UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

STATE OF NEW YORK, et a	ш.,
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Plaintiffs,

v.

18-CV-2921 (JMF)

UNITED STATES DEPARTMENT OF COMMERCE, et al.,

Defendants.

NOTICE OF FILING OF TRIAL AFFIDAVIT OF DR. ANDREW REAMER

Plaintiffs hereby file with the Court the following trial affidavit:

1. Oct. 23, 2018 Declaration of Dr. Andrew Reamer (Ex. 1).

Respectfully submitted,

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IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK

STATE OF NEW YORK, et al.,

Plaintiffs,

NEW YORK IMMIGRATION COALITION, et al.,

Consolidated Plaintiffs

v.

UNITED STATES DEPARTMENT OF COMMERCE, et al.,

Defendants.

Civil Action No. 1:18-cv-2921-JMF

DECLARATION OF DR. ANDREW REAMER

I. Qualifications

- 1. I was retained in this litigation to provide analyses of the impacts of the inclusion of a question on citizenship status on the 2020 Census questionnaire on the distribution of particular types of federal domestic assistance funds to certain states.
- 2. I am a research professor in the George Washington Institute of Public Policy (GWIPP) at The George Washington University in Washington, D.C. My research aims to support U.S. national economic development and competitiveness. A substantial component of my work concerns the roles and functioning of the federal statistical system, including the United States Decennial Census and the datasets produced using its outputs.
- 3. In 2011, I began my research at GWIPP after six years at the Brookings Institution's Metropolitan Policy Program and 20 years as a consultant in U.S. regional economic development and public policy. As a Fellow at Brookings, I was responsible for encouraging a

strong, well-functioning federal statistical system that met the data needs of public and private stakeholders. To that end, I was instrumental in ensuring the commencement and continued existence of the American Community Survey (ACS).

- 4. Throughout my career as an economic development consultant, I prepared strategic analyses and plans that relied heavily on federal demographic and economic statistics. I currently conduct the research project "Counting for Dollars 2020: The Role of the Decennial Census in the Geographic Distribution of Federal Funds." Project reports already published include Report #1: Initial Analysis: 16 Large Census-guided Financial Assistance Programs (August 2017), and Report: #2 Estimating Fiscal Costs of a Census Undercount to States (March 2018). In addition, the following reports are forthcoming within the next year: Report #3: Census-guided Financial Assistance to Rural America; Report #4: Census-derived Datasets Used to Distribute Federal Funds; Report #5: 50 Large Census-guided Financial Assistance Programs; and Report #6: Federal Programs that Geographically Allocate Financial Assistance Based on Decennial Census Data.
- 5. While at Brookings and prior to the 2010 Census, I published a Counting for Dollars study that identified census-guided federal financial assistance programs and calculated FY2008 funding flows by program to states, metro areas, and counties, although with a substantially smaller level of effort than my current project.
- 6. I received a Ph.D. in Economic Development and Public Policy and a Master of City Planning from the Massachusetts Institute of Technology and a Bachelor of Science in Economics from the Wharton School, University of Pennsylvania.
- 7. I am a member of several federal advisory committees—the U.S. Bureau of Labor Statistics (BLS) Data Users Advisory Committee (of which I am former chair), the Bureau of

Economic Analysis (BEA) Advisory Committee, and the Workforce Information Advisory Council, which is part of the Department of Labor. My two-year term as a member of the Commerce Department's National Advisory Council on Innovation and Entrepreneurship just ended. I also am a member of the Statistics Committee of the National Association for Business Economics (NABE), which meets three times yearly with the directors of the U.S. Census Bureau, BEA, and BLS. I provide staff assistance to the Economic Statistics Committee of the American Economic Association, the nation's professional association of economists. Additionally, I am a member and former president and board member of the Association of Public Data Users, as well as a member of the Industry Studies Association, for which I manage the Innovation and Entrepreneurship track at its annual conference. My expert report in this case, which includes my curriculum vitae, is Exhibit PX-327, and the Errata to that report is Exhibit PX-328.

8. Based on my experience, training, knowledge, and education, I believe I am well qualified to offer expert opinions on how Decennial Census results affect a number of types of federal domestic financial assistance programs. I hold my opinions in this case to a strong degree of professional certainty.

II. Summary of Opinions

9. Federal domestic financial assistance—in the form of direct payments to individuals, grants, loans, and guaranteed and insured loans—funds a substantial portion of the American economy and its system of federalism. A significant portion of federal domestic financial assistance is distributed on the basis of statistics derived from the Decennial Census. I am aware of at least 320 federal domestic assistance programs that use census-derived data to distribute about \$900 billion in FY2016. The two most important uses of census-derived data to

guide federal assistance program funds distribution is for determining program eligibility and for geographically allocating funding through formulas, the latter of which is the subject of my testimony here.

- 10. From this list of 320 programs, I have identified 24 large federal financial assistance programs with geographic allocation formulas that rely in whole or part on census-derived data. Exhibit PX-329 is a chart I created listing out these programs along with some relevant details. Of these programs, six use the Federal Medical Assistance Percentage (FMAP) reimbursement formula, and the remaining 18 rely in whole or part on state share of a U.S. population total ("state-share programs").
- 11. Geographic allocation formulas are particularly sensitive to inaccuracies in census-derived data. The census-derived datasets that are particularly important for determining the geographic allocation of funds by formula are the Census Bureau's Population Estimates and American Community Survey (ACS). There is a strong, direct relationship between the accuracy of the Decennial Census and the reliability of both the Population Estimates and the ACS such that Decennial Census data is an essential ingredient to the accuracy and reliability of both.
- 12. A 2020 Census disparate undercount of different groups would affect each succeeding year's Population Estimates largely because the base of the Population Estimates is the 2020 count. Moreover, such a 2020 Census undercount would negatively affect each year's ACS data. As the ACS methodology handbook makes clear, the ACS relies on the Decennial Census for its sampling frame and sample design and its approaches to imputation, the statistical weights given to individual responses, and the measurement of variance. As a result, the accuracy of ACS estimates of the percentage distribution of various population characteristics at every level of geography is a function of the reliability of the Decennial Census. Further, as

Population Estimates provide the controls by which ACS percentages are transformed into population counts by characteristics, again at every level of geography, a Decennial Census undercount would lead to inaccurate ACS population estimates. Also, as the ACS informs the net international migration estimate for the Population Estimates, an undercount would result in an undercount of that component of population change.

