement, as well as evaluations and experiments. It covers the post-enumeration survey and sample, the identification of matches between the 2020 Census and the survey, an independent collection of information for the coverage measurement sample, the development of measures of success, and the early planning activities to support the transition and design of the 2030 Census. Test and Evaluation accounts for the large majority of the \$793M in costs associated with this level-2 WBS element. Coverage measurement, Census tests, and research and planning are the activities that require the largest uses of funds within Test and Evaluation.

Special Censuses, includes the enumeration of residents of Islands Areas including American Samoa, Northern Mariana, Guam, and Virgin Islands. The cost of Special Censuses is a relatively small portion of the total cost of this level-2 WBS element.

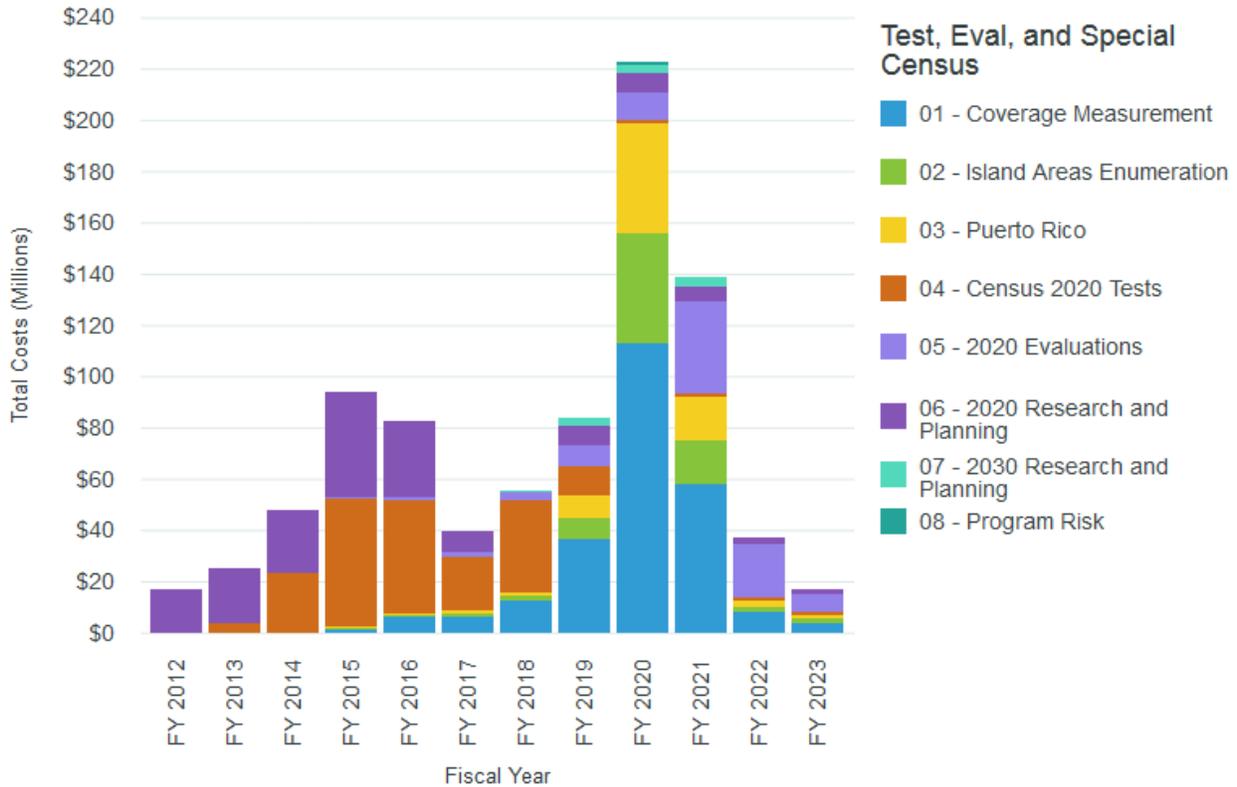


Figure 15: Test, Evaluation, and Special Censuses Costs by WBS Level 3

Infrastructure Costs

Infrastructure is the second highest cost element at the level-2 of the WBS with total costs that exceed \$3.8B or almost one quarter of the 2020 Census life-cycle cost. Approximately half of those costs are expected to be incurred in FY20 when field office infrastructure¹⁹, staff, office space, and equipment uses peaked, along with non-HQ staffing operations, such as training, recruiting, and onboarding. This includes the cost of the Field IT infrastructure contract, which has yet to be awarded. The lifecycle cost for this contract in the LCCE is \$416M (including overhead). Figure 16 below shows the Infrastructure costs.

Consistent with the peak infrastructure spending in FY20, Program Risk is included in the prior-years to mitigate potential operational risks described previously. Program Risk costs are projected in FY19 and FY20 to account for the risks with deployment and execution.

IT infrastructure, though not as significant as other Infrastructure components, peaks earlier than those (in FY16 and FY18), as it needs to be ready for deployment before the additional staff is hired and the space and other infrastructure is fielded.

¹⁹ This includes Area Census Offices (ACO) and Regional Census Centers (RCC)

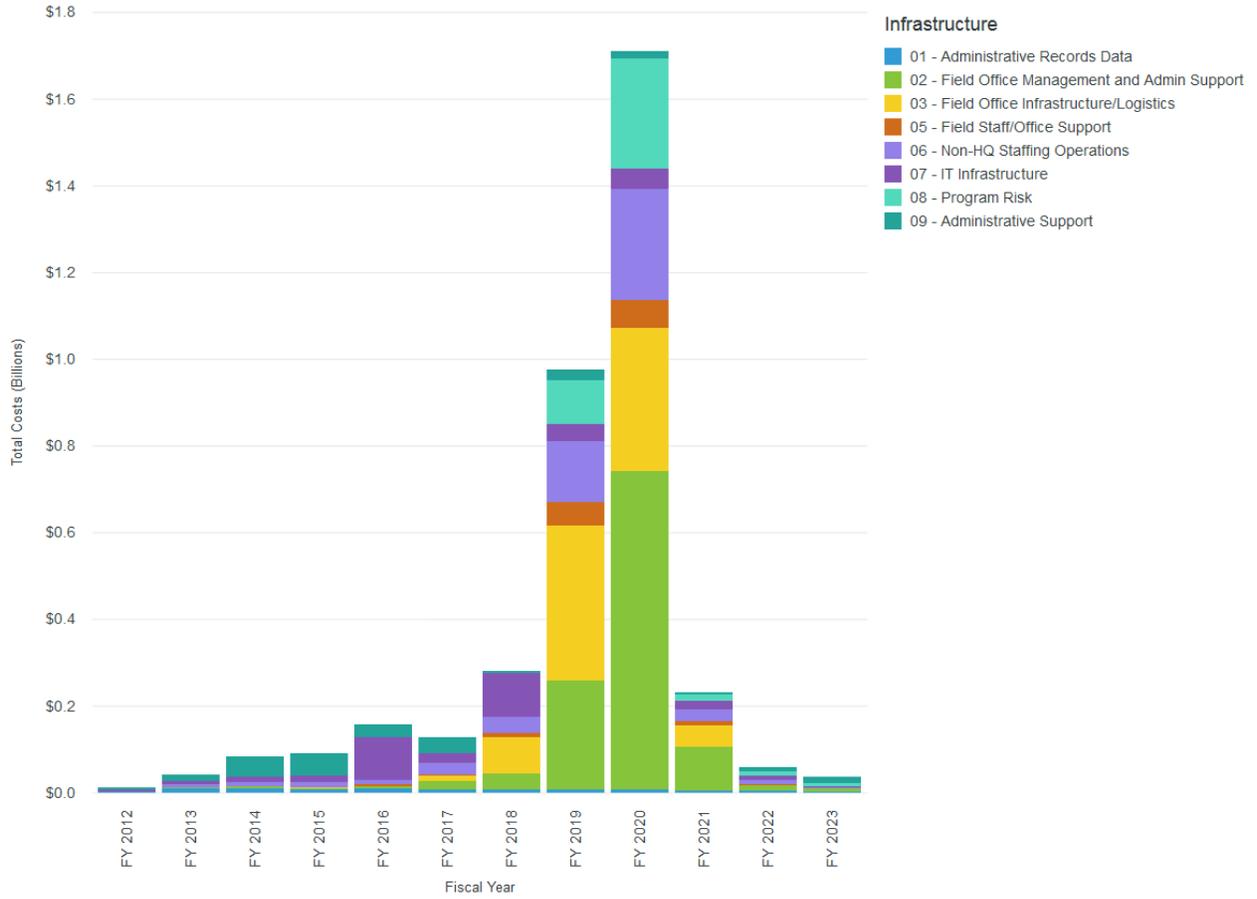


Figure 16: Infrastructure Costs by WBS Level 3

Secretarial-Controlled Contingency Costs

The DOC has established a contingency cost element to account for unknown-unknown risks, which would include the impact to the 2020 Census operations of an unforeseen event, such as a natural disaster significantly affecting a large area of the country driving up the costs of accurately enumerating those areas. Figure 17 provides an overview of the scale and time frame in which the Secretarial-Controlled Contingency costs are allotted in the 2020 Census LCCE.

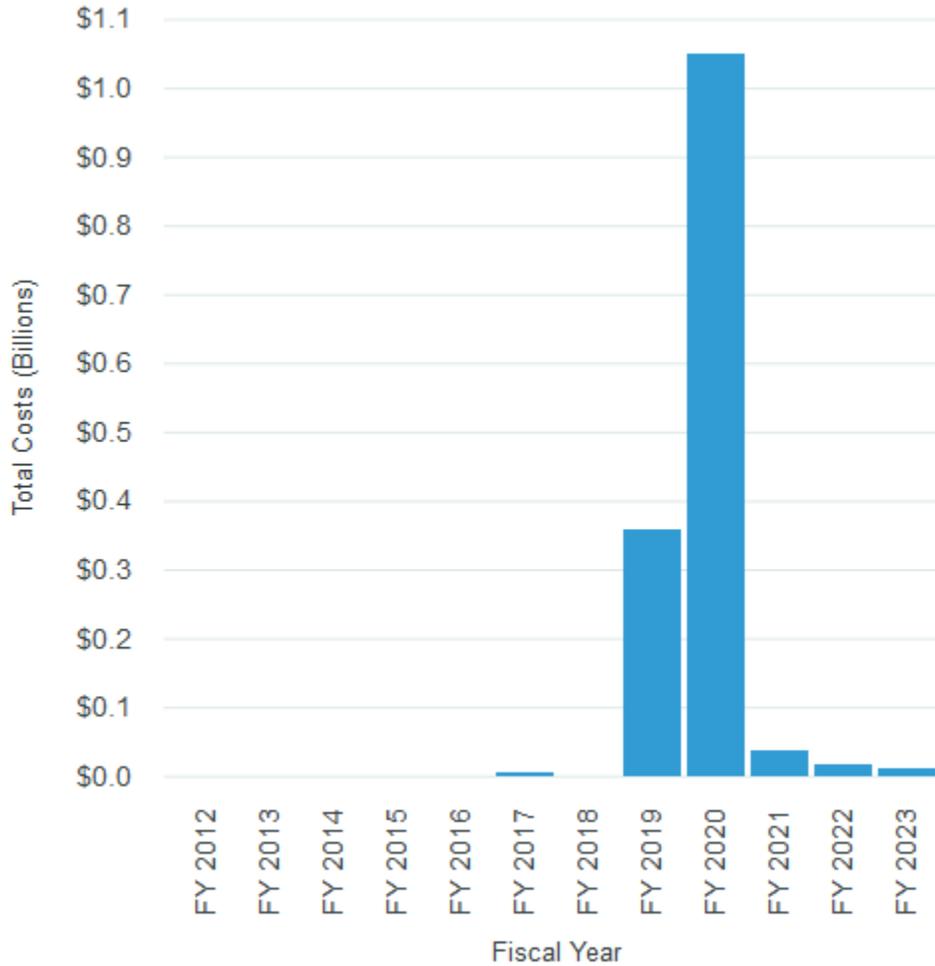


Figure 17: Secretarial Controlled Contingency Costs

4.3 IT Costs

IT costs are spread throughout the 2020 Census WBS. A cross cut of the IT cost in the 2020 Census is described in this section.

The cost estimators developed a multi-step process to estimate the IT components of each operation and WBS element. This process does not apply uniformly to all IT components, but includes the integration of past execution data, as well as cost estimates produced parametrically and/or by analogy with past estimates or similar systems. The LCCE team utilized the list of 52 systems developed by Census Bureau’s Enterprise Architecture Group (EAG), along with other IT elements to achieve a comprehensive estimate of all IT costs in the 2020 Census. To describe this, two categories were developed by the LCCE team to align the IT costs to the LCCE WBS. These categories and their descriptions are shown in Figure 18 below.

Please note that all the costs shown in this section includes overhead.

IT Cost Category	Description
2020 IT Systems and Services	Systems on the EAG's 52 systems list that support the 2020 census and the service contracts that support IT development, maintenance, etc. (such as the Technical Integration contract)
2020 CEDCaP	An enterprise system for data collection and processing that is being developed to support data collection and response processing first for the 2020 census and later other Census Bureau surveys and censuses

Figure 18: 2020 Census IT Cost Categories

The graph below in Figure 19 illustrates the breakout of costs by 2020 IT Services and Systems and 2020 CEDCaP costs. In this graph, the 2020 IT Services and Systems costs are the largest element of IT costs in the 2020 Census LCCE.

The total estimated cost for the IT costs is \$4.97B.

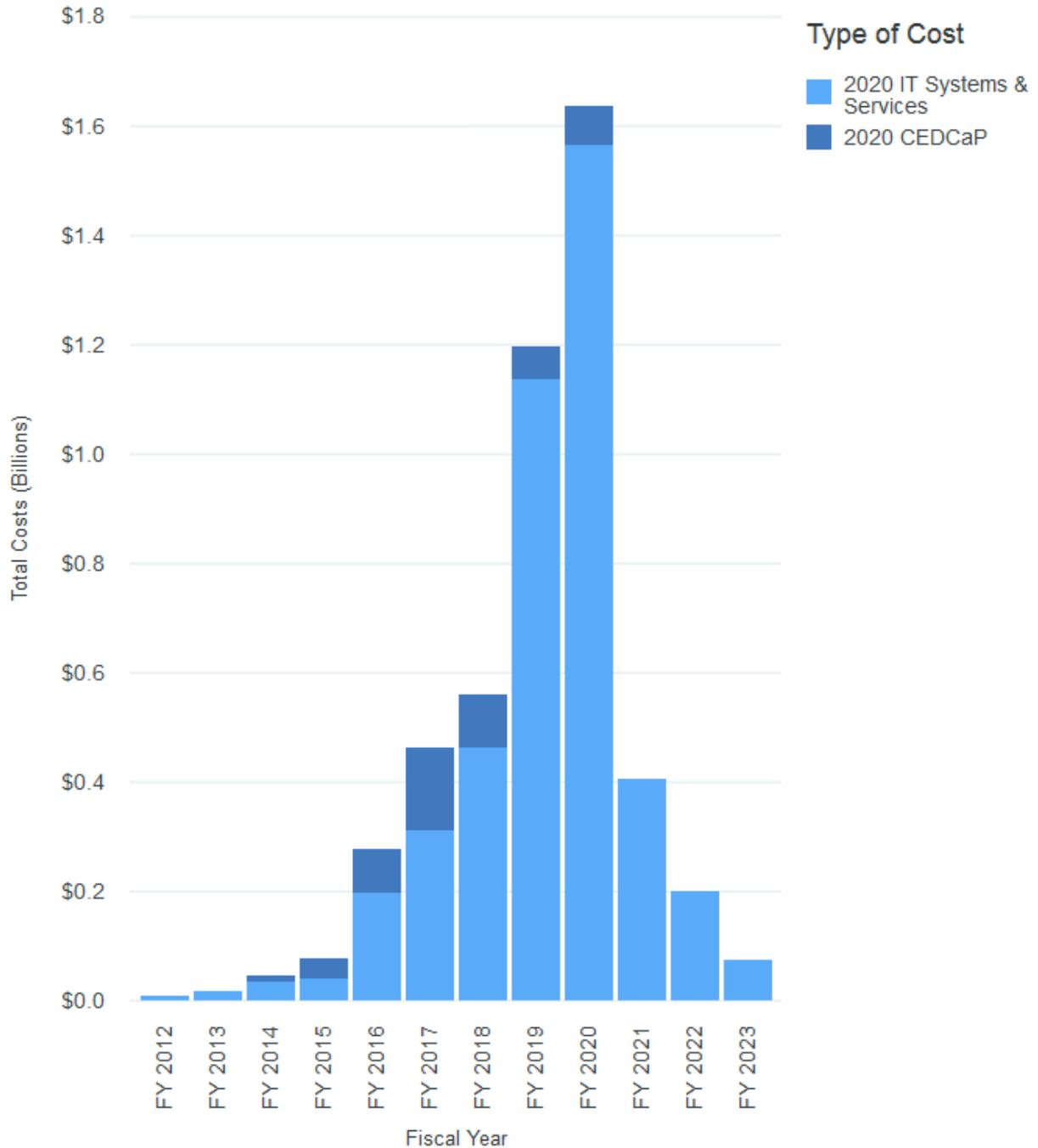


Figure 19: IT Costs by Fiscal Year

2020 IT Systems and Services Cost Details

The 2020 IT Systems represent system capabilities funded by the 2020 Census. These 52 systems include many small and relatively inexpensive systems, including Decennial Response Processing System and Integrated Logistics Management System, but also includes larger and more expensive systems, including Census Schedule A Hiring, Recruiting and Payroll System, Geographic imagery and matching systems, and the Decennial Tabulation System.

Supporting the development and integration of these systems are the 2020 IT Services, which largely contain contract costs, but also includes infrastructure costs. The major contracts in this category include Decennial Device as a Service (DaaS), Field IT Deployment, FITd, and Technical Integration. It also includes the cost of IT infrastructure provided in the Census Bureau's data center related to the 2020 Census and the costs related to security assessment and testing prior to the issuance of an authority to operate.

CEDCaP Cost Details

CEDCaP is the enterprise system that supports data collection for not only the decennial census but other censuses as well. This is a major investment that peaks in FY17 and FY18 to support the 2018 End-to-End Test and lay the foundation for the ramp up to the 2020 decennial census. The CEDCaP program includes the development of key systems for the 2020 Census, including the Operational Control Systems, Internet Self-Response, and the Enumeration instrument for Nonresponse Followup. These are key to modernization of the 2020 Census and represent the future of how decennial censuses will be conducted. The lifecycle cost of the CEDCaP program has been estimated separately from the rest of the 2020 Census by certified cost estimators in the program office, and is an input to the 2020 Census lifecycle cost estimate.

4.4 LCCE Major Cost Drivers

The cost of the 2020 Census LCCE are largely driven by a relatively few areas. The primary cost drivers are those associated with Major Contracts and CEDCaP, Field Operations, Overhead (nonCEDCaP), Program Risks and Secretarial-Controlled Contingency. This is illustrated in Figure 20 below that shows the individual and cumulative percent of costs. Note that the 18 remaining cost categories account for a small portion (approximately 20 percent) of the total cost.

