

Cost and Coverage Impacts of Five Proposals to Reform the Colorado Health Care System

Appendix A: Characteristics of the Uninsured in Colorado

Prepared for:

The Colorado Blue Ribbon Commission for Health Care Reform

By:
The Lewin Group

December 29, 2007

Table of Contents

I.	Introduction	1
II.	Data and Methodology	2
	A. The Current Population Survey (CPS) data	2
	B. Correcting for Under-Reporting of Medicaid and SCHIP	3
	C. Average Monthly Uninsured	4
III.	Coverage	5
	A. Primary Source of Health Insurance	5
	B. Number of Uninsured by Age	6
	C. Uninsured by Family Income	7
	D. Uninsured by Race and Ethnicity	7
	E. Uninsured by Citizenship Status	8
	F. Full-year and Part-year Uninsured	9
IV.	Medicaid Eligible but not Enrolled	9
V.	Access to Employer Coverage	10
VI.	Uninsured by Selected Policy Relevant Characteristics	12
VII.	Conclusion	14

I. INTRODUCTION

The US Census Bureau estimates that the number of people in Colorado without health insurance for a full year averaged about 758,800 people over the 2003 through 2005 period. However, the Census Bureau estimate overstates the number of uninsured because is based upon data that underreports the number of people receiving Medicaid by about 30 percent. Once we adjust these data to reflect actual program enrollment levels, the estimated number of people without health insurance coverage for a full year drops from 758,800 people to about 562,800 people. Using these adjusted data, we estimate that there were another 506,800 people who were uninsured for part of year. We estimate that on average, about 785,200 people without insurance in any given month (also know and a “point-in-time” estimate).

In this study, we developed estimates of the number of uninsured by individual characteristics. We devote special attention to specific subgroups of the uninsured that could be targeted for specific policy interventions designed to expand insurance coverage. These include uninsured people who are eligible for but not enrolled in the current Medicaid and State Children’s Health Insurance Programs (SCHIP), and workers who have declined coverage offered by their employer. We also provide data on insurance coverage by citizenship status, income, and the characteristics of the working uninsured and their dependents. Estimates are provided for the nation and by state.

The key findings of his study are:

- There were about 1.1 million Colorado residents who were uninsured sometime during 2005; and an average of 785,200 (17.2 percent) people were without health insurance in any given month;
- About 10.8 percent of the uninsured are eligible for Medicaid or the State Children’s Health Insurance Program (SCHIP) but are not enrolled;
- About 21.3 percent of the uninsured are not citizens of the US;
- 11.1 percent of the uninsured have access to employer coverage as a worker or dependent but have not take the coverage;
- The uninsured are found at all income levels. While about 24.1 percent of the uninsured are living below the Federal Poverty Level (FPL), 6.5 percent of the uninsured are in families with annual income of \$100,000 or more; and
- 69.5 percent of the uninsured are in a family with one or more worker.

Our analysis is presented in the following sections:

- Data and methodology;
- Coverage;
- Medicaid eligible but not enrolled;
- Access to employer coverage for the uninsured;
- Uninsured by selected policy relevant characteristics; and

II. DATA AND METHODOLOGY

Our primary data source for this study is the March Current Population Survey (CPS) conducted annually by the Census Bureau. These data are the source of the annual Census Bureau estimates of the number of uninsured in the US and by state. We pooled the Colorado sub-samples of the CPS data for 2004 through 2006 to increase the sample size to a level sufficient to provide detailed analyses for the state.

While the CPS provides the most current data on insurance coverage, it under-reports the number of people covered under the Medicaid program by roughly 30 percent, which causes these data to over-estimate the number of uninsured in the US. Consequently, we corrected the CPS data for under-reporting of Medicaid coverage to provide a more accurate count of the number of people without coverage. We also adjust the data to under-reporting of employer coverage. In this section, we describe the data sources and methodology that we used to estimate the number of uninsured in the US and by state.

A. The Current Population Survey (CPS) data

The CPS is based upon a representative sample of US residents in each of the 50 states and the District of Columbia. These data provide information on the sources of health insurance coverage for each member of each household selected for the survey. The CPS also provides detailed information on income, family relationship, employment status, citizen status, and other demographic characteristics. These data permit us to estimate the number of uninsured people by state for various socio-economic groups.

The survey asks people to indicate whether they had insurance in the prior year from each of several sources. Those who do not report being covered by any of these sources in the prior year are classified as “uninsured”. Thus, the way the survey is conducted, it reports the number of people uninsured all year. The CPS 2006 estimate reports that about 44.5 million people were uninsured all year in 2005 (i.e., the year prior to the March survey).¹

Some analysts have assumed that the CPS is actually reporting the number of people without insurance at the time of the survey, rather than their coverage status in the prior year. However, it is difficult to believe that all survey respondents are failing to answer the questions as asked, particularly after the Census Bureau has revised the survey questions to improve reporting. There are also patterns in the reporting of coverage from more than one source that is generally consistent with people reporting their coverage in the prior year.² Consequently, our approach in this study was to accept survey responses as indications of coverage in the prior year. We

¹ The official estimate was recently revised downward from 46.4 million people after a computer error was corrected.

