

APPENDIX

Profile of WIC Modeled Eligibility and Participation in Colorado, 2013:
Evidence from Administrative Records and the American Community Survey

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Prepared by:
The Center for Administrative Records Research and Applications
U.S. Census Bureau

The tables provided below comprise an appendix to the table package titled “Profile of WIC Modeled Eligibility and Participation in Colorado, 2013: Evidence from Administrative Records and the American Community Survey,” which is being delivered concurrently to the Colorado Department of Public Health and Environment in May 2017. As with the rates and distributions provided in the table package, the estimates below are constructed using administrative records from the Colorado Women, Infants, and Children program (WIC AR) linked to data from the American Community Survey (ACS). Specifically, we include: 1) estimated number of infants and children eligible for WIC benefits, 2) estimated number of infants and children participating in the WIC program, and 3) estimated number of women participating in the WIC program. We provide estimates for the state total, by demographic and economic characteristics, and by county. The estimates for infants and children correspond to the numerators in the formulas described in the table package for estimated rates of eligibility and participation. Likewise, estimates for women participants correspond to the numerator for the estimated number of women participants per 1,000 population.

It is important to note that estimates should be interpreted only as approximations of the number of people who are eligible for or are participating in the WIC program. We model WIC eligibility using information available in the ACS, which may not perfectly align with information used in practice to determine eligibility. In addition, the estimates are based on a sample of the Colorado population, not on all people eligible for or participating in the WIC program. We use ACS sampling weights to estimate the household population of eligible and participating individuals (which excludes those residing in Group Quarters). We adjust the weights for the likelihood that an ACS respondent could be assigned a unique identification key that allows us to link individual records across data sources.

Because the estimates are derived from a sample (i.e. the ACS), there is uncertainty in how well they reflect true counts in the population. The tables therefore include margins of error (95% confidence) to reflect this uncertainty. For a given sample point estimate, the margin of error can be interpreted as representing a range of values that the true population value is likely to fall under, at a 95% level of confidence. For example, if we obtained a sample point estimate of 1,000 individuals eligible for WIC benefits, with a margin of error plus or minus 50, we can be 95% certain that the true population of eligible people is somewhere between 950 and 1,050.¹

¹ Technically, we would expect this value to fall within this range in 95% of all possible samples, assuming we were able to conduct an unlimited number of random samples.

Appendix Table 1a. Estimated Number of Infants and Children Eligible for or Participating in the Colorado WIC Program by Infant and Child Characteristics, 2013

	Estimated Eligible		Estimated Participants	
	Total	ME	Total	ME
Total	172,441	(±6,559)	100,803	(±6,878)
Age				
0	32,669	(±3,800)	20,741	(±2,911)
1	36,315	(±4,000)	24,167	(±3,795)
2	36,182	(±3,499)	23,008	(±3,204)
3	34,453	(±4,366)	18,300	(±3,312)
4	32,823	(±3,212)	14,587	(±2,505)
Race / Hispanic Origin				
Non-Hispanic White alone	67,433	(±5,150)	33,591	(±4,340)
Non-Hispanic Black alone	10,414	(±1,839)	6,831	(±1,928)
Non-Hispanic AIAN* alone	1,157	(±628)	.	.
Non-Hispanic Asian alone	2,326	(±1,061)	1,495	(±788)
Other Non-Hispanic	8,556	(±2,108)	4,380	(±1,673)
Hispanic	82,555	(±4,679)	54,141	(±4,804)
Migration in Past Year				
No Migration or Age 0	133,479	(±6,333)	77,432	(±5,941)
Intra-State Migration	32,616	(±4,063)	20,758	(±3,627)
Inter-State or Intl Migration	6,346	(±1,891)	2,613	(±1,404)

Sources: Colorado WIC administrative records (2012-2013) linked to 1-year American Community Survey data (2013). Note: A margin of error (95%) for each estimate is provided in parentheses in the column labeled ME. A "." in a given cell denotes sample size for that cell does not meet minimum size requirements for disclosure. * American Indian or Alaska Native