Cost Category	Cost (\$K)	Percent	Cumulative Percent
04. Major Contracts and CEDCaP	\$ 4,056,500	25.9%	25.9%
02. Field Operations	\$ 2,050,400	13.1%	39.0%
03. Overhead (nonCEDCaP)	\$ 1,477,200	9.4%	48.5%
01. Program Risk	\$ 1,426,900	9.1%	57.6%
01. Secretarial-Controlled Contingency	\$ 1,181,000	7.6%	65.2%
09. HQ LOE	\$ 757,900	4.8%	70.0%
05. ACO Staffing	\$ 696,700	4.5%	74.5%
06. Program Management	\$ 515,600	3.3%	77.8%
07. Staffing Operations - CSHarP	\$ 500,900	3.2%	81.0%
08. Other	\$ 2,978,500	19.0%	100.0%

Figure 20: 2020 Census LCCE Major Cost Drivers

Figure 21 below provides a summary of the top level-3 WBS cost elements across the program. This chart highlights the mission-oriented nature of the 2020 Census in that Response Data-related cost elements (as denoted by the number 4 before the cost element title) figure prominently in the top cost elements at level-3 of the WBS. The other major cost elements are Census Survey Engineering and Program Management. This fact demonstrates the scope and scale of the design and management challenges associated with the 2020 Census operations.

Note that in the figure below, the costs contain overhead.



Figure 21: Top WBS Level 3 Cost Elements

Costs Drivers by Budget Object Class

The federal government’s standard chart of accounts utilizes a standard set of budget categories called Budget Object Classes (BOC). Funds are allocated using BOC. The BOC provide a view of the 2020 Census LCCE costs by resource category. Figure 22 below provides the top-five costs by BOC.

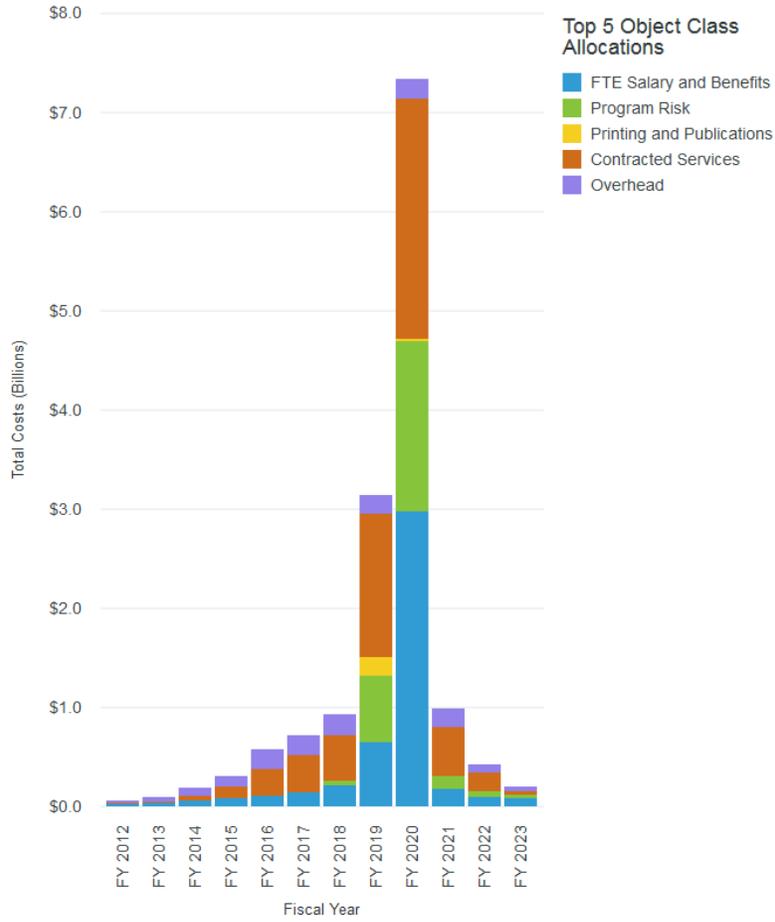


Figure 22: Top Lifecycle Costs by Object Class & Fiscal Year

Another view of the major cost elements by BOC is shown in Figure 23 below. This graph highlights the cost significance of contracted services within the 2020 Census LCCE.

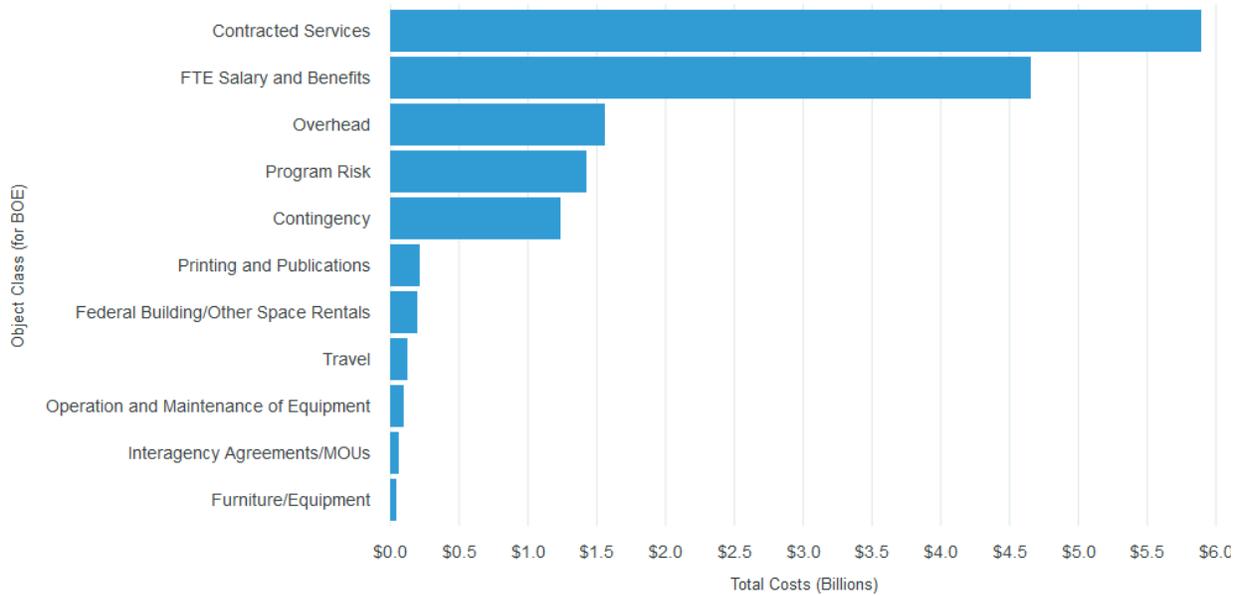


Figure 23: Top Life-cycle Costs by Object Class

5. Conclusion

The 2020 Decennial Census is a large and complex program that has a 12-year life-cycle and a projected total cost of \$15.6B. The estimate includes the mobilization of space, people and infrastructure across the entire United States and its territories.

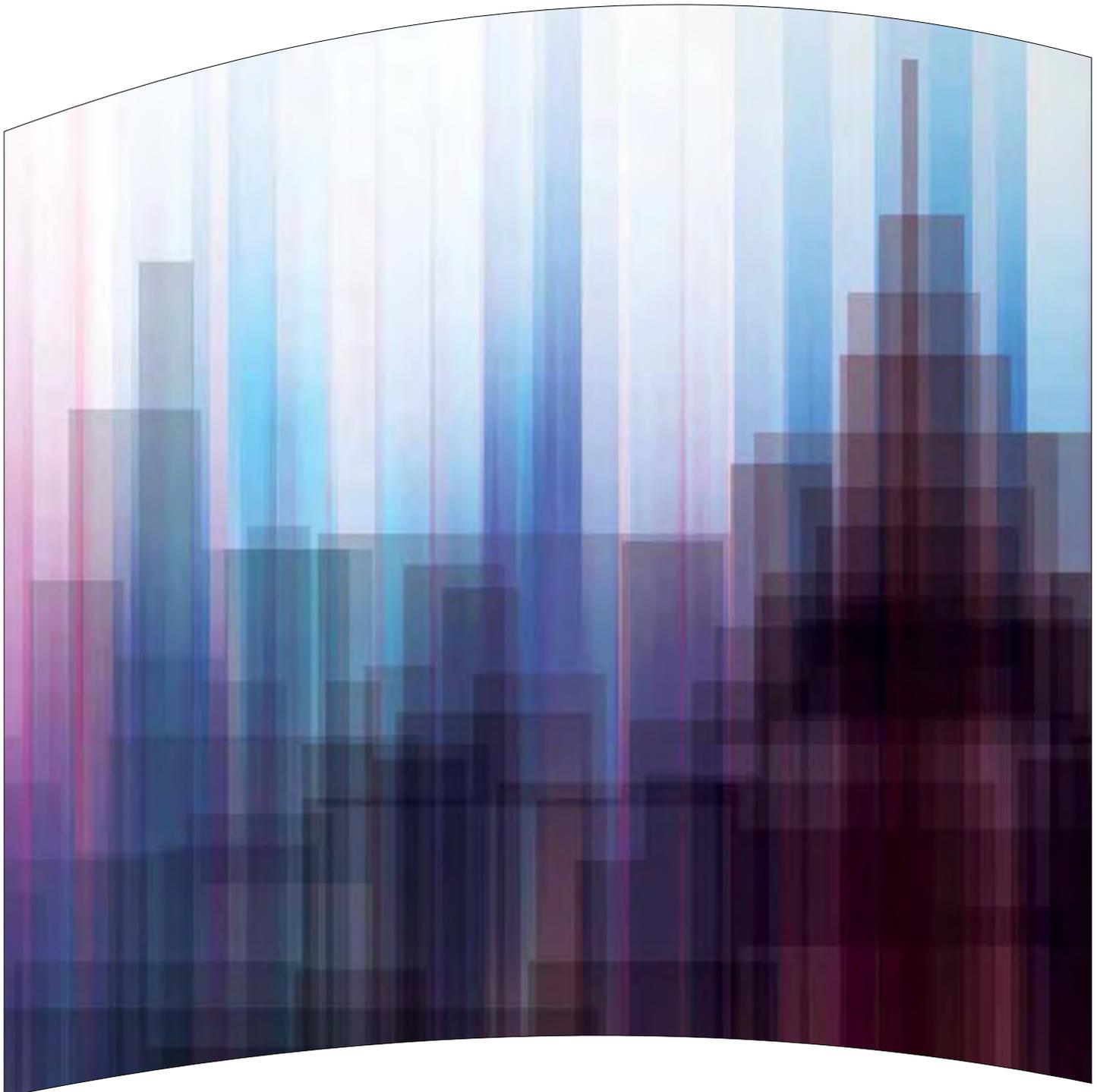
The 2020 Census LCCE is a key tool for management to justify budget requirements, support resource allocation decisions, and to develop an informed understanding of the projected costs and risks of their programs. A reliable LCCE will increase the probability of program success. The Census Bureau will be using the 2020 Census LCCE to focus on delivering a cost-effective and high-quality census.

Despite the challenges of developing, improving and maintaining a reliable cost estimate for a program as large and complex as the 2020 Decennial census, the Census Bureau is using certified cost estimators, independent cost estimators, advanced tool sets, and ongoing enhancements to internal controls to continuously improve the cost estimate. This commitment is underscored by the close working relationship that the Decennial Programs Directorate has established with both GAO and the DOC. The Census Bureau will continue to build upon the current version of the 2020 Census LCCE and will be regularly updating the cost estimate with further refined data and further strengthened internal controls.

Subjects Planned for the 2020 Census and American Community Survey

Federal Legislative and Program Uses

Issued March 2017
Revised



The original version of the appendix has been revised.

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Introduction

BACKGROUND

Since 1790, a national census of the U.S. population has been conducted every 10 years, as required by the U.S. Constitution. Additional information beyond the population count has been collected with each census in response to the challenges facing the nation and a national desire to understand ourselves.

In the 20th century, most addresses received a “short” form, while a portion of addresses received a more detailed “long” form. The Census 2000 short form was designed to collect basic demographic and housing information (i.e., age, race, gender, relationship, and tenure) to be used for apportionment and redistricting. The long form sent to approximately 1 in 6 households collected social, housing, and economic information (i.e., citizenship, educational attainment, disability status, employment status, income, and housing costs) that was used to plan and determine funding for a wide array of federal, state, local, and tribal programs.

Since 2005, in order to provide communities, businesses, and the public with the detailed long-form information more frequently, these data have been collected monthly (and released annually) through the American Community Survey (ACS).¹ This innovation enabled the 2010 Census to be a “short-form-only” census. Decoupling the collection of short- and long-form data allowed the U.S. Census Bureau to focus decennial census efforts on the constitutional requirements to produce a count of the resident population, while employing technology in both collections to improve efficiencies, improve accuracy, and reduce costs. The result has been the dissemination of more current and detailed information than has ever been available.

The 2020 Decennial Census Program, comprised of the 2020 Census and the ACS, will provide an official count through a “short-form-only” census, as well as a portrait of communities counted across the nation through data collected by the ACS. This program is the only data-gathering effort that collects information from enough people to produce comparable data for every geographic area recognized by the Census Bureau.

¹ The ACS also collects short-form data on its questionnaire. However, ACS asks for basic demographic and housing information from a sample of households, while the decennial census asks for basic demographic and housing information from all households.

SUBMISSION OF SUBJECTS PLANNED FOR THE 2020 DECENNIAL CENSUS PROGRAM

Section 141(f) of the Census Act requires that the subjects to be included in the next census be submitted to Congress no later than 3 years before the census date. The contents of this handbook describe the subjects that will be asked on the 2020 Census and the ACS.

The Census Act also requires that the questions to be included in the next census be submitted to Congress no later than 2 years before the census date. A document that meets that requirement for the 2020 Census and the ACS will be submitted to Congress by March 31, 2018.

ABOUT THE SUBJECTS PLANNED FOR THE 2020 DECENNIAL CENSUS PROGRAM

Throughout each decade, regular content reviews are conducted to ensure that the information collected through the decennial census program is required by federal programs. Beginning after the 1990 Census, the U.S. Office of Management and Budget (OMB) in conjunction with the Census Bureau, asked federal agencies to provide information describing their data needs. This information, updated each decade by subsequent changes to federal legislative requirements, is used to evaluate content considered for the decennial census program.

To prepare for the 2020 Census, OMB and the Census Bureau embarked on a comprehensive review including chartering the Interagency Council on Statistical Policy (ICSP) Subcommittee on the ACS and conducting the 2014 ACS Content Review. This effort was designed to examine and confirm the value of each question on the ACS, and to confirm and update the statutory and regulatory authority for the questions with federal agencies. In 2016, the Census Bureau asked federal agencies to provide any updates to this documentation.

The resulting information about federal uses is presented throughout the descriptions of the subjects on the following pages. These descriptions are designed to give the reader a clear understanding of 1) the relationship between questions asked of respondents and the summarized data that are released in published tables, 2) how federal agencies use the resulting data, and 3) the benefits of the data at the community level.

Protecting the Information Collected by These Subjects

The Census Bureau has an obligation to produce accurate, relevant statistics about the nation's economy and people, but we recognize that the information collected in these subjects is often private. We depend on cooperation and trust, and promise to protect the confidentiality of this information.

Federal law protects this information; Title 13 of the U.S. Code protects the confidentiality of all collected information. Violating this law is a crime with severe penalties. Please visit www.census.gov/about/policies/privacy/data_protection/federal_law.html.

OUR PRIVACY PRINCIPLES

We recognize the value of respondent trust, and we believe that when a person answers the 2020 Census or the ACS we must serve as caretakers of the information. The Census Bureau's Privacy Principles remind us of this promise and help ensure the protection of respondent information throughout all of our activities.

The Privacy Principles are our guidelines. They help us as we determine content to consider respondents' rights and concerns. Every principle embodies a promise to the respondent.

Necessity: Do we need to collect information on this subject?

Every time we prepare to ask a question, we determine whether the information is truly necessary. All of the information we collect is used for federal programs.

- We promise to collect only information necessary for each survey and census.
- We promise that we will use the information only to produce timely, relevant statistics about the population and the economy of the United States.

Openness: Do respondents know why we are collecting this information?

We collect information only for statistical purposes, and it is never used to identify individuals. Before participating, respondents have the right to know why we are conducting the survey or census, why we are asking specific questions, and the purposes for which the information will be used.

- We promise to inform respondents about the purpose and uses for every survey or census we conduct before respondents provide answers.

Respectful treatment of respondents: Are our efforts reasonable and do we treat people with respect?

- We promise to minimize the effort and time it takes for respondents to participate in the data collection by efficient designs.
- We promise to use only legal, ethical, and professionally accepted practices in collecting data.
- We promise to ensure any collection of sensitive information from children and other sensitive populations does not violate federal protections for research participants and is done only when it benefits the public good.

Confidentiality: How do we protect this information?

In addition to removing personally identifiable information (i.e., names, telephone numbers, and addresses) from our data files, we use various approaches to protect personal information—including computer technologies, statistical methodologies, and security procedures.

Our security measures ensure that only a restricted number of authorized people have access to private information and that access is only granted to conduct our work and for no other purposes. Every person who works with census confidential information collected by the Census Bureau is sworn for life to uphold the law.

Violating the confidentiality of a respondent is a federal crime with serious penalties, including a federal prison sentence of up to 5 years, a fine of up to \$250,000, or both.

- We promise that every person with access to respondent information is sworn for life to protect respondent confidentiality.
- We promise that we will use every technology, statistical methodology, and physical security procedure at our disposal to protect respondent information.

Operational Questions

Some operational questions will appear on the 2020 Census and American Community Survey that will not result in published counts or estimates. These questions are asked to better administer the data collection process and to ensure greater accuracy of the data collected through the other subjects.

A person's contact information, including name and phone number, are requested in case someone must be reminded to complete their response or to verify information in a follow-up operation.

Contact information is not part of published estimates and is carefully protected, as mandated by federal law, to respect the personal information of respondents.

An address is verified or requested to ensure that the data collected from the people in each household are included in the correct place.

The U.S. Census Bureau is required to provide state legislatures with the small-area census population tabulations necessary for legislative redistricting. For example, a county count will be a summary of the data collected from all of the addresses in that county. To ensure that a household's data are included with the correct town, county, and state counts, we need to ensure that we know where the information was collected. Addresses are not part of published tabulations and are carefully protected, as mandated by federal law, to respect the personal information of respondents.

The 2020 Census questions about the number of people in the home, whether anyone was included who does not usually live or stay there, or whether anyone who does usually live or stay there was forgotten, are used to ensure that everyone is counted once, only once, and in the right place.

The first U.S. decennial census in 1790 established the concept of "usual residence" as the main principle in determining where people were to be counted. The Census Bureau uses residence criteria to determine whom to count and where, especially because the place where a person lives and sleeps most of the time is not necessarily the same as the person's voting residence or legal residence. Asking these additional questions helps ensure that no one is missed, people are not counted in multiple locations, and that people are included in the right place.

The 2020 Census questions about maritime vessels, military living quarters, and other group quarters facilities, such as college or university student housing, nursing/skilled nursing facilities, group homes, emergency and transitional shelters for people experiencing homelessness, and other such locations, are used to better administer the data collection process in group living situations.

Asking these additional questions helps ensure accurate classification of group quarters which is a part of the Census Bureau's mission to ensure that everyone is counted once, only once, and in the right place.

Selected Statutory Uses of Operational Questions Data

U.S. Department of Commerce, Bureau of the Census	The Census Act, 13 USC § 141(c)
U.S. Department of Commerce, Bureau of the Census	The Census Act, 13 USC § 181

Subjects Planned for the 2020 Census and the American Community Survey

Age

Age asked since 1790.

