

# Department of Health Care Policy and Financing Medicaid Caseload FY 2019-20 Budget Request

November 2018

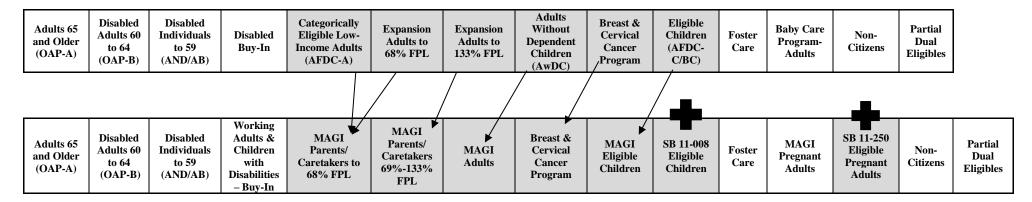
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### CHANGES TO THE ELIGIBILITY CATEGORIES

The Department of Health Care Policy and Financing ("the Department") previously altered the eligibility categories to reflect the different Federal Medical Assistance Percentage (FMAP) that is applied to different categories. Several steps in Medicaid expansion (described below) introduced new categories with an enhanced FMAP. Forecasting caseload by eligibility and FMAP categories allows for a more accurate expenditure estimate for each funding source. Beginning with the August 2014 JBC Monthly Report, caseload was restated to align with the eligibility categories described below.

- "Categorically Eligible Low-Income Adults" and "Expansion Adults to 68%" were combined into one category called "MAGI Parents/Caretakers to 68% FPL."
- "Expansion Adults to 133% FPL" is now titled "MAGI Parents/Caretakers 69%-133% FPL."
- On January 1, 2013, Colorado implemented SB 11-008 and SB 11-250 which expanded Medicaid Eligible Children to 133% FPL (142% FPL with MAGI disregards after October 2013) for all ages and expanded Baby-Care Adults to 185% FPL (195% FPL with MAGI disregards after October 2013). The incremental increase in eligibility receives an enhanced match equal to the CHP+ FMAP, for clients who would have otherwise been in the CHP+ program. Eligible Children and Baby-Care Adults are now separated into two categories each; MAGI Eligible Children and SB 11-008 Eligible Children, and MAGI Pregnant Adults and SB 11-250 Eligible Pregnant Adults.



### **MEDICAID CASELOAD**

#### INTRODUCTION

Biannually, the Department submits its estimated funding need for the Medical Services Premiums line item. The first step in generating the November and February submissions is to project the Medicaid caseload. Medicaid caseload does not represent the number of uninsured individuals in Colorado, nor does it represent the number of Colorado residents living in poverty. Caseload figures only represent individuals that the Department expects will enroll in Medicaid because they meet specific eligibility requirements in one of three groups: 1) Families, Pregnant Women, and Children; 2) Aged and Disabled; or 3) Other.

Federal Medicaid statute defines over 50 groups of individuals that may qualify for Medicaid. Some groups are mandatory while others are optional, and each state decides which of the optional groups it will cover. From the inception of Medicaid in 1965 (Public Law 89-97) to the 1980s, the program was targeted at low-income families, the elderly, and individuals with disabilities. During the 1980s, Medicaid expanded to include pregnant women and children with greater income levels, as well as some optional elderly and disabled groups. In 2000, Medicaid coverage was extended to women with breast and cervical cancer. From the 1990s to the present, other Medicaid categories have been added through State-initiated waivers. All eligibility categories have specific income limits, and some have additional criteria such as age, resources, or disability status. For budgetary purposes, the Department groups together clients with similar characteristics and costs. For example, clients grouped in the MAGI Eligible Children category have similar characteristics and costs but might have gained Medicaid eligibility through different criteria. Since each category of eligibility is affected by unique factors, the Department projects each category separately. Projecting an aggregate caseload would be easier, but less precise.

Historic caseload data are used in conjunction with economic data to project caseload in each category. To make a projection, the Department uses several different statistical techniques (as described in the Forecast Models section) and chooses the projection that best fits the data. After projections are chosen for each category, the Department presents its recommendations to the Office of State Planning and Budgeting (OSPB). The Department then meets with OSPB and the two agencies agree on an Executive caseload proposal. It is important to note that the methodology the Department used to generate its projections is not wholly reflected by the Executive caseload proposal presented in this document, since those figures are often the result of compromises with OSPB.

In 2003, the process of projecting the Medicaid caseload was drastically affected by SB 03-196, which mandated that the Department transition from accrual to cash-based accounting. From that point forward, caseload numbers no longer incorporated retroactivity. Retroactivity caused historical adjustments to caseload to account for clients who were found to be eligible for Medicaid for past months, thus increasing the count of persons eligible for Medicaid. Since most clients are eligible back to the date of their application, retroactivity adjustments assured that all months were accounted for. However, this caused variability in the caseload reports, as monthly caseload was adjusted for months, even years, after the month had ended. It also required special manually run reports to make these adjustments. Under the cash accounting system, a monthly caseload report is created from the Medicaid Management Information System (MMIS) and that caseload is considered final.

In addition to estimating the funding need for the Medical Services Premiums line item, Medicaid caseload is used to determine the funding need for the Medicaid Behavioral Health Community Programs. Comprehensive behavioral health services are available to eligible Medicaid clients. Thus, the Medicaid Behavioral Health caseload is the Medicaid caseload less Partial Dual Eligibles and Non-Citizens-Emergency Services, which are not eligible

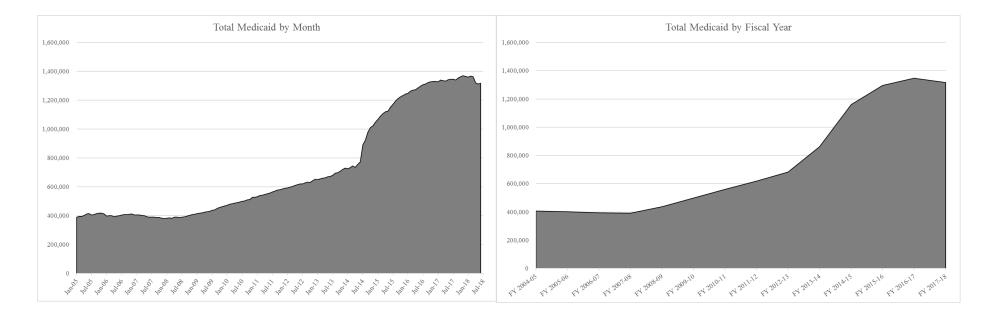
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for full Medicaid benefits. The following table displays a comparison of historical caseloads in Medicaid Medical Services Premiums and Behavioral Health.

Fiscal Year	Medical Services Premiums Caseload	Less: Behavioral Health Ineligible Categories	Behavioral Health Caseload
FY 2003-04	367,559	(14,635)	352,924
FY 2004-05	406,024	(14,755)	391,269
FY 2005-06	402,218	(17,304)	384,914
FY 2006-07	392,228	(18,109)	374,119
FY 2007-08	391,962	(18,405)	373,557
FY 2008-09	436,812	(19,062)	417,750
FY 2009-10	498,797	(19,612)	479,185
FY 2010-11	560,759	(20,303)	540,456
FY 2011-12	619,963	(21,641)	598,322
FY 2012-13	682,994	(23,890)	659,104
FY 2013-14	860,957	(25,859)	835,098
FY 2014-15	1,161,206	(30,767)	1,130,439
FY 2015-16	1,296,986	(35,234)	1,261,752
FY 2016-17	1,346,174	(36,449)	1,309,725
FY 2017-18	1,315,217	(37,637)	1,277,580

# **Recent Caseload History**

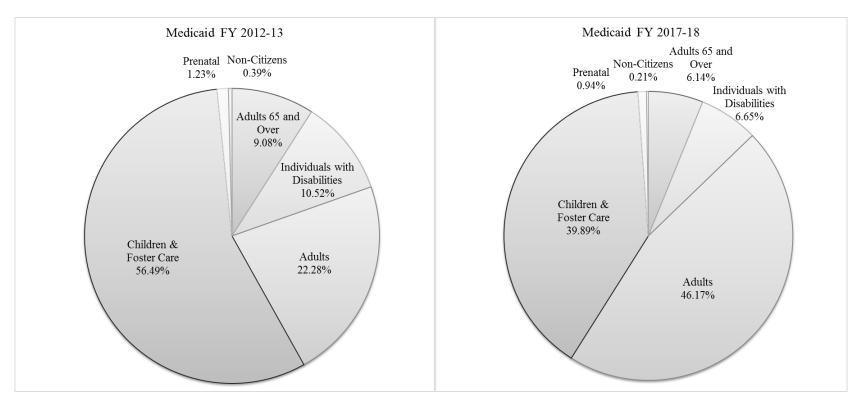
#### Total Medicaid Caseload

Exhibit B tabulates actual caseload figures and growth rates by eligibility category from FY 1997-98 to FY 2016-17. Projections for FY 2018-19 through FY 2020-21 are also presented in the table and will be discussed in the Categorical Projections section of this document. A graphical representation of aggregate Medicaid caseload history from FY 2003-04 is shown below. Total Medicaid caseload had an average yearly growth of 11.76% over the 5 years preceding FY 2013-14. As can be seen in the graph below, Medicaid expansion began in January 2014. The average monthly caseload for total Medicaid in FY 2013-14 increased by 26.06% from FY 2012-13. Overall, the caseload growth that is attributable to Medicaid expansion has been slowing over time.



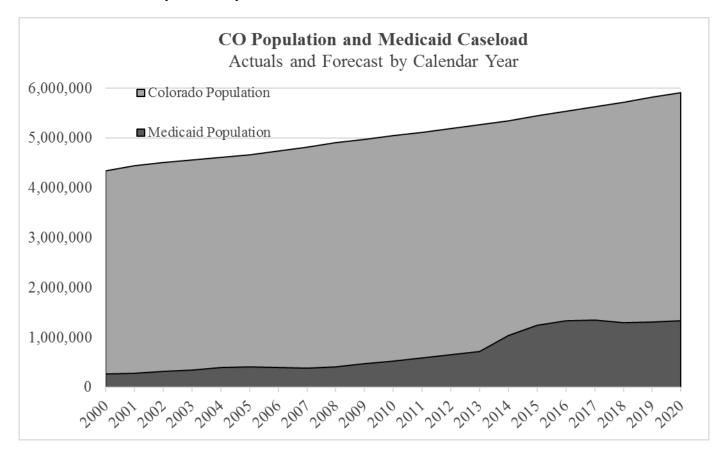
# Composition of Medicaid Caseload

Medicaid Expansion resulted in significant changes in the composition of Medicaid caseload, mainly for Medicaid Adults. The following charts show a side-by-side comparison of the Medicaid caseload by category as a percentage of the overall caseload for FY 2012-13 (pre-expansion) and FY 2017-18 (post-expansion). Medicaid adults have increased their share of caseload by more than 23 percentage points, an increase attributable to lifting the enrollment cap in MAGI Adults and expanding eligibility for adults to 133% FPL. Children and Foster Care has lost more than fifteen percentage points and is now less than half of the composition of Medicaid. Adults ages 65 and Over and Individuals with Disabilities have also lost a portion of their share. These declines in the proportion of caseload are not due to declines in the individual eligibilities themselves, rather they are due to the large increase in Medicaid Adults.