Appendix Table 1b. Estimated Number of Infants and Children Eligible for or Participating in the Colorado WIC Program by Parent Characteristics, 2013

	Estimated Eligible		Estimated Participants	
	Total	ME	Total	ME
Total	172,441	(±6,559)	100,803	(±6,878)
Age				
<25	39,584	(±4,830)	25,706	(±3,526)
25 to 34	88,442	(±6,970)	51,993	(±5,900)
35 to 44	35,023	(±4,202)	17,130	(±3,779)
45+	9,392	(±2,117)	5,974	(±1,740)
Sex				
Male	68,639	(±6,124)	40,987	(±5,020)
Female	103,802	(±6,616)	59,816	(±5,478)
Marital Status				
Married	97,692	(±7,290)	56,098	(±6,501)
Widowed, Divorced, Separated	22,262	(±3,730)	11,491	(±2,457)
Never Married	52,487	(±5,148)	33,213	(±3,781)
Education				
Less Than HS Diploma	39,285	(±5,344)	24,724	(±4,252)
High School Diploma	44,072	(±5,089)	26,986	(±4,289)
Some College	64,783	(±5,592)	38,385	(±4,739)
Bachelor Degree or Higher	24,300	(±4,184)	10,708	(±3,019)
Employment Status				
Employed	116,418	(±6,449)	69,786	(±5,423)
Unemployed	11,604	(±2,363)	6,261	(±1,851)
Not in Labor Force	44,190	(±5,666)	24,527	(±4,371)
Health Insurance				
Private Only	58,413	(±5,202)	30,373	(±4,669)
Public Only	58,384	(±6,029)	37,092	(±4,326)
Public & Private	11,167	(±2,563)	6,219	(±1,952)
None	44,478	(±5,043)	27,119	(±3,880)
Nativity / Citizenship				
Native Born	130,044	(±5,938)	72,244	(±5,652)
Foreign Born, Citizen	9,215	(±2,649)	5,814	(±2,267)
Foreign Born, Not Citizen	33,182	(±4,271)	22,745	(±3,888)
English Language Skills				
Speaks Only English or Well	157,359	(±6,535)	90,433	(±6,467)
Does Not Speak English or Not Well	15,082	(±3,342)	10,370	(±2,935)

Sources: Colorado WIC administrative records (2012-2013) linked to 1-year American Community Survey data (2013). Note: A margin of error (95%) for each estimate is provided in parentheses in the column labeled ME. A "." in a given cell denotes sample size for that cell does not meet minimum size requirements for disclosure.

Appendix Table 1c. Estimated Number of Infants and Children Eligible for or Participating in the Colorado WIC Program by Household Characteristics, 2013

	Estimated Eligible		Estimated Participants	
	Total	ME	Total	ME
Total	172,441	(±6,559)	100,803	(±6,878)
Family Income below Federal Poverty Thresholds				
<=100% Poverty Threshold	62,833	(±5,799)	36,500	(±4,443)
100<=145% Poverty Threshold	39,304	(±4,584)	23,773	(±3,958)
145<=185% Poverty Threshold	27,789	(±4,694)	14,827	(±3,348)
>185% Poverty Threshold	42,515	(±4,792)	25,702	(±3,648)
Size				
2-3 persons	45,094	(±4,726)	25,524	(±3,451)
4 persons	50,733	(±6,205)	30,415	(±5,261)
5 persons	37,362	(±4,653)	23,135	(±3,827)
6+ persons	39,252	(±4,195)	21,729	(±3,062)
Structure Type				
Married Couple	84,371	(±7,119)	49,602	(±6,481)
Single Parent	38,708	(±4,227)	22,426	(±3,301)
Single w/ Partner	19,643	(±3,791)	11,716	(±2,727)
Other	29,719	(±3,968)	17,059	(±3,173)
Locale Type				
Urban	156,648	(±6,540)	91,972	(±6,802)
Rural	15,793	(±2,420)	8,831	(±1,989)
Military / Veteran Status of Occupants				
Not Active Military or Veteran	150,059	(±6,002)	86,848	(±5,595)
Active Military or Veteran	22,382	(±3,141)	13,955	(±3,394)

Sources: Colorado WIC administrative records (2012-2013) linked to 1-year American Community Survey data (2013). Note: A margin of error (95%) for each estimate is provided in parentheses in the column labeled ME. A "." in a given cell denotes sample size for that cell does not meet minimum size requirements for disclosure.