² Another reason for assuming that people are reporting their sources of coverage in the prior year is that the CPS reports over three times as many people with coverage from more than one source than do other surveys that collect data on a point in time basis, such as the Survey of Income and Program Participation (SIPP). This result is consistent with people reporting their coverage sources from the prior year, reflecting that people are often covered under one coverage source for part of the year and another source during the rest of the year.

also allocated this coverage over the 12 months in 2005 to estimate coverage levels on both an annual and an average monthly basis.

B. Correcting for Under-Reporting of Medicaid and SCHIP

A major draw back of the CPS is that it appears to dramatically under-report the number of people with Medicaid coverage, which causes it to overstate the number of uninsured. The pooled CPS reports that there was an average of about 374,000 people in Colorado who were covered under Medicaid or SCHIP sometime during the year (*Figure 1*). This is substantially lower than program data indicating that these programs cover about 565,000 people sometime during the year.

Figure 1
Pooled CPS Estimates of the Colorado Residents by Source of Health Insurance with and without Corrections for Under-Reporting (thousands) ^{a/}

	CPS With Corrections	Official CPS		CPS With Corrections	Official CPS
Number of Uninsured			Medicaid Coverage ^{b/}		
Uninsured all year	563	759	Ever covered in year	565	374
Average monthly	785	n/a	Average monthly	447	n/a
Ever uninsured in year	1,070	n/a	Covered all year	336	n/a
Medicaid eligible not enrolled (monthly)	85	n/a	Other Coverage Sources Ever in Year		
Employer Coverage			Medicare	453	453
Ever in year	2,953	2,827	Retiree – Medicare	85	85
Average Monthly	2,752	n/a	Retiree – Non-Medicare	54	54
Covered all year	2,497	n/a	Non-Group - Medicare	126	126
			Non-Group Other	157	165
			TRICARE and Other	239	244

a/ Estimates were developed by distributing the reported number of months of Medicaid coverage over the year and by distributing employer coverage over the reported number of weeks worked in the year.

b/ Excludes enrollees with only partial benefits.

Source: Lewin Group analysis of the Colorado sub-sample, 2004 through 2006 CPS data, with corrections for under reporting of Medicaid coverage.

We corrected the CPS for under-reporting of Medicaid using Lewin Group Health Benefit Simulation Model (HBSM). HBSM is a micro-simulation model of the US health care system that is designed to estimate the number of people eligible under proposed expansions in coverage under these programs. The model first allocates earnings over the number of weeks each individual worked during the prior year and creates information on income for each month of the year. The model then simulates eligibility for Medicaid and SCHIP using these monthly income data to identify people who appear to be eligible for these programs based upon the income eligibility levels actually used in these programs for various categories of eligibility (e.g., children parents etc.). The model does this in a way that accounts for changes in eligibility over the year as people move into and out of employment from month-to-month.

We then select a portion of the people who appear to be eligible for Medicaid or SCHIP to assign to enrolled status so that these data report the correct number of people participating in these programs. The first step in imputing coverage is to identify people whose source of coverage appears to have been miscoded as covered under some other source. In particular, many Medicaid participants are covered under Medicaid and SCHIP private health plans which people could easily have recorded as private coverage. These adjustments include:

- Children who appear to be eligible for the program who report having private coverage or TRICARE are reclassified as Medicaid/SCHIP enrolled if the adults in the family do not have these types of coverage; and
- People reporting they have “other coverage” who appear eligible for Medicaid are reclassified as Medicaid/SCHIP participants unless they specify that they are covered under TRICARE.

This resulted in reclassification of 35,800 people as Medicaid enrollees.

In the second step, we adjust the number of people with Medicaid or SCHIP coverage to match program data on the number of people enrolled in the program some-time during the year. We do these imputations separately for families, children, the aged and other eligibility groups.³ We then adjust the number of months of enrollment assigned to these individuals so that these data also replicate program data for average-monthly enrollment in these programs.⁴ By matching the CPS to both ever-enrolled and the average-monthly totals, we avoid overstating Medicaid enrollment on an average monthly basis. The resulting data show average monthly enrollment in Medicaid and SCHIP of 447,000 people (*Figure 1*).