AGE AND DATE OF BIRTH QUESTIONS ARE USED TO UNDERSTAND THE SIZE AND CHARACTERISTICS OF DIFFERENT AGE GROUPS AND TO PRESENT OTHER DATA BY AGE.

Age data are used in planning and funding government programs that provide funds or services for specific age groups, such as children, working-age adults, women of childbearing age, or the older population. These statistics are also used to enforce laws, regulations, and policies against age discrimination in government programs and in society.

AGE DATA HELP COMMUNITIES:

Provide Assistance to Older Americans

Knowing how many people in a community are aged 60 and older helps local officials provide programs and services that enable older adults to remain living safely in their homes and communities (Older Americans Act). Age data are also used in programs that provide services and assistance to seniors, such as financial assistance with utilities (Low Income Home Energy Assistance Program).

Provide Assistance to Children and Families

Knowing the numbers and ages of children in families in combination with other information, such as household income, health insurance status, and poverty status, can help communities enroll eligible families in programs designed to assist them. For example, age data are used in targeted efforts to enroll eligible people in Medicaid and the Children's Health Insurance Program.

Educate Children and Adults

Knowing how many children and adults depend on services through schools helps school districts make long-term building, staffing, and funding decisions. Age in combination with other information, such as disability status, language spoken at home, and poverty status, assists schools in understanding the needs of their students and qualifying for grants that help fund programs for those students (Elementary and Secondary Education Act of 1965).

Ensure Equal Opportunity

Knowing the ages of people in the community in combination with information about housing, employment, and education, helps government and communities enforce laws, regulations, and policies against discrimination based on age. For example, age information is used to analyze the employment status of workers by age (Age Discrimination in Employment Act).

Selected Statutory Uses of Age Data

U.S. Department of Agriculture	42 USC §§ 1472, 1474, 1485, 1486, 1490, and 1490a 7 CFR 3550.10
U.S. Department of Education	20 USC §§ 6333, 6334(a)(1), 6335(a), and 6337(b)(1)(A)
U.S. Department of Education	220 USC §§ 6821, 6824, 7011(5), and 7801(20)
U.S. Department of Health and Human Services, Administration for Community Living	42 USC 300kk
U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services	Patient Protection and Affordable Care Act, Public Law 111-148, § 10334; 42 USC 300kk
U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation	42 USC § 1397ii(b)(2)(A)–(C)
U.S. Department of Housing and Urban Development	12 USC § 1701q; 24 CFR part 891
U.S. Department of Justice, Civil Rights Division	Voting Rights Act of 1965, Public Law 89-110, as amended, § 203; 52 USC § 10503; 28 CFR Part 55
U.S. Department of Justice, Civil Rights Division	Title VII of the Civil Rights Act of 1964, Public Law 88-352; 42 USC § 2000e-2
U.S. Department of Labor	Older Americans Act Amendments of 2000, Public Law 109-365, 42 USC § 3056e; 20 CFR 641.140, 641.360, and 641.365
U.S. Department of Labor	29 USC §§ 49f(a)(3)(D), 49g(d), and 49l-2(a)15
U.S. Department of Transportation	Fixing America's Surface Transportation Act, Public Law 114-94; 49 USC § 5303(c), (e), (h), (i), (j), (k), and (n)
U.S. Department of Veterans Affairs	38 USC § 8104(b)(2)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)–(2), (b)(2), (b)(6), (b)(7), (n) (1), and (o)(1)
U.S. Equal Employment Opportunity Commission, Office of General Counsel	Age Discrimination in Employment Act of 1967, Public Law 90-202, 29 USC § 623(a)–(d) and 633a; 29 CFR 1625.7(d); Hazelwood School Dist. v. United States, 433 U.S. 299 (1977)
U.S. Social Security Administration	The Social Security Act, Public Law 74-271, as amended, 42 USC § 401(c)

Gender

Gender asked since 1790.

A QUESTION ABOUT THE GENDER OF EACH PERSON IS USED TO CREATE STATISTICS ABOUT MALES AND FEMALES AND TO PRESENT OTHER DATA, SUCH AS OCCUPATION, BY GENDER.

Gender data are used in planning and funding government programs and in evaluating other government programs and policies to ensure they fairly and equitably serve the needs of males and females. These statistics are also used to enforce laws, regulations, and policies against discrimination in government programs and in society.

GENDER DATA HELP COMMUNITIES:

Ensure Equal Opportunity

Knowing the gender of people in the community in combination with information about housing, voting, language, employment, and education, helps government and communities enforce laws, regulations, and policies against discrimination on the basis of gender. For example, gender data are used to enforce laws against discrimination based on gender in education programs and activities receiving federal financial assistance (Title IX of the Education Amendments of 1972).

Understand Changes

Knowing whether people of different genders have the same opportunities in education, employment, voting, home ownership, and many other areas is of interest to researchers, advocacy groups, and policymakers. For example, the National Science Foundation uses gender data to provide information on women in the science and engineering workforce, and several agencies use gender data to investigate whether women, including women who are military veterans, have similar employment opportunities as men.

Selected Statutory Uses of Gender Data

U.S. Department of Health and Human Services, Administration for Children and Families	42 USC § 8623(a)(2) and (4), § 8629(a)(1)–(3), and (6), § 8629(b)
U.S. Department of Health and Human Services, Administration for Community Living	42 USC 300kk
U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality	42 USC §§ 299a(a)(3),(6),(8), 299b-2(a)(1), and 299(c)(1)(B)
U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services	Patient Protection and Affordable Care Act, Public Law 111-148, § 10334; 42 USC 300kk
U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Clinician Recruitment and Service	42 USC § 254e; 42 CFR 5.2
U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation	42 USC § 1397ii (b)(2)(A)–(C)
U.S. Department of Housing and Urban Development	Fair Housing Act, Public Law 90–284, 42 USC 3600–3620, 42 USC 3608(e)
U.S. Department of Justice, Civil Rights Division	Title VII of the Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e(2)(k); Wards Cove Packing Co. v. Atonio; 490 U.S. 642 (1989)
U.S. Department of Justice, Civil Rights Division	Title IX of the Education Amendments of 1972, 20 USC § 1701 et seq.
U.S. Department of Transportation	Fixing America’s Surface Transportation Act, Public Law 114-94; 49 USC § 5303(c), (e), (h), (i), (j),(k), and (n)
U.S. Department of Veterans Affairs	38 USC § 546
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)–(2), (b)(2), (b)(6), (b)(7), (n) (1), and (o)(1)
U.S. Equal Employment Opportunity Commission, Office of General Counsel	Civil Rights Act of 1964, Public Law 88-352; 42 USC § 2000e-2(k)(1)(A); Hazelwood School Dist. v. United States, 433 U.S. 299, 307–308 (1977)
U.S. Equal Employment Opportunity Commission, Office of Research, Information, and Planning	Civil Rights Act of 1964, Public Law 88-352; 42 USC § 2000e-2(k)(1)(A); Hazelwood School Dist. v. United States, 433 U.S. 299, 307–308 (1977)
U.S. Social Security Administration	The Social Security Act, Public Law 74-271, as amended, 42 USC § 401(c)

Race/Ethnicity

Race asked since 1790, ethnicity asked since 1970.

QUESTIONS ABOUT A PERSON'S RACE OR ETHNICITY ARE USED TO CREATE DATA ABOUT RACE AND ETHNIC GROUPS.

These data are required for federal and state programs and are critical factors in the basic research behind numerous policies, particularly for civil rights. Race and ethnicity data are used in planning and funding government programs that provide funds or services for specific groups. These data are also used to evaluate government programs and policies to ensure they fairly and equitably serve the needs of all racial and ethnic groups and to monitor compliance with antidiscrimination laws, regulations, and policies. States also use these data to meet legislative redistricting requirements.

The U.S. Census Bureau collects race and ethnicity data in accordance with the 1997 Office of Management and Budget standards on race and ethnicity. The categories on race and ethnicity are based on self-identification and generally reflect a social definition of race and ethnicity. The categories are not an attempt to define race and ethnicity biologically, anthropologically, or genetically.

RACE AND ETHNICITY DATA HELP COMMUNITIES:

Ensure Equal Opportunity

Knowing the races and ethnicities of community members in combination with information about housing, voting, language, employment, and education, helps government and communities enforce antidiscrimination laws, regulations, and policies. For example, race and ethnicity data are used in the following ways:

- Establish and evaluate the guidelines for federal affirmative action plans under the Federal Equal Opportunity Recruitment Program.

- Monitor compliance with the Voting Rights Act and enforce bilingual requirements.
- Monitor and enforce equal employment opportunities under the Civil Rights Act of 1964.
- Identify segments of the population who may not be getting needed medical services under the Public Health Service Act.
- Allocate funds to school districts for bilingual services under the Bilingual Education Act.

Understand Changes

Knowing if people of different races and ethnicities have the same opportunities in education, employment, voting, home ownership, and many other areas is of interest to researchers, advocacy groups, and policymakers. The National Science Foundation uses data on race and ethnicity to provide information on people of different racial and ethnic backgrounds in the science and engineering workforce. Several federal agencies use race and ethnicity data to investigate whether housing or transportation improvements have unintended consequences for specific race and ethnic groups. Data on race and ethnicity are used with age and language data to address language and cultural diversity needs in health care plans for the older population.

Administer Programs for Specific Groups

Knowing how many people are eligible to participate in certain programs helps communities, including tribal governments, ensure that programs are operating as intended. For example, the Indian Housing Block Grant program, Indian Community Development Block Grant program, and Indian Health Service all depend on accurate estimates of American Indians and Alaska Natives. Data for the American Indian and Alaska Native population come from the questions about a person's race or ethnicity.

Selected Statutory Uses of Race/Ethnicity Data

U.S. Department of Commerce, Bureau of the Census	13 USC § 141(c)
U.S. Department of Commerce, Bureau of the Census	52 USC § 10503
U.S. Department of Health and Human Services, Administration for Children and Families	Community Services Block Grant Act, Public Law 105-285, 42 USC §§ 9902(2), 9903, and 9908(b)(1)(A), (b)(11), and (c)(1)(A)(i)
U.S. Department of Health and Human Services, Administration for Community Living	Older Americans Act of 1965, Public Law 89-73, 42 USC § 3018
U.S. Department of Health and Human Services, Administration for Community Living	42 USC 300kk
U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services	Patient Protection and Affordable Care Act, Public Law 111- 148, § 10334; 42 USC § 300kk
U.S. Department of Health and Human Services, Indian Health Service	Snyder Act, Nov. 2, 1921, c. 115, 25 USC § 13; Transfer Act, Aug. 5, 1954, c. 658, § 2, 42 USC § 2001(a); Indian Healthcare Improvement Act, Public Law 94-43; 25 USC § 1602
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101-625, 42 USC 12705(b)(1)-(3); 24 CFR Part 91, 24 CFR 91.205(a)-(c)
U.S. Department of Housing and Urban Development	McKinney-Vento Homeless Assistance Act, 42 USC 11371- 11376; 24 CFR Part 91
U.S. Department of Housing and Urban Development	Housing and Community Development Act of 1974, 42 USC 5306(a)(1); 24 CFR §1003.101
U.S. Department of Housing and Urban Development	Native American Housing Assistance and Self- Determination Act of 1996, Public Law 104-330, as amended, 25 USC § 4152(b); 24 CFR 1000.324-1000.330
U.S. Department of Justice, Civil Rights Division	Title VII of the Civil Rights Act of 1964, 42 USC § 2000e-2
U.S. Department of Justice, Civil Rights Division	Voting Rights Act of 1965, § 203, 52 USC § 10503; 28 CFR Part 55
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)-(2), (b)(2), (b)(6), (b)(7), (n) (1), and (o)(1)
U.S. Equal Employment Opportunity Commission, Office of Research, Information, and Planning	Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e- 2(k)(1)(A); Hazelwood School Dist. v. United States, 433 U.S. 299, 307-308 (1977)

Relationship

Relationship asked since 1880.

A QUESTION ABOUT THE RELATIONSHIP OF EACH PERSON IN A HOUSEHOLD TO ONE CENTRAL PERSON IS USED TO CREATE ESTIMATES ABOUT FAMILIES, HOUSEHOLDS, AND OTHER GROUPS, AND TO PRESENT OTHER DATA AT A HOUSEHOLD LEVEL.

Relationship data are used in planning and funding government programs that provide funds or services for families, people living or raising children alone, grandparents living with grandchildren, or other households that qualify for additional assistance.

RELATIONSHIP DATA HELP COMMUNITIES:

Provide Adequate Housing

Knowing about the different types of households in a community (single people, couples, families, roommates, etc.) helps communities understand whether available housing meets the needs of residents. Information about the relationships among people in a household, in combination with housing costs and the combined income of all people in a household, helps communities understand whether housing is affordable for residents.

When housing is not sufficient or not affordable, relationship data can help communities enroll eligible households in programs designed to assist them, and can help communities qualify for grants from the Community Development Block Grant, HOME Investment Partnership Program, Emergency Solutions Grant, Housing Opportunities for Persons With AIDS, and other programs.

Provide Assistance to Families

Knowing more about families, such as the ages of children, household income, health insurance status, and poverty status, can help communities enroll eligible families in programs designed to assist them, such as Head Start and the Children's Health Insurance Program, and can help communities qualify for grants to fund these programs. Relationship data are also used to ensure that programs like Temporary Assistance for Needy Families are making a difference for families.

Understand Changing Households

Information about living arrangements and how they are changing, including whether older residents are staying in their homes as they age, whether young people are living with parents or moving in with roommates, and which kinds of households include young children, can help communities plan future programs and services for residents. For example, the Social Security Administration estimates future program needs based on the current relationships of working people.

Selected Statutory Uses of Relationship Data

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics	42 USC § 242k(b), (h), and (l)
U.S. Department of Energy	Energy Conservation and Production Act, Public Law 94-385, as amended, 42 USC § 6861, 6864; 10 CFR 440.10
U.S. Department of Transportation	Fixing America's Surface Transportation Act, Public Law 114-94; 49 USC § 5303(c), (e), (h), (i), (j),(k), and (n)
U.S. Department of Education	20 USC §§ 6333, 6334(a)(1), 6335(a), 6337(b)(1)(A)
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC §§ 8629 (a) (1)–(3) and (5)–(6), 8629 (b), and 8622 (11)
U.S. Department of Health and Human Services, Administration for Children and Families	13 USC § 141 note
U.S. Department of Health and Human Services, Administration for Community Living	Developmental Disabilities Assistance and Bill of Rights Act of 2000, Public Law 106-402, § 124(c)(5); 42 USC 15024
U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services	Patient Protection and Affordable Care Act, Public Law 111-148, §10334; 42 USC 300kk
U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation	42 USC § 1397ii (b)(2)(A)–(C)
U.S. Department of Housing and Urban Development	McKinney-Vento Homeless Assistance Act, 42 USC 11371–11376; 24 CFR Part 91
U.S. Department of Housing and Urban Development	Housing and Community Development Act of 1974, as amended, Public Law 93-383, 42 USC 5301, 5302, and 5305; 24 CFR 91.205(a)–(c), 91.305(a)–(c), 570.208(a)(1), 570.483(b)(1), 570.704(a)–(c), 570.707(a)–(c), and 570.901
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101–625, 42 USC 12705(b)(1)–(3); 24 CFR Part 91; 24 CFR 91.205(a)–(c)
U.S. Social Security Administration	The Social Security Act, Public Law 74–271, as amended, 42 USC § 401(c)
U.S. Department of Veterans Affairs	Veterans Benefits Improvement Act of 2008, Public Law 110-389, Title III—Labor and Education Matters, Subtitle C—Vocational Rehabilitation Matters, § 334, 38 USC § 3122

Tenure (Owner/Renter)

Tenure asked since 1890.

A QUESTION ABOUT WHETHER A HOME IS OWNED OR RENTED IS USED TO CREATE DATA ABOUT TENURE, RENTERS, AND HOME OWNERSHIP.

Tenure is the most basic characteristic to assess housing inventory. Tenure data are used in government programs that analyze whether adequate housing is affordable for residents. Tenure data are also used to provide and fund housing assistance programs. These statistics are also used to enforce laws, regulations, and policies against discrimination in private-market housing, government programs, and in society.

TENURE DATA HELP COMMUNITIES:

Provide Adequate Housing

Knowing the different types of households in a community (single people, couples, families, roommates, etc.) and rates of home rental and ownership helps communities understand whether available housing meets the needs of residents. Data about owners and renters, in combination with housing costs and the combined income of all people in a household, help communities understand whether housing is affordable for residents.

When housing is not sufficient or affordable, data about owners and renters can help communities enroll eligible households in programs designed to assist them, and can help communities qualify for grants from the Community Development Block Grant, HOME Investment Partnership Program, Emergency Solutions Grant, Housing Opportunities for Persons With AIDS, and other programs.

Plan Community Development

Knowing how the balance of rented homes, mortgaged homes, and homes owned free and clear changes over time can help communities understand changes in local housing markets; identify opportunities to improve tax, assistance, and zoning policies; and to reduce tax revenue losses from vacant or abandoned properties. Tenure is also used in formulas that communities use to determine housing assistance funding (Fair Market Rents).

Ensure Equal Opportunity

Knowing the characteristics of people who rent and people who own homes in the community, such as age, gender, race, Hispanic origin, disability, helps government and communities enforce laws, such as the 1968 Fair Housing Act, designed to eliminate discrimination in housing.

Understand Changing Households

Knowing whether older residents are staying in homes as they age or moving into rented homes; and whether young people are staying with parents, renting with roommates, or buying homes, can help governments and communities distribute funds appropriately between home ownership and rental housing programs and services for residents.

Selected Statutory Uses of Tenure Data

U.S. Department of Agriculture	42 USC §§ 1472, 1474, 1485, 1486, 1490, 1490a, 1490l, 1490m, 1490p-2, 1490r; 7 CFR 1940.563-564, 1940.575, 3560.11, and 3560.152(a)(2)
U.S. Department of Housing and Urban Development	McKinney-Vento Homeless Assistance Act, 42 USC § 11371-11376; 24 CFR Part 91
U.S. Department of Housing and Urban Development	Housing and Community Development Act of 1974, Public Law 93-383, as amended, 42 USC § 1439 (d)(1)(A)(i); 24 CFR 791.402
U.S. Department of Housing and Urban Development	United States Housing Act of 1937, Public Law 93-383, as amended, 42 USC § 1437f(c)(1); 24 CFR 888.113; 24 CFR 982.401
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101-625, 42 USC 12705(b)(1)-(3); 24 CFR Part 91, 24 CFR 91.205(a)-(c)
U.S. Department of Housing and Urban Development	Rehabilitation Act of 1973, § 504, Public Law 93-112, 29 USC 794; 24 CFR § 8.22(b); 24 CFR § 8.23(a)
U.S. Department of Housing and Urban Development	12 USC § 4568
U.S. Department of Housing and Urban Development	12 USC § 1701q; 24 CFR part 891
U.S. Department of Housing and Urban Development	Tax Reform Act of 1986, Public Law 99-514, 26 USC § 42(d)(5)(B)(ii)(I), (iii)(I), (iv), and(g); 15 U.S.C § 631
U.S. Department of Justice, Civil Rights Division	Voting Rights Act of 1965; 52 USC § 10301; 28 CFR Part 51; LULAC v. Perry, 548 U.S. 399 (2006); Johnson v. DeGrandy, 512 U.S. 997 (1994); Thornburg V. Gingles, 478 U.S. 30 (1986)
U.S. Department of Transportation	49 USC § 5303; 49 CFR Part 613
U.S. Department of Transportation	Fixing America's Surface Transportation Act, Public Law 114-94; 49 USC § 5303(c), (e), (h), (i), (j), (k), and (n)
U.S. Department of Transportation	49 USC §§ 6302(b)(3)(B), 6302(c), 6304(a), 6309(a)

Subjects Planned for the American Community Survey

Acreage and Agricultural Sales

Acreage asked since 1960, agricultural sales asked since 1960.