- 13. Using five of these 24 programs as examples, I have performed calculations using a series of seven assumptions of different rates of undercounts of noncitizens, noncitizens and Hispanics, and Hispanics and foreign-born individuals due to the citizenship question and applied them to 2020 population projections by state. It is my understanding that each of these seven scenarios are in comparison to a baseline case in which the citizenship question has no differential effect on these groups. Each of the undercount scenarios would produce a disparate undercount—that is, the extent of the undercount (as measured by percentage of the population missed) would vary greatly across states, reflecting the relative presence of noncitizens, the foreign-born, and/or Hispanics in the respective state populations.
- 14. I understand that these projections were made by Dr. Christopher Warshaw, and I express no opinion about these undercount assumptions or population projections provided to me. Rather, I use these projections to demonstrate the nature and comparative magnitude of impacts of funding loss for one year to particular states if these undercount scenarios are realized in the 2020 Census. Each of my illustrations assumes that Dr. Warshaw's scenarios were realized in the 2010 Census and, on that basis, estimates the impacts on program funding by state in FY2015 (two programs) or FY2016 (three programs).
- 15. Based on this analysis and my understanding of relevant funding formulas and census-derived datasets, it is my opinion to a strong degree of professional certainty that, if any

of the undercount scenarios provided to me are realized in the 2020 Census, this would result in a shift in relative state population shares and a comparable shift in funding allocations.

- 16. With respect to the 18 state-share programs I have identified as census-sensitive and as demonstrated with three example programs later in my testimony, those states with an undercount greater than that for the U.S. as whole would lose share, and thus funding, relative to the actual population. Specifically, because several states—New York, California, Texas, Florida, New Jersey, Nevada, and Hawaii—have high relative percentages of non-citizens, the foreign-born, and Hispanics, these states would lose population share while many other states would gain share. For several other states—Arizona, Maryland, New Mexico, Massachusetts, Washington, and Connecticut—these states would lose share, and thus funding under some scenarios and programs but not others.
- 17. With respect to at least the six programs tied to FMAP and as demonstrated by my analysis of Medicaid and CHIP later in my testimony, a disparate undercount would result in a handful of states—particularly, Texas, Florida, Nevada, Hawaii, and Arizona—receiving a lower FMAP, and a larger number of states receiving a higher FMAP. Under the seven scenarios, these states with high percentages of non-citizens, the foreign-born, and/or Hispanics would see relatively big increases in their Per Capita Income (PCI) compared to the U.S. average and other states. Calculated reimbursement levels for Texas, Florida, Nevada, Hawaii, and Arizona would fall while rising for those many states whose PCI rose less than the U.S. average. For some states—at least Washington, New Mexico, Georgia, and Oregon—calculated reimbursement levels would fall under some but not all scenarios and programs.
- 18. In sum, it is my opinion, held to a strong degree of professional certainty, that for programs with allocation formulas based on a state's population or PCI relative to the nation, and

under the assumption that allocation formulas and funding levels remain similar, a disparate Decennial Census undercount of non-citizens, the foreign-born, and Hispanics would lead to measurable fiscal losses for those states with percentages of these groups above the nationwide average.

19. Moreover, even if current allocation formulas and funding levels change over time, as long as the allocation formulas retain a degree of state-share-based calculation, a disparate decennial undercount would cause the same states previously identified to lose money from the same programs, although in different amounts. Similarly, a change in the degree of disparate undercount would only affect the magnitude of the losses to the states identified above, not the existence of such losses. Using Dr. Warshaw's population projections, even a 0.5 percent disparate undercount, for example, would cause losses in state share programs to New York, California, Texas, Florida, New Jersey, Nevada, and Hawaii, and to FMAP programs for Arizona, Texas, Florida, Nevada, and Hawaii.

III. Federal Domestic Financial Assistance Programs Guided by Data Derived from the Decennial Census

- 20. Domestic assistance programs provide financial assistance and non-financial assistance to non-federal entities within the U.S. such as individuals, state and local governments, companies, and nonprofits in order to fulfill a public purpose.
- 21. In Fiscal Year (FY) 2017, the federal government provided approximately \$4.77 trillion in direct domestic financial assistance programs, an amount equal to 24.9 percent of Gross Domestic Product. Of that total, approximately \$2.36 trillion were direct payments to individuals and \$674.7 billion were grants, primarily to state and local governments.
- 22. Congress recognizes that the appropriate, equitable distribution of certain forms of financial assistance should be guided by demographic and economic data at various levels of

geography. As a consequence, it has directed that a substantial portion of federal financial assistance to state and local governments, households, businesses, and nonprofit organizations be guided by statistics derived from the Decennial Census.

- 23. Since 1790, Congress has used the data from the Decennial Census to guide the design and implementation of public policies and programs. However, as the Decennial Census is carried out once a decade and collects data on a small number of demographic characteristics, Congress also recognizes that the decennial numbers, on their own, are inadequate to guide the fair, equitable distribution of federal financial assistance. As a result, Congress has authorized a series of more current and more broadly descriptive datasets derived from the Decennial Census. I refer to these as "census-derived datasets."
- 24. I have identified 32 census-derived datasets used by the federal government to geographically distribute financial assistance¹ as shown in Exhibit PX-330, a schematic I created to demonstrate the relationship of these datasets. Six datasets are considered foundational, with the remaining 26 datasets extensions of these.
- 25. Only one foundational dataset, the Census Bureau's Urban-Rural Classification of every census tract based on Decennial Census population density, relies solely on decennial numbers. This classification serves as the foundation for all other federal geographic classifications used to distribute federal financial assistance.
- 26. Two other foundational datasets are "augmented" in that they annually update variables collected in the Decennial Census. More specifically, the Census Bureau constructs annual Population Estimates and Housing Estimates by augmenting decennial population and housing numbers with more recent data, primarily from vital statistics and tax records. For

¹ Since I submitted my expert report, I have identified an additional 12 census-derived datasets, for a total of 51 (eight foundational and 43 extensions). I will be publishing these findings in a forthcoming paper.

example, the Census Bureau annually updates Population Estimates by taking the previous year's numbers (starting with the decennial year) and adding births, subtracting deaths, and estimating net domestic and international migration.

- 27. The Population Estimates databases are frequently used directly to determine funds distribution according to each state's share of the most recent U.S. population total. They also enable the creation of economic indicators that allow geographic areas to be compared regardless of size. A good example is state Per Capita Income (PCI), which is determined by dividing state Personal Income by state population (from Population Estimates).
- 28. Through census-derived household surveys, three foundational datasets collect data on multiple socioeconomic variables such as race, age, poverty, occupation, and housing costs. More specifically, the Census Bureau relies on the Decennial Census to design and implement the American Community Survey (ACS), the Current Population Survey (CPS), and the Consumer Expenditure Survey (CEX) in five ways:
 - a. <u>Sampling frame</u>: The Census Bureau's Master Address File (MAF), the underpinning of the Decennial Census operation, provides the frame from which a survey sample is drawn;
 - b. <u>Sample design</u>: The Decennial Census delineates the primary sampling units from which samples are to be drawn and the sampling rates by which they are drawn, as well as guiding sample stratification, that is, the size of subsamples by characteristics such as race and household composition;
 - c. <u>Imputation</u>: Nonresponses to individual questions are filled in by imputing, or "borrowing" answers from other households with similar characteristics;
 - d. Weighting: In preparing survey estimates, the weight of each household's response is determined in relation to the estimated overall number of households and the estimated number of residents of similar age, sex, race, and Hispanic origin, as derived from the Decennial Census through annual population and housing estimates; and
 - e. <u>Variance</u>: To understand the reliability of any survey result, the survey sponsors need to produce estimates of variance, or sampling error, which also is based annual population and housing estimates.