A number of factors influence Medicaid caseload trends, including population trends, in-state migration, age of the population, length of stay, economic conditions, and State and federal policy changes. Projecting annual caseload is complicated by the fact that each of these factors can contribute to categorical changes, some of which may be contradictory. For example, the State may enact legislation that removes clients from a Medicaid category who are aged 65 and older, while the population of adults aged 65 and older is increasing. Therefore, projections represent the *net effect* of what the Department expects will happen. Each factor and its expected impact on the Medicaid caseload are discussed below.

*Population* - Colorado's total population is estimated to have increased 10.01% from 2010 to 2016, while the population increase for the total US was 4.7%<sup>1</sup>. The Department of Local Affairs' State Demography Office forecasts that Colorado's population will increase a further 4.84% from 2018 to 2021<sup>2</sup>. As the overall population has grown, so too has Medicaid caseload. This positive correlation implies that if population is projected to grow in the future, Medicaid caseload may also increase. The graph below shows the Department of Local Affairs' forecast for Colorado's population with the Department's Medicaid Caseload forecast by calendar year.



When using population data to project caseload, the Department marries population subgroups to their appropriate Medicaid category. For example, when projecting caseload for MAGI Eligible Children, the Department uses population statistics for Colorado residents aged 0 to 18. By using subgroups instead of total population figures, the Department is able to capture subgroup specific trends.

<sup>&</sup>lt;sup>1</sup> http://www.census.gov/quickfacts/table/PST045215/00

<sup>&</sup>lt;sup>2</sup> Source: Department of Local Affairs, Demography Division;

*In-State Migration* - Like population, in-state migration is positively correlated with Medicaid caseload. As discussed above, Colorado's population from 2010 to 2016 grew at a faster rate than the population of the U.S. As more individuals move to Colorado from other states, Medicaid caseload is likely to increase. During economic downturns, people usually move from states with worse economic conditions to states with better conditions in search of jobs. Although Colorado experienced economic conditions in line with the overall conditions in the United States during the recent recession, net migration remained positive in 2010 at approximately 70,000<sup>3</sup>. An increase of 70,000 persons in a population of over 5.1 million may not be significant, but a positive migration rate means more people who could be eligible for Medicaid. According to 2010 estimates from the Census Bureau, Colorado experienced the sixth highest migration rate in the United States.<sup>4</sup> Conversely, as the economy recovers, in-state migration is expected to increase. Net migration grew to an estimated 52,346 in 2006, overtaking natural increase (births minus deaths) as the major component of population growth. Though in-state migration is projected to decrease over the forecast period, the number of individuals moving into the State is expected to remain positive, buoyed by rates of unemployment that are lower than the national average.

Age - The age of the population can provide some insight as to why Medicaid caseloads have been increasing. As the population ages, the demand for medical care increases. Generally, as individuals age, their health becomes more fragile and they are more likely to seek health care. From 2005 to 2015, Colorado's median age increased by 1.7 years, a 4.9% increase<sup>5</sup>. This may be the result of retirees moving to the State, increased longevity, or fewer births. Regardless of the reason, an aging population has a direct effect on the demand for medical services, though not necessarily Medicaid. According to data from the United States Census Bureau, Colorado had the 10<sup>th</sup> lowest median age in 2010 and the 4<sup>th</sup> lowest old-age dependency ratio in 2009 (defined as the population 65 and older as a percent of population 18 to 64) in the nation.<sup>6</sup> The population over 60 in Colorado has increased by 59.55% between 2002 and 2013, which is expected to cause an increase in the State's median age. Additionally, Colorado's old-age dependency ratio is projected to increase from 15.6 in 2000 to 24.6 in 2020, a 57.2% increase.<sup>7</sup> This growth is significantly higher than the national average, which is projected to increase by 34.8% over the same timeframe. This suggests that Colorado will be aging faster than the average state over the forecast period. Since 2009, Colorado has experienced increases in the eligibility categories that include older individuals, though the growth was not as high as population growth in the general population aged 60 and over. This may be the result of a healthier aging population and demographic factors, such as the elderly population working longer and some of the baby-boom generation not yet reaching retirement age. Below is a chart comparing population by age group for Colorado and the United States. The next page shows the population pyramid from the 2010 Census Summary.

	Population by Age Group: 2010										
Total U		Under 18	Under 18 years 18 to 44 Years		45 to 64 Years		65 Years and Over		Median		
	Population	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Age	
<b>United States</b>	308,745,538	74,181,467	24.0%	112,806,642	36.5%	81,489,445	26.4%	40,267,984	13.0%	37.2	
Colorado	5,029,196	1,225,609	24.4%	1,913,620	38.1%	1,340,342	26.7%	549,625	10.9%	36.1	

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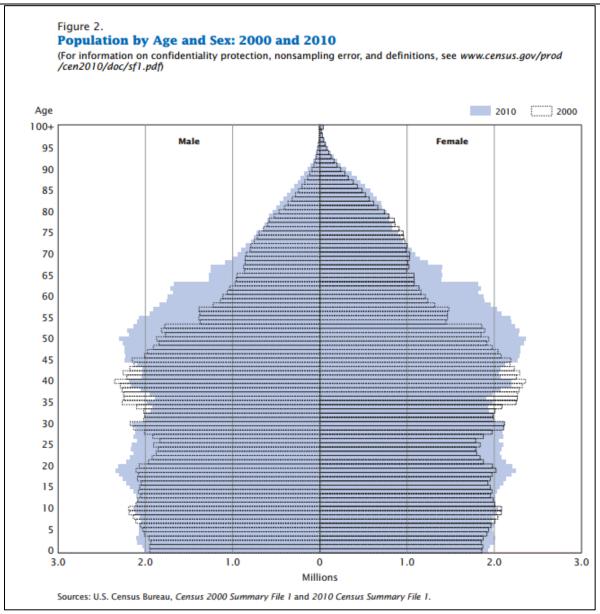
<sup>&</sup>lt;sup>3</sup> Source: Department of Local Affairs, Demography Division

<sup>&</sup>lt;sup>4</sup> Source: 2010 American Community Survey http://www.census.gov/acs/www/

<sup>&</sup>lt;sup>5</sup> Source: Department of Local Affairs, Demography Division

<sup>&</sup>lt;sup>6</sup> Source: 2010 American Community Survey <a href="http://www.census.gov/acs/www/">http://www.census.gov/acs/www/</a>

<sup>&</sup>lt;sup>7</sup> Source: U.S. Census Bureau, Population Division, Interim State Population Projections, 2005 <a href="http://www.census.gov/population/www/projections/index.html">http://www.census.gov/population/www/projections/index.html</a>



Length of Stay - Medicaid caseload is not only affected by the number of individuals served but also the length of time they remain in the program. The calculation used in the past for length of stay only considered enrollment in a given year in isolation, and did not account for clients that have eligibility that overlaps multiple fiscal years due to the timing of their eligibility determination. The Department has refined this analysis to account for the clients with a length of stay lasting longer than a fiscal year to provide a more accurate picture of the amount of time that individuals are enrolled in Medicaid. The table below shows the average length of stay in months, as well as the percent of clients that stay on Medicaid for longer than one year. The calculation for FY 2015-16 (shaded) may not be complete due to run-out and these averages could increase as more data is accrued.

	Average Length of Stay in Months by Eligibility												
		Adults 65 and Older	Disabled Adults 60 to 64	Disabled Individuals to 59	Disabled Buy-In	MAGI Parents/ Caretakers to 68% FPL	Expansion Adults <sup>1</sup>	Breast and Cervical Cancer Program	Eligible Children <sup>2</sup>	Foster Care	Eligible Pregnant Adults <sup>3</sup>	Non- Citizens	Partial Dual- Eligibles
2011-12	Avg LOS Mo's	51.03	44.97	61.25	13.52	14.45	13.36	30.99	17.76	42.67	10.66	6.38	42.71
FY 20	% > 12 Mo's	90.93%	90.11%	93.11%	32.61%	58.37%	59.43%	83.96%	76.42%	88.94%	27.06%	1.35%	90.40%
2012-13	Avg LOS Mo's	43.32	35.46	55.11	12.78	13.90	11.65	25.99	16.62	37.29	9.07	5.84	34.46
FY 20	% > 12 Mo's	86.05%	86.40%	90.21%	30.65%	53.55%	44.72%	70.65%	68.90%	90.21%	16.16%	0.92%	78.52%
2013-14	Avg LOS Mo's	35.28	33.14	45.31	15.94	15.78	9.80	29.02	17.84	35.91	10.29	5.74	32.28
FY 20	% > 12 Mo's	85.48%	86.30%	90.68%	47.09%	63.63%	19.30%	75.08%	72.47%	88.48%	24.44%	0.76%	82.42%
2014-15	Avg LOS Mo's	19.57	21.15	21.72	14.3	16.73	16.29	17.17	18.26	38.64	11.06	5.59	17.95
FY 20	% > 12 Mo's	80.04%	87.19%	90.65%	60.76%	73.80%	70.60%	72.77%	82.61%	92.98%	35.86%	1.59%	80.50%
2015-16	Avg LOS Mo's	20.60	21.63	22.54	13.16	15.92	15.64	19.01	17.92	32.42	12.36	5.48	17.00
FY 20	% > 12 Mo's	86.81%	91.18%	94.70%	60.78%	79.42%	78.66%	84.53%	88.74%	94.32%	45.69%	0.80%	83.28%

<sup>1 –</sup> The Department is reviewing the new data structure to ensure accuracy, and this table will be updated in the February 2019 request with more accurate information.

<sup>2 –</sup> This category includes both MAGI Parents/Caretakers 69-133% FPL and MAGI Adults.

<sup>3 –</sup> This category includes both MAGI Eligible Children and SB 11-008 Eligible Children

<sup>4 –</sup> This category includes both MAGI Pregnant Adults and SB 11-250 Pregnant Adults

Economic Conditions - Economic indicators partially explain why some Medicaid caseload trends occur. Since Medicaid is a needs-based program where clients must meet income limits, it follows that caseload for families and children should be countercyclical to economic conditions. For example, as the State experiences recessionary conditions, Medicaid caseload will increase. After the recession that ended in the early 1990s, Colorado enjoyed almost ten years of economic expansion. The terror attacks on the United States in 2001 combined with the bursting of the stock market bubble in late 2000 brought that expansion to a halt. For the first time in more than a decade, Colorado experienced significant job losses coupled with falling wages. In mid-2003, the Colorado economy hit bottom after the decline that started in early 2001. Due to seasonal fluctuations and wide confidence intervals for over-the-month changes, employment data is best analyzed by comparing the same month for different years. The first post-recession over-the-year gain in non-agricultural employment occurred in March of 2004. The State officially entered an expansionary period in early 2006, as employment surpassed the late 2000 peak. The recovery period lasted 30 months, one of the longest on record. Employment began to soften in October 2008, when 4,600 jobs were shed over the year. The State experienced over-the-year job losses for two years and the annual contractions appear to have peaked in September 2009, when job losses numbered 128,400 (5.5%) over the year. The State has seen very moderate over-the-year employment increases as of September 2010. As of June 2017, the over-the-year jobs gain was estimated to be 52,700, or 2.03%. The unemployment rate for the US in 2016 was estimated at 4.9% while Colorado's unemployment rate for the same year was 3.3%.