Appendix Table 2a. Estimated Number of Women Participating in the Colorado WIC Program by Women's Characteristics, 2013

	Estimated Participants	
	Total	ME
Total	65,621	(±6,647)
Age		
<25	25,296	(±3,892)
25 to 34	29,406	(±4,532)
35 to 44	9,354	(±2,589)
45+	1,565	(±1,244)
Race / Hispanic Origin		
Non-Hispanic White alone	26,864	(±3,837)
Non-Hispanic Black alone	6,056	(±1,802)
Non-Hispanic AIAN* alone	.	.
Non-Hispanic Asian alone	1,143	(±699)
Other Non-Hispanic	1,420	(±1,017)
Hispanic	29,934	(±3,769)
Migration in Past Year		
No Migration or Age 0	38,661	(±4,815)
Intra-State Migration	25,510	(±4,627)
Inter-State or Intl Migration	1,450	(±916)
Marital Status		
Married	28,575	(±4,366)
Widowed, Divorced, Separated	7,241	(±2,187)
Never Married	29,805	(±4,632)
Education		
Less Than HS Diploma	17,617	(±3,296)
High School Diploma	18,002	(±3,678)
Some College	24,584	(±3,345)
Bachelor Degree or Higher	5,418	(±1,563)
Employment Status		
Employed	32,198	(±4,567)
Unemployed	5,309	(±1,827)
Not in Labor Force	28,114	(±4,244)
Health Insurance		
Private Only	16,550	(±2,556)
Public Only	31,394	(±4,834)
Public & Private	3,272	(±1,434)
None	14,405	(±2,970)
Nativity / Citizenship		
Native Born	50,964	(±6,227)
Foreign Born, Citizen	3,241	(±1,159)
Foreign Born, Not Citizen	11,416	(±2,627)
English Language Skills		
Speaks Only English or Well	59,152	(±6,183)
Does Not Speak English or Not Well	6,469	(±2,246)

Sources: Colorado WIC administrative records (2012-2013) linked to 1-year American Community Survey data (2013). Note: A margin of error (95%) for each estimate is provided in parentheses in the column labeled ME. A "." in a given cell denotes sample size for that cell does not meet minimum size requirements for disclosure.

Appendix Table 2b. Estimated Number of Women Participating in the Colorado WIC Program by Household Characteristics, 2013

	Estimated Participants	
	Estimate	ME
Total	65,621	(±6,647)
Family Income below Federal Poverty Thresholds		
≤100% Poverty Threshold	29,348	(±4,240)
100<=145% Poverty Threshold	11,395	(±2,280)
145<=185% Poverty Threshold	6,046	(±1,864)
>185% Poverty Threshold	18,831	(±3,228)
Size		
1-3 persons	20,834	(±3,897)
4 persons	18,129	(±3,677)
5 persons	13,255	(±3,074)
6+ persons or GQ	13,403	(±2,857)
Structure Type		
Married Couple	27,005	(±4,016)
Single Parent	16,720	(±3,182)
Single w/ Partner	7,402	(±2,256)
Other	14,494	(±2,726)
Locale Type		
Urban	59,068	(±5,816)
Rural or Group Quarters	6,553	(±1,888)
Military / Veteran Status of Occupants		
Not Active Military or Veteran	56,051	(±5,673)
Active Military or Veteran	9,570	(±2,707)

Sources: Colorado WIC administrative records (2012-2013) linked to 1-year American Community Survey data (2013). Note: A margin of error (95%) for each estimate is provided in parentheses in the column labeled ME. A "." in a given cell denotes sample size for that cell does not meet minimum size requirements for disclosure.