- 29. The six foundational datasets enable the creation of 26 other census-derived datasets, in three categories:
 - a. <u>Geographical classifications</u> (seven datasets): The designation of particular sets of geographic units on the basis of some combination of population density (e.g., urban/rural), population size, and commuting patterns. Each of the seven geographic classifications in the extension group use the Urban-Rural Classification and one or more of the multivariate datasets:
 - b. <u>Standard economic indicators</u> (five datasets): Widely-recognized measures of economic conditions such as inflation, personal income, unemployment rate, and poverty rate that can be used to guide a multitude of assistance programs; and
 - c. <u>Program-specific indicators</u> (14 datasets): Measures of specific economic conditions created to administer a particular financial assistance program, for example, Section 8 housing vouchers, and Title I grants to local education agencies.

IV. Analysis of Impact of Disparate Undercount on Federal Assistance Programs

- 30. Most census-guided financial assistance programs use census-derived datasets to differentiate among geographic areas and then, through mechanisms such as eligibility and allocation formulas, distribute funds based on those differentiations.
- 31. Across the breadth of census-guided programs, geographic differences in the accuracy of the Decennial Census will lead to distortions in the distribution of financial assistance. That said, the sensitivity of funds distribution to census mismeasurement is by far the greatest for programs with geographic allocation formulas that rely on census-derived data. Allocation formulas reflect a continuum of possible outcomes—the place on that continuum is determined by specific statistics, sometimes calculated to the one-hundredth or one-thousandth of a percent. Even modest geographic differences in census accuracy can lead to changes in funds distribution.
- 32. In this section, I demonstrate the nature of the fiscal impacts of the inclusion of a citizenship question on the 2020 Census on the distribution of federal domestic assistance. I do

so by illustrating the effects that different scenarios of undercounts would have on the distribution to states of funds from five programs with census-derived allocation formulas—Supplemental Nutrition Program for Women, Infants, and Children (WIC), Social Services Block Grants (SSBG), Title I Grants to Local Education Agencies, Medicaid, and the State Children's Health Insurance Program (CHIP).

33. As I noted before, I have analyzed five such programs with such a purpose as examples, but my opinion that any disparate undercount among non-citizens, Hispanics, and/or foreign-born individuals will lead to a loss of funding for certain states—New York, California, Texas, Florida, New Jersey, Nevada, and Hawaii for state-share programs, and Texas, Florida, Nevada, Hawaii, and Arizona for FMAP programs—should hold true for any of the other nineteen programs identified in Exhibit PX-329 as well.

A. Methodology

- 34. My analysis relies on the population estimates provided to the plaintiffs by Dr. Warshaw regarding the number of residents missed in each state due to the inclusion of a citizenship question on the 2020 Census questionnaire. Dr. Warshaw provides eight numbers for each state: a 2020 baseline population projection that assumes no citizenship question and an estimate of percent of population undercount in seven different scenarios if the citizenship question is included.
- 35. These scenarios are that due to the citizenship question: (1) 2% of non-citizens are not counted in the 2020 Census; (2) 2% of non-citizens *and* Hispanics are not counted; (3) 5.8% of non-citizens are not counted; (4) 5.8% of non-citizens *and* Hispanics are not counted; (5) 10% of non-citizens are not counted; (6) 10% of non-citizens *and* Hispanics are not counted; and (7) the level of undercount indicated by the recent representative survey designed by Professor Matt

Barreto and conducted by Pacific Market Research (which I understand is described in Dr. Warshaw's testimony).

- 36. In each of my program analyses, the baseline case is the latest available data on funding by state. I then calculate the impact on each state of each of the undercount scenarios as if they occurred in 2010, as actual appropriations are not known for years subsequent to the 2020 Census. Two of the programs analyzed rely on the FMAP reimbursement formula (Traditional Medicaid and CHIP) and three rely on state share of a U.S. population total (WIC—infants and children ages 1-4 at or below 185 percent of poverty, SSBG—total population, Title I—children ages 5-17 in poverty). The analyses of the FMAP-based programs are for FY2015. Those of the programs with allocations based on state population share are for FY2016. For WIC, SSBG, and Title I, I assumed that each of Dr. Warshaw's scenarios affected each population age group similarly, without revision.
- 37. The estimation methodology for WIC and SSBG involves sequentially calculating: (1) each state's percent share of population under the baseline 2020 scenario and the seven undercount scenarios; (2) each state's ratio of revised share to baseline share under each scenario; (3) each state's percent share of actual FY2016 grant spending; (4) each state's percent share of FY2016 grant spending under each scenario (by multiplying actual share by the ratio of revised population share to baseline population share); (5) each state's grant under each scenario by multiplying the revised share by the actual total FY2016 spending; and (6) the difference between the actual and revised state grant under each scenario.
- 38. The estimation methodology for Title I grants involves sequentially calculating: (1) each state's percent share of population under the baseline 2020 scenario and the seven undercount scenarios; (2) each state's ratio of revised share to baseline share under each

scenario; (3) each state's percent share of children ages 5-17 in poverty in FY2016; (4) each state's revised percent share of children ages 5-17 in poverty under each scenario (multiplying actual share by the ratio of revised population share to baseline population share); (5) each state's ratio of revised share of children ages 5-17 in poverty to baseline share under each scenario; (6) each state's percent share of actual FY2016 grant spending; (7) each state's percent share of FY2016 grant spending under each scenario (multiplying actual share by the ration of revised share of children ages 5-17 in poverty in FY2016 to actual share); (8) each state's grant under each scenario (multiplying the revised share by the actual total FY2016 spending); and (9) calculating the difference between the actual and revised state grant under each scenario.

39. The estimation methodology for the two FMAP-based programs involve, for each scenario, the sequential calculation of: (1) a revised 2010 Census count and 2010, 2011, and 2012 Population Estimates for each state by reducing the actual figures by the estimated undercount; (2) new state Per Capita Income (PCI) estimates for 2010, 2011, and 2012 by dividing actual state Personal Income by new population figures; (3) a new 2010-12 annual average PCI; (4) a new FY2015 FMAP based on that 3-year average PCI; (5) federal reimbursements to the state under new FMAP, based on actual FY2015 state Medicaid spending; and (6) the difference between actual and calculated federal reimbursement.