C. Average Monthly Uninsured

As discussed above, the CPS reports the number of people who were without coverage from any source during all 12 months of the prior year. However, this definition omits those who were uninsured for only a portion of the year. This not only understates the number of uninsured, it would also lead us to under-estimate the cost of covering these people under various proposals to expand insurance coverage. Thus, the most appropriate measure of the uninsured for policy purpose is the average monthly number of uninsured.

As discussed above, we allocate reported coverage from each source over the 12 months of the year based upon employment and duration of enrollment data reported in the CPS. We allocate employer wages and employer health insurance coverage over the periods of work reported in the CPS. We also allocated Medicaid and SCHIP coverage over the number of months they report (or are assigned) being enrolled for months where these individuals appear to be income eligible. We assume that people reporting coverage from Medicare, TRICARE or non-group coverage are insured by these sources all year. This enables us to estimate the number of people without insurance coverage in each month.

³ In states that do not provide data on average-monthly enrollment, it must be estimated from other sources such as the survey of income and program participation (SIPP).

⁴ These data must be estimated in states that do not maintain separate counts of average-monthly enrollment.

Using the Colorado CPS data with corrections for under-reporting, we estimate that 562,800 people were without coverage throughout the year. This compares with the unadjusted estimate of the number of uninsured reported by the Census Bureau of 758,800 people uninsured all year. About 1.1 million are uninsured sometime during the year. There was an average of about 785,200 people without coverage in any given month of the year, which is equal to about 17.2 percent of the State's population.

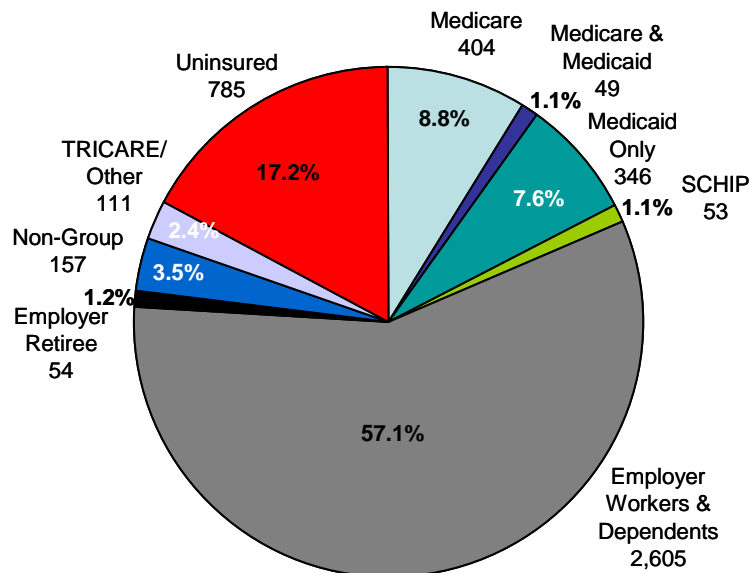
III. COVERAGE

In this section we present estimates of the distribution of uninsured people across selected socio-economic groups. All of the estimates presented in this section are based upon the 2006 CPS with the corrections for underreporting of Medicaid, and the allocation of coverage by month as discussed above. We also provide estimates of the number of uninsured people who are actually eligible for Medicaid or SCHIP but are not enrolled.

A. Primary Source of Health Insurance

Figure 2 presents our estimates of the distribution of US residents by primary source of coverage. Because many people have coverage from more than one source, we defined the primary source of coverage based on the prevailing coordination of benefits practices now in use. For example, about 49,000 aged and disabled people are covered under both Medicare and Medicaid. For these individuals, Medicare is the primary source of coverage, with Medicaid as secondary payer covering Medicare co-payments and services not covered by Medicare.

Figure 2
Colorado Residents by Average Monthly Primary Source of Health Insurance^{a/}
(thousands)



Total Population = 4,564

a/ Primary payer is determined on the basis of prevailing coordination of benefits practices now in use. Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

