

APPENDIX

Profile of WIC Modeled Eligibility and Participation in Colorado, 2014:
Evidence from Administrative Records and the American Community Survey

June 2017



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The tables provided below comprise an appendix to the table package titled “Profile of WIC Modeled Eligibility and Participation in Colorado, 2014: 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, 2014

	Estimated Eligible		Estimated Participants	
	Total	ME	Total	ME
Total	175,706	(±7,371)	96,841	(±6,783)
Age				
0	33,631	(±3,706)	22,749	(±3,047)
1	34,917	(±4,197)	21,688	(±3,248)
2	37,585	(±3,938)	21,630	(±3,067)
3	33,733	(±3,499)	16,015	(±2,555)
4	35,840	(±3,529)	14,759	(±2,801)
Race / Hispanic Origin				
Non-Hispanic White alone	69,716	(±5,145)	31,791	(±3,587)
Non-Hispanic Black alone	11,236	(±2,130)	8,179	(±2,274)
Non-Hispanic AIAN* alone	1,723	(±765)	802	(±471)
Non-Hispanic Asian alone	3,899	(±1,494)	1,461	(±802)
Other Non-Hispanic	7,976	(±1,917)	4,807	(±1,485)
Hispanic	81,156	(±4,474)	49,801	(±4,607)
Migration in Past Year				
No Migration or Age 0	133,865	(±7,156)	74,393	(±6,283)
Intra-State Migration	34,728	(±4,539)	20,062	(±3,394)
Inter-State or Intl Migration	7,113	(±2,126)	2,386	(±1,462)

Sources: Colorado WIC administrative records (2013-2014) linked to 1-year American Community Survey data (2014). 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, 2014

	Estimated Eligible		Estimated Participants	
	Total	ME	Total	ME
Total	175,706	(±7,371)	96,841	(±6,783)
Age				
<25	38,283	(±4,657)	25,197	(±3,528)
25 to 34	88,794	(±5,987)	47,620	(±5,355)
35 to 44	36,936	(±4,631)	17,919	(±3,192)
45+	11,694	(±2,339)	6,105	(±1,637)
Sex				
Male	70,129	(±5,979)	37,338	(±5,123)
Female	105,577	(±7,845)	59,503	(±6,313)
Marital Status				
Married	102,354	(±6,193)	52,634	(±5,224)
Widowed, Divorced, Separated	23,385	(±4,111)	12,484	(±2,983)
Never Married	49,968	(±5,278)	31,723	(±4,660)
Education				
Less Than HS Diploma	34,916	(±4,899)	22,316	(±4,221)
High School Diploma	46,985	(±5,253)	27,761	(±4,247)
Some College	66,784	(±5,721)	36,316	(±4,593)
Bachelor Degree or Higher	27,021	(±3,591)	10,448	(±2,266)
Employment Status				
Employed	119,902	(±7,058)	63,282	(±5,120)
Unemployed	10,554	(±2,719)	6,358	(±2,229)
Not in Labor Force	45,124	(±5,129)	27,200	(±4,378)
Health Insurance				
Private Only	57,866	(±5,390)	26,452	(±4,058)
Public Only	68,821	(±6,333)	43,803	(±5,145)
Public & Private	12,330	(±2,705)	6,881	(±2,159)
None	36,690	(±4,699)	19,705	(±3,779)
Nativity / Citizenship				
Native Born	134,210	(±7,781)	72,365	(±5,976)
Foreign Born, Citizen	11,414	(±2,857)	6,717	(±2,273)
Foreign Born, Not Citizen	30,082	(±3,619)	17,759	(±3,080)
English Language Skills				
Speaks Only English or Well	163,438	(±8,009)	87,971	(±6,396)
Does Not Speak English or Not Well	12,268	(±2,835)	8,869	(±2,313)

Sources: Colorado WIC administrative records (2013-2014) linked to 1-year American Community Survey data (2014). 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, 2014