B. State-Share Programs

1. Supplemental Nutrition Program for Women, Infants, and Children (WIC)

40. The objective of WIC is to provide low-income pregnant, breastfeeding, and postpartum women, infants, and children to age 5 who have been determined to be at nutritional risk, supplemental nutritious foods, nutrition education, and referrals to health and social services at no cost. "Low-income" is defined as at or below 185 percent of the U.S. Poverty Income

Guidelines. State agencies have the option to limit WIC eligibility to U.S. citizens, nationals, and qualified aliens (as defined in the Immigration and Nationality Laws), although I am not aware of any that currently do so. Moreover, even if a state chose to limit WIC eligibility, that state would lose the same proportion of funding, making such a decision irrelevant to my opinions.

- 41. In 2016, 7.7 million people participated in WIC each month, on average—1.8 million women, 1.8 million infants, and 4.0 million children under 5. From FY2015 to FY2018, funding for WIC ranged between approximately \$6.5 and \$6.73 billion.
- 42. WIC provides funds to each state, which then delivers funds to local agencies. A local agency is eligible to apply to the state agency to deliver locally the services of the WIC Program, provided that: (1) it serves a population of low-income women, infants, and children at nutritional risk; and (2) it is a public or private nonprofit health or human service agency.
- 43. Two types of WIC grants are provided to each state. The first is for Nutrition Services and Administration (NSA) costs, to cover the costs of running the program and providing assistance services. The second is Supplemental Food. The formula for NSA grants is determined by a per participant formula, adjusted for inflation.
- 44. Once NSA grants are made, the remaining funds are allocated as Supplemental Food grants. They are apportioned by each state's share of the nationwide number of infants and children ages 1-4 at or below 185 percent of poverty, which is considered the "fair share target funding level," as defined at 7 C.F.R. 246.16 § (c)(3)(1)(a) and 7 C.F.R. § 246.7(c)(3). Department of Agriculture Food & Nutrition Services (FNS) regulations indicate that to extent funds are available, each state is to receive at least its prior year grant allocation; if funds continue to be available, each state's grant is adjusted for inflation in food costs; if funds continue to be available, each state receives funds up to its fair share target funding level.

- 45. In the fall of each year, FNS publishes a memo of "State-Level Estimates of Infants and Children [Ages 1-4] At or Below 185 Percent of Poverty" based on ACS data from the calendar year two years prior. The ACS in turn is reliant on the Decennial Census and the Population Estimates databases, as described earlier. FNS uses the census-derived Thrifty Food Plan to determine food cost inflation. That inflation is based on the Consumer Price Index (CPI) for specific food items. The food component of the CPI in turn is based on the Consumer Expenditure Survey, which is also dependent on decennial census results.
- 46. I have included below a table I created that reflects the states that would have been at risk of losing WIC Supplemental Food grant funding in FY2016 under one or more citizenship-question-induced undercount scenarios. Specifically, California, Texas, New York, New Jersey, Florida, Nevada, and Hawaii would lose funds under every scenario, while Maryland, Arizona, Massachusetts, Connecticut, and New Mexico would have been at risk of losing such funding under some but not other scenarios.
- 47. It is my opinion that if any of the undercount scenarios are realized in the 2020 Census and if current program allocation formulas and funding levels remain similar over time, such an undercount would cause many of these same states to lose money from this program in the 2020s at approximately the same order of magnitude as the losses set forth in the table below.

Change in Allocation of WIC Supplemental Food Grants due to Census Undercount, by State, FY2016

<i>y</i>				2% Unde	unt		5.8% Un	de	rcount		10% Und	lerc	ount	E	Survey experiment	
	F	Y2016 Grant	ı	loncitizens		Noncitizens+ Hispanics		Noncitizens		ncitizens+His panics	Noncitizens		Noncitizens+H spanics			reign-born + Hispanics
California	\$	778,052,924	\$	(2,090,283)	\$((3,582,364)	\$	\$ (6,254,893)		(10,565,314)	\$ (10,766,558		\$(18,486,439)		\$	(14,698,002)
Texas	\$	365,639,123	\$	(494,617)	\$((1,402,717)	\$	(1,463,543)	\$	(4,222,184)	\$	(2,460,209)	\$	(7,184,585)	\$	(3,540,578)
New York	\$	342,952,742	\$	(362,443)	\$	(382,861)	\$	(1,026,657)	\$	(1,173,021)	\$	(1,959,255)	\$	(1,804,855)	\$	(2,970,041)
New Jersey	\$	103,884,533	\$	(96,641)	\$	(120,515)	\$	(310,987)	\$	(355,322)	\$	(487,975)	\$	(653,466)	\$	(793,382)
Florida	\$	254,952,466	\$	(83,011)	\$	(356,265)	\$	(248,668)	\$	(1,131,030)	\$	(420,784)	\$	(1,865,725)	\$	(1,164,619)
Nevada	\$	35,824,012	\$	(46,206)	\$	(68,789)	\$	(143,393)	\$	(195,317)	\$	(241,042)	\$	(335,785)	\$	(273,593)
Hawaii	\$	22,350,031	\$	(8,995)	\$	(3,593)	\$	(21,799)	\$	(8,330)	\$	(36,887)	\$	(25,752)	\$	(170,691)
Maryland	\$	80,158,087	\$	(5,106)	\$	106,192	\$	2,707	\$	295,848	\$	(50,887)	\$	566,618	\$	125,876
District of Columbia	\$	10,372,394	\$	496	\$	14,205	\$	10,817	\$	48,820	\$	3,950	\$	73,320	\$	69,346
Arizona	\$	87,026,378	\$	1,544	\$	(154,542)	\$	2,938	\$	(474,478)	\$	33,139	\$	(815,714)	\$	(308,503)
Massachusetts	\$	57,517,885	\$	5,957	\$	37,889	\$	1,942	\$	95,425	\$	21,902	\$	170,154	\$	(86,209)
Washington	\$	102,828,615	\$	5,998	\$	93,732	\$	3,472	\$	275,059	\$	39,156	\$	515,533	\$	56,277
Rhode Island	\$	12,657,229	\$	7,382	\$	9,292	\$	25,973	\$	33,857	\$	43,384	\$	50,450	\$	32,825
Delaware	\$	11,135,384	\$	11,605	\$	22,616	\$	34,087	\$	63,723	\$	60,787	\$	113,042	\$	85,839
Wyoming	\$	5,880,608	\$	12,621	\$	16,367	\$	35,804	\$	45,600	\$	61,964	\$	83,870	\$	75,413
Connecticut	\$	32,304,745	\$	13,106	\$	5,450	\$	33,690	\$	20,777	\$	77,920	\$	29,172	\$	(48,419)
New Mexico	\$	31,477,655	\$	13,522	\$	(163,427)	\$	32,827	\$	(491,396)	\$	75,925	\$	(844,946)	\$	(337,010)