QUESTIONS ABOUT THE ACREAGE ASSOCIATED WITH HOUSES, MOBILE HOMES, AND AGRICULTURAL SALES ARE USED TO CREATE DATA ABOUT AGRICULTURAL PROPERTIES AND TO BETTER UNDERSTAND HOME VALUE STATISTICS.

These data are used in planning government programs designed to benefit the farm population and identifying or excluding agricultural areas for many other programs.

ACREAGE AND AGRICULTURAL SALES DATA HELP COMMUNITIES:

Provide Equitable Housing Assistance

Knowing which homes might qualify for farm subsidies, and which homes qualify for housing subsidies, is important to ensure that funds are fairly allocated. For example, the historical definition of Fair Market Rents, used to allocate housing assistance, has always excluded units on acreage of more than 10 acres to eliminate those units that might benefit from farm subsidies and therefore have lower-than-market rents. Understanding which kinds of properties are eligible for certain programs helps communities inform eligible residents and determine whether the community is eligible for funds based on its farm population.

Support Agricultural Programs

Knowing which areas of a community are agricultural helps communities ensure eligible institutions receive funding for cooperative agricultural extension work and agricultural research. This funding is distributed to eligible institutions based on a legislatively determined formula that uses these data.

Plan Community Development

Knowing the size and agricultural nature of areas of each community can help communities understand changes in local housing markets; identify opportunities to improve tax, assistance, and zoning policies; and reduce tax revenue losses from vacant or abandoned properties.

Selected Statutory Uses of Acreage and Agricultural Sales Data

U.S. Department of Housing and Urban Development	Tax Reform Act of 1986, Public Law 99-514, 26 USC § 42(d)(5)(B)(iii)(I); 15 USC § 631
U.S. Department of Housing and Urban Development	United States Housing Act of 1937, Public Law 93-383, as amended, 42 USC § 1437f(c)(1); 24 CFR 888.113, 24 CFR 982.401
U.S. Environmental Protection Agency	Air Pollution Control Act (Clean Air Act), Public Law 84-159, 42 USC § 7403(a)(1), (b)(6), (b)(7), (e), and (g)
U.S. Federal Reserve Board	Public Law 95-128, 12 USC § 2901 et seq.; 12 CFR 228.12
U.S. Federal Reserve Board	Public Law 94-200, 12 USC § 2809(a); 12 CFR 203

Ancestry

Ancestry asked since 1980.

A QUESTION ABOUT A PERSON'S ANCESTRY OR ETHNIC ORIGIN IS USED TO CREATE STATISTICS ABOUT ANCESTRY GROUPS IN AMERICA.

Ancestry data are used in planning and evaluating government programs and policies to ensure they fairly and equitably serve the needs of all groups. These statistics are also used to enforce laws, regulations, and policies against discrimination in society.

ANCESTRY DATA HELP COMMUNITIES:

Ensure Equal Opportunity

Knowing the ethnic groups in a community in combination with information about housing, voting, language, employment, and education, helps government and communities enforce laws, regulations, and policies against discrimination based on national origin. For example, ancestry data are used to enforce nondiscrimination in education (including monitoring desegregation); to enforce nondiscrimination in employment by federal agencies, private employers, employment agencies, and labor organizations; and to enforce laws, regulations, and policies against discrimination in federal financial assistance (Civil Rights Act of 1964).

Understand Changes

Knowing whether people from different backgrounds have the same opportunities in education, employment, voting, home ownership, and many other areas is of interest to researchers, advocacy groups, and policymakers. For example, ancestry data are used with age and language data to address language and cultural diversity needs in health care plans for the older population.

Selected Statutory Uses of Ancestry Data

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics	42 USC § 242k(b), (h), and (l)
U.S. Department of Justice, Civil Rights Division	Title VI of Civil Rights Act of 1964, 42 USC § 2000d–2000d-7; 28 CFR 42.101–42.112; 28 CFR 42.401–42.415; 28 CFR 50.3; 67 Fed. Reg. 41,555 (June 18, 2002); Lau v. Nichols, 414 U.S. 563 (1974)
U.S. Department of Justice, Civil Rights Division	Equal Educational Opportunities Act of 1974, 20 USC § 1701 et seq.; Castaneda v. Pickard, 648 F.2d 989 (1981)
U.S. Department of Justice, Civil Rights Division	Civil Rights Act of 1964, 42 USC § 2000c et seq.
U.S. Equal Employment Opportunity Commission, Office of General Counsel	Civil Rights Act of 1964, Public Law 88-352; 42 USC § 2000e-2(k)(1)(A); Hazelwood School Dist. v. United States, 433 U.S. 299, 307–308 (1977)
U.S. Equal Employment Opportunity Commission, Office of Research, Information, and Planning	Civil Rights Act of 1964, Public Law 88-352; 42 USC § 2000e-2(k)(1)(A); Hazelwood School Dist. v. United States, 433 U.S. 299, 307–308 (1977)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)–(2), (b)(2), (b)(6), (b)(7), (n)(1), and (o)(1)
U.S. Department of Health and Human Services, Administration for Children and Families	Community Services Block Grant Act, Public Law 105-285, § 673 (2), 674, and 681A, 42 USC § 9902 (2), 9903, and 9908 (b)(1)(A), (b)(11), and (c)(1)(A)(i)
U.S. Department of Health and Human Services, Indian Health Service	Snyder Act, Nov. 2, 1921, c. 115; 25 USC § 13; Transfer Act, Aug. 5, 1954, c. 658, § 2, 42 USC § 2001(a); 42 C.F.R. § 136.12(a)
U.S. Department of Health and Human Services, Office for Civil Rights	Title VI of the Civil Rights Act of 1964, 42 USC § 2000d; Patient Protection and Affordable Care Act § 1557, 42 USC § 18116

Commuting (Journey to Work)

Journey to work asked since 1960.

QUESTIONS ABOUT WHERE PEOPLE WORK, HOW THEY GET THERE, WHEN THEY LEAVE, AND HOW LONG IT TAKES ARE USED TO CREATE DATA ABOUT COMMUTING OR A PERSON'S JOURNEY TO WORK.

Journey to work data are used in planning and funding for improvements to road and highway infrastructure, developing transportation plans and services, and understanding where people are traveling in the course of a normal day. These data are also used to evaluate transportation plans to ensure they fairly and equitably serve the needs of all groups.

COMMUTING DATA HELP COMMUNITIES:

Improve Transportation Planning

Knowing where people commute to and from, and what time of day they are commuting, helps transportation planners create mass transportation and metropolitan transportation plans that are compliant with various transportation, environmental, and antidiscrimination regulations.

Local agencies and organizations use these statistics to plan transportation programs and services that meet the diverse needs of local populations, including the disabled population, bicycle commuters, carpool and ride-shares, and many other groups. Commuting data are also used to forecast future use of new or updated transportation systems.

Ensure Equal Opportunity

Knowing where people could reasonably commute from in order to work in a certain area is used by communities and businesses for employment planning, and by communities and governments to enforce laws, regulations, and policies against employment discrimination.

Understand Changes in Commutes

As commuting patterns change, information about where people could reasonably commute from in order to work in a certain area is used to understand commercial markets and labor force participation, and to plan local emergency response programs.

Selected Statutory Uses of Commuting (Journey to Work) Data

U.S. Department of Energy	Energy Policy Act of 1992, Public Law 102-486, 42 USC § 13385
U.S. Department of Health and Human Services, Administration for Children and Families	Community Services Block Grant Act, Public Law 105-285, 42 USC § 9902 (2), 9903, and 9908 (b)(1)(A), (b)(1)1, and (c)(1)(A)(i)
U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services	2003 Medicare Modernization Act, 42 USC § 1395ww(d)(13)
U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Healthcare Workforce Analysis	Public Health Service Act, §§ 761(b)(2)(A), 792(a), 792(b)(2), and 806(f)(1), 42 USC §§ 294n, 295k, and 296e
U.S. Department of Justice, Civil Rights Division	Title VII of the Civil Rights Act of 1964, 42 USC § 2000e(2)(k); Wards Cove Packing Co. v. Atonio, 490 U.S. 642 (1989)
U.S. Department of the Interior	Public Law 102-477, 25 USC §§ 3401 and 3416; Senate Report 102-188
U.S. Department of Transportation	49 USC § 5303; 49 CFR Part 613
U.S. Department of Transportation	Fixing America's Surface Transportation Act, Public Law 114-94; 49 USC § 5304; 49 CFR Part 613, Subpart B
U.S. Department of Transportation	Fixing America's Surface Transportation Act, Public Law 114-94; 49 USC § 5303(c), (e), (h), (i), (j),(k), and (n)
U.S. Department of Transportation	49 USC §§ 6302(b)(3)(B), 6303(c), 6304(a), 6309 (a)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC §§ 1254(a)(1)-(2), (b)(2), (b)(6), (b)(7), (n)(1), (o)(1)
U.S. Equal Employment Opportunity Commission, Office of Federal Operations	The Rehabilitation Act of 1973, Public Law 93-112; 29 USC § 791(b); 29 CFR 1614.602

Computer and Internet Use

Computer and Internet use asked since 2013.

QUESTIONS ABOUT THE COMPUTERS AND DEVICES THAT PEOPLE USE, WHETHER PEOPLE ACCESS THE INTERNET, AND HOW PEOPLE ACCESS THE INTERNET ARE USED TO CREATE DATA ABOUT COMPUTER AND INTERNET USE.

These statistics were first released to the public in September 2014. The questions were added as a requirement of the Broadband Data Improvement Act of 2008. They help federal agencies measure the nationwide development of broadband access and decrease barriers to broadband access.

COMPUTER AND INTERNET USE DATA HELP COMMUNITIES:

Ensure Residents Can Communicate

State and local agencies can use these statistics to evaluate access to broadband in their communities. They can measure access to information on the Internet, including access for schools, libraries, rural health care providers, and other public services. Communities ensure their residents are connected to assistance programs, emergency services, and important information. These statistics may also be useful to understand whether to use Internet or more expensive outreach methods for distributing important public health or safety information.

Federal agencies use these data to evaluate the extent of access to, and adoption of broadband, with a focus on underserved areas. State and local agencies might choose to use these statistics to evaluate access to broadband in their communities.

Selected Statutory Uses of Computer and Internet Use Data

U.S. Federal Communications Commission	Broadband Data Improvement Act of 2008, Public Law 110-385, 47 USC § 1303(d)
U.S. Department of Commerce, National Telecommunications and Information Administration	Broadband Data Improvement Act of 2008, Public Law 110-385, 47 USC § 1303(d)
U.S. Department of Transportation	Fixing America's Surface Transportation Act, Public Law 114-94; 49 USC § 5304; 49 CFR Part 613, Subpart B

Disability

Disability asked since 1830.

QUESTIONS ABOUT A PERSON'S DIFFICULTY WITH SPECIFIC DAILY TASKS ARE USED TO CREATE STATISTICS ABOUT DISABILITY.

Disability data are used in planning and funding government programs that provide funds or services for populations with disabilities. In addition, these data are used in evaluating other government programs and policies to ensure that they fairly and equitably serve the needs of all groups. These statistics are also used to enforce laws, regulations, and policies against discrimination.

DISABILITY DATA HELP COMMUNITIES:

Provide Adequate Housing

Knowing the different types of disabled households in a community helps communities understand whether available housing meets the needs of residents. When housing is not sufficient or not affordable, disability data can help communities enroll eligible households in programs designed to assist them and can help communities qualify for grants from the Community Development Block Grant, HOME Investment Partnership Program, Emergency Solutions Grants, Housing Opportunities for Persons With AIDS, and other programs.

Provide Health Care to Children and Families

Knowing the disability status of people in families in combination with other information, such as household income, health insurance status, and poverty status, can help communities enroll eligible families in programs designed to assist them. For example, disability data are used to target efforts to enroll eligible people in Marketplace, Medicaid, and the Children's Health Insurance Program (CHIP). Disability data are also used to ensure that Marketplace, Medicare, Medicaid, and CHIP programs are adequately serving these families.

Ensure Equal Opportunity

Knowing the disability status of people in the community in combination with information about housing, voting, employment, and education, helps governments and communities enforce laws, regulations, and policies against discrimination based on disability status. For example, disability data are used to evaluate whether there are health care or public health program disparities based on disability status (Developmental Disabilities Assistance and Bill of Rights Act of 2000).

Provide Assistance to People With Disabilities

Knowing how many people in a community over a certain age have a disability helps local officials provide programs and services to older adults that enable them to remain living safely in their homes and communities (Older Americans Act). Disability status data are also used in programs that provide services and assistance to people with a disability, such as financial assistance with utilities (Low Income Home Energy Assistance Program).

Understand Changes

Knowing whether people with disabilities have the same opportunities in education, employment, voting, home ownership, and many other areas is of interest to researchers, advocacy groups, and policymakers. Communities also need to understand changes in the needs and geographic concentrations of people with disabilities to ensure that they can meet the community's needs during weather events, disasters, and public health emergencies.

Selected Statutory Uses of Disability Data

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics	42 USC § 242k(b), (h), and (l)
U.S. Department of Health and Human Services, Centers for Disease Control and Prevention	Public Health Service Act, § 301, 42 USC 241; Public Health Service Act, § 3101, 42 USC 300kk
U.S. Department of Health and Human Services, Administration for Community Living	42 USC 300kk
U.S. Department of Health and Human Services, Administration for Community Living	Developmental Disabilities Assistance and Bill of Rights Act of 2000, Public Law 106-402, § 124(c)(5); 42 USC 15024
U.S. Department of Health and Human Services, Administration for Community Living	Older Americans Act of 1965; Public Law 89-73; 42 USC § 3013, 3024, 3030s-1, 3032
U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services	Patient Protection and Affordable Care Act, Public Law 111-148, §10334; 42 USC 300kk
U.S. Department of Health and Human Services, Health Resources and Services Administration	Public Health Service Act § 792(b)(2), 42 USC § 295(k)(b)(2)
U.S. Department of Health and Human Services, Indian Health Service	Snyder Act, Nov. 2, 1921, c. 115; 25 USC § 13; Transfer Act, Aug. 5, 1954, c. 658, § 2, 42 USC § 2001(a); Indian Healthcare Improvement Act, Public Law 94-43, 25 USC § 1602
U.S. Department of Health and Human Services, Office for Civil Rights	Rehabilitation Act of 1973, § 504, Public Law 93-112; Americans With Disabilities Act Titles II and III, as amended by the ADA Amendments Act of 2008, Public Law 110-325, 42 USC 126
U.S. Department of Housing and Urban Development	McKinney-Vento Homeless Assistance Act, 42 USC 11371–11376; 24 CFR Part 91
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101–625, 42 USC 12705(b)(1)–(3); 24 CFR Part 91; 24 CFR 91.205(a)–(c)
U.S. Department of Housing and Urban Development	Rehabilitation Act of 1973, § 504, Public Law 93-112, 29 USC 794; 24 CFR §8.22(b); 24 CFR §8.23(a)
U.S. Department of Veterans Affairs	38 USC § 546
U.S. Department of Veterans Affairs	38 USC § 8104(b)(2)

Fertility

Fertility asked since 1890.

A QUESTION ABOUT WHETHER A WOMAN HAD A BABY IN THE LAST YEAR IS USED TO CREATE STATISTICS ABOUT FERTILITY.

Fertility data are used in planning government programs and adjusting other important data, such as the size of the population eligible for different services, as new people are born. These statistics can also be used to project the future size of the population and to understand more about growing families.

FERTILITY DATA HELP COMMUNITIES:

Provide Health Care to Children and Families

Knowing the numbers of women with a recent birth in combination with other information, such as marital status, labor force status, household income, health insurance status, and poverty status, can help communities understand changes in the demand for health care. For example, knowing how many American Indian babies are born can help communities, tribes, and the federal government estimate the demand for health care through the Indian Health Service.

Understand Changing Households

Knowing the characteristics of women who are giving birth, including where in the country they live, is important to understand the relationships among different development patterns, including housing and travel information and public health and pollution.

Though local vital statistics offices typically have a count of births per year, fertility data are able to provide federal program planners, policymakers, and researchers with additional statistics about the age, education, and employment of parents in households welcoming children, and other important information about the homes (age, size, etc.) and households (income, language spoken, etc.) for a more complete picture of families.

State and local agencies can use these statistics in combination with other information about new mothers, such as education and income, to understand future needs for the local education system and health services.

Selected Statutory Uses of Fertility Data

U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)–(2), (b)(2), (b)(6), (b)(7), (n)(1), and (o)(1)
U.S. Department of Health and Human Services, Indian Health Service	Snyder Act, Nov. 2, 1921, c. 115, 25 USC § 13; Transfer Act, Aug. 5, 1954, c. 658, § 2, 42 USC § 2001(a); Indian Healthcare Improvement Act, Public Law 94-43, 25 USC § 1602
U.S. Department of Health and Human Services, Indian Health Service	Snyder Act, Nov. 2, 1921, c. 115, 25 USC § 13; Transfer Act, Aug. 5, 1954, c. 658, § 2, 42 USC § 2001(a); Indian Healthcare Improvement Act, Public Law 94-43, 25 USC § 1602

Grandparent Caregivers

Grandparent caregivers asked since 2000.

QUESTIONS ABOUT WHETHER A PERSON IS THE PRIMARY CAREGIVER FOR HIS/HER GRANDCHILDREN AND HOW LONG HE/SHE HAS CARED FOR HIS/HER GRANDCHILDREN, ARE USED TO CREATE STATISTICS ABOUT GRANDPARENT CAREGIVERS.

Grandparent caregiver data help federal agencies understand the special provisions needed for federal programs designed to assist families, as older Americans are often in different financial, housing, and health circumstances than those of other ages. These data are also used to measure the effects of policies and programs that focus on the well-being of families, including tax policies and financial assistance programs.

GRANDPARENT CAREGIVER DATA HELP COMMUNITIES:

Provide Assistance to Families

Knowing more about families, particularly those where grandparents care for grandchildren, along with data about the ages of children, household income, disability, and poverty status can help communities enroll eligible families in programs designed to assist them, such as the Children's Health Insurance Program, and can help communities qualify for grants to fund these programs. These data are also used to evaluate programs like Temporary Assistance for Needy Families.

Provide Assistance to Older Americans

Knowing how many people in a community are over a certain age, including whether older Americans are caring for grandchildren, helps local officials fund programs and services targeted to reach older adults with the greatest economic and social needs (Older Americans Act).

Understand Changing Households

Knowing more about how often grandparents are responsible for the basic care for grandchildren and how long they have been responsible in combination with information about age, presence of children, income, etc., can help communities understand if available housing and services are meeting residents' needs.

Selected Statutory Uses of Grandparent Caregivers Data

U.S. Department of Commerce, Bureau of the Census	13 USC § 141 note
U.S. Department of Health and Human Services, Administration for Children and Families	13 USC § 141 note

Health Insurance

Health insurance asked since 2008.