Appendix Table 3. Average Annual Estimated Number of Infants and Children Eligible for or Participating in the Colorado WIC Program by County, 2013 – 2014

	Estimated Eligible		Estimated Participants	
	Estimate	ME	Estimate	ME
State Total	174,074	(±4,556)	98,822	(±4,837)
County				
Adams	23,061	(±1,662)	14,943	(±1,561)
Alamosa	922	(±403)	458	(±260)
Arapahoe	21,853	(±1,612)	12,238	(±1,636)
Archuleta	485	(±313)	.	.
Baca	.	.	.	.
Bent	368	(±188)	.	.
Boulder	6,677	(±965)	3,622	(±792)
Broomfield	675	(±311)	344	(±262)
Chaffee	.	.	.	.
Cheyenne	.	.	.	.
Clear Creek	238	(±194)	.	.
Conejos	678	(±219)	367	(±150)
Costilla	.	.	.	.
Crowley	.	.	.	.
Custer	.	.	.	.
Delta	799	(±407)	343	(±256)
Denver	25,737	(±1,741)	13,939	(±1,772)
Dolores	.	.	.	.
Douglas	3,672	(±906)	829	(±400)
Eagle	.	.	.	.
El Paso	25,296	(±2,173)	15,934	(±1,889)
Elbert	410	(±193)	219	(±137)
Fremont	1,237	(±344)	812	(±409)
Garfield	2,025	(±689)	991	(±584)
Gilpin	.	.	.	.
Grand	.	.	.	.
Gunnison	663	(±403)	.	.
Hinsdale	.	.	.	.
Huerfano
Jackson
Jefferson	11,184	(±1,137)	5,518	(±1,133)
Kiowa
Kit Carson	438	(±182)	350	(±205)

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Sources: 2013-2014 ACS linked with 2012-2014 WIC Administrative Records. Note: A margin of error (95%) for each estimate is provided in parentheses in the column labeled ME. A "." in a given cell denotes sample size for that cell does not meet minimum size requirements for disclosure. State total eligibility and participation estimates and their respective margins of error above correspond to the average over 2013-2014 and thus may differ from the estimates and MEs stated in Appendix Tables 1a-1c.

Appendix Table 3 (continued). Average Annual Estimated Number of Infants and Children Eligible for or Participating in the Colorado WIC Program by County Agency, 2013 – 2014

	Estimated Eligible		Estimated Participants	
	Estimate	ME	Estimate	ME
State Total	174,074	(±4,556)	98,822	(±4,837)
County				
La Plata	1,181	(±400)	562	(±280)
Lake	.	.	.	.
Larimer	7,900	(±1,380)	3,290	(±989)
Las Animas	504	(±204)	.	.
Lincoln	.	.	.	.
Logan	1,004	(±278)	801	(±347)
Mesa	6,157	(±1,051)	3,795	(±1,056)
Mineral	.	.	.	.
Moffat	.	.	.	.
Montezuma	976	(±484)	472	(±409)
Montrose	1,535	(±339)	1,281	(±343)
Morgan	1,501	(±442)	1,195	(±433)
Otero	1,198	(±354)	852	(±325)
Ouray	.	.	.	.
Park	.	.	.	.
Phillips	.	.	.	.
Pitkin	.	.	.	.
Prowers	484	(±224)	301	(±172)
Pueblo	7,864	(±817)	5,161	(±803)
Rio Blanco	127	(±146)	.	.
Rio Grande	760	(±352)	543	(±362)
Routt	312	(±310)	.	.
Saguache	.	.	.	.
San Juan	.	.	.	.
San Miguel	.	.	.	.
Sedgwick	.	.	.	.
Summit	.	.	.	.
Teller	240	(±201)	.	.
Washington	215	(±192)	.	.
Weld	10,487	(±974)	5,481	(±1,068)
Yuma	1,182	(±641)	658	(±471)

Sources: 2013-2014 ACS linked with 2012-2014 WIC Administrative Records. Note: A margin of error (95%) for each estimate is provided in parentheses in the column labeled ME. A "." in a given cell denotes sample size for that cell does not meet minimum size requirements for disclosure. State total eligibility and participation estimates and their respective margins of error above correspond to the average over 2013-2014 and thus may differ from the estimates and MEs stated in Appendix Tables 1a-1c.