	Estimated Eligible		Estimated Participants	
	Total	ME	Total	ME
Total	175,706	(±7,371)	96,841	(±6,783)
Family Income below Federal Poverty Thresholds				
<=100% Poverty Threshold	57,562	(±5,443)	34,913	(±5,008)
100<=145% Poverty Threshold	35,758	(±4,428)	20,884	(±3,340)
145<=185% Poverty Threshold	28,747	(±4,547)	12,545	(±2,741)
>185% Poverty Threshold	53,639	(±5,274)	28,499	(±3,954)
Size				
2-3 persons	39,985	(±4,544)	22,212	(±3,226)
4 persons	50,728	(±5,108)	27,074	(±3,894)
5 persons	42,129	(±5,796)	21,932	(±4,405)
6+ persons	42,865	(±5,023)	25,623	(±4,129)
Structure Type				
Married Couple	88,759	(±6,070)	45,637	(±5,057)
Single Parent	34,584	(±4,739)	19,248	(±4,009)
Single w/ Partner	20,725	(±3,682)	12,864	(±3,044)
Other	31,638	(±4,362)	19,092	(±3,550)
Locale Type				
Urban	157,259	(±6,793)	88,641	(±6,333)
Rural	18,447	(±2,810)	8,200	(±2,235)
Military / Veteran Status of Occupants				
Not Active Military or Veteran	152,035	(±7,394)	82,113	(±6,518)
Active Military or Veteran	23,671	(±3,508)	14,727	(±2,909)

Sources: Colorado WIC administrative records (2013-2014) linked to 1-year American Community Survey data (2014). 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, 2014

	Estimated Participants	
	Total	ME
Total	67,086	(±6,188)
Age		
<25	26,768	(±4,159)
25 to 34	29,542	(±4,345)
35 to 44	9,931	(±2,231)
45+	844	(±696)
Race / Hispanic Origin		
Non-Hispanic White alone	25,661	(±3,468)
Non-Hispanic Black alone	6,253	(±1,945)
Non-Hispanic AIAN* alone	328	(±391)
Non-Hispanic Asian alone	1,967	(±865)
Other Non-Hispanic	1,466	(±710)
Hispanic	31,411	(±4,526)
Migration in Past Year		
No Migration or Age 0	43,871	(±4,915)
Intra-State Migration	21,701	(±3,685)
Inter-State or Intl Migration	1,514	(±694)
Marital Status		
Married	29,996	(±3,655)
Widowed, Divorced, Separated	6,241	(±2,128)
Never Married	30,849	(±3,983)
Education		
Less Than HS Diploma	17,266	(±3,653)
High School Diploma	21,792	(±3,772)
Some College	22,555	(±3,143)
Bachelor Degree or Higher	5,473	(±1,340)
Employment Status		
Employed	33,037	(±4,287)
Unemployed	5,287	(±1,905)
Not in Labor Force	28,762	(±4,573)
Health Insurance		
Private Only	15,850	(±2,520)
Public Only	35,627	(±4,173)
Public & Private	3,713	(±1,428)
None	11,896	(±2,724)
Nativity / Citizenship		
Native Born	51,139	(±5,171)
Foreign Born, Citizen	3,925	(±1,491)
Foreign Born, Not Citizen	12,023	(±2,877)
English Language Skills		
Speaks Only English or Well	59,910	(±5,495)
Does Not Speak English or Not Well	7,175	(±2,472)

Sources: Colorado WIC administrative records (2013-2014) linked to 1-year American Community Survey data (2014). 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, 2014

	Estimated Participants	
	Estimate	ME
Total	67,086	(±6,188)
Family Income below Federal Poverty Thresholds		
<=100% Poverty Threshold	24,628	(±4,676)
100<=145% Poverty Threshold	11,556	(±2,526)
145<=185% Poverty Threshold	9,678	(±2,556)
>185% Poverty Threshold	21,224	(±3,099)
Size		
1-3 persons	22,527	(±3,175)
4 persons	17,516	(±3,186)
5 persons	13,193	(±2,955)
6+ persons or GQ	13,850	(±3,198)
Structure Type		
Married Couple	27,265	(±3,599)
Single Parent	13,162	(±2,598)
Single w/ Partner	10,242	(±2,908)
Other	16,418	(±3,625)
Locale Type		
Urban	61,317	(±6,014)
Rural or Group Quarters	5,769	(±1,486)
Military / Veteran Status of Occupants		
Not Active Military or Veteran	58,186	(±5,869)
Active Military or Veteran	8,899	(±1,918)

Sources: Colorado WIC administrative records (2013-2014) linked to 1-year American Community Survey data (2014). 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.