2. Social Services Block Grants

- 48. Social Services Block Grants are grants provided to each State that the State may use to provide services directed toward one of the following five goals specified in the law: (1) to prevent, reduce, or eliminate dependency; (2) to achieve or maintain self-sufficiency; (3) to prevent neglect, abuse, or exploitation of children and adults; (4) to prevent or reduce inappropriate institutional care; and (5) to secure admission or referral for institutional care when other forms of care are not appropriate. While each jurisdiction determines the services that it will provide, the Department of Health and Human Services has indicated that the most frequent service categories supported include child care, child welfare, disability services, case management services, and adult protective services.
- 49. In FY2014, about 30 million people received services supported at least partially by SSBG funds. In FY2017, \$1.574 billion in SSBG funds was distributed to the 50 states plus the District of Columbia. In FY2018, the amount was \$1.579 billion.
- 50. Funds are allocated based on each state's share of total population for the 50 states and the District of Columbia as determined by the Secretary of Health and Human

Services on the basis of the most recent data available from the Department of Commerce. Specifically, Population Estimates are used to determine each state's allocation of SSBG funds. The calculation of Populations Estimates is based on the Decennial Census and adjusted each year in part basis on international migration as calculated by the American Community Survey. As described earlier, the ACS is reliant on the Decennial Census and Population Estimates.

- 51. I have included below a table I created that reflects the states that would have been at risk of losing Social Services Block Grants funding in FY2016 under one or more citizenship-question-induced undercount scenarios. Specifically, California, Texas, New York, New Jersey, Florida, Nevada, Arizona, and Hawaii would lose funds under every scenario, while Maryland, Washington, Massachusetts, Illinois, Connecticut, New Mexico, and the District of Columbia would have been at risk of losing such funding under some but not other scenarios.
- 52. It is my opinion that if any of the undercount scenarios are realized in the 2020 Census and if current program allocation formulas and funding levels remain similar over time, such an undercount would cause many of these same states to lose money from this program in the 2020s at approximately the same order of magnitude as the losses set forth in the table below.

Change in Allocation of Social Services Block Grants due to Census Undercount, by State, FY2016

	-			2% Und	lerc	ount		5.8% Und	lerc	count	10% Undercount					Survey periment
	F	Y2016 Grant	N	Noncitizens		Noncitizens+ Hispanics		Noncitizens		oncitizens+ Hispanics	N	oncitizens	5.0.0	ncitizens+ Hispanics		reign-born Hispanics
California	\$	191,676,231	\$	(557,479)	ć	(952,261)	\$	(1,668,720)	-	(2,808,666)	¢	(2,871,237)	_	4,904,211)	_	3,904,405)
Texas	\$	134,505,064	\$	(211,835)	\$	(564,979)	-	(628,432)	_	(1,697,942)	_	(1,059,704)	. ,	2,889,588)	. ,	1,503,253)
New York	\$	96,931,926	\$	(123,983)	\$	(143,599)	_	(355,134)	\$	(436,720)		(665,351)	\$	(690,478)	-	(984,312)
Florida	\$	99,260,163	\$	(54,395)	\$	(174,931)	\$	(163,468)	\$	(547,936)	_	(278,559)	\$	(910,685)	\$	(602,373)
New Jersey	\$	43,863,741	\$	(50,555)	\$	(66,899)	\$	(160,705)	\$	(197,625)	\$	(256,588)	\$	(357,447)	\$	(400,615)
Nevada	\$	14,155,291	\$	(21,403)	\$	(32,344)	\$	(66,136)	\$	(92,504)	\$	(111,523)	\$	(158,909)	\$	(129,283)
Maryland	\$	29,410,899	\$	(8,416)	\$	28,200	\$	(18,777)	\$	76,410	\$	(52,702)	\$	152,497	\$	1,778
Arizona	\$	33,434,253	\$	(6,846)	\$	(71,571)	\$	(21,345)	\$	(218,492)	\$	(25,994)	\$	(375,337)	\$	(168,746)
Washington	\$	35,110,289	\$	(5,764)	\$	19,160	\$	(22,415)	\$	55,588	\$	(27,297)	\$	110,024	\$	(33,743)
Hawaii	\$	7,009,977	\$	(4,380)	\$	(3,688)	\$	(11,544)	\$	(10,242)	\$	(19,672)	\$	(21,174)	\$	(64,023)
Massachusetts	\$	33,269,517	\$	(3,957)	\$	9,748	\$	(21,240)	\$	18,912	\$	(25,866)	\$	36,006	\$	(99,945)
Illinois	\$	62,970,158	\$	(1,281)	\$	15,445	\$	23,299	\$	35,795	\$	14,922	\$	68,150	\$	3,807
District of Columbia	\$	3,291,627	\$	(575)	\$	3,303	\$	1,218	\$	11,892	\$	(2,559)	\$	17,067	\$	17,011
Rhode Island	\$	5,172,261	\$	1,865	\$	1,905	\$	7,130	\$	8,189	\$	11,720	\$	10,903	\$	5,596
New Mexico	\$	10,209,930	\$	2,114	\$	(56,721)	\$	3,778	\$	(170,329)	\$	12,777	\$	(292,647)	\$	(124,538)
Connecticut	\$	17,583,106	\$	3,220	\$	(3,461)	\$	6,506	\$	(7,848)	\$	22,004	\$	(17,040)	\$	(52,821)

3. Title I Grants to Local Education Agencies

- 53. Title I Grants are intended to help local educational agencies (LEAs) improve teaching and learning in high-poverty schools in particular for children failing, or most at-risk of failing, to meet challenging state academic standards.
- 54. The Title I program serves approximately 25 million students in more than 80 percent of school districts and nearly 60 percent of public schools. Total Title I funding ranged from approximately \$14.41 billion in FY2015 to \$15.43 billion in FY2018.
- 55. Title I, Part A funds are allocated through four separate formulas. All four formulas are based on a "formula child count," the number of children ages 5-17 from low-income families in each LEA. Other children counted for allocation purposes include children in families above the poverty line receiving Temporary Assistance for Needy Families, children in foster homes, and children in local institutions for neglected and delinquent children. Ninety-seven percent of the children calculated are from low-income families, with the remaining three percent from the other categories. Eligible LEAs receive funding based one or more of the formulas, but the final outcome of the Federal-State allocation process is a single Title I, Part A award to each qualifying LEA.
- 56. Three formulas are based primarily on the "formula child count" weighted by State per-pupil expenditures for education: (1) Basic Grants are awarded to school districts with at least 10 formula-counted children who make up more than 2 percent of their school-age population; (2) Concentration Grants provide additional funds to LEAs in which the number of formula-counted children exceeds 6,500 or 15 percent of the total school-age population; and (3) Targeted Grants weight child counts to make higher payments to school districts with high numbers or percentages of formula-counted children, such that an LEA must have at least 10

formula children counted for Basic Grant purposes, and the count of formula-counted children must equal at least 5 percent of the school age population.