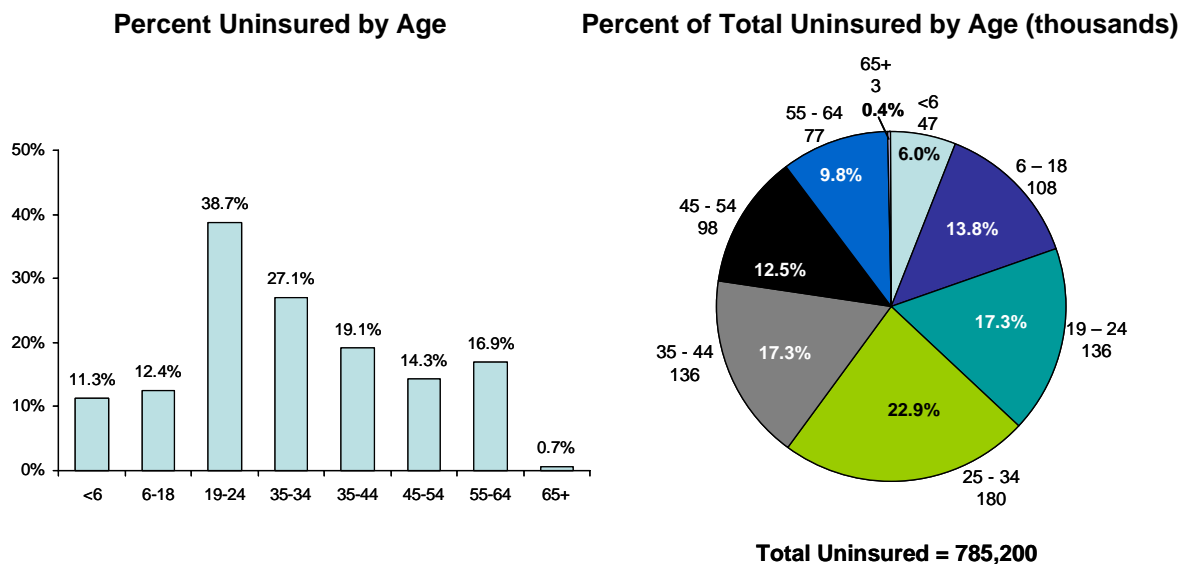
Employer-based coverage is the primary source of health insurance for most people in Colorado. More than one half of the population (57.1 percent) has employer based coverage as a worker or a dependent at any given point in time (*Figure 2*). Another 54,000 people are receiving employer coverage as an early retiree (i.e., excludes retiree supplemental coverage for Medicare eligible retirees). In addition, about 157,000 people have individually purchased non-group coverage as their primary source of coverage.

Medicare is the primary source of coverage for 453,000 aged or disabled people of whom about 49,000 are also covered under Medicaid. Average monthly enrollment in Medicaid is about 447,000, including 49,000 people who are also covered under Medicare. About 399,000 people have Medicaid as their primary source of health insurance coverage. There are about 83,000 people covered as military retirees or dependents under the TRICARE program. This leaves an average of about 785,200 uninsured people on an average-monthly basis.

B. Number of Uninsured by Age

Young adults are more likely to be without health insurance coverage than any other age group (*Figure 3*). About 38.7 percent of people age 19 through 24 are without health insurance, while about 27.1 percent of those age 25 through 34 are uninsured. About 16.7 percent of people age 55 through 64 are uninsured. Roughly 12 percent of children under the age of 19 are uninsured.

Figure 3
Percent of Colorado Residents Who are Uninsured by Age



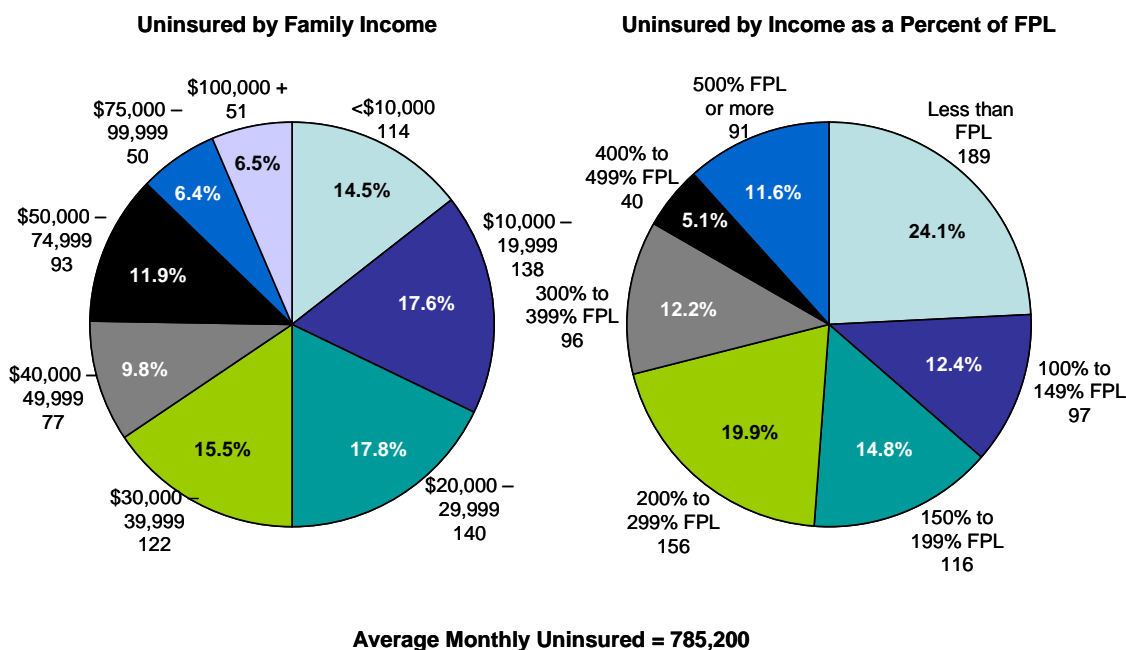
Source: The Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

Of the 785,200 people without health insurance coverage, about 19.7 percent (i.e., 155,000) were children. About 40.2 percent of the uninsured are adults between the ages of 19 and 34.