QUESTIONS ABOUT THE SOURCES OF A PERSON'S HEALTH INSURANCE ARE USED TO CREATE STATISTICS ABOUT THE PERCENTAGE OF PEOPLE COVERED BY HEALTH INSURANCE AND THE SOURCES OF HEALTH INSURANCE.

Health insurance data are used in planning government programs, determining eligibility criteria, and encouraging eligible people to participate in health insurance programs.

HEALTH INSURANCE DATA HELP COMMUNITIES:

Provide Assistance to Children and Families

Knowing the health insurance coverage status in combination with other information, such as number and age of children in families, household income, and poverty status, can help communities enroll eligible families in programs designed to assist them. For example, health insurance coverage status and age data are used to target efforts to enroll eligible people in Marketplace, Medicaid, and the Children's Health Insurance Program (CHIP). Health Insurance data are also used to ensure that Marketplace, Medicare, Medicaid, and CHIP programs are improving health outcomes for families.

Provide Health Care for Veterans

Knowing the number and characteristics of veterans eligible to use Department of Veterans Affairs health care, compared to those currently using services, can help communities and the federal government estimate the future demand for health care services and facilities for veterans.

Provide Health Care for American Indians

Knowing the health insurance coverage of American Indians can help communities, tribes, and the federal government estimate the demand for health care through the Indian Health Service.

Understand Changes

Knowing the health insurance coverage status of people in a community helps planners identify gaps in community services, plan programs that address those gaps, and qualify for funding for those programs.

Knowing more about changes in health insurance coverage rates and the characteristics of people who have or do not have health insurance is also of interest to researchers, advocacy groups, and policymakers. For example, State Councils on Developmental Disabilities use health insurance coverage data in their comprehensive reviews and analyses of the unmet needs of people with developmental disabilities.

Selected Statutory Uses of Health Insurance Data

U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality	42 USC §§ 299a(a)(3), (6), (8), 299b-2(a)(1), and 299(c)(1)(B)
U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics	42 USC § 242k(b), (h), and (l)
U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services	Patient Protection and Affordable Care Act, Public Law 111-148, §10334; 42 USC 300kk
U.S. Department of Health and Human Services, Indian Health Service	Snyder Act, Nov. 2, 1921, c. 115, 25 USC § 13; Transfer Act, Aug. 5, 1954, c. 658, § 2, 42 USC § 2001(a); 42 CFR § 136.12(a)
U.S. Department of Health and Human Services, Office for Civil Rights	Rehabilitation Act of 1973, § 504; Public Law 93-112; Americans With Disabilities Act, Titles II and III, as amended by the ADA Amendments Act of 2008, Public Law 110-325, 42 USC, Chapter 126
U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation	42 USC § 1397ii (b)(2)(A)–(C)
U.S. Department of Veterans Affairs	Public Law 106-117, 38 USC §§ 8134(a)(2)

Home Heating Fuel

Home heating fuel asked since 1940.

QUESTIONS ABOUT HOME HEATING FUEL ARE USED TO CREATE DATA ABOUT HOME ENERGY USE.

These data are used in government programs that analyze community air quality and energy needs. Federal agencies use these statistics to forecast future energy demand, analyze the fuels available to community residents, and plan and fund programs that help low-income residents afford to heat their homes.

HOME HEATING FUEL DATA HELP COMMUNITIES:

Provide Assistance With Utilities

Knowing which fuel is used to heat homes in combination with the cost of those fuels and the characteristics of the low-income households that need assistance with their utilities, helps communities enroll eligible households in assistance programs like the Low Income Home Energy Assistance Program and qualify for grants to fund assistance. These data are also used to evaluate whether these programs benefit eligible households.

Estimate Future Energy Demand

Knowing the current users of certain heating systems and the kinds of systems used in new homes helps communities predict future demand for fuels and the future costs of systems in use in a community. For example, the Department of Energy uses these data to project demand over the next 30 years, assessing the energy needs of the U.S. economy in a domestic and international context.

Measure Environmental Impacts

Communities with older heating systems may have lower air quality at times when they are in high use. Home heating fuel data are used to develop an inventory of the national aggregate emissions of each greenhouse gas and to research and report on the relationships among different development patterns (including housing and travel information) and public health and pollution (Clean Air Act, Clean Water Act).

Selected Statutory Uses of Home Heating Fuel Data

U.S. Department of Energy	Energy Policy Act of 1992, Public Law 102-486, Energy Policy Act of 1992, Public Law 102-486, 42 USC § 13385
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC § 8629(a) and (b)
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC § 8623(a)(2) and (4), § 8629(a)(1)–(3) and (6), § 8629(b)
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC § 8623(a)(2) and (4) and § 8622(11)
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC § 8629(a)(1)–(3) and (6)
U.S. Environmental Protection Agency	Air Pollution Control Act (Clean Air Act), Public Law 84-159, 42 USC § 7403(a)(2), (b)(1), and (b)(6)
U.S. Environmental Protection Agency	Air Pollution Control Act (Clean Air Act), Public Law 84-159, 42 USC § 7403(a)(1), (b)(6), (b)(7), (e), and (g)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254 (a)(2), (b)(6), and (s)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)–(2), (b)(2), (b)(6), (b)(7), (n)(1), and (o)(1)

Home Value and Rent

Home value asked since 1940, rent asked since 1940.

QUESTIONS ABOUT THE MONTHLY RENT AMOUNT OR HOW MUCH THE HOME AND PROPERTY ARE WORTH ARE USED TO PRODUCE STATISTICS ABOUT RENT AND HOME VALUE.

These data are used in government programs that analyze whether adequate housing is affordable for residents and provide and fund housing assistance programs. These statistics are also used to enforce laws, regulations, and policies designed to eliminate discrimination in private-market housing, government programs, and in society.

HOME VALUE AND RENT DATA HELP COMMUNITIES:

Provide Adequate Housing

Knowing the different types of households in a community (single people, couples, families, roommates, etc.) helps communities understand whether available housing meets the needs of residents. Housing costs in combination with relationship and combined income of all people in a household helps communities understand whether housing is affordable.

When rental housing is not affordable, rent data are used to identify rental distribution of housing units (the standard cost of different types of housing in different areas of the country) and to determine Fair Market Rents, which the Department of Housing and Urban Development uses to determine the amount of tenant subsidies in housing assistance programs.

When housing is not sufficient or not affordable, housing cost data can help communities enroll eligible households in programs designed to assist them and can help communities qualify for grants from the Community Development Block Grant, HOME Investment Partnership Program, Emergency Solutions Grants, Housing Opportunities for Persons With AIDS, and other programs.

Plan Community Development

Knowing how the balance of rented homes, mortgaged homes, and owned homes changes over time can help communities understand changes in local housing markets and identify opportunities to improve tax, assistance, and zoning policies.

Ensure Equal Opportunity

Knowing more about people who rent and people who own homes in the community in combination with age, gender, race, Hispanic origin, disability, and other data, helps government and communities enforce laws, such as the 1968 Fair Housing Act designed to eliminate discrimination in housing.

Selected Statutory Uses of Home Value and Rent Data

U.S. Department of Agriculture	42 USC 1485, 1486, 1490a, 1490l, 1490m, 1490p-2, 1490r; 7 CFR 1940.560–1940.567, 1940.575; 7 CFR 3550.10, 3560.11, 3560.152(a)(2), 3560.254(c)
U.S. Department of Health and Human Services, Administration for Children and Families	Community Services Block Grant Act, Public Law 105-285, 42 USC § 9902 (2), 9903, and 9908 (b)(1)(A), (b)(11), and (c)(1)(A)(i)
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC §§ 9902 (2), 9908(b)(1)(A), and 9914 (a) and (c)
U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality	42 USC §§ 299a(a)(3),(6),(8), 299b-2(a)(1), and 299(c)(1)(B)
U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services	Social Security Act, Public Law 74-271, § 1848e(1)(A), 42 USC § 1395w-4(e)(1)(A)
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101–625, 42 USC 12705(b)(1)–(3); 24 CFR Part 91, 24 CFR 91.205(a)–(c)
U.S. Department of Housing and Urban Development	McKinney-Vento Homeless Assistance Act, 42 USC 11371–11376; 24 CFR Part 91
U.S. Department of Housing and Urban Development	Native American Housing Assistance and Self-Determination Act of 1996, Public Law 104-330, as amended, 25 USC § 4152(b); 24 CFR 1000.324–1000.330
U.S. Department of Housing and Urban Development	United States Housing Act of 1937, Public Law 93-383, as amended; 42 USC § 1437f(c)(1); 24 CFR 888.113, 24 CFR 982.401
U.S. Department of Housing and Urban Development	Housing and Economic Recovery Act of 2008, Public Law 110-289, Federal Housing Enterprises Financial Safety and Soundness Act of 1992, § 1338, 12 USC § 4568
U.S. Department of Transportation	49 USC §§ 6302(b)(3)(B), 6303(c), 6304(a), and 6309 (a)
U.S. Department of Transportation	Fixing America’s Surface Transportation Act, Public Law 114-94; 49 USC § 5303(c), (e), (h), (i), (j),(k), and (n)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)-(2), (b)(2), (b)(6), (b)(7), (n)(1), and (o)(1)

Income

Income asked since 1940.

QUESTIONS ABOUT THE FUNDS A PERSON RECEIVES FROM VARIOUS SOURCES ARE USED TO CREATE STATISTICS ABOUT INCOME, ASSISTANCE, EARNINGS, AND POVERTY STATUS.

Income data are used in planning and funding government programs that provide economic assistance for populations in need and measure the economic well-being of the nation. Income and poverty estimates are often part of allocation formulas that determine how food, health care, job training, housing, and other assistance are distributed.

INCOME DATA HELP COMMUNITIES:

Provide Adequate Housing

Knowing the combined income of all people in a household in combination with housing costs helps communities understand whether housing is affordable for residents. When housing is not sufficient or not affordable, income data can help communities enroll eligible households in programs designed to assist them and can help communities qualify for grants from the Community Development Block Grant, HOME Investment Partnership Program, Emergency Solutions Grant, Housing Opportunities for Persons With AIDS, and other programs.

Provide Assistance to Older Americans

Knowing how many older people in a community are living in poverty in combination with other information, such as age and disability status of other family members, can help communities ensure these residents receive appropriate assistance, such as financial assistance with utilities (Low Income Home Energy Assistance Program).

Provide Assistance to Children and Families

Knowing household income in combination with other information, such as the number and age of children in families, health insurance status, and poverty status, can help communities enroll eligible families in programs designed to assist them. For example, income data are used to identify eligibility and provide funding in programs like Medicaid, the Child and Adult Care Food Program, and Head Start.

Educate Children and Adults

Knowing how many children and adults depend on services through schools helps school districts make long-term building, staffing, and funding decisions. Household income and family composition determine poverty status, which is used along with school enrollment, information on disability status, and language spoken at home, to help schools understand the needs of their students and qualify for grants that help fund programs for students with needs for additional services or assistance, including free/reduced price school lunches (Elementary and Secondary Education Act of 1965).

Plan Community Development

Knowing more about the financial situation of residents, including income, employment, and housing costs, can help communities qualify for loan and grant programs designed to stimulate economic recovery, improve housing, run job-training programs, and define areas as empowerment or enterprise zones.

Selected Statutory Uses of Income Data

U.S. Department of Agriculture	National Agricultural Research, Extension, and Teaching Policy Act, Public Law 95-113, Title XIV; Act of May 8, 1914, ch. 79, 7 USC § 3175; 7 USC § 343(d)
U.S. Department of Agriculture	Richard B. Russell National School Lunch Act, 42 USC § 1759a(g)
U.S. Department of Agriculture	7 USC § 2020(e)(1); 7 CFR 272.4(b)(6)
U.S. Department of Agriculture	42 USC § 1766(f)(3)(A)(ii)(I)(aa) and 1766(f)(3)(E)(i); 7 CFR 226.15(f)
U.S. Department of Education	20 USC § 6333, 6334(a)(1), 6335(a), 6337(b)(1)(A)
U.S. Department of Health and Human Services, Administration for Community Living	42 USC 300kk
U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services	Patient Protection and Affordable Care Act, Public Law 111-148, §10334; 42 USC 300kk
U.S. Department of Health and Human Services, Centers for Disease Control and Prevention	Public Health Service Act, § 301, 42 USC 241; Public Health Service Act, § 3101, 42 USC 300kk
U.S. Department of Housing and Urban Development	McKinney-Vento Homeless Assistance Act, 42 USC 11371–11376; 24 CFR Part 91
U.S. Department of Housing and Urban Development	Native American Housing Assistance and Self-Determination Act of 1996, Public Law 104-330, as amended, 25 USC § 4152(b); 24 CFR 1000.324–1000.330
U.S. Department of Housing and Urban Development	Housing and Community Development Act of 1974, 42 USC 5306(a)(1); 24 CFR §1003.101
U.S. Department of Housing and Urban Development	Housing and Community Development Act of 1974, Public Law 93–383, as amended, 42 USC § 1439 (d)(1)(A)(i); 24 CFR 791.402
U.S. Department of Housing and Urban Development	Housing and Community Development Act of 1974 as amended; Public Law 93-383, as amended, 42 USC 5301, 5302, and 5305; 24 CFR 91.205(a)–(c), 91.305(a)–(c), 570.208(a)(1), 570.483(b)(1), 570.704(a)–(c), 570.707(a)–(c), 570.901
U.S. Department of Housing and Urban Development	Tax Reform Act of 1986, Public Law 99-514, 26 USC § 42(d)(5)(B)(ii)(I), (iii)(I), (iv), and(g); 15 U.S.C § 631
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101–625, 42 USC 12705(b)(1)–(3); 24 CFR Part 91, 24 CFR 91.205(a)–(c)

Industry, Occupation, and Class of Worker

Industry asked since 1820,¹ occupation asked since 1850, class of worker asked since 1910.

QUESTIONS ABOUT A PERSON'S EMPLOYER, THE KIND OF BUSINESS OR INDUSTRY OF THAT EMPLOYER, THE KIND OF WORK A PERSON DOES, AND THAT PERSON'S MOST IMPORTANT ACTIVITIES ARE USED TO PRODUCE INDUSTRY, OCCUPATION, AND CLASS OF WORKER STATISTICS.

These data are used to provide information about the labor force in government programs, to evaluate government programs and policies to ensure they fairly and equitably serve the needs of all groups, and to enforce laws, regulations, and policies against discrimination in society.

INDUSTRY, OCCUPATION, AND CLASS OF WORKER DATA HELP COMMUNITIES:

Provide Employment Opportunities

Knowing whether programs designed to employ specific groups, such as people with disabilities or veterans, are succeeding is important to employers, federal agencies, and federal government contractors (Vietnam Era Veterans' Readjustment Assistance Act, Rehabilitation Act of 1973). Industry, occupation, and class of worker data provide additional detail about the jobs and careers pursued by people participating in these programs.

State and local agencies use these statistics to identify labor surplus areas (areas with people available for hiring and training), plan workforce development programs including job fairs and training programs, and promote business opportunities.

Ensure Equal Employment Opportunity

Knowing more about people who are employed or looking for work in combination with educational attainment, age, gender, race, Hispanic origin, disability status, veteran status, and other data, helps governments and communities enforce civil rights laws against employment discrimination. For example, these data are used to enforce nondiscrimination in employment by federal agencies, private employers, employment agencies, and labor organizations (Civil Rights Act of 1964).

Understand Changes

Knowing the characteristics of growing or declining industries and occupations is an important part of estimating changes in the economy. Labor force estimates are used in funding decisions; to ensure surveys are accurate, including surveys that provide official labor market estimates; and to understand change in other data (Wagner-Peyser Act and Workforce Investment Act).

Class of worker data, in particular, are used by the National Institute of Food and Agriculture to understand changes in farm workers and agriculture.

¹ Industry asked in 1820, 1840, and 1910 until present.

Selected Statutory Uses of Industry, Occupation, and Class of Worker Data

U.S. Department of Agriculture	Smith- Lever Act of 1914, 7 USC § 343(c)
U.S. Department of Agriculture	7 USC 3222b, NIFA Funding Opportunity Announcement (RFA)
U.S. Department of Agriculture	National Agricultural Research, Extension, and Teaching Policy Act, Public Law 95-113, Title XIV, 7 USC § 3222
U.S. Department of Agriculture	National Agricultural Research, Extension, and Teaching Policy Act, Public Law 95-113, Title XIV, 7 USC § 3221
U.S. Department of Agriculture	Act of Mar. 2, 1887, ch. 314, 7 USC § 361c
U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation	42 USC § 1397ii (b)(2)(A)–(C)
U.S. Department of Justice, Civil Rights Division	Title VII of the Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2
U.S. Department of Justice, Civil Rights Division	Title VII of the Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2
U.S. Department of Justice, Civil Rights Division	Title VII of the Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2; Wards Cove Packing Co. v. Atonio, 490 U.S. 642 (1989)
U.S. Department of Transportation	49 USC § 5303; 49 CFR Part 613
U.S. Department of Transportation	49 USC §§6303(c) and 6304(a);
U.S. Department of Veterans Affairs	Veterans Benefits Improvement Act of 2008, Public Law 110-389, Title III—Labor and Education Matters, Subtitle C—Vocational Rehabilitation Matters, § 334—Longitudinal study of Department of Veterans Affairs vocational rehabilitation programs, 38 USC § 3122
U.S. Equal Employment Opportunity Commission, Office of Federal Operations	The Rehabilitation Act of 1973, Public Law 93-112; 29 USC § 791 (b); 29 CFR 1614.602
U.S. Equal Employment Opportunity Commission, Office of General Counsel	Age Discrimination in Employment Act of 1967, Public Law 90-202, 29 USC § 623(a)–(d) and 633a; 29 CFR 1625.7(d); Hazelwood School Dist. v. United States, 433 U.S. 299 (1977)
U.S. Equal Employment Opportunity Commission, Office of General Counsel	Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2(k)(1)(A)
U.S. Equal Employment Opportunity Commission, Office of Research, Information, and Planning	Civil Rights Act of 1964, Public Law 88-352; 42 USC § 2000e-2(k)(1)(A); Hazelwood School Dist. v. United States, 433 U.S. 299 (1977)

Labor Force Status

Labor force status asked since 1890.

QUESTIONS ABOUT WHETHER A PERSON WORKED LAST WEEK AND, IF THE ANSWER IS NO, WHY HE/SHE WAS NOT WORKING, WHETHER HE/SHE PLANS TO RETURN TO WORK, AND HOW MUCH THEY WORKED IN THE PAST YEAR ARE USED TO PRODUCE STATISTICS ABOUT THE LABOR FORCE, INCLUDING UNEMPLOYMENT STATISTICS.

Labor force data are used in planning and funding government programs that provide unemployment assistance and services. These data are also used to evaluate other government programs and policies to ensure they fairly and equitably serve the needs of all groups, and to enforce laws, regulations, and policies against discrimination in society.

LABOR FORCE DATA HELP COMMUNITIES:

Provide Employment Opportunities

Knowing whether programs designed to employ specific groups, such as people with disabilities or veterans, are succeeding is important to employers, federal agencies, and federal government contractors (Vietnam Era Veterans' Readjustment Assistance Act, Rehabilitation Act of 1973).

State and local agencies use these statistics to identify labor surplus areas (areas with people available for hiring and training), plan workforce development programs, including job fairs and training programs, and to promote business opportunities.