The table that follows shows historical and projected (shaded) wage and salary income, non-agricultural employment, and unemployment rates for Colorado. 10

Year	Wage and Salary Income (billions)	Non- Agricultural Employment	Unemployment Rate
2011	\$118.60	2,258,600	8.40%
2012	\$125.00	2,313,000	7.90%
2013	\$129.60	2,381,900	6.80%
2014	\$138.70	2,464,900	5.00%
2015	\$146.60	2,541,900	3.90%
2016	\$153.30	2,598,300	3.30%
2017	\$159.90	2,658,600	2.80%
2018	\$169.20	2,727,700	2.90%
2019	\$178.80	2,782,300	3.00%
2020	\$187.30	2,832,400	3.20%

<sup>&</sup>lt;sup>8</sup> Source: United States Department of Labor, Bureau of Labor Statistics, Current Employment Statistics <a href="http://www.bls.gov/data/">http://www.bls.gov/data/</a>

<sup>&</sup>lt;sup>9</sup> Source: <a href="http://www.bls.gov/cps/">http://www.bls.gov/cps/</a>

<sup>&</sup>lt;sup>10</sup> Source: Office of State Planning and Budgeting, September 2017 Economic and Fiscal Review, page 42

The timing of an economic cycle is important in estimating the impact on the Medicaid caseload, excluding elderly eligibilities and clients with disabilities. As the economy recovers from a downturn, workers need to find jobs in order to withdraw from the Medicaid rolls. Jobs that primarily affect family and children Medicaid populations are hourly and concentrated in the service industry. These employment types are often the last to benefit from improving economic conditions. Therefore, any economic impact on the Medicaid caseload will have a lagged effect. Second, as workers find jobs they do not instantaneously lose their Medicaid eligibility. Since 1990, states have been federally required to provide Transitional Medical Assistance (known as Transitional Medicaid) benefits for up to one year to families who lost eligibility because of increased income due to employment. This policy was directed at clients who potentially might turn down employment for fear of losing their Medicaid benefits. To be eligible for Transitional Medicaid, a client must have been eligible in at least three of the preceding six months, though states may elect to reduce this requirement to fewer than three months. Clients may receive Transitional Medicaid as long as their income is below 185% of the federal poverty level, provided that the proper income reporting requirements are followed. Another small group of clients are eligible for Transitional Medicaid services that would otherwise lose their Medicaid benefits due to child or spousal support payments. Families in this group receive a four-month extension. In the past, this program has been set to expire many times. With the passage of H.R.2 "Medicare Access and CHIP Reauthorization Act of 2015" on April 16, 2015, transitional Medicaid was made permanent. As illustrated in the following table, the average number of adults and children on Transitional Medicaid increased dramatically in FY 2004-05. The Department suspects that the high growth in FY 2004-05 and FY 2005-06 may be partially related to large monthly increases that occurred around the implementation of the Colorado Benefits Management System. Monthly caseload declined between December 2005 and June 2008, but caseload increased throughout FY 2008-09 and FY 2009-10. Transitional Medicaid increased again in FY 2013-14 and FY 2014-15 for adults, which is likely due to both expansion and an improving economy.

While the economy is projected to continue improving, the Department does not anticipate declines in caseload. The Affordable Care Act expands State-provided medical coverage, implements an insurance mandate, and changes the way poverty levels are measured (MAGI conversion). Despite the improving economy, these policy changes are resulting in aggressive caseload growth. As discussed above, many of the expansion groups in Medicaid caseload grew much faster than originally predicted. More details will be presented in the Categorical Projections section. The improving economy is better demonstrated in the average monthly caseload that is on Transitional Medicaid, see the chart below. Adult clients eligible for Transitional Medicaid remain in the MAGI Parents/Caretakers to 68% FPL category rather than transitioning to expansion categories, when their FPL is at or below 133%.

Fiscal Year	Average Number of Eligible Children on Transitional Medicaid	Average Number of Parents/ Caretakers on Transitional Medicaid
FY 2002-03	7,645	4,689
FY 2003-04	7,349	4,709
FY 2004-05	10,776	6,586
FY 2005-06	16,749	10,745
FY 2006-07	16,065	9,968
FY 2007-08	13,000	7,778
FY 2008-09	13,489	7,905
FY 2009-10	13,582	8,099
FY 2010-11	11,042	6,173
FY 2011-12	21,311	11,171
FY 2012-13	16,544	8,643
FY 2013-14	16,335	16,668
FY 2014-15	4,969	34,001
FY 2015-16	12,451	29,329
FY 2016-17	28,219	40,955
FY 2017-18	29,870	52,555

*Policy Changes* - State and federal policy decisions can alter the Medicaid caseload. The following list briefly describes major State and federal policy changes that have affected Medicaid eligibility and, therefore, caseload. This list is not meant to be comprehensive in nature but a summary of major changes affecting eligibility since 2000.

- Breast and Cervical Cancer Prevention and Treatment Act of 2000, Public Law 106-354: Established a new group of eligibility for women under 65 who have been screened under the Centers for Disease Control and Prevention Board and need treatment for either diagnosis. Colorado implemented this optional eligibility group in July 2002 pursuant to SB 01S2-012.
- Medicare Prescription Drug, Improvement, and Modernization Act of 2003: This act causes more potential beneficiaries to be screened for Medicaid when they apply for this Medicare benefit.
- Presumptive eligibility for Medicaid pregnant women was discontinued on September 1, 2004. It was re-established by HB 05-1262 on July 1, 2005.
- HB 05-1262, the Tobacco Tax bill: This bill provided funding for the removal of the Medicaid asset test, the expansion of the income guideline used to establish eligibility for parents of children eligible for either Medicaid or the Children's Basic Health Plan to 60% of the federal poverty level (known as Expansion Adults to 60% FPL), and to expand the number of children enrolled in the Home- and Community-Based Services and the Children's Extensive Support Waiver.
- Deficit Reduction Act of 2005: This Act contained provisions related to premiums and cost sharing, benefits, and asset transfers that will have implications for Medicaid beneficiaries. In addition, the Deficit Reduction Act contained a provision requiring States to obtain satisfactory documentary evidence of citizenship and identity for all Medicaid applicants who have declared that they are citizens or nationals of the United

States, with exemptions for individuals that are eligible for Medicaid and entitled to or enrolled in Medicare and those eligible for Medicaid by virtue of receiving Supplemental Security Income benefits.

- SB 07-211: Established presumptive eligibility for Medicaid children.
- HB 09-1293: The Colorado Health Care Affordability Act of 2009, authorizes the Department to collect hospital provider fees for the purpose of obtaining federal financial participation for the State's medical assistance programs and using the combined funds to: 1) increase reimbursement to hospitals for providing medical care under the medical assistance program and the Colorado Indigent Care Program; 2) increase the number of persons covered by public medical assistance; and 3) pay the administrative costs to the Department in implementing and administering the program. Populations that receive Hospital Provider Fee funding are disabled buy-in, adults without dependent children, and expansion adults 60%-133%. HB 09-1293 also established continuous eligibility for twelve months for children in Medicaid.
- HB 09-1353: Expands Medicaid eligibility to pregnant women who are legal permanent residents that have been in the country for less than 5 years.
- SB 11-008: Increases Medicaid eligibility for children from 6 through 18 years of age to 133% FPL beginning in January 2013 (142% FPL after MAGI disregards in October 2013). These clients are identified separately in the JBC monthly report and in the caseload forecast. They are the clients that are Medicaid eligible children between the ages of 6 and 18, FPL within 108% and 142%, and have no other insurance. These clients receive the CHP+ enhanced Federal match.
- SB 11-250: Increases Medicaid eligibility for pregnant women from 142% FPL to 185% FPL beginning in January 2013 (195% FPL after MAGI disregards in October 2013). These clients are identified separately in the JBC monthly report and in the caseload forecast. They are the clients that are Medicaid eligible pregnant adults that are within 142% FPL and 195% FPL and have no other insurance. These clients receive the CHP+ enhanced Federal match.
- SB 13-200: Increases Medicaid eligibility for expansion adults from 100% FPL to 133% FPL and lifts the enrollment cap on MAGI Adults.
- The transition to MAGI resulted in standardization of the definition and measurement of income, both across states and programs, resulting in streamlined eligibility determinations that are based solely on national tax filing standards rather than disparate methodologies.
- Continuous eligibility for Medicaid Eligible Children and CHP+ Children was implemented March 2014. Clients on Medicaid or CHP+ that are determined over the income threshold will have an additional 12 months of eligibility before losing benefits. This reduces churn between Medicaid and CHP+ as well as the client's ability to maintain continuous medical coverage as they churn from Medicaid or CHP+ into the Marketplace. This change results in an increased length of stay for MAGI Eligible Children and SB 11-008 Eligible Children.
- HB 14-1045: Extends funding for the Breast and Cervical Cancer Program through FY 2018-19.
- HB 14-1252: Increases the system capacity for home- and community-based intellectual and developmental disabilities programs, services, and supports.
- Annualization of income began July 1, 2016 and allows individuals with seasonal fluctuations in income to remain eligible throughout the year so long as their income, annualized throughout the year, meets Medicaid qualification requirements.
- The age range for screening and treatment of cervical cancer under the Breast and Cervical Cancer Program will expand to 21 through 64, from 40 through 64, in January 2017, based on the Department of Public Health and Environment's FY 2016-17 R-04 "Cervical Cancer Eligibility Expansion" request.
- HB 16-1321: Allows for a Medicaid Buy-In option for Supported Living Services waiver (under the Office of Community Living) and the Spinal Cord Injury and Brain Injury waivers under Medical Services Premiums, beginning in FY 2017-18.

Oftentimes, a forecast cannot instantaneously incorporate policy changes even with the use of dummy or indicator variables. When this occurs, adjustments are made to the forecast off-line. Detailed accountings of off-line adjustments are in Exhibit B, page EB-2.

Caseload decreased from FY 2004-05 through FY 2007-08, resulting in a decline of 14,062, or 3.46%, between these fiscal years. The Department believes that improving economic conditions were the driving factor in this decrease, as consistent monthly declines occurred in MAGI Parents/Caretakers and MAGI Eligible Children, which are expected to be most affected by the economy. This trend reversed as of the second half of FY 2007-08, when the Eligible Children caseload started to show significant monthly increases. Strong increases continued in Medicaid in FY 2008-09, FY 2009-10, FY 2010-11, FY 2011-12, and FY 2012-13, with annual growth of 11.44%, 14.19%, 12.42%, 10.56%, and 10.17% respectively. With Medicaid expansion beginning in January 2014, the second half of FY 2013-14, caseload increased by 26.06% between FY 2012-13 and FY 2013-14 and 34.87% between FY 2013-14 and FY 2014-15. The increase continued in FY 2015-16, but at a lower rate, at 11.70%. The growth rate continued to decrease in FY 2016-17 and was negative in FY 2017-18. Due to a system change that improves the process for verifying income for Medicaid eligibility purposes that occurred in October 2017, every quarter the Department saw a decrease in caseload. Due to a communication issue between the CBMS and interChange regarding retroactive updates to enrollment spans that was fixed in June 2018, there was a substantial increase in Medicaid caseload that the Department treated as a level shift. In addition, there was a systems issue around guaranteed coverage for children, that inappropriately placed children in an incorrect category when the system redetermined their eligibility instead of maintaining guaranteed coverage in their original categories. This system issue was resolved in the beginning of FY 2018-19. The forecast for the Medicaid population is lower than the February 2018 forecast due to the lower starting point even with the overall level shift upward in June. The Department is forecasting Medicaid caseload to continue to decrease by 0.90% in FY 2018-19 to 1,303,345. In FY 2019-20 and FY 2020-21, the trends are projected to be 1.41% and 1.75% respectively. The following table shows actual and projected aggregate Medicaid caseload from FY 2005-06 through FY 2020-21.

