

APPENDIX

Profile of WIC Modeled Eligibility and Participation in Colorado, 2015:
Evidence from Administrative Records and the American Community Survey

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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, 2015: 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, 2015

	Estimated Eligible		Estimated Participants	
	Total	ME	Total	ME
Total	168,546	(±7,425)	89,476	(±7,382)
Age				
0	32,995	(±4,053)	21,623	(±3,069)
1	32,892	(±3,783)	22,155	(±3,201)
2	37,487	(±4,071)	19,780	(±3,186)
3	32,450	(±4,419)	12,354	(±2,825)
4	32,722	(±3,883)	13,564	(±2,648)
Race / Hispanic Origin				
Non-Hispanic White alone	65,084	(±4,284)	29,354	(±3,690)
Non-Hispanic Black alone	10,478	(±2,576)	7,331	(±2,418)
Non-Hispanic AIAN* alone	.	.	.	.
Non-Hispanic Asian alone	4,055	(±1,368)	3,129	(±1,371)
Other Non-Hispanic	8,116	(±1,915)	3,188	(±1,188)
Hispanic	80,246	(±4,408)	46,260	(±4,660)
Migration in Past Year				
No Migration or Age 0	134,074	(±7,007)	71,953	(±6,724)
Intra-State Migration	27,663	(±4,761)	15,215	(±3,527)
Inter-State or Intl Migration	6,809	(±1,780)	2,307	(±1,022)

Sources: Colorado WIC administrative records (2014-2015) linked to 1-year American Community Survey data (2015). 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, 2015

	Estimated Eligible		Estimated Participants	
	Total	ME	Total	ME
Total	168,546	(±7,425)	89,476	(±7,382)
Age				
<25	29,973	(±4,187)	17,684	(±3,373)
25 to 34	90,316	(±6,872)	48,373	(±6,126)
35 to 44	38,351	(±4,024)	17,814	(±3,210)
45+	9,906	(±1,935)	5,605	(±1,690)
Sex				
Male	63,999	(±5,905)	34,705	(±4,477)
Female	104,547	(±7,030)	54,771	(±6,153)
Marital Status				
Married	95,627	(±6,490)	47,403	(±6,134)
Widowed, Divorced, Separated	19,417	(±3,411)	9,452	(±2,531)
Never Married	53,502	(±5,411)	32,620	(±4,018)
Education				
Less Than HS Diploma	33,992	(±4,799)	21,380	(±4,078)
High School Diploma	49,748	(±5,569)	29,425	(±4,559)
Some College	58,931	(±5,434)	29,560	(±4,371)
Bachelor Degree or Higher	25,875	(±3,616)	9,111	(±2,176)
Employment Status				
Employed	110,939	(±7,200)	58,172	(±6,594)
Unemployed	12,172	(±3,096)	6,970	(±2,398)
Not in Labor Force	45,338	(±5,018)	24,334	(±3,948)
Health Insurance				
Private Only	53,662	(±5,802)	24,178	(±4,414)
Public Only	74,765	(±6,159)	43,230	(±5,250)
Public & Private	10,296	(±2,264)	4,222	(±1,338)
None	29,823	(±3,853)	17,846	(±3,325)
Nativity / Citizenship				
Native Born	129,244	(±7,431)	64,751	(±6,623)
Foreign Born, Citizen	8,783	(±2,676)	5,039	(±2,051)
Foreign Born, Not Citizen	30,520	(±4,208)	19,686	(±3,581)
English Language Skills				
Speaks Only English or Well	154,733	(±7,175)	80,193	(±6,553)
Does Not Speak English or Not Well	13,813	(±3,039)	9,283	(±2,496)

Sources: Colorado WIC administrative records (2014-2015) linked to 1-year American Community Survey data (2015). 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, 2015