Ensure Equal Opportunity

Knowing more about people who are employed or looking for work in combination with age, gender, race, Hispanic origin, disability status, veteran status, and other data, helps governments and communities enforce laws, regulations, and policies against discrimination in employment. For example, labor force data are used to enforce nondiscrimination in employment by federal agencies, private employers, employment agencies, and labor organizations (Civil Rights Act of 1964).

Understand Changes

Knowing the characteristics of people who are working or looking for work is an important part of estimating changes in the economy. Labor force estimates are used in funding decisions; to ensure surveys are accurate, including surveys that provide official labor market estimates; and to understand change in other data (Wagner-Peyser Act and Workforce Investment Act).

Selected Statutory Uses of Labor Force Status Data

U.S. Department of Health and Human Services, Administration for Community Living	Developmental Disabilities Assistance and Bill of Rights Act of 2000, Public Law 106-402, Section 124(c)(3); 42 USC §15024
U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation	42 USC § 1397ii (b)(2)(A)–(C)
U.S. Department of Justice, Civil Rights Division	Title VII of the Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2; Wards Cove Packing Co. v. Atonio, 490 U.S. 642 (1989)
U.S. Department of Labor	29 USC §§ 49f(a)(3)(D), 49g(d), and 49l-2(a)
U.S. Department of Labor	Workforce Investment Act of 1998, Public Law 105-220; 20 CFR 668.296(b) and 668.440
U.S. Department of Transportation	49 USC § 5303; 49 CFR Part 613
U.S. Department of Transportation	Moving Ahead for Progress in the 21st Century Act, Public Law 112-141 (2012), 49 USC § 5304 (a); 49 CFR Part 613, Subpart B
U.S. Department of Veterans Affairs	38 USC § 546
U.S. Department of Veterans Affairs	Veterans Benefits Improvement Act of 2008, Public Law 110-389, Title III—Labor and Education Matters, Subtitle C—Vocational Rehabilitation Matters, Section 334—Longitudinal study of Department of Veterans Affairs vocational rehabilitation programs, 38 USC § 3122
U.S. Equal Employment Opportunity Commission, Office of Federal Operations	The Rehabilitation Act of 1973, Public Law 93-112, 29 USC § 791 (b); 29 CFR 1614.602
U.S. Equal Employment Opportunity Commission, Office of General Counsel	Age Discrimination in Employment Act of 1967, Public Law 90-202, 29 USC § 623(a)–(d) and 633a; 29 CFR 1625.7(d); Hazelwood School Dist. v. United States, 433 U.S. 299 (1977)
U.S. Equal Employment Opportunity Commission, Office of General Counsel	Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2(k)(1)(A)
U.S. Equal Employment Opportunity Commission, Office of Research, Information, and Planning	Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2(k)(1)(A); Hazelwood School Dist. v. United States, 433 U.S. 299 (1977)

Language Spoken at Home

Language spoken at home asked since 1890.¹

QUESTIONS ABOUT WHETHER A PERSON SPEAKS A LANGUAGE OTHER THAN ENGLISH AT HOME, WHAT LANGUAGE HE/SHE SPEAKS, AND HOW WELL HE/SHE SPEAKS ENGLISH ARE USED TO CREATE STATISTICS ABOUT LANGUAGE AND ABOUT ABILITY TO SPEAK ENGLISH.

Language data are used in planning government programs for adults and children who do not speak English well. These data are also used to ensure that information about public health, law, regulations, voting, and safety is communicated in languages that community members understand.

LANGUAGE SPOKEN AT HOME DATA HELP COMMUNITIES:

Educate Children

Knowing how many children and youth with limited English-speaking abilities depend on services through schools helps school districts make long-term staffing and funding decisions. Language spoken at home in combination with other information, such as disability status, school enrollment, and poverty status, helps schools understand the needs of their students and qualify for grants that help fund programs for those students (Elementary and Secondary Education Act of 1965).

Ensure Equal Opportunity

Knowing the languages spoken by people in the community in combination with information about housing, voting, employment, and education, helps the government and communities enforce laws, regulations, and policies against discrimination based on national origin. For example, language data are used to support the enforcement responsibilities under the Voting Rights Act to investigate differences in voter participation rates and to enforce laws and policies related to bilingual requirements.

Knowing languages spoken in a community also helps federal agencies identify needs for services for people with limited English proficiency under Executive Order 13166.

Understand Changes

Knowing whether people who speak languages other than English have the same opportunities in education, employment, voting, home ownership, and many other areas is of interest to researchers, advocacy groups, and policymakers. For example, language data are used with age and ancestry data to address language and cultural diversity needs in health care plans for the older population.

¹ Language spoken at home was not asked in 1950.

Selected Statutory Uses of Language Spoken at Home Data

U.S. Department of Agriculture	7 USC § 2020(e)(1); 7 CFR 272.4(b)(6)
U.S. Department of Commerce, Bureau of the Census	52 USC § 10503
U.S. Department of Education	20 USC §§ 6821 and 6824, 7011(6), and 7801(25)
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC § 9835(g)
U.S. Department of Health and Human Services, Administration for Community Living	42 USC § 300kk
U.S. Department of Health and Human Services, Administration for Community Living	Older Americans Act of 1965, Public Law 89-73, as amended, 42 USC §§ 3013, 3024. 3030s-1, 3032
U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services	Patient Protection and Affordable Care Act, Public Law 111-148, § 10334; 42 USC § 300kk
U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics	42 USC § 242k (l)
U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation	42 USC § 1397ii (b)(2)(A)–(C)
U.S. Department of Housing and Urban Development	McKinney-Vento Homeless Assistance Act 42 USC § 11371–11376; 42 USC § 12901; 24 CFR Part 91; 24 CFR Part 576;
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101–625, 42 USC § 12705(b)(1)–(3); 24 CFR Part 91, 24 CFR 91.205(a)–(c)
U.S. Department of Justice, Civil Rights Division	Voting Rights Act of 1965, § 203, 52 USC § 10503; 28 CFR Part 55
U.S. Department of Justice, Civil Rights Division	The Civil Rights Act of 1964, Title VI, 42 USC § 2000d–2000d-7; 28 CFR 42.101–42.112; 28 CFR 42.401–42.415; 28 CFR 50.3; Lau v. Nichols, 414 U.S. 563 (1974)
U.S. Department of Justice, Civil Rights Division	Equal Educational Opportunities Act of 1974, 20 USC § 1701 et seq.; Castaneda v. Pickard, 648 F. 2d 989 (1981)
U.S. Department of Justice, Civil Rights Division	Voting Rights Act of 1965, 52 USC § 10301; 28 CFR Part 51; LULAC v. Perry, 548 U.S. 399 (2006); Johnson v. DeGrandy, 512 U.S. 997 (1994); Thornburg v. Gingles, 478 U.S. 30 (1986)

Marital Status and Marital History

Marital status asked since 1880, marital history asked since 1850.

QUESTIONS ABOUT WHETHER A PERSON IS CURRENTLY MARRIED, WIDOWED, DIVORCED, SEPARATED, OR NEVER MARRIED; WHETHER HIS/HER MARITAL STATUS CHANGED IN THE PAST 12 MONTHS; AND LIFETIME MARRIAGES ARE USED TO CREATE STATISTICS ABOUT CURRENT MARITAL STATUS AND MARITAL HISTORY.

Marital status and marital history data help federal agencies understand marriage trends, forecast future needs of programs that have spousal benefits, and measure the effects of policies and programs that focus on the well-being of families, including tax policies and financial assistance programs.

MARITAL STATUS AND MARITAL HISTORY DATA HELP COMMUNITIES:

Provide Benefits to Spouses and Survivors

Knowing more about how many spouses and ex-spouses may qualify for programs with spousal benefits, including veteran and social security programs, can help federal agencies ensure adequate funding and facilities for these programs and can help communities determine where gaps in benefits and services might exist.

Provide Assistance to Families

Knowing more about families, particularly blended and single-parent families, along with data about the presence of children, labor force status, and poverty status, can help communities enroll eligible families in programs designed to assist them, such as the Children's Health Insurance Program, and can help communities qualify for grants to fund these programs. These data are also used to evaluate programs like Temporary Assistance for Needy Families.

Understand Changing Households

Knowing more about community marriage trends (whether people are marrying later in life, not getting married, or marrying again) in combination with information about age, presence of children, income, etc., can help communities understand if the available housing, job training, rental assistance, and administrative services and programs are meeting residents' needs during their major life changes. These data also help the federal government plan for the future. For example, the Social Security Administration estimates future program needs based on the current relationships of working people.

Selected Statutory Uses of Marital Status and Marital History Data

U.S. Department of Health and Human Services, Administration for Children and Families	13 USC § 141 note
U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality	42 USC §§ 299a(a)(3), (6), (8), 299b-2(a)(1), and 299(c)(1)(A)
U.S. Department of Health and Human Services, Center for Disease Control and Prevention, National Center for Health Statistics	42 USC § 242k(b), (h), and (l)
U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation	42 USC § 1397ii (b)(2)(A)–(C)
U.S. Department of Veterans Affairs	38 USC § 546
U.S. Department of Veterans Affairs	38 USC § 8104(b)(2)
U.S. Department of Veterans Affairs	Veterans Benefits Improvement Act of 2008, Public Law 110-389, Title III—Labor and Education Matters, Subtitle C—Vocational Rehabilitation Matters, Section 334—Longitudinal study of Department of Veterans Affairs vocational rehabilitation programs 38 USC § 3122
U.S. Social Security Administration	Social Security Act, Public Law 74-271 as amended, 42 USC § 401(c)

Migration (Previous Residence)/Residence 1 Year Ago

Residence 1 year ago asked since 1930.

QUESTIONS ABOUT WHETHER A PERSON MOVED IN THE LAST YEAR AND WHERE HE OR SHE LIVED 1 YEAR AGO ARE USED TO CREATE STATISTICS ABOUT WHERE PEOPLE ARE MOVING (TO/FROM FOREIGN COUNTRIES AND WITHIN THE UNITED STATES).

Migration (residence 1 year ago) data are used in planning government programs and adjusting other important geographic data as people move. The characteristics of people who have moved are also an important part of estimating population changes. These population estimates are used in funding decisions, to ensure surveys are accurate, to understand change in other data, and to produce official international migration estimates.

MIGRATION/RESIDENCE 1 YEAR AGO DATA HELP COMMUNITIES:

Understand Changes

Knowing the characteristics of people who have moved and the patterns of migration (where people move to and from) is an important part of estimating population changes. Population estimates are used in funding decisions, to ensure surveys are accurate, to understand change in other data, and to produce international migration estimates. These data also help agencies assess residential stability and the effects of migration on urban and rural areas.

Knowing where certain populations move to and from helps federal agencies assess the needs of counties with large refugee populations and the effects of immigration on local areas.

Knowing the characteristics of people who live or have lived in certain areas is important to understand the relationships among different development patterns, including housing and travel information, public health, and pollution. These data may also assist state and local agencies in developing programs that attract new residents or employers.

Selected Statutory Uses of Migration/Residence 1 Year Ago Data

U.S. Department of Commerce, Bureau of the Census	13 USC § 181
U.S. Department of Health and Human Services, Administration for Children and Families	Community Services Block Grant Act, Public Law 105-285, 42 USC §§ 9902 (2), 9903, and 9908 (b)(1)(A), (b)(11), and (c)(1)(A)(i),
U.S. Department of Health and Human Services, Indian Health Service	Indian Citizenship Act of 1924, 25 USC § 13; 42 USC § 2001(a); 42 CFR 136.12(a)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)–(2), (b)(2), (b)(6), (b)(7), (n)(1), and (o)(1)

Place of Birth, Citizenship, and Year of Entry

Place of birth asked since 1850, citizenship asked since 1820,¹ year of entry asked since 1890.²

QUESTIONS ABOUT A PERSON'S PLACE OF BIRTH, CITIZENSHIP, AND YEAR OF ENTRY INTO THE UNITED STATES ARE USED TO CREATE DATA ABOUT CITIZENS, NONCITIZENS, AND THE FOREIGN-BORN POPULATION.

These statistics are essential for agencies and policymakers setting and evaluating immigration policies and laws, seeking to understand the experience of different immigrant groups, and enforcing laws, policies, and regulations against discrimination based on national origin. These statistics are also used to tailor services to accommodate cultural differences.

PLACE OF BIRTH, CITIZENSHIP, AND YEAR OF ENTRY DATA HELP COMMUNITIES:

Ensure Equal Opportunity

Knowing how many people in the community are born in other countries in combination with information about housing, voting, language, employment, and education, helps the government and communities to enforce laws, regulations, and policies against discrimination based on national origin. For example, these data are used to support the enforcement responsibilities under the Voting Rights Act to investigate differences in voter participation rates and to enforce other laws and policies regarding bilingual requirements.

Educate Children

Knowing how many foreign-born children depend on services through schools helps school districts make staffing and funding decisions. Place of birth, citizenship, and year of entry statistics in combination with other information, such as language spoken at home, help schools understand the needs of their students and qualify for grants that help fund programs for those students (Elementary and Secondary Education Act of 1965).

Understand Changes

Knowing whether people of different races or countries of birth have the same opportunities in education, employment, voting, home ownership, and many other areas is of interest to researchers, advocacy groups, and policymakers. These data may also help communities with large refugee populations that qualify for financial assistance (Immigration Nationality Act).

¹ Citizenship asked 1820–1830, 1870, and 1890 to present.

² Year of entry asked 1890–1930, and 1970 to present.

Selected Statutory Uses of Place of Birth, Citizenship, and Year of Entry Data

U.S. Department of Commerce, Bureau of the Census	52 USC § 10503
U.S. Department of Commerce, Bureau of the Census	13 USC § 141(c)
U.S. Department of Education	20 USC §§ 6821, 6824, 7011(5), and 7801(20)
U.S. Department of Health and Human Services, Administration for Children and Families	Community Services Block Grant Act, Public Law 105-285, 42 USC §§ 9902 (2), 9903, and 9908(b)(1)(A), (b)(11), and (c)(1)(A)(i)
U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics	42 USC § 242k(b), (h), and (l)
U.S. Department of Health and Human Services, Office for Civil Rights	Civil Rights Act of 1964, Title VI; Patient Protection and Affordable Care Act, Section 1557
U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation	42 USC § 1397ii (b)(2)(A)(C)
U.S. Department of Housing and Urban Development	Fair Housing Act, Public Law 90-284, 42 USC 3600-3620; 42 USC 3608(e)
U.S. Department of Justice, Civil Rights Division	Voting Rights Act of 1965, § 203; 52 USC § 10503; 28 CFR Part 55
U.S. Department of Justice, Civil Rights Division	Civil Rights Act of 1964, Title VII, Public Law 88-352, 42 USC § 2000e-2
U.S. Department of Justice, Civil Rights Division	Civil Rights Act of 1964, Title VII, Public Law 88-352, 42 USC § 2000e-2 ; Wards Cove Packing Co. v. Atonio, 490 U.S. 642 (1989)
U.S. Equal Employment Opportunity Commission, Office of Federal Operations	The Rehabilitation Act of 1973, Public Law 93-112, 29 USC § 791 (b); 29 CFR 1614.602
U.S. Equal Employment Opportunity Commission, Office of General Counsel	Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2(k)(1)(A)
U.S. Equal Employment Opportunity Commission, Office of Research, Information, and Planning	Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2(k)(1)(A); Hazelwood School Dist. v. United States, 433 U.S. 299 (1977)
U.S. Social Security Administration	Social Security Act, Public Law 74-271, as amended, 42 USC § 401(c)

Plumbing Facilities, Kitchen Facilities, and Telephone Service

Plumbing facilities asked since 1940, kitchen facilities asked since 1940, telephone service asked since 1960.

QUESTIONS ABOUT THE PRESENCE OF HOT AND COLD RUNNING WATER, A BATHTUB OR SHOWER, A SINK WITH A FAUCET, A STOVE OR RANGE, A REFRIGERATOR, AND TELEPHONE SERVICE ARE USED TO CREATE DATA ABOUT INDICATORS OF HOUSING QUALITY.

These data are used in planning and funding government programs that identify areas eligible for housing assistance, rehabilitation loans, and other programs that help people access and afford decent, safe, and sanitary housing. Public health officials may also use this information to locate areas in danger of ground-water contamination and waterborne diseases.

PLUMBING FACILITIES, KITCHEN FACILITIES, AND TELEPHONE SERVICE DATA HELP COMMUNITIES:

Provide Adequate Housing

Knowing more about the quality of housing in a community helps communities understand whether available housing meets the needs of residents. When housing is not sufficient or not affordable, data on household facilities can help communities enroll eligible households in programs designed to assist them, and can help communities qualify for grants from the Community Development Block Grant, HOME Investment Partnership Program, Emergency Solutions Grant, Housing Opportunities for Persons With AIDS, and other programs.

Plan Community Development

Knowing how the quality of different types of homes in combination with whether they are occupied or vacant, can help communities identify opportunities to improve tax, assistance, and zoning policies and to reduce tax revenue losses from vacant or abandoned properties. These data may also be useful in identifying types of homes in disaster-prone areas during emergency planning and preparation.

Ensure Residents Can Communicate

Measuring the extent of telephone service, including access for schools, libraries, health care providers, and low-income residents, helps communities ensure their residents have universal access to assistance programs, emergency services, and important information.

Measure Environmental Impacts

Substandard plumbing systems may impact the local water supply. Understanding where these systems are concentrated helps communities research their wastewater infrastructure needs and work to improve their systems.

Selected Statutory Uses of Plumbing Facilities, Kitchen Facilities, and Telephone Service Data

U.S. Department of Agriculture	42 USC §§ 1472, 1474, 1485, 1486, 1490, 1490a, 1490c, 1490d, 1490e, and 1490l; 7 CFR 1940.560–1940.567, 1940.575; 7 CFR 3550.10, 1980.312, 3560.11; 7 CFR 3550.53(a), 3550.67(b), 3550.68(c); 7 CFR 1980.301(d); 7 CFR 3560.152(a)(2), 3560.254(c) RD Instruction 1980-D, Exhibit C
U.S. Department of Housing and Urban Development	Native American Housing Assistance and Self-Determination Act of 1996, Public Law 104-330, as amended, 25 USC § 4152(b); 24 CFR 1000.324–1000.330 (Also Appendices A and B)
U.S. Department of Housing and Urban Development	United States Housing Act of 1937, Public Law 93-383, as amended, 42 USC § 1437f(c)(1); 24 CFR 888.113; 24 CFR 982.401
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101-625 42 USC 12705(b)(1)–(3); 24 CFR Part 91; 24 CFR 91.205(a)–(c)
U.S. Department of Housing and Urban Development	Tax Reform Act of 1986, Public Law 99-514, 26 USC § 42(d)(5)(B)(ii)(I), (iii)(I), (iv), and (g); 15 U.S.C § 631
U.S. Department of Housing and Urban Development	Federal Housing Enterprises Financial Safety and Soundness Act of 1992, § 1338, 12 USC § 4568
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101-625, 42 USC § 12747(b)(1)(A) and (B); 24 CFR 92.50(a), (b), and (c)
U.S. Department of Justice, Civil Rights Division	Voting Rights Act of 1965, 52 USC § 10301; 28 CFR Part 51; LULAC v. Perry, 548 U.S. 399 (2006); Johnson v. DeGrandy, 512 U.S. 997 (1994); Thornburg v. Gingles, 478 U.S. 30 (1986)
U.S. Department of Transportation	Fixing America's Surface Transportation Act, Public Law 114-94; 49 USC § 5304; 49 CFR Part 613, Subpart B
U.S. Federal Communications Commission	Telecommunications Act of 1996, Public Law 104-104, 47 USC §151 and 254; 47 CFR 54.702(i)

School Enrollment, Educational Attainment, and Undergraduate Field of Degree

School enrollment asked since 1850, educational attainment asked since 1940, undergraduate field of degree asked since 2009.