	Medicaid		
Fiscal Year	Caseload	<b>Growth Rate</b>	<b>Level Growth</b>
FY 2005-06	402,218	-0.94%	(3,806)
FY 2006-07	392,228	-2.48%	(9,990)
FY 2007-08	391,962	-0.07%	(266)
FY 2008-09	436,812	11.44%	44,850
FY 2009-10	498,797	14.19%	61,985
FY 2010-11	560,759	12.42%	61,962
FY 2011-12	619,963	10.56%	59,204
FY 2012-13	682,994	10.17%	63,031
FY 2013-14	860,957	26.06%	177,963
FY 2014-15	1,161,206	34.87%	300,249
FY 2015-16	1,296,986	11.70%	135,829
FY 2016-17	1,346,174	3.79%	49,188
FY 2017-18	1,315,167	-2.30%	(30,947)
FY 2018-19 Projection	1,303,345	-0.90%	(11,822)
FY 2019-20 Projection	1,321,749	1.41%	18,404
FY 2020-21 Projection	1,344,825	1.75%	23,076

#### FORECAST MODELS

The Department's caseload projections utilize statistical forecasting methodologies to predict Medicaid caseload by eligibility category. Historical monthly caseload data from July 1993 to June 2018 and historical and forecasted economic data (revised in June 2018) and demographic data (revised in June 2018) are used. The following forecasting models are used in this forecast: trend and monthly seasonal dummy variables, ARIMA models, trend stationary, difference stationary, regression analysis with explanatory variables, and vector auto regression models. In the past, the software used by the Department for developing trend and regression forecasts was *Forecast Pro XE*. The Department is now using *EViews* 9.

### Trend and Seasonality Model

Medicaid caseload is a non-stationary series with a positive trend and many of the categories experience some level of seasonality. One of the models used incorporates a time trend and monthly seasonal dummy variables.

#### ARIMA Model

ARIMA models, also referred to as Box-Jenkins models, rely on the past behavior of the series being forecasted. Relying on the past behavior of a series mandates that a series be stationary. Most of the eligibilities in Medicaid caseload have a positive growth trend (non-stationary) and require differencing to be made stationary.

### *Trend Stationary and Difference Stationary*

Series that are stationary have a constant mean; caseload series frequently do not have this characteristic and often have a trending mean. Two popular models used for non-stationary series with a trending mean are trend stationary and difference stationary. The trend stationary model serves as an effective model if the series has a deterministic trend. The difference stationary model is useful when the trend is stochastic. Differencing the dependent variable gives a stationary series. The basic forms of the two models are listed below, where y is the dependent variable. Lags of the dependent variable are added to clear up serial correlation within the series.

- Trend Stationary:  $log(y) = c + trend + \varepsilon$
- Difference Stationary: differenced(log(y)) =  $c + \varepsilon$

#### Regression Models

Regression analysis, unlike trend analysis, incorporates independent variables when making projections. For example, a regression equation may include the unemployment rate if the forecaster expects it to have an effect on the caseload for MAGI Parents/Caretakers. Statistically, the forecaster can test whether or not there is a relationship between independent variables and the caseload by constructing a correlation matrix. Variables that are highly correlated with the caseload are more likely to be predictive. Regression equations are useful in that they provide some insight into why the trend projection is increasing, decreasing, or static. Although regression equations help explain why trends occur, their value depends on the quality of the independent variables used. In order to project caseload, historical and forecasted values of the independent variables must be used. Therefore, the accuracy of the caseload forecast depends on the accuracy of the forecasted independent variables. The Department accessed the Colorado Department of Local Affairs' Demography Division's actual and forecasted values of different populations by age and the unemployment rate in January 2018 and used this information in the regression models.

# Vector Auto Regression Models (VARs)

The Department has frequently used regression analysis to forecast caseload. Regression analysis, as described above, incorporates independent variables when making projections. Regression analysis has the unfortunate requirement that the independent variables be exogenous to the dependent variable, or only allows the independent variable on the right-hand side of the equation to have an effect on the dependent variable on the left-hand side of the equation. This is unlikely in reality as most factors are interrelated and may affect each other simultaneously. Vector Auto Regression (VAR) models are simultaneous equations, allowing the different variables to affect each other equally. In other words, both variables are dependent and are able to change over time together in the forecast. The simultaneous process is better able to capture a long-term relationship between multiple variables and does not restrict one variable to the right hand side of the equation. This can serve as a better reflection of reality than forcing the assumption that a variable is exogenous to Medicaid caseload.

# Exponential Smoothing

For over 30 years, Exponential Smoothing models have been used to forecast data within a variety of applications. Considered simplistic, Exponential Smoothing models extract trend and seasonal patterns from a time-series to predict a future stream of values. There are two types of Exponential Smoothing models that address trend and seasonality in time-series data: Holt and Winters. The Holt Exponential Smoothing model adjusts for long-term linear trend in data, while the Winters Exponential Smoothing model adjusts for both trend and seasonal components of data. Both Holt and Winters use recursive equations to determine the estimated parameters of the model, giving more weight to recent observations and exponentially

<sup>&</sup>lt;sup>11</sup> Sims, Chris "Macroeconomics and Reality." Econometrica. Volume. 48 No.1 (1980) Page MC-19

smaller weight to historically distant observations. One advantage of this model is that it produces robust results with limited data sets. This is very useful Medicaid eligibility categories that have not been in existence for very long. While the Department has used this model in the past, the February 2018 forecast does not use exponential smoothing.

# **Model Selection**

After several different forecasts are produced, the Department normally chooses one for each category. Several statistics are produced to grade and compare the forecast models. The three statistics provided in the narrative are the Schwartz Info Criterion (SIC), Akaike Info Criterion (AIC), and the adjusted R<sup>2</sup>. The SIC and the AIC provide a means for model selection. Both statistics include a trade-off between the goodness of fit of the model and the complexity of the model by applying a penalty for using up degrees of freedom (adding independent variables). These measures encourage the use of simpler models. The closer the SIC or AIC are to negative infinity, the better the model. The adjusted R<sup>2</sup> measures the goodness of fit of the model in-sample; the closer the R<sup>2</sup> statistic is to one the better the goodness of fit. The calculation of the adjusted R<sup>2</sup> contains the most lenient penalty for using up the degrees of freedom in the model. It is important to note that this measure is not reliable when forecasting the differences of a series. When differencing a series to make it stationary, fitting a model becomes incredibly difficult and the R<sup>2</sup> value drops. This does not indicate a poor model; it is simply a result of differencing a series. For models where the dependent variable is differenced, the AIC and SIC prove much more useful for comparing different models than the R<sup>2</sup>. When selecting a model, the Department closely analyzes the historical data, possible future impacts like the predicted state of the economy, and the above-mentioned statistics.

### **CATEGORICAL PROJECTIONS**

This next section details the caseload projections by eligibility category. For each category, the following are presented: a discussion of the category, statutory authority, model results, rationale for the forecast, and historical caseload and forecasts. FY 2019-20 projections are included for informational purposes.

# Adults Over 65 (OAP-A)

Colorado automatically provides Medicaid coverage to individuals who receive Supplemental Security Income. Supplemental Security Income, authorized under Title XVI of the Social Security Act of 1965, is a federal cash assistance program for persons aged 65 and older, blind, or disabled. An individual must have income below the federal monthly maximum Supplemental Security Income limit and limited resources. The Supplemental Security Income adults aged 65 and older are included in this category. Also included are individuals aged 65 and older who meet the Medicaid resource and income requirements, but are not receiving Supplemental Security Income. In addition, states may extend coverage to individuals with incomes above the Supplemental Security Income limit and who meet the nursing home level of care. Referred to as 'Three-Hundred Percenters', these clients have incomes no more than three times the Supplemental Security Income maximum limit, and they meet the level of care to be in a nursing home.

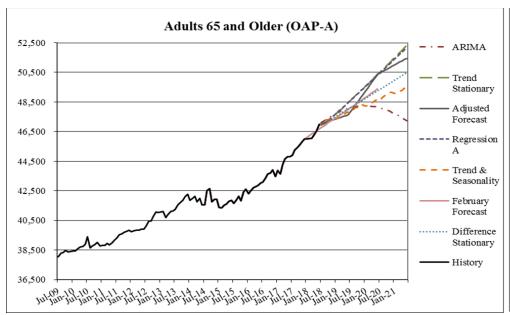
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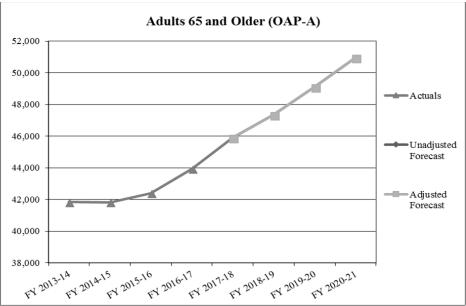
- (f) Individuals receiving supplemental security income;
- (g) Individuals receiving mandatory state supplement, including but not limited to individuals receiving old age pensions;
- (h) Institutionalized individuals who were eligible for medical assistance in December 1973;
- (i) Individuals who would be eligible except for the increase in old-age, survivors, and disability insurance under P.L. 92-336;
- (j) Individuals who become ineligible for cash assistance as a result of old-age, survivors, and disability insurance cost-of-living increases after April 1977:

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- (b) Individuals who would be eligible for cash assistance except for their institutionalized status;
- (c) Individuals receiving home-and community-based services as specified in part 6 of this article;
- (f) Individuals receiving only optional state supplement;
- (g) Individuals in institutions who are eligible under a special income level. Colorado's program for citizens sixty-five years of age or older or physically disabled or blind, whose gross income does not exceed three hundred percent of the current federal supplemental security income benefit level, qualifies for federal funding under this provision;
- (j) Individuals who are qualified aliens and were or would have been eligible for supplemental security income as a result of a disability but are not eligible for such supplemental security income as a result of the passage of the federal "Personal Responsibility and Work Opportunity Reconciliation Act of 1996", Public Law 104-193;

# Adults 65 and Older (OAP-A): Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend & Seasonality	OAP-A	Constant, Trend, Seasonal Dummy Variables	15.92	15.62	0.9521
ARIMA	D(OAP-A)	Constant, AR variables, MA variables	14.24	14.04	0.9806
Trend Stationary	LOG(OAP-A)	Constant, Trend, 1 lag of the dependent variable	-7.77	-7.9	0.9861
Difference Stationary	DLOG(OAP- A)	Constant, 2 lags of the dependent variable	-7.5	-7.57	0.0567
Regression A	OAP-A	Constant, CO population over 65, 4 lags of the dependent variable	13.67	13.5	0.9861
Adjusted Forecast			NA	NA	NA

Adults 65 and Older: Model Results1										
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2				
Trend & Seasonality	43,941	45,907	3.33%	47,436	1,529	70				
ARIMA	43,941	45,907	3.81%	47,656	1,749	90				
Trend Stationary	43,941	45,907	3.79%	47,647	1,740	123				
Difference Stationary	43,941	45,907	3.46%	47,495	1,588	87				
Regression A	43,941	45,907	3.85%	47,674	1,767	123				
Adjusted Forecast	43,941	45,907	3.12%	47,339	1,432	53				

FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	45,907	47,436	1.76%	48,271	835	70
ARIMA	45,907	47,656	1.14%	48,199	543	6
Trend Stationary	45,907	47,647	3.85%	49,481	1,834	158
Difference Stationary	45,907	47,495	2.50%	48,682	1,187	100
Regression A	45,907	47,674	3.76%	49,467	1,793	154
Adjusted Forecast	45,907	47,339	3.75%	49,114	1,775	228

FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	47,436	48,271	1.73%	49,106	835	70
ARIMA	47,656	48,199	-1.00%	47,717	(482)	(77)
Trend Stationary	47,647	49,481	3.92%	51,421	1,940	164
Difference Stationary	47,495	48,682	2.50%	49,899	1,217	103
Regression A	47,674	49,467	3.75%	51,322	1,855	155
Adjusted Forecast	47,339	49,114	3.75%	50,956	1,842	90

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

### Adults 65 and Older (OAP-A): Trend Selections

FY 2018-19: 3.12% FY 2019-20: 3.75% FY 2020-21: 3.75%

# Adults 65 and Older (OAP-A): Justifications

- Average monthly caseload in FY 2017-18 for Adults 65 and Older was 45,907. The June 2018 caseload was 46,991, 321 higher than the predicted June data point in the February 2018 request.. Consequently, the Department increased the previous trends.
- This population will be affected by the aging of the "baby boomers," defined by the U.S. Census Bureau as the generation born between 1946 and 1964. The Department believes this population is beginning to see this increase and has selected strong growth trends to account for the expected baby boomers. A population pyramid is available for review on page MC-10.
- The graph above shows that growth has been strong since FY 2011-12. Historical growth rates are stable and tend to fluctuate between 1% and 3%. The Department has seen strong growth in the Home- and Community-Based Services for the Elderly, Blind, and Disabled waiver.

