

2006 American Community Survey Profile: Wyoming

TABLE 1. PROFILE OF GENERAL DEMOGRAPHIC CHARACTERISTICS

General Demographic Characteristics: 2006	Estimate	Margin of Error
Total population	515,004	*****
SEX AND AGE		
Male	259,215	+/-1,896
Female	255,789	+/-1,896
Under 5 years	34,128	+/-980
5 to 9 years	31,557	+/-1,904
10 to 14 years	32,883	+/-2,079
15 to 19 years	37,164	+/-1,602
20 to 24 years	39,874	+/-1,672
25 to 34 years	65,653	+/-1,609
35 to 44 years	65,430	+/-1,156
45 to 54 years	84,698	+/-1,354
55 to 59 years	34,652	+/-1,897
60 to 64 years	27,335	+/-1,953
65 to 74 years	32,630	+/-593
75 to 84 years	21,573	+/-1,175
85 years and over	7,427	+/-1,105
Median age (years)	37.5	+/-0.4
18 years and over	394,074	+/-1,050
21 years and over	369,942	+/-2,478
62 years and over	76,803	+/-1,895
65 years and over	61,630	+/-580
18 years and over	394,074	+/-1,050
Male	197,958	+/-1,272
Female	196,116	+/-879
65 years and over	61,630	+/-580
Male	27,675	+/-344
Female	33,955	+/-528
RACE		
One race	505,576	+/-1,655
Two or more races	9,428	+/-1,655
Total population	515,004	*****
One race	505,576	+/-1,655
White	472,937	+/-2,132
Black or African American	3,686	+/-1,121
American Indian and Alaska Native	11,505	+/-1,064
Cherokee tribal grouping	158	+/-183
Chippewa tribal grouping	327	+/-359
Navajo tribal grouping	620	+/-523
Sioux tribal grouping	538	+/-363

Asian	4,656	+/-1,356
Asian Indian	1,097	+/-922
Chinese	1,768	+/-804
Filipino	631	+/-667
Japanese	262	+/-253
Korean	325	+/-294
Vietnamese	265	+/-325
Other Asian	308	+/-324
Native Hawaiian and Other Pacific Islander	350	+/-445
Native Hawaiian	N	N
Guamanian or Chamorro	N	N
Samoan	N	N
Other Pacific Islander	N	N
Some other race	12,442	+/-1,881
Two or more races	9,428	+/-1,655
White and Black or African American	937	+/-614
White and American Indian and Alaska Native	6,030	+/-1,271
White and Asian	401	+/-350
Black or African American and American Indian and Alaska Native	150	+/-170
Race alone or in combination with one or more other races		
Total population	515,004	*****
White	481,759	+/-2,559
Black or African American	5,150	+/-1,066
American Indian and Alaska Native	18,034	+/-1,470
Asian	5,057	+/-1,296
Native Hawaiian and Other Pacific Islander	689	+/-540
Some other race	13,899	+/-1,947
HISPANIC OR LATINO AND RACE		
Total population	515,004	*****
Hispanic or Latino (of any race)	35,732	*****
Mexican	26,247	+/-1,766
Puerto Rican	500	+/-374
Cuban	0	+/-259
Other Hispanic or Latino	8,985	+/-1,826
Not Hispanic or Latino	479,272	*****
White alone	453,251	+/-633
Black or African American alone	3,269	+/-1,098
American Indian and Alaska Native alone	10,497	+/-809
Asian alone	4,311	+/-1,419
Native Hawaiian and Other Pacific Islander alone	350	+/-445
Some other race alone	762	+/-642
Two or more races	6,832	+/-1,289
Two races including Some other race	271	+/-282
Two races excluding Some other race, and Three or more races	6,561	+/-1,304
HOUSEHOLDS BY TYPE		
Total households	207,302	+/-2,675