C. Uninsured by Family Income

The uninsured are found in all income groups (*Figure 4*). About 24.1 percent of the uninsured live below the federal poverty level (FPL). About 47.0 percent of the uninsured have incomes between 100 percent and 300 percent of the FPL, and about 28.9 percent of the uninsured have incomes in excess of 300 percent of the FPL. In fact 6.5 percent of the uninsured have family incomes of \$100,000 or more.

Figure 4
Average Monthly Uninsured in Colorado by Family Income and Income as a Percent of the Federal Poverty Level (FPL) (thousands)



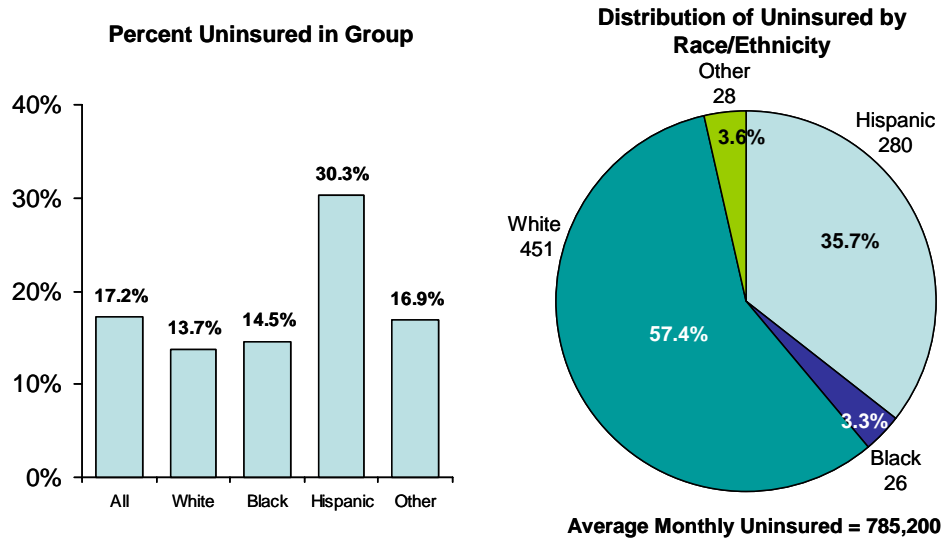
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

D. Uninsured by Race and Ethnicity

The percentage of the population without coverage varies widely by race and ethnicity. As discussed above, an average of about 17.2 percent of the population is without insurance at any given point during the year. About 30.3 percent of people who report they are Hispanic are without health insurance coverage (*Figure 5*). About 14.5 percent of blacks are uninsured, compared with about 13.7 percent of whites.

About 57.4 percent of the uninsured are white. Hispanics account for 35.7 percent of those without health insurance. About 3.3 percent of the uninsured are black and about 3.6 percent report they are in “other” racial groups.

Figure 5
Uninsured by Race and Ethnicity in Colorado (thousands)