	Actuals	Monthly Change	% Change
Jun-16	43,015	-	,
Jul-16	43,104	89	0.21%
Aug-16	43,374	270	0.63%
Sep-16	43,633	259	0.60%
Oct-16	43,725	92	0.21%
Nov-16	43,913	188	0.43%
Dec-16	43,481	(432)	-0.98%
Jan-17	43,888	407	0.94%
Feb-17	43,649	(239)	-0.54%
Mar-17	44,261	612	1.40%
Apr-17	44,637	376	0.85%
May-17	44,816	179	0.40%
Jun-17	44,814	(2)	0.00%
Jul-17	44,896	82	0.18%
Aug-17	45,233	337	0.75%
Sep-17	45,431	198	0.44%
Oct-17	45,606	175	0.39%
Nov-17	45,824	218	0.48%
Dec-17	45,985	161	0.35%
Jan-18	46,005	20	0.04%
Feb-18	46,038	33	0.07%
Mar-18	46,038	0	0.00%
Apr-18	46,302	264	0.57%
May-18	46,534	232	0.50%
Jun-18	46,991	457	0.98%

February 2018 Forecast			
Forecasted June 2018 Level	46,670		

Base trend from June 2018 level					
FY 2018-19	46,991	2.36%	1,084		

Adults 65 and Older: Historical Caseload and Projections						
	Caseload	% Change	Level Change			
FY 2005-06	36,207	-	-			
FY 2006-07	35,888	-0.88%	(319)			
FY 2007-08	36,284	1.10%	396			
FY 2008-09	37,619	3.68%	1,335			
FY 2009-10	38,487	2.31%	868			
FY 2010-11	38,921	1.13%	434			
FY 2011-12	39,740	2.10%	819			
FY 2012-13	40,827	2.74%	1,087			
FY 2013-14	41,836	2.47%	1,009			
FY 2014-15	41,817	-0.05%	(19)			
FY 2015-16	42,403	1.40%	586	Fe	bruary 2018	3 1
FY 2016-17	43,941	3.63%	1,538	FY 2016-17	43,941	
FY 2017-18	45,907	4.47%	1,966	FY 2017-18	45,945	
FY 2018-19	47,339	3.12%	1,432	FY 2018-19	47,392	Ī
FY 2019-20	49,114	3.75%	1,775	FY 2019-20	48,747	
FY 2020-21	50,956	3.75%	1,842	FY 2020-21		

Actuals				
Monthly % Change Cha				
6-month average	168	0.36%		
12-month average	181	0.40%		
18-month average	195	0.43%		
24-month average	166	0.37%		

Increasing growth the last three fiscal years, with high monthly growth the past three months. The Department has increased this forecast to account for the higher June datapoint. The Department believes positive growth will continue, but at a lower rate, and the average monthly growth in FY 2018-19 will be approximately 123 per month, increasing over the request and out years due to an aging population.

Fe	February 2018 Projection					
FY 2016-17	43,941	3.63%	1,538			
FY 2017-18	45,945	4.56%	2,004			
FY 2018-19	47,392	3.15%	1,447			
FY 2019-20	48,747	2.86%	1,355			
FY 2020-21						

Monthly Average Growth Actuals						
FY 2012-13 1st Half	185	0.46%				
FY 2012-13 2nd Half	20	0.05%				
FY 2012-13	103	0.25%				
FY 2013-14 1st Half	185	0.45%				
FY 2013-14 2nd Half	(117)	-0.28%				
FY 2013-14	34	0.08%				
FY 2014-15 1st Half	61	0.15%				
FY 2014-15 2nd Half	(13)	-0.03%				
FY 2014-15	24	0.06%				
FY 2015-16 1st Half	130	0.31%				
FY 2015-16 2nd Half	65	0.15%				
FY 2015-16	97	0.23%				
FY 2016-17 1st Half	78	0.18%				
FY 2016-17 2nd Half	222	0.51%				
FY 2016-17	150	0.34%				
FY 2017-18 1st Half	195	0.43%				
FY 2017-18 2nd Half	168	0.36%				
FY 2017-18	181	0.40%				

Monthly Average Growth Comparisons					
Request	Monthly	Change	Percent Change		
Request	S-1	R-1	S-1	R-1	
FY 2018-19 1st Half	110	53	0.23%	0.11%	
FY 2018-19 2nd Half	112	53	0.24%	0.11%	
FY 2018-19	111	53	0.24%	0.11%	
FY 2019-20 1st Half	114	228	0.24%	0.47%	
FY 2019-20 2nd Half	115	228	0.24%	0.46%	
FY 2019-20	115	228	0.24%	0.47%	
FY 2020-21 1st Half		90		0.18%	
FY 2020-21 2nd Half		90		0.18%	
FY 2020-21		90		0.18%	

# Adults 60 to 64 with Disabilities (OAP-B)

Colorado automatically provides Medicaid coverage to individuals who receive Supplemental Security Income. Supplemental Security Income, authorized under Title XVI of the Social Security Act of 1965, is a federal cash assistance program for persons aged 65 and older, blind, or disabled. An individual must have income below the federal monthly maximum Supplemental Security Income limit and limited resources. Disabled adults aged 60 to 64 who are eligible for Supplemental Security Income are included in this category. In addition, states may extend coverage to individuals with incomes above the Supplemental Security Income limit, and who meet the nursing home level of care. Referred to as 'Three-Hundred Percenters', these clients have incomes no more than three times the Supplemental Security Income maximum limit, and they meet the level of care to be in a nursing home.

Quality control checks are completed from time to time to look for eligibility coding errors that commonly result in clients being misclassified between this Medicaid category and the State-only Old Age Pension Health and Medical Care program (non-Medicaid). Historical miscoding can make it difficult to forecast this Medicaid category as groups of individuals identified through this process may be abruptly moved in and out of this category.

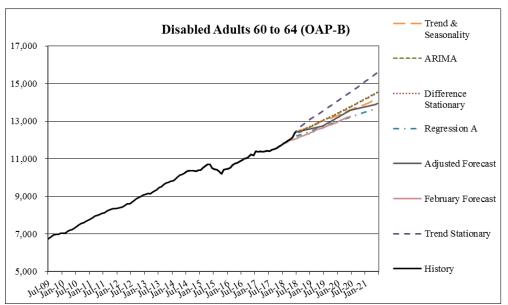
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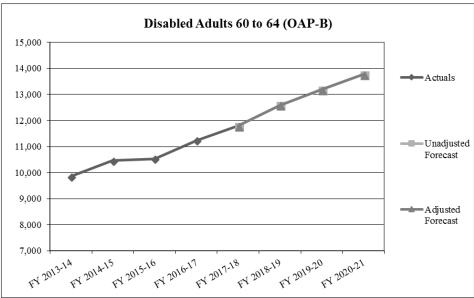
- (f) Individuals receiving supplemental security income;
- (g) Individuals receiving mandatory state supplement, including but not limited to individuals receiving old age pensions;
- (h) Institutionalized individuals who were eligible for medical assistance in December 1973;
- (i) Individuals who would be eligible except for the increase in old-age, survivors, and disability insurance under P.L. 92-336;
- (j) Individuals who become ineligible for cash assistance as a result of old-age, survivors, and disability insurance cost-of-living increases after April 1977;

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- (b) Individuals who would be eligible for cash assistance except for their institutionalized status;
- (c) Individuals receiving home-and community-based services as specified in part 6 of this article;
- (f) Individuals receiving only optional state supplement;
- (g) Individuals in institutions who are eligible under a special income level. Colorado's program for citizens sixty-five years of age or older or physically disabled or blind, whose gross income does not exceed three hundred percent of the current federal supplemental security income benefit level, qualifies for federal funding under this provision;
- (j) Individuals who are qualified aliens and were or would have been eligible for supplemental security income as a result of a disability but are not eligible for such supplemental security income as a result of the passage of the federal "Personal Responsibility and Work Opportunity Reconciliation Act of 1996", Public Law 104-193;

# Adults 60 to 64 with Disabilities (OAP-B): Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend & Seasonality	OAP-B	Constant, trend, and monthly seasonal variables	13.79	13.5	0.9883
ARIMA	dlog(OAP-B)	Constant, AR variables	-5.04	-5.15	0.1411
Trend Stationary	log(OAP-B)	Constant, trend, and 3 lags on the dependent variable	-7.33	-7.43	0.9994
Difference Stationary	dlog(OAP-B)	Constant and 2 lags on the dependent variable	-5.13	-5.18	0.1463
Regression A	OAP-B	Constant, 3 lags on dependent variable, population age 60-64	12.54	12.45	0.9966
Adjusted Forecast			NA	NA	NA

Disabled Adults 60 to 64: Model Results <sup>1</sup>						
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	11,241	11,797	7.80%	12,717	920	50
ARIMA	11,241	11,797	7.60%	12,694	897	50
Trend Stationary	11,241	11,797	10.75%	13,065	1,268	93
Difference Stationary	11,241	11,797	7.77%	12,714	917	52
Regression A	11,241	11,797	5.57%	12,454	657	24
Adjusted Forecast	11,241	11,797	6.70%	12,587	790	27
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	11,797	12,717	4.68%	13,312	595	50
ARIMA	11,797	12,694	5.61%	13,406	712	61
Trend Stationary	11,797	13,065	7.69%	14,070	1,005	84
Difference Stationary	11,797	12,714	5.63%	13,430	716	61
Regression A	11,797	12,454	4.21%	12,978	524	43
Adjusted Forecast	11,797	12,587	4.76%	13,186	599	69
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	12,717	13,312	4.47%	13,907	595	50
ARIMA	12,694	13,406	5.62%	14,159	753	64
Trend Stationary	13,065	14,070	7.33%	15,101	1,031	88
Difference Stationary	12,714	13,430	5.64%	14,187	757	65
Regression A	12,454	12,978	3.86%	13,479	501	41
Adjusted Forecast	12,587	13,186	4.38%	13,764	578	30

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

### Adults 60 to 64 with Disabilities (OAP-B): Trend Selections

FY 2018-19: 6.70% FY 2019-20: 4.76% FY 2020-21: 4.38%

# Adults 60 to 64 with Disabilities (OAP-B): Justifications

- Average monthly caseload in FY 2017-18 for Adults 60 to 64 with Disabilities was 11,797. The June 2018 caseload was 12,411, 369 over the predicted June caseload in the February 2018 request. After analyzing the most recent monthly data and the 2010 population pyramid from the 2010 Census (see page MC-10), the Department anticipates continued growth in the coming years for this population.. The Department has selected a trend on par with the average monthly growth for FY 2017-18.
- This category began to be affected by the baby-boom generation, defined by the U.S. Census Bureau as the generation born between 1946 and 1964, in calendar year 2006, which may have resulted in higher growth. Population growth in this age group was 10.8% in 2009 and 7.1% in 2010. The Department has seen strong growth in the Home-and Community-Based Services (HCBS) for the Elderly, Blind, and Disabled waiver over the last four years.