Family households (families)	136,835	+/-3,589
With own children under 18 years	60,264	+/-3,084
Married-couple families	110,284	+/-3,712
With own children under 18 years	42,658	+/-3,172
Male householder, no wife present	9,250	+/-1,423
With own children under 18 years	5,661	+/-1,171
Female householder, no husband present	17,301	+/-2,146
With own children under 18 years	11,945	+/-1,979
Nonfamily households	70,467	+/-3,044
Householder living alone	56,583	+/-3,140
65 years and over	17,515	+/-1,442
Households with one or more people under 18 years	65,571	+/-3,224
Households with one or more people 65 years and over	43,317	+/-1,185
Average household size	2.42	+/-0.03
Average family size	2.94	+/-0.06
RELATIONSHIP		
Household population	500,858	*****
Householder	207,302	+/-2,675
Spouse	109,758	+/-3,583
Child	135,079	+/-4,196
Other relatives	21,242	+/-3,657
Nonrelatives	27,477	+/-3,057
Unmarried partner	14,823	+/-1,692

TABLE 2. PROFILE OF SELECTED SOCIAL CHARACTERISTICS

Selected Social Characteristics: 2006	Estimate	Margin of Error
MARITAL STATUS		
Males 15 years and over	209,314	+/-1,602
Never married	59,132	+/-3,179
Now married, except separated	115,609	+/-3,475
Separated	3,147	+/-1,191
Widowed	4,755	+/-821
Divorced	26,671	+/-2,393
Females 15 years and over	207,122	+/-1,139
Never married	43,937	+/-2,350
Now married, except separated	114,593	+/-3,857
Separated	2,192	+/-728
Widowed	18,042	+/-1,526
Divorced	28,358	+/-2,524
FERTILITY		
Number of women 15 to 50 years old who had a birth in the past 12 months	7,401	+/-1,406
Unmarried women (widowed, divorced, and never married)	2,263	+/-814
Per 1,000 unmarried women	38	+/-14
Per 1,000 women 15 to 50 years old	58	+/-11
Per 1,000 women 15 to 19 years old	29	+/-16

Per 1,000 women 20 to 34 years old	117	+/-25
Per 1,000 women 35 to 50 years old	16	+/-9
GRANDPARENTS		
Number of grandparents living with own grandchildren under 18 years in households	6,989	+/-1,595
Responsible for grandchildren	3,966	+/-1,137
Years responsible for grandchildren		
Less than 1 year	1,324	+/-552
1 or 2 years	385	+/-287
3 or 4 years	1,329	+/-613
5 or more years	928	+/-629
Characteristics of grandparents responsible for own grandchildren under 18 years		
Who are female	55.9	+/-6.3
Who are married	71.2	+/-12.1
SCHOOL ENROLLMENT		
Population 3 years and over enrolled in school	129,477	+/-2,971
Nursery school, preschool	8,367	+/-1,330
Kindergarten	6,311	+/-1,067
Elementary school (grades 1-8)	51,059	+/-1,739
High school (grades 9-12)	28,232	+/-1,494
College or graduate school	35,508	+/-2,686
EDUCATIONAL ATTAINMENT		
Population 25 years and over	339,398	+/-1,807
Less than 9th grade	10,054	+/-1,398
9th to 12th grade, no diploma	23,117	+/-2,370
High school graduate (includes equivalency)	111,587	+/-4,462
Some college, no degree	85,219	+/-3,576
Associate's degree	32,273	+/-2,800
Bachelor's degree	52,112	+/-3,580
Graduate or professional degree	25,036	+/-1,959
Percent high school graduate or higher	90.2	+/-0.8
Percent bachelor's degree or higher	22.7	+/-1.2
VETERAN STATUS		
Civilian population 18 years and over	390,268	+/-1,495
Civilian veterans	54,263	+/-2,891
DISABILITY STATUS OF THE CIVILIAN NONINSTITUTIONALIZED POPULATION		
Population 5 years and over	470,869	+/-1,612
With a disability	73,599	+/-3,649
Population 5 to 15 years	72,108	+/-1,390
With a disability	5,261	+/-1,139
Population 16 to 64 years	340,103	+/-1,939