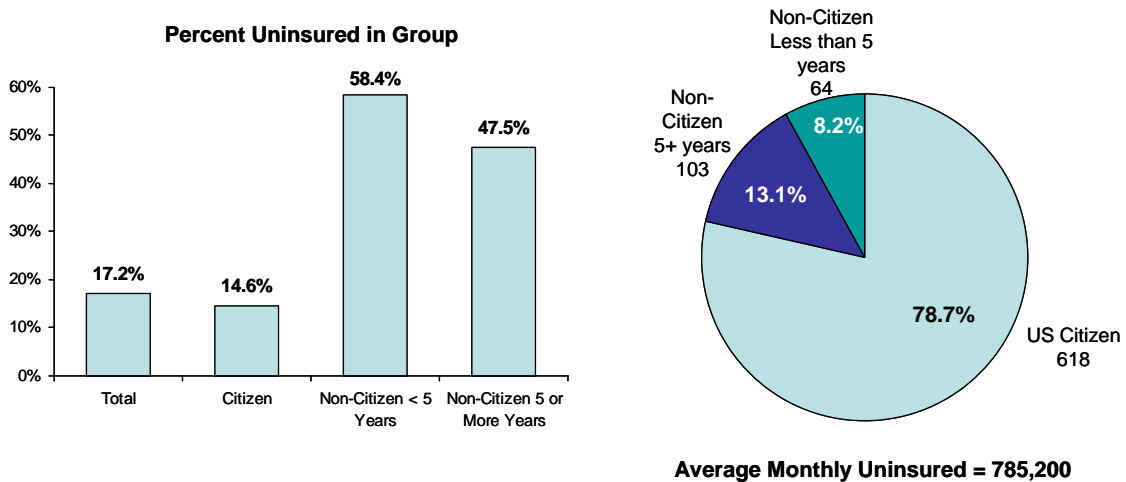


Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

E. Uninsured by Citizenship Status

About 167,000 of the uninsured (i.e., 21.3 percent) are not-citizens of the US (*Figure 6*). This is important in a policy context because immigrants must wait 5 years before they can qualify for Medicaid. Undocumented immigrants are ineligible for Medicaid regardless of income, except for emergency services. About 8.2 percent of the uninsured are non-citizens who have been in the US for less than 5 years and would not qualify for assistance under Medicaid or SCHIP except for emergencies. Another 13.1 percent of the uninsured are non-citizens who have been in the US for more than 5 years.

Figure 6
Uninsured in Colorado by Citizenship Status (thousands)



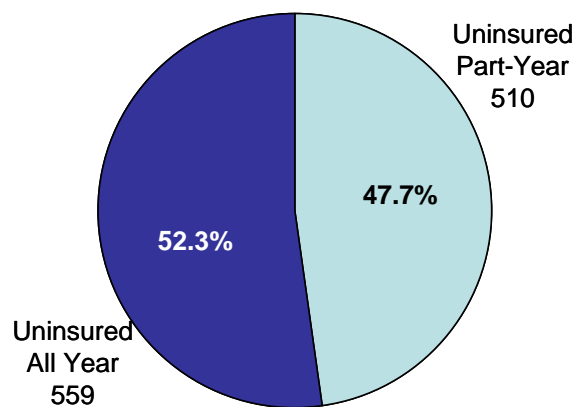
Source: Lewin Group estimates using the Health Benefits Simulations Model (HBSM)

Over half (58.4 percent) of all immigrants who have been in the country less than 5 years are uninsured. Among immigrants who have been in the US for 5 or more years, 47.5 percent are uninsured. About 14.6 percent of US citizens in Colorado are uninsured.

F. Full-year and Part-year Uninsured

As discussed above, we estimate that about 1.1 million Colorado residents were uninsured sometime during the year were uninsured all year (*Figure 7*). Of these, about 52.3 percent were uninsured for all 12 months of the year. The remaining 47.7 percent are people who were uninsured only part of the year.

Figure 7
Full-Year and Part-Year Uninsured in Colorado in 2005 (thousands)



Even Uninsured in Year = 1,069,000

Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

IV. MEDICAID ELIGIBLE BUT NOT ENROLLED

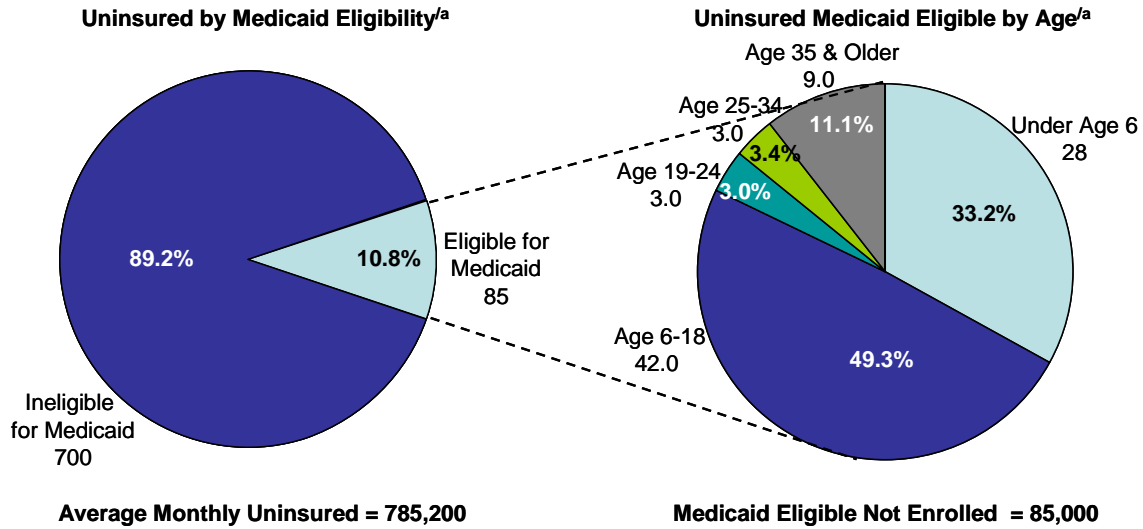
Many of those who are eligible to enroll in the Medicaid and SCHIP programs are not enrolled. Medicaid covers low-income people in certain categorical groups including children, low-income parents, the aged and the blind and disabled. Medicaid is the primary source of coverage for 8.7 percent of the Colorado population, over half of whom are children.