	Actuals	Monthly	%
	11000000	Change	Change
Jun-16	10,876	-	-
Jul-16	10,931	55	0.51%
Aug-16	11,011	80	0.73%
Sep-16	11,039	28	0.25%
Oct-16	11,131	92	0.83%
Nov-16	11,233	102	0.92%
Dec-16	11,181	(52)	-0.46%
Jan-17	11,405	224	2.00%
Feb-17	11,363	(42)	-0.37%
Mar-17	11,397	34	0.30%
Apr-17	11,381	(16)	-0.14%
May-17	11,401	20	0.18%
Jun-17	11,420	19	0.17%
Jul-17	11,410	(10)	-0.09%
Aug-17	11,486	76	0.67%
Sep-17	11,509	23	0.20%
Oct-17	11,558	49	0.43%
Nov-17	11,643	85	0.74%
Dec-17	11,718	75	0.64%
Jan-18	11,812	94	0.80%
Feb-18	11,860	48	0.41%
Mar-18	11,968	108	0.91%
Apr-18	12,054	86	0.72%
May-18	12,138	84	0.70%
Jun-18	12,411	273	2.25%

February 2018 Forecast		
Forecasted June 2018 Level	12,042	

Base trend from June 2018 level					
FY 2018-19	12,411	5.20%	614		

Disabled Adults 60 to 64: Historical Caseload and Projections						
	Caseload	% Change	Level Change			
FY 2005-06	6,042	-	-			
FY 2006-07	6,059	0.28%	17			
FY 2007-08	6,146	1.44%	87			
FY 2008-09	6,447	4.90%	301			
FY 2009-10	7,049	9.34%	602			
FY 2010-11	7,767	10.19%	718			
FY 2011-12	8,383	7.93%	616			
FY 2012-13	9,051	7.97%	668			
FY 2013-14	9,853	8.86%	802			
FY 2014-15	10,466	6.22%	613			
FY 2015-16	10,529	0.60%	63	F	ebruary 201	l8 Proje
FY 2016-17	11,241	6.76%	712	FY 2016-17	11,241	6.7
FY 2017-18	11,797	4.95%	556	FY 2017-18	11,742	4.4
FY 2018-19	12,587	6.70%	790	FY 2018-19	12,369	5.3
FY 2019-20	13,186	4.76%	599	FY 2019-20	12,966	4.8
FY 2020-21	13,764	4.38%	578	FY 2020-21		

Actuals						
	Monthly Change	% Change				
6-month average	116	0.96%				
12-month average	83	0.70%				
18-month average	68	0.58%				
24-month average	64	0.55%				

The average monthly growth for OAP-B for the last 6 months is 116 per month, skewed by the abnormally high June datapoint. The Department's selected trend predicts that average monthly growth will continue in FY 2018-19 on par with the average for FY 2017-18 with the June data point removed, at approximately 64 per month.

F	February 2018 Projection						
FY 2016-17	11,241	6.76%	712				
FY 2017-18	11,742	4.46%	501				
FY 2018-19	12,369	5.34%	627				
FY 2019-20	12,966	4.83%	597				
FY 2020-21							

1							
Monthly Average Growth Actuals							
FY 2012-13 1st Half	79	0.89%					
FY 2012-13 2nd Half	47	0.51%					
FY 2012-13	63	0.70%					
FY 2013-14 1st Half	73	0.77%					
FY 2013-14 2nd Half	78	0.78%					
FY 2013-14	75	0.77%					
FY 2014-15 1st Half	24	0.23%					
FY 2014-15 2nd Half	17	0.16%					
FY 2014-15	20	0.20%					
FY 2015-16 1st Half	(9)	-0.08%					
FY 2015-16 2nd Half	71	0.67%					
FY 2015-16	31	0.30%					
FY 2016-17 1st Half	51	0.46%					
FY 2016-17 2nd Half	40	0.36%					
FY 2016-17	45	0.41%					
FY 2017-18 1st Half	50	0.43%					
FY 2017-18 2nd Half	116	0.96%					
FY 2017-18	83	0.70%					

Monthly Average Growth Comparisons						
Dogwood	Monthly	Change	Percent Change			
Request	S-1	R-1	S-1	R-1		
FY 2018-19 1st Half	46	27	0.37%	0.22%		
FY 2018-19 2nd Half	54	27	0.43%	0.21%		
FY 2018-19	50	27	0.40%	0.21%		
FY 2019-20 1st Half	46	69	0.36%	0.54%		
FY 2019-20 2nd Half	54	69	0.41%	0.52%		
FY 2019-20	50	69	0.39%	0.53%		
FY 2020-21 1st Half		30		0.22%		
FY 2020-21 2nd Half		30		0.22%		
FY 2020-21		30		0.22%		

### **Individuals to 59 with Disabilities (AND/AB)**

Colorado automatically provides Medicaid coverage to individuals who receive Supplemental Security Income. Supplemental Security Income, authorized under Title XVI of the Social Security Act of 1965, is a federal cash assistance program for persons aged 65 and older, blind, or disabled. An individual must have income below the federal monthly maximum Supplemental Security Income limit and limited resources. This category includes the disabled portion of this group through age 59. These individuals: are blind, have a physical or mental impairment that keeps them from performing substantial work expected to last 12 months or result in death, or are children who have a marked and severe functional limitation expected to last 12 months or until death. Children were added to the Title XVI Act in 1972. In addition, states may extend coverage to individuals with incomes too high for Supplemental Security Income, and who meet the nursing facility level of care. Referred to as 'Three-Hundred Percenters', these clients have incomes no more than three times the Supplemental Security Income maximum limit, and they meet the level of care to be in a nursing home. Often, 'Three-Hundred Percenters' are enrolled in a Home- and Community-Based waiver program.

The 1990 outcome of the *Zebley v. Sullivan* lawsuit found that children could not be held to a higher standard of disability than adults. Zebley required that children's disability be measured using child-appropriate activities. As a result, the number of children determined to be disabled significantly increased until 1996. Welfare reform in 1996 tightened the disability criteria for children. An Individual Evaluation Plan from the public school system was no longer sufficient to verify disability, and children were required to have a physician document their level of functional impairment. However, any child receiving Supplemental Security Income before 1996 who lost his/her Supplemental Security Income benefits due to the new rules is still eligible for Medicaid. This category also includes disabled adult children age 18 and older who lost their Supplemental Security Income eligibility due to their parents receiving Social Security Administration benefits and disabled widows and widowers aged 50 to 64 who lost Supplemental Security Income due to the receipt of Social Security Administration benefits.

In July 2001, the Med-9 disability determination application process was disbanded due to federal requirements. This process let individuals under 65 who were seeking Medicaid coverage because of a disability experience an expeditious application process as compared to other applicants. By discontinuing the Med-9, clients underwent a more rigorous eligibility determination and caseload fell slightly.

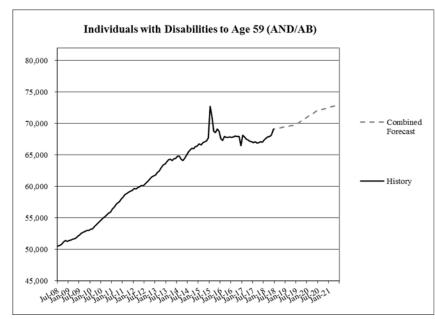
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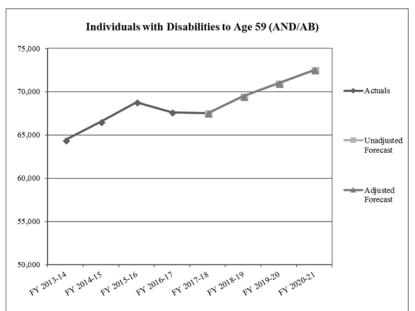
- (f) Individuals receiving supplemental security income;
- (g) Individuals receiving mandatory state supplement, including but not limited to individuals receiving old age pensions;
- (h) Institutionalized individuals who were eligible for medical assistance in December 1973;
- (i) Individuals who would be eligible except for the increase in old-age, survivors, and disability insurance under P.L. 92-336;
- (j) Individuals who become ineligible for cash assistance as a result of old-age, survivors, and disability insurance cost-of-living increases after April 1977;
- (k) Disabled widows or widowers fifty through sixty years of age who have become ineligible for federal supplemental security income or state supplementation as a result of becoming eligible for federal social security survivor's benefits, in accordance with the social security act, 42 U.S.C. sec. 1383c;

# 25.5-5-201 (1), C.R.S.

- (b) Individuals who would be eligible for cash assistance except for their institutionalized status;
- (c) Individuals receiving home-and community-based services as specified in part 6 of this article;
- (f) Individuals receiving only optional state supplement;
- (g) Individuals in institutions who are eligible under a special income level. Colorado's program for citizens sixty-five years of age or older or physically disabled or blind, whose gross income does not exceed three hundred percent of the current federal supplemental security income benefit level, qualifies for federal funding under this provision;
- (j) Individuals who are qualified aliens and were or would have been eligible for supplemental security income as a result of a disability but are not eligible for such supplemental security income as a result of the passage of the federal "Personal Responsibility and Work Opportunity Reconciliation Act of 1996", Public Law 104-193;

# Individuals to 59 with Disabilities (AND/AB): Model Results





	Individuals with Disabilities to Age 59: Model Results <sup>1</sup>						
FY 2018-19	FY 2016- 17	FY 2017-18	Projected Growth Rate	Projected FY 2018- 19 Caseload	Level Change	Average Monthly Change <sup>2</sup>	
Combined Forecast	67,619	67,531	2.03%	69,468	1,937	53	
FY 2019-20	FY 2017- 18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019- 20 Caseload	Level Change	Average Monthly Change <sup>2</sup>	
Combined Forecast	67,531	69,468	2.19%	70,986	1,518	189	
FY 2020-21	Projected FY 2018- 19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020- 21 Caseload	Level Change	Average Monthly Change <sup>2</sup>	
<b>Combined Forecast</b>	69,468	70,986	2.19%	72,538	1,552	79	

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

# Individuals to 59 with Disabilities (AND/AB): Trend Selections

FY 2018-19: 2.87% FY 2019-20: 2.19% FY 2020-21: 2.19%

# Individuals to 59 with Disabilities (AND/AB): Justifications

- Average monthly caseload in FY 2017-18 for AND/AB was 67,531. The June 2018 data point was 69,127, 1,761 more than the predicted June caseload in the February 2018 request, largely driven by a significant increase with the June data point. The Department has selected models separately for the age group 0-18 and the age group 19-59. See those sections below for more details.
- HB 16-1321 allows for a Medicaid Buy-In option for Supported Living Services waiver (under the Office of Community Living) and the Spinal Cord Injury and Brain Injury waivers under Medical Services Premiums. A negative bottom-line impact has been added to this category to account for clients transitioning from this category to Medicaid Buy-In, with the expanded option for increased employment. The effect of this bottom line impact has been fully absorbed as of the June 2018 data point and is no longer needed.
- This population has historically been stable, having increased by approximately 5,000 clients between FY 1998-99 and FY 2007-08, or an average of 0.8% per year. However, growth rates in this population have increased significantly in the last four fiscal years, with caseload in HCBS waivers showing strong growth. In addition, over the last four years, the number of individuals eligible for Medicaid due to receipt of SSI has represented most of the growth in this eligibility group. The Department believes that this may be related to economic conditions in that individuals with work-limiting disabilities who were employed prior to the recession and have exhausted their federally-extended unemployment benefits may now be applying for Supplemental Security Income (SSI) if they cannot find work.