With a disability	44,329	+/-3,602
Population 65 years and over	58,658	+/-621
With a disability	24,009	+/-1,495
RESIDENCE 1 YEAR AGO		
Population 1 year and over	507,917	+/-1,124
Same house	409,177	+/-6,812
Different house in the U.S.	95,253	+/-6,814
Same county	53,877	+/-5,263
Different county	41,376	+/-5,134
Same state	14,023	+/-2,781
Different state	27,353	+/-3,984
Abroad	3,487	+/-1,178
PLACE OF BIRTH		
Total population	515,004	*****
Native	501,075	+/-1,897
Born in United States	498,619	+/-2,034
State of residence	219,327	+/-5,612
Different state	279,292	+/-5,209
Born in Puerto Rico, U.S. Island areas, or born abroad to American parent(s)	2,456	+/-691
Foreign born	13,929	+/-1,897
U.S. CITIZENSHIP STATUS		
Foreign-born population	13,929	+/-1,897
Naturalized U.S. citizen	5,337	+/-1,164
Not a U.S. citizen	8,592	+/-1,606
YEAR OF ENTRY		
Population born outside the United States	16,385	+/-2,034
Native	2,456	+/-691
Entered 2000 or later	371	+/-224
Entered before 2000	2,085	+/-610
Foreign born	13,929	+/-1,897
Entered 2000 or later	4,792	+/-1,333
Entered before 2000	9,137	+/-1,552
WORLD REGION OF BIRTH OF FOREIGN BORN		
Foreign-born population, excluding population born at sea	13,929	+/-1,897
Europe	2,544	+/-804
Asia	3,262	+/-1,168
Africa	131	+/-181
Oceania	83	+/-118
Latin America	6,979	+/-1,616
Northern America	930	+/-505
LANGUAGE SPOKEN AT HOME		
Population 5 years and over	480,876	+/-980

English only	448,994	+/-3,422
Language other than English	31,882	+/-3,235
Speak English less than "very well"	7,806	+/-1,564
Spanish	19,830	+/-2,479
Speak English less than "very well"	6,070	+/-1,270
Other Indo-European languages	6,586	+/-1,547
Speak English less than "very well"	706	+/-393
Asian and Pacific Islander languages	2,549	+/-948
Speak English less than "very well"	692	+/-418
Other languages	2,917	+/-972
Speak English less than "very well"	338	+/-407
ANCESTRY		
Total population	515,004	*****
American	36,766	+/-3,991
Arab	219	+/-226
Czech	3,663	+/-1,031
Danish	10,484	+/-2,129
Dutch	12,706	+/-2,171
English	80,631	+/-4,952
French (except Basque)	17,949	+/-2,474
French Canadian	2,268	+/-824
German	148,273	+/-6,577
Greek	1,848	+/-666
Hungarian	1,868	+/-799
Irish	72,520	+/-5,036
Italian	19,858	+/-3,308
Lithuanian	333	+/-201
Norwegian	20,195	+/-2,854
Polish	12,262	+/-2,365
Portuguese	865	+/-782
Russian	4,999	+/-1,715
Scotch-Irish	14,978	+/-2,455
Scottish	18,382	+/-2,527
Slovak	990	+/-707
Subsaharan African	225	+/-219
Swedish	19,244	+/-2,619
Swiss	3,962	+/-1,493
Ukrainian	323	+/-254
Welsh	7,658	+/-1,893
West Indian (excluding Hispanic origin groups)	24	+/-39

TABLE 3. PROFILE OF SELECTED ECONOMIC CHARACTERISTICS		
Selected Economic Characteristics: 2006	Estimate	Margin of Error
EMPLOYMENT STATUS		
Population 16 years and over	408,612	+/-1,480
In labor force	286,485	+/-3,710
Civilian labor force	282,679	+/-3,853
Employed	272,668	+/-4,130
Unemployed	10,011	+/-1,375
Armed Forces	3,806	+/-1,061