The Income eligibility levels for Medicaid vary by category of eligibility. Children are eligible for Medicaid if their income is below 133 percent of the FPL for children under age six, and below 100 percent of the FPL for children age six and older. SCHIP covers children living below 200 percent of the FPL who are not eligible for Medicaid. Pregnant women are covered through 200 percent of the FPL. Parents with custodial responsibilities for children are usually eligible only if their income is less than 60 percent of the FPL. Non-disabled non-aged adults without children are not covered at any income level.

As discussed above, we used HBSM to identify people and families in the Colorado sub-sample of the CPS who meet the specific income eligibility criteria for the Colorado Medicaid and SCHIP programs. The analysis showed that after correcting for under-reporting of Medicaid

coverage, there are about 85,000 uninsured people in Colorado who are eligible for Medicaid or SCHIP but are not enrolled (*Figure 8*).

Figure 8
Average Monthly Uninsured by Medicaid Eligibility Status
(thousands)



a/ Medicaid includes SCHIP

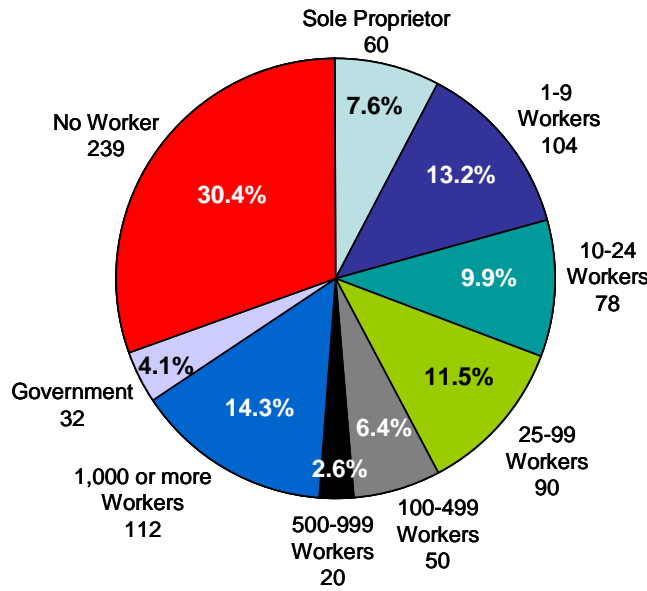
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

Thus, about 10 percent of the uninsured population is actually eligible for these programs but are not enrolled. Of the eligible but not enrolled, about 82.5 percent are children. About 6,000 (6.4 percent) are young adults age 19 through 34, and another 9,000 are adults age 35 to 64.

V. ACCESS TO EMPLOYER COVERAGE

Of the 785,200 people without insurance, about 546,000 (69.7 percent) are in a family with one or more worker (*Figure 9*). About 60,000 are sole proprietors, and 182,000 are in firms with fewer than 25 workers. About 112,000 of uninsured workers and dependents are in firms with 1,000 or more workers. These are primarily part-time and temporary workers who are ineligible for coverage offered by the employer.

Figure 9
Average Monthly Uninsured Workers and Dependents in Colorado
by Type of Worker (thousands)



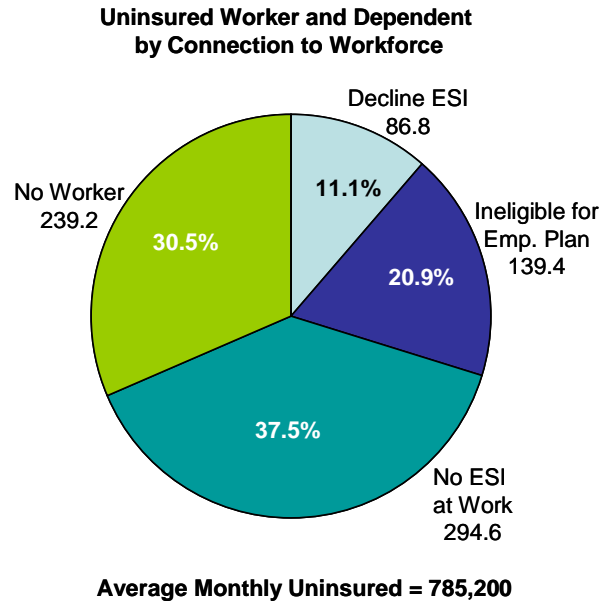
Uninsured Workers and Dependents = 785,200

Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

About 32.0 percent of the uninsured are in a family where one or more working family member is in a firm that offers insurance to at least some of its workforce. About 11.1 percent of uninsured workers and dependents are eligible for the coverage offered by a worker’s employer, but have declined to enroll (*Figure 10*). Another 20.9 percent are ineligible for the health plan offered by their employers. About 294,600 (37.5 percent) of the uninsured are workers and dependents associated with firms that do not offer coverage to any of their workforce.