# FY 2019-20 BUDGET REQUEST: CASELOAD NARRATIVE

	Actuals	Monthly Change	% Change
Jun-16	67,891	-	-
Jul-16	67,836	(55)	-0.08%
Aug-16	67,906	70	0.10%
Sep-16	68,043	137	0.20%
Oct-16	67,951	(92)	-0.14%
Nov-16	67,914	(37)	-0.05%
Dec-16	66,509	(1,405)	-2.07%
Jan-17	68,174	1,665	2.50%
Feb-17	67,879	(295)	-0.43%
Mar-17	67,558	(321)	-0.47%
Apr-17	67,367	(191)	-0.28%
May-17	67,183	(184)	-0.27%
Jun-17	67,109	(74)	-0.11%
Jul-17	67,009	(100)	-0.15%
Aug-17	67,079	70	0.10%
Sep-17	66,918	(161)	-0.24%
Oct-17	66,985	67	0.10%
Nov-17	67,142	157	0.23%
Dec-17	67,066	(76)	-0.11%
Jan-18	67,365	299	0.45%
Feb-18	67,688	323	0.48%
Mar-18	67,875	187	0.28%
Apr-18	67,963	88	0.13%
May-18	68,152	189	0.28%
Jun-18	69,127	975	1.43%

February 2018 Forecast			
Forecasted June 2018 Level	67,366		

Base trend from June 2018 level							
FY 2018-19	69,127	2.36%	1,596				

Individuals with Disabilities to age 59: Historical Caseload and Projections							
	Caseload	% Change	Level Change				
FY 2005-06	47,855	-	-				
FY 2006-07	48,799	1.97%	944				
FY 2007-08	49,933	2.32%	1,134		Act	uals	
FY 2008-09	51,355	2.85%	1,422			Monthly Change	% Change
FY 2009-10	53,264	3.72%	1,909	6-month ave	erage	344	0.51%
FY 2010-11	56,285	5.67%	3,021	12-month av	/erage	168	0.25%
FY 2011-12	59,434	5.59%	3,149	18-month average		145	0.22%
FY 2012-13	61,920	4.18%	2,486	24-month average		52	0.08%
FY 2013-14	64,424	4.04%	2,504				
FY 2014-15	66,548	3.30%	2,124				
FY 2015-16	68,800	3.38%	2,252	Febru		Projection Bo tments	efore
FY 2016-17	67,619	-1.72%	(1,181)	FY 2016-17	67,619	-1.72%	(1,181)
FY 2017-18	67,531	-0.13%	(88)	FY 2017-18	67,140	-0.71%	(479)
FY 2018-19	69,468	2.87%	1,937	FY 2018-19	68,500	2.03%	1,360
FY 2019-20	70,986	2.19%	1,518	FY 2019-20	69,884	2.02%	1,384
FY 2020-21	72,538	2.19%	1,552	FY 2020-21			

HB 16-1321 Medicaid Buy-In for SLS, SCI, and BI Waivers						
FY 2017-18	0					
FY 2018-19	0					
FY 2019-20	0					
FY 2020-21	0					

November 2018 Projections After Adjustments					
FY 2017-18	67,531	-0.13%	(88)		
FY 2018-19	69,468	2.87%	1,937		
FY 2019-20	70,986	2.19%	1,518		
FY 2020-21	72,538	2.19%	1,552		

Actuals				
	Monthly	%		
	Change	Change		
6-month average	344	0.51%		
12-month average	168	0.25%		
18-month average	145	0.22%		
24-month average	52	0.08%		

February 2018 Projection Before Adjustments				
FY 2016-17	67,619	-1.72%	(1,181)	
FY 2017-18	67,140	-0.71%	(479)	
FY 2018-19	68,500	2.03%	1,360	
FY 2019-20	69,884	2.02%	1,384	
FY 2020-21				

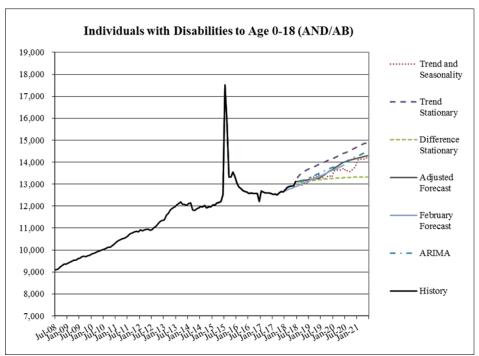
HB 16-1321 Medicaid Buy-In for SLS, SCI,			
and BI Waivers			
FY 2016-17	0		
FY 2017-18	(2)		
FY 2018-19	(5)		
FY 2019-20	(5)		
FY 2020-21			

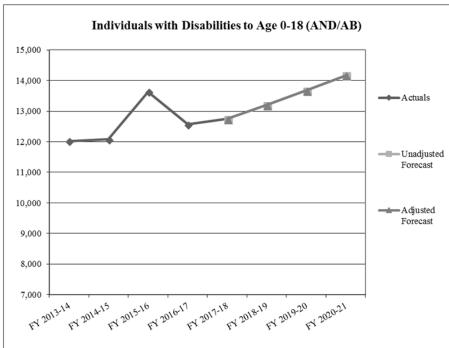
February 2018 Projection After Adjustments				
FY 2016-17	67,619	-1.72%	(1,181)	
FY 2017-18	67,138	-0.71%	(481)	
FY 2018-19	68,495	2.02%	1,357	
FY 2019-20	69,879	2.02%	1,384	
FY 2020-21				

Monthly Average Growth Actuals				
FY 2012-13 1st Half	268	0.44%		
FY 2012-13 2nd Half	307	0.49%		
FY 2012-13	287	0.47%		
FY 2013-14 1st Half	156	0.24%		
FY 2013-14 2nd Half	82	0.13%		
FY 2013-14	119	0.19%		
FY 2014-15 1st Half	246	0.37%		
FY 2014-15 2nd Half	214	0.32%		
FY 2014-15	230	0.35%		
FY 2015-16 1st Half	181	0.32%		
FY 2015-16 2nd Half	(154)	-0.22%		
FY 2015-16	14	0.05%		
FY 2016-17 1st Half	(230)	-0.34%		
FY 2016-17 2nd Half	100	0.16%		
FY 2016-17	(65)	-0.09%		
FY 2017-18 1st Half	(7)	-0.01%		
FY 2017-18 2nd Half	344	0.51%		
FY 2017-18	168	0.25%		

Monthly Average Growth Comparisons					
Danisat	Monthly Change		Percent Change		
Request	S-1	R-1	S-1	R-1	
FY 2018-19 1st Half	174	53	0.26%	0.08%	
FY 2018-19 2nd Half	173	53	0.25%	0.08%	
FY 2018-19	174	53	0.25%	0.08%	
FY 2019-20 1st Half	66	189	0.09%	0.27%	
FY 2019-20 2nd Half	67	189	0.09%	0.27%	
FY 2019-20	66	189	0.09%	0.27%	
FY 2020-21 1st Half		78		0.11%	
FY 2020-21 2nd Half		81		0.11%	
FY 2020-21		79		0.11%	

# Individuals to 59 with Disabilities (AND/AB), Age 0 to 18: Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend and Seasonality	AND/AB 0-18	Constant, trend, and monthly seasonal variables	13.07	12.42	0.6976
ARIMA	d(AND/AB 0-18)	Constant, MA variables	-3.87	-3.96	0.1459
Trend Stationary	log(AND/AB 0-18)	Constant, trend, dummy for SSI issue, and 3 lags on the dependent variable	-3.85	-3.96	0.9339
Difference Stationary	dlog(AND/AB 0-18)	Constant, dummy for SSI issue, and 2 lags on the dependent variable	-3.81	-3.93	0.1236
Adjusted Forecast			N/A	N/A	N/A

	Individuals with Disabilities to Age 18: Model Results <sup>1</sup>							
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2		
Trend and Seasonality	12,562	12,745	3.34%	13,171	426	26		
ARIMA	12,562	12,745	4.28%	13,290	545	32		
Trend Stationary	12,562	12,745	7.11%	13,651	906	66		
Difference Stationary	12,562	12,745	3.11%	13,141	396	7		
Adjusted Forecast	12,562	12,745	3.59%	13,203	458	14		
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2		
Trend and Seasonality	12,745	13,171	2.36%	13,482	311	26		
ARIMA	12,745	13,290	3.57%	13,764	474	41		
Trend Stationary	12,745	13,651	3.79%	14,168	517	42		
Difference Stationary	12,745	13,141	0.87%	13,255	114	8		
Adjusted Forecast	12,745	13,203	3.57%	13,674	471	61		
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2		
Trend and Seasonality	13,171	13,482	3.13%	13,904	422	42		
ARIMA	13,290	13,764	3.60%	14,260	496	42		
Trend Stationary	13,651	14,168	3.59%	14,677	509	43		
Difference Stationary	13,141	13,255	0.47%	13,317	62	3		
Adjusted Forecast	13,203	13,674	3.60%	14,166	492	24		

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

## Individuals to 59 with Disabilities (AND/AB), Age 0 to 18: Trend Selections

FY 2018-19: 3.59% FY 2019-20: 3.57% FY 2020-21: 3.60%

### Individuals to 59 with Disabilities (AND/AB), Age 0 to 18: Justifications

Beginning with the November 2015 forecast, the Department estimates this eligibility category with two age group sub-categories, to increase forecast accuracy.

The Department identified a data error for July 2015 through December 2015 that incorrectly assigned children to eligibility categories for individuals with disabilities, based on their parents' disability status. This error incorrectly moved clients from Eligible Children and Children's Basic Health Plan (CHP) to Individuals to 59 with Disabilities (AND/AB) and Children with Disabilities - Buy-In. This data issue has falsely inflated the FY 2015-16 actuals, resulting in the spike in clients that can be seen in the graph on page MC-36.

The June 2018 data point was approximately 223 below the February 2018 forecast; however, this is mostly due to the unusually high June data point, therefore, the Department is keeping a similar trend to February 2018 forecast to align with the most recent actuals. The Department assumes growth in line with historic data will continue, and has maintained higher growth expectations for the request and out years.