QUESTIONS ABOUT WHETHER A PERSON IS ATTENDING SCHOOL OR COLLEGE, THE HIGHEST LEVEL OF EDUCATION HE/SHE HAS COMPLETED, AND THE FIELD OF ANY COMPLETED UNDERGRADUATE COLLEGE DEGREES ARE USED TO CREATE DATA ABOUT EDUCATION.

These statistics are used to analyze the characteristics and needs of school-aged children and to understand the continuing education needs of adults.

SCHOOL ENROLLMENT, EDUCATIONAL ATTAINMENT, AND UNDERGRADUATE FIELD OF DEGREE DATA HELP COMMUNITIES:

Educate Children and Adults

Knowing how many children and adults depend on services through schools helps school districts make long-term building, staffing, and funding decisions. School enrollment in combination with other information, such as disability status, language spoken at home, and poverty status, helps schools understand the needs of their students and qualify for grants that help fund programs for those students (Elementary and Secondary Education Act of 1965).

Knowing how many adults do not have a high school diploma or equivalent helps schools understand the needs of adult students and qualify for grants that help fund programs for these students (Workforce Investment Act).

Knowing the major fields of study of adults with bachelor's degrees enables efforts to develop the nation's science, technology, engineering, and mathematics labor force (America COMPETES Reauthorization Act of 2010).

Ensure Equal Opportunity

Understanding more about the characteristics of people enrolled or not enrolled in school helps government and communities enforce laws, regulations, and policies against discrimination in education (Civil Rights Act).

Knowing the educational attainment of workers compared to those seeking employment in combination with age, gender, race, Hispanic origin, disability, and other data, helps enforce nondiscrimination in employment by federal agencies, private employers, employment agencies, and labor organizations (Civil Rights Act of 1964). This information is also used in targeting voting rights enforcement (Voting Rights Act).

Selected Statutory Uses of School Enrollment, Educational Attainment, and Undergraduate Field of Degree Data

U.S. Department of Health and Human Services, Administration for Children and Families	42 USC § 9835(g)
U.S. Department of Health and Human Services, Administration for Community Living	Developmental Disabilities Assistance and Bill of Rights Act of 2000, Public Law 106-402, Section 124(c)(5); 42 USC § 15024
U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality	42 USC § 299a(a)(3),(6),(8); 42 USC § 299b-2(a)(1); 42 USC § 299(c)(1)(A)
U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics	42 USC § 242k(b), (h), and (l)
U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation	42 USC § 1397ii (b)(2)(A)–(C)
U.S. Department of Justice, Civil Rights Division	Equal Educational Opportunities Act of 1974, 20 USC § 1701 et seq.; <i>Castaneda v. Pickard</i> , 648 F.2d 989 (1981)
U.S. Department of Justice, Civil Rights Division	Civil Rights Act of 1964 (Rights to Public Education and Equal Educational Entitlement), 42 USC § 2000c et seq.
U.S. Department of Justice, Civil Rights Division	Voting Rights Act of 1965, § 203; 52 USC § 10503; 28 CFR Part 55
U.S. Department of Justice, Civil Rights Division	Voting Rights Act of 1965, 52 USC § 10301; 28 CFR Part 51; <i>LULAC v. Perry</i> , 548 U.S. 399 (2006); <i>Johnson v. DeGrandy</i> , 512 U.S. 997 (1994); <i>Thornburg v. Gingles</i> , 478 U.S. 30 (1986)
U.S. Department of Justice, Civil Rights Division	Title VII of the Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2; <i>Wards Cove Packing Co. v. Atonio</i> , 490 U.S. 642 (1989)
U.S. Department of Veterans Affairs	38 USC § 546
U.S. Department of Veterans Affairs	Veterans Benefits Improvement Act of 2008, Public Law 110-389, Title III–Labor and Education Matters, Subtitle C–Vocational Rehabilitation Matters, Section 334–Longitudinal study of Department of Veterans Affairs vocational rehabilitation programs, 38 USC § 3122
U.S. Department of Veterans Affairs	38 USC § 8104(b) (2)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)–(2), (b)(2), (b)(6), (b)(7), (n)(1), and (o)(1)
U.S. Equal Employment Opportunity Commission, Office of General Counsel	Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2(k)(1)(A)
U.S. Equal Employment Opportunity Commission, Office of Research, Information, and Planning	Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2(k)(1)(A); <i>Hazelwood School Dist. v. United States</i> , 433 U.S. 299 (1977)

Selected Monthly Owner Costs (Cost of Utilities, Condominium and Mobile Home Fees, Taxes, Insurance, and Mortgages)

Cost of utilities asked since 1940, condominium and mobile homes fees asked since 1990, taxes asked since 1940,¹ insurance cost asked since 1980, mortgages cost asked since 1940.

QUESTIONS ABOUT THE USE AND COST OF COMMON UTILITIES, ANY APPLICABLE CONDOMINIUM AND MOBILE HOME FEES, TAXES, UTILITIES, MORTGAGES, AND HOME LOANS ARE USED TO PRODUCE STATISTICS ABOUT SELECTED MONTHLY OWNER COSTS.

These data are used in government programs that analyze whether adequate housing is affordable for residents and to provide and fund housing assistance programs. These statistics are also used to enforce laws, regulations, and policies against discrimination in government programs and in society.

SELECTED MONTHLY OWNER COSTS DATA HELP COMMUNITIES:

Provide Adequate Housing

Comparing housing costs to household income (the combined income of everyone in the household) helps communities understand whether housing is affordable for residents.

When housing is not sufficient or not affordable, housing cost data can help communities enroll eligible households in programs designed to assist them, and can help communities qualify for grants from the Community Development Block Grant, HOME Investment Partnerships Program, Emergency Solutions Grants, Housing Opportunities for Persons With AIDS, and other programs.

Plan Community Development

Knowing how housing costs change over time can help communities understand changes in local housing markets and to identify opportunities to improve tax, assistance, and zoning policies.

Ensure Equal Opportunity

Knowing more about the housing costs of people who own homes in the community in combination with age, gender, race, Hispanic origin, disability, and other data about the household residents, helps government and communities enforce laws, such as the 1968 Fair Housing Act designed to eliminate discrimination in housing.

¹ Cost of utilities asked since 1940, condominium and mobile homes fees asked since 1990, taxes asked in 1940 and since 1980, insurance cost asked since 1980, mortgages cost asked since 1940.

Selected Statutory Uses of Selected Monthly Owner Costs Data

U.S. Department of Commerce, Bureau of Economic Analysis	15 USC § 1516; Department Organization Order 35-1A
U.S. Department of Housing and Urban Development	McKinney-Vento Homeless Assistance Act, 42 USC § 11371–11376, 42 USC § 12901; 24 CFR Part 91; 24 CFR Part 576; 24 CFR Part 574
U.S. Department of Housing and Urban Development	Native American Housing Assistance and Self-Determination Act of 1996, Public Law 104-330, as amended, 25 USC § 4152(b); 24 CFR 1000.324–1000.330 (Also appendices A and B)
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101-625, 42 USC § 12705(b)(1)–(3); 24 CFR Part 91; 24 CFR 91.205(a)–(c)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)–(2), (b)(2), (b)(6), (b)(7), (n)(1), and (o)(1)

Supplemental Nutrition Assistance Program (SNAP)/Food Stamps

SNAP/food stamps asked since 2005.

QUESTIONS ABOUT A HOUSEHOLD'S RECEIPT OF FOOD STAMPS/SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM (SNAP)¹ ARE USED TO CREATE STATISTICS ABOUT PARTICIPATION IN FOOD ASSISTANCE PROGRAMS.

SNAP data are used in planning and funding government programs that provide food assistance and in evaluating other government programs.

SNAP DATA HELP COMMUNITIES:

Provide Food Assistance to School Children

Knowing more about food assistance program participation in combination with school enrollment, income, and poverty status, can help communities streamline administration of the National School Lunch Program and School Breakfast Program by replacing administrative paperwork with American Community Survey estimates of students eligible for free and reduced-price meals.

Evaluate SNAP

Knowing more about food-assistance program participation is used to evaluate the SNAP program and award bonuses to communities that administer SNAP funds well.

Understand Changes

State and local agencies use these statistics to assess state food assistance needs and participation rates for eligible families and individuals and to determine gaps in services and programs. Faith-based and other nonprofit organizations use information about food assistance needs to determine where food banks, food kitchens, and other programs could be beneficial and how the needs of their communities can be met with additional resources and services.

¹ In 2008, the food stamp program was renamed SNAP, but the question uses both program names to minimize confusion.

Selected Statutory Uses of SNAP Data

U.S. Department of Agriculture	Richard B. Russell National School Lunch Act, 42 USC § 1759a(g)
U.S. Department of Health and Human Services, Administration for Children and Families	Community Services Block Grant Act, Public Law 105-285, 42 USC § 9902 (2), 9903, and 9908 (b)(1)(A), (b)(11), and (c)(1)(A) (i)
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC § 9835(g)
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC §§ 8629 (a)(1)–(3) and (5)–(6), 8629 (b), and 8622 (11)
U.S. Department of Health and Human Services, Administration for Children and Families	13 USC § 141 note
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC § 603(a)(4)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)–(2), (b)(2), (b)(6), (b)(7), (n) (1), and (o)(1)

Units in Structure, Rooms, and Bedrooms

Units in structure asked since 1940, rooms asked since 1940, bedrooms asked since 1960.

QUESTIONS ABOUT THE TYPE OF BUILDING, UNITS IN THE STRUCTURE, NUMBER OF ROOMS, AND NUMBER OF BEDROOMS ARE USED TO CREATE DATA ABOUT HOUSING TYPES AND HOUSING DENSITY.

These data are used in government programs that analyze whether adequate housing is available and affordable for residents and provide and fund housing assistance programs. The number of rooms in combination with the number of people living in a unit provides a ratio of people to rooms, which can be used to measure the extent of overcrowding among our nation's households. These statistics are also used to enforce laws, policies, and regulations against discrimination in government programs and in society.

UNITS IN STRUCTURE, ROOMS, AND BEDROOMS DATA HELP COMMUNITIES:

Provide Adequate Housing

Knowing the different types of housing, and how many people occupy that housing, helps communities understand whether available housing meets the needs of residents. For example, these data are used to measure overcrowding in communities and are used as integral components to set Fair Market Rents for all areas of the country.

When housing is not sufficient, data can help communities enroll eligible households in programs designed to assist them (such as the Low Income Home Energy Assistance Program), and can help communities qualify for grants from the Community Development Block Grant, HOME Investment Partnerships Program, Emergency Solutions Grants, Housing Opportunities for Persons With AIDS, and other programs.

These data provide benchmark statistics that measure progress toward the Congressional declaration of goals for a national housing policy—a decent home and suitable living environment for every American family.

Plan Community Development

These data are used to identify adequate housing and may be useful in identifying types of structures in disaster-prone areas during emergency planning and preparation.

Selected Statutory Uses of Units in Structure, Rooms, and Bedrooms Data

U.S. Department of Agriculture	42 USC §§ 1472, 1474, 1485, 1486, 1490, 1490a, 1490c, 1490d, 1490e, 1490l, 1490m, 1490p-2, 1490r; 7 CFR 1940.560–1940.567, 1940.575; 7 CFR 3550.10, 1980.312, 3560.11; 7 CFR 3550.53(a), 3550.67(b), 3550.68(c); 7 CFR 1980.301(d); 7 CFR 3560.152(a)(2), 3560.254(c) RD Instruction 1980-D, Exhibit C
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC § 8629 (a) and (b)
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC §§ 8623 (a) (2) and (4), 8629 (a) (1)–(3) and (6), 8629 (b)
U.S. Department of Health and Human Services, Center for Medicare and Medicaid Services	Social Security Act, Section 1848e(1)(A)
U.S. Department of Housing and Urban Development	Native American Housing Assistance and Self-Determination Act of 1996, Public Law 104-330, as amended; 25 USC § 4152(b); 24 CFR 1000.324–1000.330 (Also appendices A and B)
U.S. Department of Housing and Urban Development	Housing and Community Development Act of 1974; 42 USC § 5306(a)(1); 24 CFR 1003.101
U.S. Department of Housing and Urban Development	12 U.S.C § 1701q; 24 CFR Part 891
U.S. Department of Housing and Urban Development	McKinney-Vento Homeless Assistance Act; 42 USC § 11371–11376; 42 USC § 12901; 24 CFR Part 91; 24 CFR Part 576; 24 CFR Part 574
U.S. Department of Housing and Urban Development	Housing and Community Development Act of 1974, Public Law 93-383, as amended, 42 USC § 1439 (d)(1)(A)(i); 24 CFR 791.402
U.S. Department of Housing and Urban Development	Housing and Community Development Act of 1974, Public Law 93-383 as amended, 42 USC §§ 5302(a)(6)(D)(iv), (a)(9), (10), (11), (12), (13), (14), (15), (20), and (b) and 5306(a), (b)(1), (2), and (3) and (d)(1); 24 CFR 1003.101
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101–625' 42 USC § 12705(b)(1)–(3); 24 CFR Part 91; 24 CFR 91.205(a)–(c)
U.S. Department of Housing and Urban Development	Federal Housing Enterprises Financial Safety and Soundness Act of 1992, section 1338, 12 USC § 4568
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)–(2), (b)(2), (b)(6), (b)(7), (n)(1), and (o)(1)

Vehicles Available

Vehicles available asked since 1960.

A QUESTION ABOUT THE VEHICLES AVAILABLE TO EACH HOUSEHOLD IS USED TO CREATE DATA ABOUT VEHICLE ACCESS.

Vehicle data are used in planning and funding for improvements to road and highway infrastructure, developing transportation plans and services, and understanding how people are traveling in the course of a normal day. These data are also used to evaluate pollution and access to transportation in emergencies.

VEHICLE AVAILABILITY DATA HELP COMMUNITIES:

Improve Transportation

Knowing how many households have access to vehicles, in combination with where people commute to and from, and whether they commute with a personal vehicle helps transportation planners create mass transportation and metropolitan plans that are compliant with various regulations.

Local agencies and organizations use these data to plan programs and services for the disabled population, bicycle commuters, carpool and ride-sharers, and many other groups; and to predict future use of new or updated transportation systems based on their understanding of the current users of various transportation options.

Understand Changes in Vehicle Use

Understanding vehicle availability and use helps communities understand exposure to air pollution and plan programs to help people without vehicles move about the community. Knowing whether people could evacuate using their personal vehicles in an emergency also helps communities plan emergency response.

Selected Statutory Uses of Vehicles Available Data

U.S. Department of Energy	Energy Policy Act of 1992, Public Law 102-486, 42 USC § 13385
U.S. Department of Justice, Civil Rights Division	Voting Rights Act of 1965, 42 USC § 1973 et seq.; 28 CFR Part 51; LULAC v. Perry, 548 U.S. 399 (2006); Johnson v. DeGrandy, 512 U.S. 997 (1994); Thornburg v. Gingles, 478 U.S. 30 (1986)
U.S. Department of Transportation	49 USC § 5303; 49 CFR Part 613
U.S. Department of Transportation	Fixing America's Surface Transportation Act, Public Law 114-94, 49 USC § 5304; 49 CFR Part 613, Subpart B
U.S. Department of Transportation	Fixing America's Surface Transportation Act, Public Law 114-94, 49 USC § 5303(c), (e), (h), (i), (j), (k), and (n)
U.S. Department of Transportation	49 USC §§ 6302(b)(3)(B), 6303(c), 6304(a), and 6309(a)
U.S. Environmental Protection Agency	Air Pollution Control Act (Clean Air Act), Public Law 84-159, 42 USC § 7403(a)(2), (b)(1), and (b)(6)
U.S. Environmental Protection Agency	Air Pollution Control Act (Clean Air Act), Public Law 84-159, 42 USC § 7403(a)(1), (b)(6), (b)(7), (e), and (g)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254 (a)(2), (b)(6), and (s)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)–(2), (b)(2), (b)(6), (b)(7), (n)(1), and (o)(1)

Veteran Status, Period of Service, and Department of Veterans Affairs (VA) Service-Connected Disability Rating

Veteran status asked since 1890, period of military service asked since 1890,¹ VA service-connected disability rating asked since 2008.

QUESTIONS ABOUT A PERSON'S MILITARY SERVICE AND SERVICE-CONNECTED DISABILITY RATING ARE USED TO CREATE ESTIMATES OF VETERANS AND THEIR NEEDS AT THE COMMUNITY LEVEL.

Data about veterans are used in planning and funding government programs that provide funds or services for veterans and in evaluating other government programs and policies to ensure they fairly and equitably serve the needs of veterans. These statistics are also used to enforce laws, policies, and regulations against discrimination in society. Though the VA maintains veterans' records, these statistics do not provide federal program planners, policymakers, and researchers with additional statistics about all veterans, regardless of whether they use VA services.

VETERAN STATUS, PERIOD OF SERVICE, AND VA SERVICE-CONNECTED DISABILITY RATING DATA HELP COMMUNITIES:

Administer Programs for Veterans

Knowing the numbers and characteristics of veterans eligible for federal programs benefiting veterans, such as the VA Home Loan Guarantee program, the Post-9/11 GI Bill, and job training and hiring preference programs can help communities and the federal government estimate the future demand for these programs and services. These data are also used to evaluate these programs to determine whether they are benefiting veterans as intended.

Provide Health Care for Veterans

Knowing the number of veterans eligible to use VA health care in combination with age, disability, and service-connected disability ratings, can help communities and the federal government estimate the future demand for health care services and facilities. Communities in need of major VA medical facilities throughout the country make a case for new construction projects using these data to estimate the expected usage of new facilities.

Plan End-of-Life Options for Veterans

Knowing where veterans are living toward the end of their lives is important, as the VA estimates the number of nursing home and domiciliary beds needed based on the concentrations of eligible veterans over age 65. These data are also important for the VA National Cemetery Administration, whose goal is to have a VA burial option within 75 miles of a veteran's residence. These data are used to plan construction of new cemeteries near the communities where veterans choose to live.

Ensure Equal Opportunity

Knowing the veteran and service-connected disability rating status of people in the community in combination with information about housing, voting, employment, and education, helps government and communities enforce against discrimination based on veteran or disability status.

Understand New Challenges for Veterans

Knowing more about the characteristics of veterans returning to civilian life is also important to combat specific problems they may face. For example, these data are used in research to understand why veteran status is a predictor of homelessness. Such data have been combined with administrative data produced by shelters in an attempt to understand and document which interventions reduce homelessness among veterans.

¹ Veteran status and period of service were not asked in 1920.