Not in labor force	122127	+/-3,856
Civilian labor force	282,679	+/-3,853
Unemployment Rate	3.5	+/-0.5
Females 16 years and over	202,935	+/-1,243
In labor force	130,914	+/-2,711
Civilian labor force	130,114	+/-2,685
Employed	125,266	+/-2,656
Own children under 6 years	38,289	+/-1,743
All parents in family in labor force	25,519	+/-1,890
Own children 6 to 17 years	74,097	+/-1,986
All parents in family in labor force	57,409	+/-2,972
COMMUTING TO WORK		
Workers 16 years and over	268,323	+/-4,045
Car, truck, or van -- drove alone	203,957	+/-4,561
Car, truck, or van -- carpooled	33,445	+/-2,717
Public transportation (excluding taxicab)	3,429	+/-1,097
Walked	8,244	+/-1,441
Other means	5,333	+/-1,302
Worked at home	13,915	+/-1,929
Mean travel time to work (minutes)	17.9	+/-0.7
Civilian employed population 16 years and over	272,668	+/-4,130
OCCUPATION		
Management, professional, and related occupations	82,199	+/-3,426
Service occupations	46,262	+/-3,262
Sales and office occupations	60,278	+/-3,140
Farming, fishing, and forestry occupations	2,966	+/-1,023
Construction, extraction, maintenance and repair occupations	41,708	+/-2,859
Production, transportation, and material moving occupations	39,255	+/-2,670
INDUSTRY		
Agriculture, forestry, fishing and hunting, and mining	31,011	+/-1,992
Construction	22,039	+/-2,311
Manufacturing	14,119	+/-1,847
Wholesale trade	6,874	+/-1,277
Retail trade	31,508	+/-2,610
Transportation and warehousing, and utilities	18,104	+/-1,907
Information	4,551	+/-1,152
Finance and insurance, and real estate and rental and leasing	11,185	+/-1,729
Professional, scientific, and management, and administrative and waste management services	17,011	+/-2,121
Educational services, and health care, and social assistance	59,137	+/-3,169
Arts, entertainment, and recreation, and accommodation, and food services	28,489	+/-3,151
Other services, except public administration	12,535	+/-1,950
Public administration	16,105	+/-1,908

CLASS OF WORKER		
Private wage and salary workers	198,256	+/-4,413
Government workers	51,690	+/-3,000
Self-employed workers in own not incorporated business	21,584	+/-1,843
Unpaid family workers	1,138	+/-469
INCOME AND BENEFITS (IN 2006 INFLATION-ADJUSTED DOLLARS)		
Total households	207,302	+/-2,675
Less than \$10,000	12,505	+/-1,814
\$10,000 to \$14,999	9,585	+/-1,377
\$15,000 to \$24,999	26,286	+/-2,470
\$25,000 to \$34,999	25,950	+/-2,459
\$35,000 to \$49,999	33,545	+/-2,507
\$50,000 to \$74,999	44,041	+/-2,576
\$75,000 to \$99,999	26,171	+/-2,219
\$100,000 to \$149,999	20,785	+/-1,868
\$150,000 to \$199,999	4,896	+/-1,053
\$200,000 or more	3,538	+/-981
Median household income (dollars)	47,423	+/-1,479
Mean household income (dollars)	59,583	+/-1,840
With earnings	172,434	+/-3,151
Mean earnings (dollars)	57,955	+/-1,960
With Social Security	53,217	+/-1,538
Mean Social Security income (dollars)	13,854	+/-451
With retirement income	33,748	+/-2,446
Mean retirement income (dollars)	18,251	+/-1,408
With Supplemental Security Income	4,841	+/-1,029
Mean Supplemental Security Income (dollars)	7,753	+/-937
With cash public assistance income	3,774	+/-1,057
Mean cash public assistance income (dollars)	1,936	+/-756
With Food Stamp benefits in the past 12 months	10,320	+/-1,606
Families	136,835	+/-3,589
Less than \$10,000	4,586	+/-1,170
\$10,000 to \$14,999	3,418	+/-873
\$15,000 to \$24,999	13,470	+/-1,779
\$25,000 to \$34,999	14,419	+/-2,191
\$35,000 to \$49,999	21,374	+/-1,902
\$50,000 to \$74,999	32,081	+/-2,296
\$75,000 to \$99,999	22,312	+/-2,024
\$100,000 to \$149,999	18,305	+/-1,576
\$150,000 to \$199,999	4,089	+/-956
\$200,000 or more	2,781	+/-738
Median family income (dollars)	57,505	+/-1,708
Mean family income (dollars)	68,918	+/-2,437
Per capita income (dollars)	24,544	+/-794