- 57. The formula for Education Finance Incentive Grants (EFIG) also relies on the formula child count and then uses state-level "equity" and "effort" factors to make allocations to States that are intended to encourage States to spend more on education and to improve the equity of State funding systems. Once State allocations are determined, sub-allocations to the LEA level are based on a modified version of the Targeted Grants formula.
- 58. In FY2018, the distribution of total funding by formula was 41.7% to Basic Grants, 8.8% to Concentration Grants, 24.8% to Targeted Grants, and 24.8% to EFIG.
- 59. In determining allocations under each of the four formulas, the statute requires the use of annually updated Census Bureau estimates of the number of children from low-income families in each LEA. There is roughly a 2-year lag between the income year used for LEA poverty estimates and the fiscal year in which those estimates are used to make Title I allocations.
- 60. The Census Bureau annually prepares the Small Area Income and Poverty Estimates (SAIPE) for use in the allocation of Title I grants to LEAs. SAIPE makes estimates at the levels of state, county, and school district. Census-derived data sources for the estimation process include Population Estimates, the American Community Survey, and Personal Income (which in turn is based in part on the ACS). The ACS in turn is reliant on the Decennial Census and Population Estimates, as described earlier.
- 61. I have included below a table I created that reflects the states that would have been at risk of losing Title I funding in FY2016 under one or more citizenship-question-induced undercount scenarios. Specifically, California, Texas, New York, New Jersey, Florida, Nevada,

Arizona, and Hawaii would lose funds under every scenario, while Maryland, Washington, Massachusetts, Illinois, Connecticut, New Mexico, and the District of Columbia would have been at risk of losing such funding under some but not other scenarios.

62. It is my opinion that if any of the undercount scenarios are realized in the 2020 Census and if current program allocation formulas and funding levels remain similar over time, such an undercount would cause many of these same states to lose money from this program in the 2020s at approximately the same order of magnitude as the losses set forth in the table below.

Change in Allocation of Title I LEA Grants due to Census Undercount, by State, FY2016

				2% Unde	rco	unt		5.8% Und	dero	ount		10% Und	ero	ount	E	Survey xperiment
	1	FY2016 Grant	N	loncitizens	17.	ncitizens+ Hispanics	9	Noncitizens	No	ncitizens+His panics	Noncitizens		Noncitizens+Hi spanics			reign-born + Hispanics
California	\$	1,749,000,363	\$	(5,061,429)	\$ (8,602,665)	\$	(15,156,803)	\$	(25,354,554)	\$	(26,064,976)	\$	(44,324,181)	\$	(35,438,356)
Texas	\$	1,367,579,292	\$	(2,133,924)	\$ (5,676,736)	\$	(6,334,720)	\$	(17,049,234)	\$	(10,668,701)	\$	(29,045,687)	\$	15,135,605)
New York	\$	1,140,729,371	\$	(1,442,467)	\$ (1,633,317)	\$	(4,133,535)	\$	(4,959,015)	\$	(7,741,718)	\$	(7,842,955)	\$	11,459,559)
Florida	\$	802,560,933	\$	(428,107)	\$1	1,374,578)	\$	(1,289,421)	\$	(4,303,467)	\$	(2,189,840)	\$	(7,164,700)	\$	(4,782,717)
New Jersey	\$	343,129,691	\$	(390,474)	\$	(506,296)	\$	(1,243,361)	\$	(1,491,664)	\$	(1,980,586)	\$	(2,711,185)	\$	(3,096,469)
Nevada	\$	120,121,711	\$	(179,873)	\$	(268,518)	\$	(556,412)	\$	(766,029)	\$	(937,088)	\$	(1,318,841)	\$	(1,084,002)
Arizona	\$	344,902,908	\$	(65,589)	\$	(721,211)	\$	(206,305)	\$	(2,199,482)	\$	(241,270)	\$	(3,786,760)	\$	(1,703,025)
Maryland	\$	206,626,467	\$	(56,116)	\$	208,396	\$	(123,595)	\$	569,736	\$	(354,168)	\$	1,123,237	\$	35,215
Washington	\$	242,701,346	\$	(36,303)	\$	144,514	\$	(145,173)	\$	422,880	\$	(169,777)	\$	821,342	\$	(206,587)
Hawaii	\$	49,903,423	\$	(30,455)	\$	(23,779)	\$	(80,176)	\$	(64,995)	\$	(136,165)	\$	(138,311)	\$	(450,338)
Massachusetts	\$	238,963,767	\$	(24,935)	\$	81,899	\$	(142,937)	\$	173,834	\$	(167,162)	\$	318,361	\$	(691,668)
District of Columbia	\$	44,194,532	\$	(7,074)	\$	46,550	\$	18,134	\$	166,713	\$	(30,915)	\$	240,245	\$	233,283
Illinois	\$	682,473,823	\$	(3,927)	\$	201,323	\$	280,035	\$	496,466	\$	214,972	\$	909,229	\$	116,312
Rhode Island	\$	50,810,547	\$	19,064	\$	21,244	\$	72,090	\$	88,532	\$	119,101	\$	119,822	\$	60,569
Connecticut	\$	121,022,224	\$	23,928	\$	(17,808)	\$	49,658	\$	(34,792)	\$	160,900	\$	(87,094)	\$	(350,292)
New Mexico	\$	127,689,674	\$	28,295	\$	(703,060)	\$	52,394	\$	(2,110,260)	\$	169,764	\$	(3,628,997)	\$	(1,543,649)

C. FMAP Programs

1. Medical Assistance Program (Medicaid)

63. Medicaid is a program designed to provide financial assistance to States for payments of medical assistance on behalf of cash assistance recipients, children, pregnant women, and the aged who meet income and resource requirements, and other categorically-eligible groups. In certain States that elect to provide such coverage, medically-needy persons, who, except for income and resources, would be eligible for cash assistance, may be eligible for medical assistance payments under this program. Financial assistance is provided to States to pay

for Medicare premiums, copayments and deductibles of qualified Medicare beneficiaries meeting certain income requirements.

- 64. Under "Traditional Medicaid," eligible persons include low-income persons who are over age 65, blind or disabled, members of families with dependent children, low- income children and pregnant women, certain Medicare beneficiaries and, in many States, medically-needy individuals who may apply to a State or local welfare agency for medical assistance. This part of the program is discussed here is Traditional Medicaid. Although certain states have adopted "Expansion Medicaid," such payments to states are reimbursed at a flat rate which is not tethered to FMAP, and I therefore do not discuss this aspect of Medicaid here.
- 65. Total federal reimbursement to states in FY2015 for Medicaid expenditures was \$328.7 billion; \$259.9 billion was for Traditional Medicaid. On the basis of CMS data published to date for the first three quarters of FY2016, I estimate corresponding figures for all of FY2016 to be \$339.5 billion in total, of which \$263.2 billion is for Traditional Medicaid.
- 66. States are reimbursed for expenditures by a formula based on the FMAP, as defined at 42 U.S.C. § 1396(d), which "for any State shall be 100 per centum less the State percentage; and the State percentage shall be that percentage which bears the same ratio to 45 per centum as the square of the per capita income of such State bears to the square of the per capita income of the continental United States (including Alaska) and Hawaii; except that (1) the Federal medical assistance percentage shall in no case be less than 50 per centum or more than 83 per centum "Shown symbolically, the formula is:

$$FMAP_{state} = 1 - ((Per capita income_{state})^2/(Per capita income_{U.S.})^2 * 0.45)$$

The Per Capita Income (PCI) figure is the average for the three most recently available years of data.