Selected Statutory Uses of Veteran Status, Period of Service, and VA Service-Connected Disability Rating Data

U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation	42 USC § 1397ii (b)(2)(A)–(C)
U.S. Department of Justice, Civil Rights Division	Title VII of the Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2
U.S. Department of Justice, Civil Rights Division	Title VII of the Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2.; Wards Cove Packing Co. v. Atonio, 490 U.S. 642 (1989)
U.S. Department of Veterans Affairs	Veterans Millennium Health Care Benefits Act, Public Law 106-117, Section 101; 38 USC § 1710, 8131(1), and 8134(a)(2)
U.S. Department of Veterans Affairs	38 USC § 308(b)
U.S. Department of Veterans Affairs	38 USC § 8104(b)(2)
U.S. Department of Veterans Affairs	38 USC § 546
U.S. Department of Veterans Affairs	Veterans Benefits Improvement Act of 2008, Public Law 110-389, Title III—Labor and Education Matters, Subtitle C—Vocational Rehabilitation Matters, Section 334—Longitudinal study of Department of Veterans Affairs vocational rehabilitation programs, 38 USC § 3122
U.S. Department of Veterans Affairs	Veterans Millennium Health Care and Benefits Act, Public Law 106-117, Section 613(b)(2)

Work Status Last Year

Work status last year asked since 1880.

QUESTIONS ABOUT HOW MANY WEEKS A PERSON WORKED IN THE LAST YEAR, AND HOW MANY HOURS HE OR SHE WORKED EACH WEEK ARE USED TO PRODUCE STATISTICS ABOUT FULL-TIME AND PART-TIME WORKERS, AS WELL AS YEAR-ROUND AND SEASONAL WORKERS.

Data on work status last year are used in planning and funding government programs that provide unemployment assistance and services, and to understand trends and difference in wages, benefits, work hours, and seasonal work. These data are also used to evaluate other government programs and policies to ensure they fairly and equitably serve the needs of all groups, and to enforce laws, regulations, and policies against discrimination in society.

WORK STATUS LAST YEAR DATA HELP COMMUNITIES:

Provide Employment Opportunities

Knowing whether programs designed to employ specific groups, such as people with disabilities or veterans, are succeeding is important to employers, federal agencies, and federal government contractors (Vietnam Era Veterans' Readjustment Assistance Act, Rehabilitation Act of 1973).

State and local agencies use these statistics to identify labor surplus areas (areas with people available for hiring and training), plan workforce development programs including job fairs and training programs, and promote business opportunities.

Ensure Equal Opportunity

Knowing more about people who are employed or looking for work, in combination with age, gender, race, Hispanic origin, disability status, veteran status, and other data, helps governments and communities enforce laws, policies, and regulations against discrimination in employment. For example, data on work status last year are used to enforce laws against discrimination in employment by federal agencies, private employers, employment agencies, and labor organizations (Civil Rights Act of 1964).

Understand Changes

Knowing the characteristics of people who are working or looking for work is an important part of estimating changes in the economy. Estimates of work status last year are used in funding decisions; to ensure surveys are accurate, including surveys that provide official labor market estimates; and to understand change in other data (Wagner-Peyser Act and Workforce Investment Act).

Selected Statutory Uses of Work Status Last Year Data

U.S. Department of Health and Human Services, Administration for Community Living	Developmental Disabilities Assistance and Bill of Rights Act of 2000, Public Law 106-402, Section 124(c)(5), 42 USC § 15024
U.S. Department of Health and Human Services, Administration for Children and Families	Community Services Block Grant Act, Public Law 105-285, 42 USC § 9902 (2), 9903, and 9908 (b)(1)(A), (b)(11), and (c)(1)(A)(i)
U.S. Department of Labor	Workforce Investment Act of 1998, Public Law 105-220; 20 CFR 668.296(b) and 668.440
U.S. Equal Employment Opportunity Commission, Office of Federal Operations	The Rehabilitation Act of 1973, Public Law 93-112, 29 USC § 791(b); 29 CFR 1614.602
U.S. Equal Employment Opportunity Commission, Office of Research, Information, and Planning	Civil Rights Act of 1964, Public Law 88-352, 42 USC § 2000e-2(k)(1)(A); Hazelwood v. United States, 433 U.S. 299 (1977)

Year Built and Year Moved In

Year built asked since 1940, year moved in asked since 1960.

QUESTIONS ABOUT WHEN A BUILDING WAS BUILT AND WHEN A PERSON MOVED INTO THAT HOME ARE USED TO CREATE DATA ABOUT HOUSING AGE AND AVAILABILITY.

These data are used in government programs that analyze whether adequate housing is available and affordable for residents, provide and fund housing assistance programs, and measure neighborhood stability.

YEAR BUILT AND YEAR MOVED IN DATA HELP COMMUNITIES:

Provide Adequate Housing

Knowing the ages of housing in a community helps communities understand whether available housing meets the needs of residents.

When housing is not sufficient or older than a certain age, housing data can help communities enroll eligible households in programs designed to assist them (such as the Low Income Home Energy Assistance Program), and can help communities qualify for grants from the Community Development Block Grant, HOME Investment Partnerships Program, Emergency Solutions Grants, Housing Opportunities for Persons With AIDS, and other programs.

Plan Community Development

Knowing how the balance of different ages of homes in combination with whether they are occupied or vacant, can help communities identify opportunities to improve tax, assistance, and zoning policies and to reduce tax revenue losses from vacant or abandoned properties. These data may also be useful in identifying older structures in disaster-prone areas during emergency planning and preparation.

Knowing more about the age of the housing stock in combination with the financial situation of residents, including income, employment, and housing costs, can help communities qualify for loan and grant programs designed to stimulate economic recovery, improve housing, run job-training programs, and define areas as empowerment or enterprise zones.

Selected Statutory Uses of Year Built and Year Moved In Data

U.S. Department of Health and Human Services, Administration for Children and Families	42 USC § 8629(a) and (b)
U.S. Department of Health and Human Services, Administration for Children and Families	42 USC §§ 8623(a)(2) and (4), 8629 (a)(1)–(3) and (6); 42 USC 8629(b)
U.S. Department of Housing and Urban Development	United States Housing Act of 1937, Public Law 93-383, as amended, 42 USC § 1437f(c)(1); 24 CFR 888.113; 24 CFR 982.401
U.S. Department of Housing and Urban Development	Housing and Community Development Act of 1974, Public Law 93-383, as amended, 42 USC § 1439 (d)(1)(A)(i); 24 CFR 791.402
U.S. Department of Housing and Urban Development	Housing and Community Development Act of 1974, Public Law 93-383 as amended, 42 USC § 5302(a)(6)(D)(iv), (a) (9), (10), (11), (12), (13), (14), (15), (20), and (b); 42 USC§ 5306(a), (b)(1), (2), and (3) and (d)(1); 24 CFR 1003.101
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101-625, 42 USC 12705(b)(1)–(3); 24 CFR Part 91; 24 CFR 91.205(a)–(c)
U.S. Department of Housing and Urban Development	Tax Reform Act of 1986, Public Law 99-514, 26 USC § 42(d)(5)(B)(ii)(I), (iii)(I), (iv), and (g); 15 U.S.C § 631
U.S. Department of Housing and Urban Development	Cranston-Gonzalez National Affordable Housing Act, Public Law 101-625, 42 USC § 12747(b)(1)(A) and (B); 24 CFR 92.50(a),(b), and (c)
U.S. Environmental Protection Agency	Federal Water Pollution Control Act (Clean Water Act), Public Law 92-500, 33 USC § 1254(a)(1)–(2), (b)(2), (b)(6), (b)(7), (n)(1), and (o)(1)

Appendix:
Year Current Subjects Planned First Asked in
Decennial Census Program

Year Current Subjects Planned First Asked in Decennial Census Program

Subjects Planned for 2020 Census and/or ACS	Year Subject First Asked in Decennial Census or ACS	Years Not Asked
Acreage	1960	
Age	1790	
Agricultural Sales	1960	
Ancestry	1980	
Bedrooms	1960	
Citizenship	1820	1840–1860, 1880
Class of Worker	1910	
Commuting (Journey to Work)	1960	
Computer and Internet Use	2013	
Condominium and Mobile Home Fees	1990	
Cost of Utilities	1940	
Disability	1830	
Educational Attainment	1940	
Ethnicity	1970	
Fertility	1890	
Gender	1790	
Grandparent Caregivers	2000	
Health Insurance	2008	
Home Heating Fuel	1940	
Home Value	1940	
Income	1940	
Industry	1820	1830, 1850–1900
Insurance	1980	
Kitchen Facilities	1940	
Labor Force Status	1890	
Language Spoken at Home	1890	1950
Marital History	1850	
Marital Status	1880	
Migration (Previous Residence)/Residence 1 Year Ago	1930	
Mortgages	1940	
Occupation	1850	
Period of Military Service	1890	1920
Place of Birth	1850	
Plumbing Facilities	1940	
Race	1790	
Relationship	1880	
Rent	1940	
Rooms	1940	
School Enrollment	1850	

Year Current Subjects Planned First Asked in Decennial Census Program—Con.

Subjects Planned for 2020 Census and/or ACS	Year Subject First Asked in Decennial Census or ACS	Years Not Asked
Supplemental Nutrition Assistance Program (SNAP)/ Food Stamps	2005	
Taxes	1940	1950–70
Telephone Service	1960	
Tenure (Owner/Renter)	1890	
Undergraduate Field of Degree	2009	
Units in Structure	1940	
VA Service-Connected Disability Rating	2008	
Veteran Status	1890	1920
Work Status Last Year	1880	
Year Built	1940	
Year Moved In	1960	
Year of Entry	1890	1940–1960



U.S. Department of Justice

Office of Legislative Affairs

Office of the Assistant Attorney General

Washington, D.C. 20530

APR 14 1968

Honorable James C. Miller III
 Director
 Office of Management and Budget
 Washington, D.C. 20503

Dear Mr. Miller:

This responds to your request for the views of the Department of Justice on H.R. 3639, a bill to prevent distortions in the reapportionment of the House of Representatives caused by the use of census population figures which include aliens, and H.R. 3814, "Relating to decennial censuses of population." In principal part, H.R. 3639 would eliminate illegal aliens from the United States census tabulation when apportioning representatives in Congress among the states. Like H.R. 3639, H.R. 3814 would exclude illegal aliens from the census count. It would include for apportionment purposes, however, members of the armed forces, civilian employees of the Department of Defense, and dependents of such members or employees, living overseas. For the reasons discussed below, we oppose passage of these bills because they raise serious constitutional problems.

Section two of the Fourteenth Amendment to the Constitution provides that:

Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed.

U.S. Const., amend. XIV, sec. 2.¹ This constitutional provision

¹ Section 2 replaces, in part, the provision in Article I, sec. 2, cl. 3 of the Constitution that provided:

Representatives . . . shall be apportioned among the several States . . . according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons . . . three fifths of all other Persons.

is implemented by 13 U.S.C. 141(b),² Section 2 of N.R. 3639 would add a new paragraph (g) to 13 U.S.C. 141 to require the Secretary of Commerce to

make such adjustments in total population figures as may be necessary, using such methods and procedures as the Secretary determines appropriate, in order that aliens in the United States in violation of the immigration laws shall not be counted in tabulating population for purposes of subsection (b) of this section.

The legislative history accompanying section 2 of the Fourteenth Amendment makes clear that Congress intended for all persons, including aliens residing in this country, to be included in the "whole number of persons in each State." Id.

The end of the Civil War and the freeing of the slaves meant an end to apportionment based on the "three fifths" provision of Article I. See note 1. The Reconstruction Congress realized that once readmitted, the former Confederate states would increase their population base by forty percent, adding twelve Representatives to their pre-war total of eighteen. In an effort to undermine this growth in political power before these states were readmitted to the Union, the Thirty-ninth Congress examined various formulas designed to reduce representation whenever states, as expected, discriminated against portions of their male population by excluding them from voting on the basis of race.

For example, there was significant support in the Thirty-ninth Congress for a proposal that representation be based on the number of male voters over the age of twenty-one. See, e.g., Cong. Globe, 39th Cong., 1st Sess. 406 (1866). However, this

¹ (Cont.) Article I, the Founding Fathers were aware that the census, and therefore apportionment, would be based on the number of State inhabitants, not of voters. See, e.g., The Federalist Papers (C. Rossiter, ed.), No. 56, at 336.

² Section 141(b) provides:

The tabulation of total population by States under [the census] as required for the apportionment of Representatives in Congress among the several States shall be completed within 9 months after the census date and reported by the Secretary to the President of the United States.

³ G. Zuckerman, A Consideration of the History and Present Status of Section 2 of the Fourteenth Amendment, 30 Ford. L. Rev. 93, 94 (1961) (Zuckerman).

proposal met serious resistance from many of the Northern states, especially in New England. These states had disproportionately large populations of nonvoters, such as women (large numbers of men had left their homes to pioneer in the west) and aliens. As Rep. Conkling, one of the original drafters of the Fourteenth Amendment, noted when defending his amendment to count persons rather than citizens, "[m]any of the large States now hold their representation in part by reason of their aliens, and the Legislatures and people of these States are to pass upon the amendment. It must be acceptable to them." Cong. Globe, 39th Cong., 1st Sess. 389 (1866).

Faced with extensive debate over the amendment's language, the Republicans became concerned that the measure would not pass the Senate. They therefore went into caucus, agreeing to be bound by its decision, and adopted the present language regarding "persons" rather than "citizens." Notwithstanding the protests of opponents who bitterly denounced this language as nothing more than a political compromise designed to ensure passage of the amendment, the Republicans held the majority and the amendment, apportioning representation on the "whole number of persons" in each state, was passed.

Thus, the Congress that passed the Fourteenth Amendment in 1866 not only recognized that aliens would be counted in the census but insisted upon their inclusion as part of a compromise designed to ensure that the amendment would be passed by the industrial states. They did so notwithstanding their acknowledgment that aliens were not bona fide members of the body politic.

⁶ Zuckerman, AUREA note 3, at 95. As Sen. Wilson noted:

How [does this proposal affect] the loyal States? It throws out of the basis at least two and a half millions of unnaturalized foreign-born men and women, and by this we lose at least fifteen Representatives In 1860 there were in the loyal States 3,056,620 unnaturalized persons of foreign birth, and in the rebel States 233,651. I estimate that Massachusetts would lose one Representative certainly, and probably two, by this change; that New York would lose at least four, Pennsylvania two, Ohio two; and other States would lose in their representation.

Cong. Globe, 39th Cong., 1st Sess. 1256 (1866).

⁷ Zuckerman, AUREA note 3, at 105.

⁸ Cong. Globe, 39th Cong., 1st Sess. 406, 405 (1866) (statement of Rep. Lawrence). See also id. at 2939 (statement of Sen. Hendricks).

They rejected arguments that representation should be based on people with permanent ties to the country. They consciously chose to include aliens to advance their dual concerns: ensuring passage of the amendment by the northern states and denial to the South of any additional representation in Congress.

It is noteworthy that the Supreme Court, in analyzing section 1 of the Fourteenth Amendment, has read the word "person" to include illegal aliens. "Whatever his status under the immigration laws, an alien is surely a 'person' in any ordinary sense of that term. Aliens, even aliens whose presence in this country is unlawful, have long been recognized as 'persons' guaranteed due process of law by the Fifth and Fourteenth Amendments." Flyler v. Doe, 457 U.S. 302, 310 (1982) (citations omitted); reh'g denied 458 U.S. 1131 (1982). It would seem reasonable to assume that those whom the drafters of the Fourteenth Amendment intended to include in the word "persons" in section 1 of the amendment are the same "persons" included by section 2.

We must note that the Reconstruction Congress did not discuss the issue of illegal aliens when it debated the Fourteenth Amendment. It was, however, possible to be an illegal alien in 1866. The United States has had a statute since 1798 governing arrest and exclusion of aliens from hostile countries. Act of July 6, 1798, ch. 66, 1 Stat. 577 (Act), codified at 50 U.S.C. 31. The President is authorized to arrest, secure and remove, with the aid of the courts and the federal marshals, any such aliens he identifies. Moreover, this statutory authority had been exercised prior to 1866. Thus, although the issue was not raised in the debate over the Fourteenth Amendment, certain classes of aliens could be excluded from the United States in 1866 and removed by order of the President if they attempted to return.

⁷ See generally Note, Demography and Distrust: Constitutional Issues of the Federal Census, 94 Harv. L. Rev. 841, 848-49 (1981).

⁸ C. Gordon and H. Rosenfeld, 1 Immigration Law & Procedure, at 1-8 (1985).

⁹ Lockington v. Smith, 18 Fed. Cas. 758 (C.C. Pa. 1817) (No. 8488); Lockington's Case, Brightly N.P. 269 (Pa. 1819).

¹⁰ Moreover, subsequent Congresses have acknowledged, by their efforts to exclude aliens from the census, that the Fourteenth Amendment requires the counting of all aliens. The 71st and 72nd Congresses debated passage of constitutional amendments that would have excluded aliens in the count for apportionment of representatives. See H.R. Rep. 2761, 71st Cong., 3d Sess. (1931); H.R. Rep. 823, 72d Cong., 1st Sess. (1932). The Senate legal counsel had earlier issued an opinion concluding that aliens could not be excluded. 71 Cong. Rec. 1821 (1929). In 1940, a bill to exclude aliens was defeated. See S.C., 86 Cong. 1940.

The Department of Justice has advised previous Congresses considering identical legislation that aliens must be included within the census, for purposes of apportioning congressional Representatives,¹¹ and has adopted that position in court.¹² We have reexamined this position and continue to believe that it is sound. Accordingly, we find that to the extent that H.R. 3639 and H.R. 3814 would exclude illegal aliens from the census, they are unconstitutional.

We turn now to the question of whether it is constitutional to include in any tabulation of population for purposes of the apportionment any members of the armed forces, civilian employees of the Department of Defense (DOD), or dependents of such members or employees, when any such individuals are assigned to a post outside the United States. While we continue to review the case law and legislative history pertinent to resolution of this question, we note that throughout the debates on section 2 of the Fourteenth Amendment, there seems to be a premise that the census would count inhabitants of the United States, and not individuals who did not reside in one of the states.¹³ Accordingly, we entertain serious doubts as to the constitutionality of any legislation that would seek to include for apportionment purposes military personnel, DOD civilian employees, or their dependents, when such individuals live outside the United States. We therefore must oppose passage of this provision in H.R. 3814 at this time.

¹⁰ (Cont.) Rec. 4372 (1960) (statement of Rep. Celler) ("If you want aliens out, you must amend the Constitution").

¹¹ See e.g., Testimony of David A. Strauss, Attorney-Adviser, Office of Legal Counsel, 1980 Census: Counting Illegal Aliens. Hearing on H. 2366 Before the Subcomm. on Energy, Nuclear Proliferation and Federal Services of the Senate Comm. on Governmental Affairs, 96th Cong., 2d Sess., at 98 (1980) (Hearing).

¹² See Memorandum of Points and Authorities in Support of Defendant's Motion to Dismiss the Action or, in the Alternative, for Summary Judgment and in Opposition to Plaintiff's Application for a Preliminary Injunction, filed in Federation for American Immigration Reform v. Klutznick, 486 F. Supp. 566, 576-77 (D.D.C.) (3-judge court) (PAIR), appeal dismissed, 447 U.S. 916 (1980). The Memorandum is reprinted in the Hearings, supra note 11, at 125. The PAIR court endorsed the government's position in dictum. See 486 F. Supp. at 576-77 (reading section 2 to include all aliens) (dictum).

¹³ The Department of Commerce advises that the Census Bureau has never counted for apportionment purposes U.S. Ambassadors, military personnel or State Department personnel stationed abroad. The Bureau's practice is based upon the concept of usual residence, which historically has been defined as where a person

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The Office of Management and Budget has advised this Department that there is no objection to the submission of this report from the standpoint of the Administration's program.

Sincerely,

Jack E. Parkers for
Thomas M. Boyd
Acting Assistant Attorney General