Figure 10
Average Monthly Uninsured in Colorado by Connection to Workforce
(thousands)

	Average Monthly Uninsured
Uninsured dependent of covered worker	25.2
Decline coverage offered through work	86.8
Workers	70.9
Dependents	15.9
Worker ineligible for plan at work	139.4
Workers	111.5
Dependents	27.9
No employer coverage at work	294.6
Workers	210.6
Dependents	84.0
Families with no worker	239.1
Total average monthly uninsured	785.2



Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

VI. UNINSURED BY SELECTED POLICY RELEVANT CHARACTERISTICS

The uninsured are composed of a wide variety of groups, each of which could be targeted for different policies to expand insurance coverage. For example, about 85,000 of the uninsured are already eligible for Medicaid or SCHIP, and about 86,800 are eligible for coverage through employment but have declined the coverage (*Figure 11*). About 167,000 are non-citizens. Also, about 92,000 of the uninsured are in families with incomes in excess of 500 percent of the FPL.

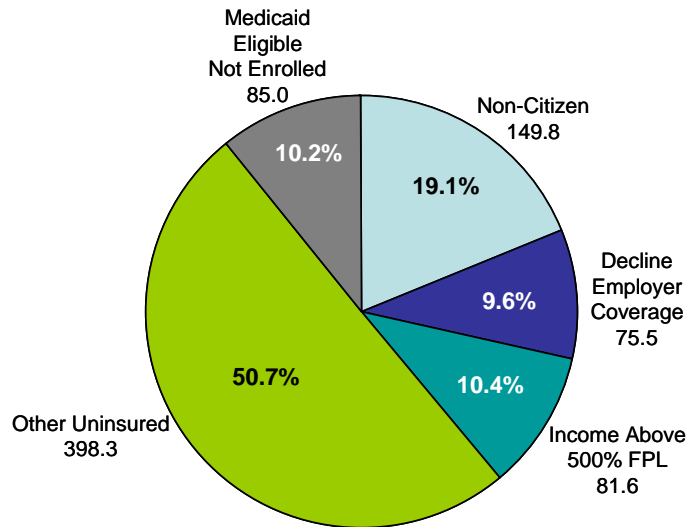
About 393,300 of uninsured Colorado residents are not associated with these characteristics. These generally include people who do not have access to a health plan at work and have incomes that are too high to qualify for Medicaid, but too low to be able to afford private insurance. This group of the uninsured accounts for about half of the uninsured population in the state (*Figure 12*).

Figure 11
Distribution of Uninsured People in Colorado by Policy Relevant Characteristics

	Overlapping Counts of Uninsured ^{a/}	Non-Overlapping Counts ^{b/}
Medicaid/SCHIP eligible not enrolled	85,000	85,000
Not U.S. citizen	167,000	149,800
Declined employer coverage	86,800	75,500
Incomes above 500% FPL	92,000	81,600
Other Uninsured ^{c/}	393,300	393,300
Total	785,200	785,200

a/ Numbers in this column do not sum to total due to overlaps in individual characteristics.
b/ The counts in this column are dependent upon the order in which individuals are classified.
c/ Includes uninsured people who are not included in the categories listed above.
Source: Lewin Group estimates using the Health Benefits Simulations Model (HBSM).

Figure 12
Colorado Uninsured Population by Policy Relevant Characteristics (thousands) ^{a/}



Total Uninsured at Point in Time = 785,200

a/ These counts are dependent upon the order in which individual are classified.
Source: Lewin Group estimates using the Health Benefits Simulation Model (HBSM).

VII. CONCLUSION

We estimate that an average of about 785,200 uninsured Colorado residents during any given month. About 85,000 are eligible for Medicaid or SCHIP but are not enrolled and 167,000 are non-citizens. Over two-thirds of the uninsured are in a family with one or more worker. In fact, about 86,800 workers and dependents have declined employer coverage available to them at work. Another 139,400 are in a family with a worker who is ineligible for coverage sponsored by their employer, as a part-time or temporary employee. About 239,200 are in families where there are no working family members.

About 57.1 percent of Colorado residents are covered through their employer. Another 3.5 percent have individually purchased non-group coverage. Medicare and Medicaid together cover about 18.6 percent of Colorado residents.