- 67. The annual FMAP for each state is prepared by the Department of Health & Human Services Office of the Assistant Secretary for Planning and Evaluation and published in the Federal Register. Each state's FMAP is determined by the formula above using the three-year average PCI prepared by the U.S. Bureau of Economic Analysis ("BEA").
- 68. BEA calculates annual state PCI by estimating total state Personal Income and dividing by the state Population Estimates. The calculation of state Personal Income relies on the American Community Survey in several ways, primarily for the conversion of work earnings from "place of work" to "place of residence" on the basis of ACS commuting data. Populations Estimates is based on the Decennial Census and adjusted each year in part using international inmigration from the ACS. The ACS, in turn, relies on the Decennial Census and Population Estimates as described earlier.
- 69. For the purposes of analyzing the impact of various undercount scenarios, I have held state Personal Income constant (that is, unaffected by an undercount) and varied only the state Population Estimate.
- 70. I have included below two tables I created. The first table reflects the states that would have been at risk for a decrease in their FMAP percentage in FY2015 under one or more citizenship-question-induced undercount scenarios. The second table reflects the states that, because of a decrease in their FMAP percentage, would have been at risk of losing Medicaid funding in FY2015 under one or more citizenship-question-induced undercount scenarios. Specifically, Texas, Florida, Nevada, Arizona, and Hawaii would lose funds under every scenario, while Washington and Illinois would have been at risk of losing such funding under some but not other scenarios.

71. It is my opinion that if any of the undercount scenarios are realized in the 2020 Census and if current program allocation formulas and funding levels remain similar over time, such an undercount would cause many of these same states to lose money from this program in the 2020s at approximately the same order of magnitude as the losses set forth in the second table below.

Estimated Change in FMAP and Traditional Medicaid Reimbursement Under Undercount Scenarios, for Losing States, FY2015

Change in 2015 FMAP

				Change	111 201	וחועווי			
_		2% Und	lercount	5.8% Un	dercount	10% Und	Survey Experim ent		
	2015 FMAP	Noncitiz ens	Noncitiz ens+His panics	Noncitiz	Noncitiz ens+His panics	Noncitiz	Noncitiz ens+His panics	born +	
Texas	58.05	-0.13	-0.35	-0.39	-1.07	-0.66	-1.85	-0.95	
Florida	59.72	-0.05	-0.14	-0.13	-0.44	-0.23	-0.74	-0.49	
Nevada	64.36	-0.11	-0.16	-0.33	-0.46	-0.56	-0.80	-0.65	
Washington	50.03	-0.02	0.06	-0.03	0.17	-0.03	0.33	-0.03	
Arizona	68.46	-0.02	-0.14	-0.04	-0.41	-0.05	-0.71	-0.32	
Hawaii	52.23	-0.06	-0.05	-0.16	-0.13	-0.27	-0.28	-0.88	
Illinois	50.76	0.00	0.03	0.04	0.06	0.03	0.12	0.01	

Change in Federal Reimbursements for Traditional Medicaid FY2015

	4	change in reactal nembalsements for frauditional medicard (12015													
	2% Undercount					5.8% Un	der	count		10% Un		Survey Experiment			
	ı	Noncitizens	Noncitizens+His panics			Noncitizens	Noncitizens+Hisp anics			Noncitizens		ncitizens+Hisp anics	Fo	oreign-born + Hispanics	
Texas	\$ (46,298,126) \$		\$ (124,233,542)		\$	(138,130,253)	\$	(378,335,964)	\$	(234,096,746)	\$	(652,607,659)	\$	(333,951,695)	
Florida	\$	(9,972,305)	\$	(30,266,951)	\$	(28,146,516)	\$	(93,426,846)	\$	(47,394,446)	\$	(155,398,717)	\$	(102,917,477)	
Nevada	\$	(2,344,244)	\$	(3,516,574)	\$	(7,232,461)	\$	(10,072,932)	\$	(12,238,569)	\$	(17,408,753)	\$	(14,190,472)	
Washington	\$	(1,391,329)	\$	4,321,746	\$	(2,353,501)	\$	12,945,894	\$	(2,353,501)	\$	25,576,794	\$	(2,353,501)	
Arizona	\$	(1,307,532)	\$	(11,536,840)	\$	(3,465,575)			(60,086,121)	\$	(26,822,125)				
Hawaii	\$	(927,131)	\$	(758,559)	\$	(2,350,419)	\$	(2,002,690)	\$	(3,974,181)	\$	(4,139,881)	\$	(13,133,536)	
Illinois	\$	(358,433)	\$	3,616,936	\$	5,485,090	\$	9,043,655	\$	4,042,437	\$	17,203,982	\$	1,919,407	

2. State Children's Health Insurance Program (CHIP)

- 72. The purpose of CHIP is to provide funds to States to enable them to maintain and expand child health assistance to uninsured, low-income children, and at a state option, low-income pregnant women and immigrants with legal status. It seeks to do so primarily by three methods: (1) helping the relevant individuals obtain adequate health insurance coverage; (2) expand eligibility for children under the State's Medicaid program; and (3) reduce the number of children eligible for Medicaid, CHIP, and insurance affordability programs under the Affordable Care Act who are not enrolled and improve retention of those who are already enrolled.
- 73. Eligible beneficiaries are children who have been determined eligible by the State for child health assistance under their State plan, which are low-income children not covered under a group health plan or under other health insurance coverage.
- 74. In 2017, 9.4 million children were enrolled in CHIP. In recent years, CHIP funding has ranged from approximately \$11.1 billion in FY2015 to approximately \$16.8 billion in FY2018, with funding set to \$25.9 billion in FY2022.
- 75. CHIP has two allocation formulas. The first determines each state's allotment of the total federal contribution to CHIP. The second determines the rate (enhanced FMAP) at which state CHIP expenditures are reimbursed by the federal government. Both are census-derived.
- 76. In terms of the state allotment formula (found at 42 C.F.R. § 457.609), there are two formulas for determining state allotments: an even-year formula and an odd-year formula. As explained by the Congressional Research Service, in "even years, state CHIP allotments are each state's allotment for the prior year plus any Child Enrollment Contingency Fund payments

² Congressional Research Service, "Federal Financing for the State Children's Health Insurance Program (CHIP)," R43949, May 23, 2018, p. 7, available at https://fas.org/sgp/crs/misc/R43949.pdf.

from the previous year adjusted for [percent] growth in per capita National Health Expenditures and child population in the state. In odd years, state CHIP allotments are each state's spending for the prior year (including federal CHIP payments from the state CHIP allotment, payments from the Child Enrollment Contingency Fund, and redistribution funds) adjusted using the same [percent] growth factor as the even-year formula (i.e., per capita National Health Expenditures growth and child population growth in the state)."