Nonfamily households	70,467	+/-3,044
Median nonfamily income (dollars)	29,849	+/-1,682
Mean nonfamily income (dollars)	38,634	+/-2,496
Median earnings for workers (dollars)	25,247	+/-708
Median earnings for male full-time, year-round workers (dollars)	41,913	+/-869
Median earnings for female full-time, year-round workers (dollars)	27,926	+/-1,039
PERCENTAGE OF FAMILIES AND PEOPLE WHOSE INCOME IN THE PAST 12 MONTHS IS BELOW THE POVERTY LEVEL		
All families	6.3	+/-1.1
With related children under 18 years	10.8	+/-2.1
With related children under 5 years only	16.0	+/-6.3
Married couple families	2.6	+/-0.7
With related children under 18 years	3.9	+/-1.2
With related children under 5 years only	2.7	+/-2.8
Families with female householder, no husband present	29.3	+/-5.4
With related children under 18 years	36.1	+/-6.5
With related children under 5 years only	65.9	+/-15.0
All people	9.4	+/-1.0
Under 18 years	12.0	+/-2.3
Related children under 18 years	11.4	+/-2.2
Related children under 5 years	16.8	+/-4.1
Related children 5 to 17 years	9.2	+/-2.1
18 years and over	8.6	+/-0.8
18 to 64 years	9.0	+/-0.9
65 years and over	6.1	+/-1.4
People in families	6.4	+/-1.0
Unrelated individuals 15 years and over	21.5	+/-2.2

TABLE 4. PROFILE OF SELECTED HOUSING CHARACTERISTICS

Selected Housing Characteristics: 2006	Estimate	Margin of Error
HOUSING OCCUPANCY		
Total housing units	239,088	+/-188
Occupied housing units	207,302	+/-2,675
Vacant housing units	31,786	+/-2,777
Homeowner vacancy rate	1.5	+/-0.6
Rental vacancy rate	6.1	+/-1.7
UNITS IN STRUCTURE		
1-unit, detached	158,386	+/-4,262
1-unit, attached	8,039	+/-1,597
2 units	7,456	+/-1,456
3 or 4 units	12,006	+/-1,840
5 to 9 units	8,465	+/-1,613
10 to 19 units	3,722	+/-988
20 or more units	6,609	+/-1,251

Mobile home	33,999	+/-2,533
Boat, RV, van, etc.	406	+/-293
YEAR STRUCTURE BUILT		
Built 2005 or later	3,302	+/-757
Built 2000 to 2004	15,684	+/-1,785
Built 1990 to 1999	28,670	+/-2,311
Built 1980 to 1989	35,142	+/-2,228
Built 1970 to 1979	62,041	+/-3,449
Built 1960 to 1969	19,998	+/-2,083
Built 1950 to 1959	26,745	+/-2,424
Built 1940 to 1949	13,839	+/-1,820
Built 1939 or earlier	33,667	+/-2,626
ROOMS		
1 room	2,259	+/-730
2 rooms	5,777	+/-1,286
3 rooms	18,121	+/-2,326
4 rooms	43,895	+/-2,956
5 rooms	54,608	+/-3,623
6 rooms	37,112	+/-2,877
7 rooms	29,166	+/-2,143
8 rooms	23,537	+/-2,361
9 rooms or more	24,613	+/-2,300
Median (rooms)	5.4	+/-0.1
BEDROOMS		
No bedroom	2,302	+/-743
1 bedroom	20,906	+/-2,633
2 bedrooms	68,722	+/-3,392
3 bedrooms	94,347	+/-3,571
4 bedrooms	37,976	+/-2,528
5 or more bedrooms	14,835	+/-1,681
Occupied housing units	207,302	+/-2,675
HOUSING TENURE		
Owner-occupied	144,117	+/-3,462
Renter-occupied	63,185	+/-2,936
Average household size of owner-occupied unit	2.50	+/-0.04
Average household size of renter-occupied unit	2.22	+/-0.08
YEAR HOUSEHOLDER MOVED INTO UNIT		
Moved in 2005 or later	50,040	+/-3,156
Moved in 2000 to 2004	63,576	+/-3,139
Moved in 1990 to 1999	47,721	+/-2,760
Moved in 1980 to 1989	22,102	+/-1,640
Moved in 1970 to 1979	14,301	+/-1,734
Moved in 1969 or earlier	9,562	+/-1,299
VEHICLES AVAILABLE		
No vehicles available	7,266	+/-1,108