	Estimated Eligible		Estimated Participants	
	Total	ME	Total	ME
Total	168,546	(±7,425)	89,476	(±7,382)
Family Income below Federal Poverty Thresholds				
<=100% Poverty Threshold	57,668	(±5,628)	35,405	(±4,662)
100<=145% Poverty Threshold	29,138	(±4,715)	16,115	(±3,693)
145<=185% Poverty Threshold	26,707	(±3,592)	13,240	(±2,817)
>185% Poverty Threshold	55,033	(±5,402)	24,716	(±4,127)
Size				
2-3 persons	43,024	(±5,273)	24,500	(±3,721)
4 persons	48,874	(±5,544)	23,597	(±4,156)
5 persons	36,885	(±3,878)	18,636	(±3,321)
6+ persons	39,764	(±4,955)	22,742	(±4,240)
Structure Type				
Married Couple	84,202	(±6,473)	41,553	(±5,495)
Single Parent	34,923	(±4,528)	19,887	(±3,552)
Single w/ Partner	19,543	(±3,434)	12,496	(±2,551)
Other	29,878	(±3,470)	15,539	(±2,610)
Locale Type				
Urban	151,902	(±7,135)	82,460	(±7,038)
Rural	16,644	(±2,387)	7,015	(±1,660)
Military / Veteran Status of Occupants				
Not Active Military or Veteran	147,255	(±6,727)	78,210	(±6,809)
Active Military or Veteran	21,291	(±3,010)	11,265	(±2,623)

Sources: Colorado WIC administrative records (2014-2015) linked to 1-year American Community Survey data (2015). 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, 2015

	Estimated Participants	
	Total	ME
Total	59,334	(±5,823)
Age		
<25	22,414	(±3,641)
25 to 34	29,221	(±4,123)
35 to 44	6,972	(±1,927)
45+	727	(±538)
Race / Hispanic Origin		
Non-Hispanic White alone	23,401	(±3,442)
Non-Hispanic Black alone	5,360	(±1,946)
Non-Hispanic AIAN* alone	724	(±709)
Non-Hispanic Asian alone	2,233	(±1,069)
Other Non-Hispanic	1,432	(±664)
Hispanic	26,184	(±4,254)
Migration in Past Year		
No Migration or Age 0	39,431	(±4,661)
Intra-State Migration	18,063	(±3,218)
Inter-State or Intl Migration	1,841	(±917)
Marital Status		
Married	25,773	(±4,037)
Widowed, Divorced, Separated	6,043	(±1,873)
Never Married	27,518	(±3,845)
Education		
Less Than HS Diploma	13,199	(±2,567)
High School Diploma	23,400	(±4,013)
Some College	17,891	(±2,929)
Bachelor Degree or Higher	4,844	(±1,637)
Employment Status		
Employed	27,840	(±4,344)
Unemployed	5,223	(±1,796)
Not in Labor Force	26,271	(±4,117)
Health Insurance		
Private Only	13,957	(±2,879)
Public Only	36,639	(±4,332)
Public & Private	2,082	(±979)
None	6,656	(±2,304)
Nativity / Citizenship		
Native Born	47,679	(±5,238)
Foreign Born, Citizen	2,877	(±1,183)
Foreign Born, Not Citizen	8,778	(±2,594)
English Language Skills		
Speaks Only English or Well	53,211	(±5,545)
Does Not Speak English or Not Well	6,124	(±2,464)

Sources: Colorado WIC administrative records (2014-2015) linked to 1-year American Community Survey data (2015). 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, 2015

	Estimated Participants	
	Estimate	ME
Total	59,334	(±5,823)
Family Income below Federal Poverty Thresholds		
<=100% Poverty Threshold	25,334	(±3,935)
100<=145% Poverty Threshold	8,000	(±2,167)
145<=185% Poverty Threshold	5,759	(±1,713)
>185% Poverty Threshold	20,241	(±3,501)
Size		
1-3 persons	22,465	(±4,046)
4 persons	14,372	(±2,687)
5 persons	10,520	(±2,420)
6+ persons or GQ	11,977	(±2,549)
Structure Type		
Married Couple	23,722	(±3,833)
Single Parent	12,511	(±2,934)
Single w/ Partner	8,909	(±2,609)
Other	14,192	(±2,484)
Locale Type		
Urban	54,665	(±5,567)
Rural or Group Quarters	4,670	(±1,336)
Military / Veteran Status of Occupants		
Not Active Military or Veteran	52,238	(±5,484)
Active Military or Veteran	7,096	(±1,799)