- 77. In terms of the state reimbursement formula, States are reimbursed for CHIP expenditures according to an Enhanced FMAP (E-FMAP). The E-FMAP is based on the FMAP plus 30 percent of the state share (100 minus FMAP). So, for instance, if a state FMAP is 60, its share is 40 and 30 percent of that share is 12, making its E-FMAP is 72. For FY2016-2019, each state's E-FMAP equals its FMAP plus a flat 23 percentage points (up to 100). For FY2020, each state's E-FMAP equals its FMAP plus a flat 11.5 percentage points. In FY2021, the E-FMAP formula reverts to FMAP plus 30 percent of state share.
- 78. The state allotment formula relies on the Decennial Census in several ways. National Health Expenditures (NHE) is based in part on the Consumer Expenditure Survey. Per capita NHE is calculated through dividing NHE by Population Estimates. The Child Population Growth Factor is determined on the basis of Population Estimates.
- 79. The E-FMAP is determined by a formula using the three-year average Per Capita Income (PCI) prepared by the U.S. Bureau of Economic Analysis. BEA calculates annual state PCI by estimating total state Personal Income and dividing by the state Population Estimates. The calculation of state Personal Income relies on the American Community Survey in several ways, primarily for the conversion of work earnings from "place of work" to "place of residence" on the basis of ACS commuting data. Populations Estimates is based on the

Decennial Census and adjusted each year in part using international in-migration from the ACS.

The ACS, in turn, relies on the Decennial Census and Population Estimates as described earlier.

- 80. In my analysis, I examine only the impact of various undercount scenarios on each state's E-FMAP.
- 81. I have included below two tables I created. The first table reflects the states that would have been at risk for a decrease in their adjusted E-FMAP percentage in FY2015 under one or more citizenship-question-induced undercount scenarios. The second table reflects the states that, because of a decrease in their adjusted E-FMAP percentage, would have been at risk of losing CHIP funding in FY2015 under one or more citizenship-question-induced undercount scenarios. Specifically, Texas, Florida, Nevada, Arizona, Hawaii, and New Mexico would lose funds under every scenario, while Washington, Georgia, Oregon, and Utah would have been at risk of losing such funding under some but not other scenarios.
- 82. It is my opinion that if any of the undercount scenarios are realized in the 2020 Census and if current program allocation formulas and funding levels remain similar over time, such an undercount would cause many of these same states to lose money from this program in the 2020s at approximately the same order of magnitude as the losses set forth in the second table below.

Estimated Change in E-FMAP and Children's Health Insurance Program Under Undercount Scenarios, for Losing States, FY2015

Adjusted E-FMAP

		2% Und	lercount	5.8% Un	dercount	10% Und	Survey Experimen t	
	Actual	Noncitiz ens	Noncitiz ens+Hisp anics	Noncitiz ens	Noncitiz ens+Hisp anics	Noncitiz ens	Noncitiz ens+Hisp anics	Foreign- born + Hispanics
Texas	70.64	78.38	78.45	78.53	78.75	78.70	79.08	78.95
Florida	71.80	65.00	65.00	65.00	65.00	65.00	65.00	65.00
Washington	65.02	77.91	77.83	77.89	77.63	77.89	77.42	77.70
Nevada	75.05	79.67	79.73	79.79	79.97	79.91	80.24	80.15
Hawaii	66.56	65.00	65.00	65.00	65.00	65.00	65.00	65.00
Arizona	77.92	65.74	65.69	65.80	65.68	65.87	65.58	65.79
Georgia	76.86	65.00	65.00	65.00	65.00	65.00	65.00	65.00
New Mexico	78.76	67.60	67.65	67.70	67.85	67.82	68.08	67.95
Oregon	74.84	79.00	79.00	79.00	79.00	79.00	79.00	79.00
Utah	79.39	71.77	71.70	71.71	71.49	71.65	71.29	71.46

Change in Federa	Reimbursements	for CHIP FY2015
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		2% Und	erc	ount	5.8% Undercount					10% Un	count	ı	Survey Experiment	
	Noncitizens		Noncitizens+His panics		Noncitizens		Noncitizens+Hisp anics		Noncitizens		No	ncitizens+Hisp anics	Fo	reign-born + Hispanics
Texas	\$	(1,890,728)	\$	(4,338,995)	\$	(5,507,845)	\$	(12,993,142)	\$	(9,339,362)	\$	(22,208,871)	\$	(13,274,882)
Florida	\$	(457,077)	\$	(1,050,223)	\$	(1,394,200)	\$	(3,264,286)	\$	(2,409,357)	\$	(5,429,784)	\$	(4,370,082)
Washington	\$	(74,273)	\$	13,059	\$	(196,142)	\$	38,287	\$	(312,553)	\$	137,204	\$	(428,112)
Nevada	\$	(59,541)	\$	(85,837)	\$	(185,043)	\$	(249,575)	\$	(316,424)	\$	(426,405)	\$	(390,925)
Hawaii	\$	(48,066)	\$	(47,498)	\$	(132,056)	\$	(133,618)	\$	(226,636)	\$	(247,537)	\$	(565,739)
Arizona	\$	(41,472)	\$	(137,941)	\$	(125,602)	\$	(417,512)	\$	(203,425)	\$	(711,030)	\$	(470,878)
Georgia	\$	(36,072)	\$	259,355	\$	(140,644)	\$	800,115	\$	(286,758)	\$	1,300,910	\$	305,329
New Mexico	\$	(23,881)	\$	(261,568)	\$	(76,189)	\$	(787,603)	\$	(106,675)	\$	(1,363,096)	\$	(713,168)
Oregon	\$	(1,896)	\$	65,793	\$	(45,421)	\$	196,038	\$	28,657	\$	351,192	\$	99,675
Utah	\$	(1,126)	\$	9,359	\$	3,152	\$	25,618	\$	(22,267)	\$	49,284	\$	43,766

V. Conclusion

83. In sum, it is my opinion, held to a strong degree of professional certainty, that for programs with allocation formulas based on a state's population or PCI relative to the nation, and assuming allocation formulas remain geographically tied, a disparate Decennial Census undercount among noncitizens, the foreign-born, and Hispanics would lead to measurable fiscal losses for those states with percentages of those groups above the nationwide average.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on: $\frac{10/23}{\text{Washington, DC}}$, 2018