1 vehicle available	56,241	+/-3,073
2 vehicles available	74,438	+/-3,744
3 or more vehicles available	69,357	+/-3,656
HOUSE HEATING FUEL		
Utility gas	131,152	+/-3,447
Bottled, tank, or LP gas	21,475	+/-1,813
Electricity	41,263	+/-2,942
Fuel oil, kerosene, etc.	406	+/-207
Coal or coke	1,341	+/-537
Wood	9,545	+/-1,289
Solar energy	272	+/-208
Other fuel	1,212	+/-413
No fuel used	636	+/-421
SELECTED CHARACTERISTICS		
Lacking complete plumbing facilities	630	+/-411
Lacking complete kitchen facilities	1,051	+/-546
No telephone service available	13,678	+/-1,946
OCCUPANTS PER ROOM		
1.00 or less	203,298	+/-2,866
1.01 to 1.50	3,346	+/-989
1.51 or more	658	+/-377
Owner-occupied units	144,117	+/-3,462
VALUE		
Less than \$50,000	15,400	+/-1,589
\$50,000 to \$99,999	23,101	+/-2,254
\$100,000 to \$149,999	34,362	+/-2,395
\$150,000 to \$199,999	29,223	+/-2,004
\$200,000 to \$299,999	22,511	+/-1,926
\$300,000 to \$499,999	10,820	+/-1,455
\$500,000 to \$999,999	6,434	+/-1,143
\$1,000,000 or more	2,266	+/-666
Median (dollars)	148,900	+/-2,960
MORTGAGE STATUS AND SELECTED MONTHLY OWNER COSTS		
Housing units with a mortgage	87,345	+/-3,352
Less than \$300	384	+/-237
\$300 to \$499	3,119	+/-721
\$500 to \$699	8,971	+/-1,285
\$700 to \$999	27,076	+/-1,973
\$1,000 to \$1,499	28,650	+/-2,061
\$1,500 to \$1,999	12,734	+/-1,506
\$2,000 or more	6,411	+/-1,155
Median (dollars)	1,059	+/-25
Housing units without a mortgage	56,772	+/-2,878
Less than \$100	517	+/-279
\$100 to \$199	6,841	+/-1,207
\$200 to \$299	16,919	+/-1,943

\$300 to \$399	15,668	+/-1,721
\$400 or more	16,827	+/-1,408
Median (dollars)	326	+/-10
SELECTED MONTHLY OWNER COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME		
Housing unit with a mortgage	87,345	+/-3,352
Less than 20.0 percent	37,205	+/-2,281
20.0 to 24.9 percent	15,557	+/-1,647
25.0 to 29.9 percent	10,948	+/-1,578
30.0 to 34.9 percent	6,122	+/-1,242
35.0 percent or more	17,357	+/-1,971
Not computed	156	+/-143
Housing unit without a mortgage	56,772	+/-2,878
Less than 10.0 percent	31,392	+/-2,641
10.0 to 14.9 percent	9,131	+/-1,058
15.0 to 19.9 percent	5,705	+/-964
20.0 to 24.9 percent	2,670	+/-561
25.0 to 29.9 percent	3,000	+/-855
30.0 to 34.9 percent	1,291	+/-437
35.0 percent or more	3,362	+/-781
Not computed	221	+/-212
Renter-occupied units	63,185	+/-2,936
GROSS RENT		
Less than \$200	1,292	+/-466
\$200 to \$299	2,628	+/-736
\$300 to \$499	15,059	+/-2,031
\$500 to \$749	22,270	+/-2,097
\$750 to \$999	8,043	+/-1,445
\$1,000 to \$1,499	4,531	+/-1,184
\$1,500 or more	1,815	+/-818
No cash rent	7,547	+/-1,528
Median (dollars)	601	+/-24
GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME		
Less than 15.0 percent	13,208	+/-1,793
15.0 to 19.9 percent	8,149	+/-1,626
20.0 to 24.9 percent	6,210	+/-1,368
25.0 to 29.9 percent	8,486	+/-1,757
30.0 to 34.9 percent	3,335	+/-811
35.0 percent or more	15,615	+/-1,779
Not computed	8,182	+/-1,590

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a confidence interval. The interval shown here is a 90 percent confidence interval. The stated range can be interpreted roughly as providing a 90 percent probability that the interval defined by the lower and upper bounds contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.