Sources: Colorado WIC administrative records (2014-2015) linked to 1-year American Community Survey data (2015). 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 – 2015

	Estimated Eligible		Estimated Participants	
	Estimate	ME	Estimate	ME
State Total	172,231	(±3,770)	95,706	(±3,871)
County				
Adams	23,173	(±1,334)	14,834	(±1,378)
Alamosa	859	(±376)	411	(±207)
Arapahoe	20,698	(±1,385)	11,221	(±1,429)
Archuleta	378	(±242)	.	.
Baca	156	(±108)	.	.
Bent	312	(±140)	.	.
Boulder	6,533	(±744)	3,512	(±671)
Broomfield	878	(±274)	512	(±249)
Chaffee	354	(±237)	.	.
Cheyenne	.	.	.	.
Clear Creek	234	(±169)	.	.
Conejos	586	(±185)	293	(±116)
Costilla	.	.	.	.
Crowley	.	.	.	.
Custer	.	.	.	.
Delta	947	(±385)	556	(±315)
Denver	25,723	(±1,533)	13,762	(±1,530)
Dolores	.	.	.	.
Douglas	3,557	(±786)	937	(±419)
Eagle	742	(±272)	.	.
El Paso	25,341	(±1,756)	15,425	(±1,554)
Elbert	293	(±132)	154	(±91)
Fremont	1,434	(±299)	1,008	(±339)
Garfield	2,228	(±481)	1,219	(±444)
Gilpin	.	.	.	.
Grand	.	.	.	.
Gunnison	495	(±275)	.	.
Hinsdale	.	.	.	.
Huerfano
Jackson
Jefferson	11,117	(±1,067)	5,255	(±926)
Kiowa
Kit Carson	297	(±123)	233	(±136)

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Sources: 2013-2015 ACS linked with 2012-2015 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 2013-2015 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 – 2015

	Estimated Eligible		Estimated Participants	
	Estimate	ME	Estimate	ME
State Total	172,231	(±3,770)	95,706	(±3,871)
County				
La Plata	1,208	(±333)	570	(±250)
Lake	.	.	.	.
Larimer	7,497	(±1,025)	3,143	(±721)
Las Animas	451	(±148)	339	(±142)
Lincoln	.	.	.	.
Logan	860	(±221)	631	(±273)
Mesa	6,352	(±735)	3,994	(±825)
Mineral	.	.	.	.
Moffat	282	(±153)	.	.
Montezuma	900	(±343)	412	(±297)
Montrose	1,413	(±351)	1,137	(±331)
Morgan	1,534	(±389)	1,247	(±387)
Otero	1,127	(±327)	813	(±304)
Ouray	.	.	.	.
Park	348	(±244)	.	.
Phillips	246	(±184)	.	.
Pitkin	.	.	.	.
Prowers	487	(±167)	278	(±143)
Pueblo	7,742	(±646)	4,851	(±689)
Rio Blanco	129	(±109)	.	.
Rio Grande	795	(±357)	553	(±340)
Routt	381	(±239)	247	(±223)
Saguache	256	(±157)	.	.
San Juan	.	.	.	.
San Miguel	139	(±108)	.	.
Sedgwick	.	.	.	.
Summit	502	(±353)	.	.
Teller	413	(±231)	.	.
Washington	159	(±136)	.	.
Weld	10,065	(±899)	4,712	(±809)
Yuma	1,075	(±489)	482	(±323)

Sources: 2013-2015 ACS linked with 2012-2015 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 2013-2015 and thus may differ from the estimates and MEs stated in Appendix Tables 1a-1c.