	Actuals	Monthly Change	% Change
Jun-16	12,643	1	
Jul-16	12,565	(78)	-0.62%
Aug-16	12,585	20	0.16%
Sep-16	12,563	(22)	-0.17%
Oct-16	12,566	3	0.02%
Nov-16	12,572	6	0.05%
Dec-16	12,214	(358)	-2.85%
Jan-17	12,677	463	3.79%
Feb-17	12,631	(46)	-0.36%
Mar-17	12,606	(25)	-0.20%
Apr-17	12,597	(9)	-0.07%
May-17	12,593	(4)	-0.03%
Jun-17	12,574	(19)	-0.15%
Jul-17	12,533	(41)	-0.33%
Aug-17	12,561	28	0.22%
Sep-17	12,515	(46)	-0.37%
Oct-17	12,597	82	0.66%
Nov-17	12,657	60	0.48%
Dec-17	12,652	(5)	-0.04%
Jan-18	12,737	85	0.67%
Feb-18	12,852	115	0.90%
Mar-18	12,894	42	0.33%
Apr-18	12,905	11	0.09%
May-18	12,920	15	0.12%
Jun-18	13,114	194	1.50%

February 2018 Forecast	
Forecasted June 2018 Level	12,891

Base trend from June 2018 level				
FY 2018-19	13,114	2.90%	369	

		Individu	als with Disa	abilities to age 18: I	listorical C	as eload and	Projections
	Caseload	% Change	Level Change				
FY 2009-10	9,812	-	-				
FY 2010-11	10,308	5.06%	496				
FY 2011-12	10,848	5.24%	540				
FY 2012-13	11,436	5.42%	588				
FY 2013-14	12,019	5.10%	583				
FY 2014-15	12,079	0.50%	60				
FY 2015-16	13,632	12.86%	1,553	Fo	ebruary 201	8 Projection	n
FY 2016-17	12,562	-7.85%	(1,070)	FY 2016-17	12,562	-7.85%	(1,070)
FY 2017-18	12,745	1.46%	183	FY 2017-18	12,689	1.01%	127
FY 2018-19	13,203	3.59%	458	FY 2018-19	13,145	3.59%	456
FY 2019-20	13,674	3.57%	471	FY 2019-20	13,627	3.67%	482
FY 2020-21	14,166	3.60%	492	FY 2020-21			

Actuals					
	Monthly Change	% Change			
6-month average	77	0.60%			
12-month average	45	0.35%			
18-month average	50	0.40%			
24-month average	20	0.16%			

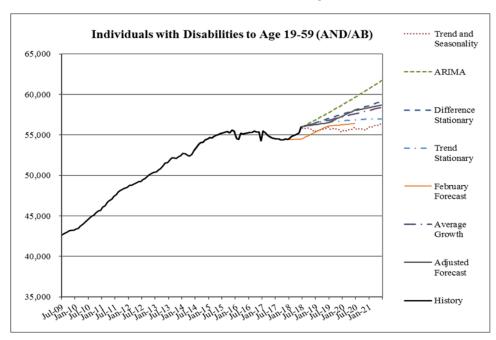
Individuals in AND/AB that are ages 18 and under have had an average monthly growth of 77 over the last 6 months, skewed by the unusually high June datapoint. The forecast predicts that the average monthly growth for FY 2018-19 will be approximately 32 per month, on par with the FY 2017-18 average with the June datapoint removed.

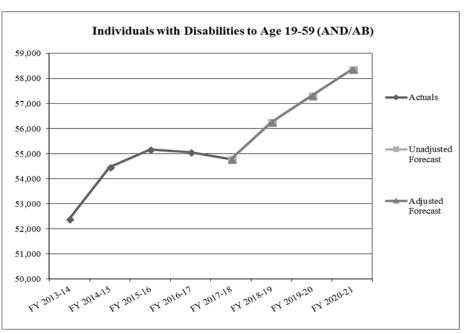
February 2018 Projection						
12,562	-7.85%	(1,070)				
12,689	1.01%	127				
13,145	3.59%	456				
13,627	3.67%	482				
	12,562 12,689 13,145	12,562 -7.85% 12,689 1.01% 13,145 3.59%				

Monthly Average	Growth Act	uals
FY 2012-13 1st Half	75	0.68%
FY 2012-13 2nd Half	103	0.89%
FY 2012-13	89	0.78%
FY 2013-14 1st Half	13	0.11%
FY 2013-14 2nd Half	(19)	-0.16%
FY 2013-14	(3)	-0.02%
FY 2014-15 1st Half	8	0.07%
FY 2014-15 2nd Half	94	0.78%
FY 2014-15	51	0.42%
FY 2015-16 1st Half	137	2.42%
FY 2015-16 2nd Half	(118)	-0.90%
FY 2015-16	9	0.76%
FY 2016-17 1st Half	(72)	-0.57%
FY 2016-17 2nd Half	60	0.50%
FY 2016-17	(6)	-0.04%
FY 2017-18 1st Half	13	0.10%
FY 2017-18 2nd Half	77	0.60%
FY 2017-18	45	0.35%

Monthly Average Growth Comparisons						
Monuny Average Grown Comparisons						
Request	Monthly	Change	Percent	Change		
Request	S-1 R-1		S-1	R-1		
FY 2018-19 1st Half	39	14	0.30%	0.10%		
FY 2018-19 2nd Half	40	14	0.30%	0.10%		
FY 2018-19	39	14	0.30%	0.10%		
FY 2019-20 1st Half	41	61	0.30%	0.45%		
FY 2019-20 2nd Half	41	61	0.30%	0.44%		
FY 2019-20	41	61	0.30%	0.45%		
FY 2020-21 1st Half		24		0.17%		
FY 2020-21 2nd Half		24		0.17%		
FY 2020-21		24		0.17%		

# Individuals to 59 with Disabilities (AND/AB), Age 19 to 59: Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend and Seasonality	AND/AB 19+	Constant, trend, and monthly seasonal variables	15.86	15.33	-0.1863
ARIMA	d(AND/AB 19+)	Constant, MA variables	-7.84	-7.93	0.4897
Trend Stationary	log(AND/AB 19+)	Constant, trend, and 1 lag on the dependent variable	-7.86	-7.95	0.9982
Difference Stationary	dlog(AND/AB 19+)	Constant and 1 lag on the dependent variable	-7.35	-7.41	-0.0084
Average Growth			N/A	N/A	N/A
Adjusted Forecast			N/A	N/A	N/A

Individuals with Disabilities Ages 19 to 59: Model Results <sup>1</sup>							
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2	
Trend and Seasonality	55,057	54,786	1.66%	55,695	909	(4)	
ARIMA	55,057	54,786	3.77%	56,851	2,065	139	
Trend Stationary	55,057	54,786	2.75%	56,293	1,507	42	
Difference Stationary	55,057	54,786	3.15%	56,512	1,726	81	
Average Growth	55,057	54,786	3.01%	56,435	1,649	65	
Adjusted Forecast	55,057	54,786	2.70%	56,265	1,479	39	

FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Trend and Seasonality	54,786	55,695	-0.08%	55,650	(45)	(4)
ARIMA	54,786	56,851	3.27%	58,710	1,859	161
Trend Stationary	54,786	56,293	0.76%	56,721	428	28
Difference Stationary	54,786	56,512	1.85%	57,557	1,045	88
Average Growth	54,786	56,435	1.40%	57,225	790	66
Adjusted Forecast	54,786	56,265	1.86%	57,312	1,047	128

FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Trend and Seasonality	55,695	55,650	0.51%	55,934	284	43
ARIMA	56,851	58,710	3.42%	60,718	2,008	173
Trend Stationary	56,293	56,721	0.40%	56,948	227	11
Difference Stationary	56,512	57,557	1.85%	58,622	1,065	90
Average Growth	56,435	57,225	1.40%	58,026	801	67
Adjusted Forecast	56,265	57,312	1.85%	58,372	1,060	55

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

## Individuals to 59 with Disabilities (AND/AB), Age 19 to 59: Trend Selections

FY 2018-19: 2.70% FY 2019-20: 1.86% FY 2020-21: 1.85%

### Individuals to 59 with Disabilities (AND/AB), Age 19 to 59: Justifications

Beginning with the November 2015 forecast, the Department estimates this eligibility category with two age group sub-categories, to increase forecast accuracy. Average monthly caseload growth for FY 2016-17 was -59 and for FY 2017-18 was 123. The June 2018 data point is 1,538 above what was expected in the February 2018 forecast. The Department has accordingly increased the forecast for FY 2018-19 and will continue to monitor this population. For the request and out years, the Department assumes this population will grow on par with overall population growth in Colorado.

	Actuals	Monthly	%
	Actuals	Change	Change
Jun-16	55,248	-	
Jul-16	55,271	23	0.04%
Aug-16	55,321	50	0.09%
Sep-16	55,480	159	0.29%
Oct-16	55,385	(95)	-0.17%
Nov-16	55,342	(43)	-0.08%
Dec-16	54,295	(1,047)	-1.89%
Jan-17	55,497	1,202	2.21%
Feb-17	55,248	(249)	-0.45%
Mar-17	54,952	(296)	-0.54%
Apr-17	54,770	(182)	-0.33%
May-17	54,590	(180)	-0.33%
Jun-17	54,535	(55)	-0.10%
Jul-17	54,476	(59)	-0.11%
Aug-17	54,518	42	0.08%
Sep-17	54,403	(115)	-0.21%
Oct-17	54,388	(15)	-0.03%
Nov-17	54,485	97	0.18%
Dec-17	54,414	(71)	-0.13%
Jan-18	54,628	214	0.39%
Feb-18	54,836	208	0.38%
Mar-18	54,981	145	0.26%
Apr-18	55,058	77	0.14%
May-18	55,232	174	0.32%
Jun-18	56,013	781	1.41%

February 2018 Forecast		
Forecasted June 2018 Level	54,475	

Base trend from June 2018 level						
FY 2018-19	56,013	2.24%	1,227			

_										
		Individuals with Disabilities ages 19 to 59: Historical Caseload and Projections								
		Caseload	% Change	Level Change		_			ast 6 month	
	FY 2009-10	43,452	-	-	has selected a trend slightly higher than the F without the June datapoint, with upward pressyears as the monthy growth appears to be incr				upward by an abnormally high June datapor	itapoint. I
	FY 2010-11	45,977	5.81%	2,525						
	FY 2011-12	48,586	5.67%	2,609						
	FY 2012-13	50,484	3.91%	1,898						
	FY 2013-14	52,405	3.81%	1,921					s to be inci	ea
	FY 2014-15	54,469	3.94%	2,064						
	FY 2015-16	55,168	1.28%	699		Febr	uary 2018 P Adjust	rojection Bo ments	efore	
	FY 2016-17	55,057	-0.20%	(111)		FY 2016-17	55,057	-0.20%	(111)	
	FY 2017-18	54,786	-0.49%	(271)		FY 2017-18	54,451	-1.10%	(606)	
	FY 2018-19	56,265	2.70%	1,479		FY 2018-19	55,355	1.66%	904	
	FY 2019-20	57,312	1.86%	1,047		FY 2019-20	56,257	1.63%	902	
	FY 2020-21	58,372	1.85%	1,060		FY 2020-21				

HB 16-1321 Medicaid Buy-In for SLS, SCI, and BI Waivers				
FY 2017-18	0			
FY 2018-19	0			
FY 2019-20	0			
FY 2020-21	0			

November 2018 Projections After Adjustments				
FY 2017-18	54,786	-0.49%	(271)	
FY 2018-19	56,265	2.70%	1,479	
FY 2019-20	57,312	1.86%	1,047	
FY 2020-21	58,372	1.85%	1,060	

Actuals				
	Monthly Change	% Change		
6-month average	267	0.48%		
12-month average	123	0.22%		
18-month average	95	0.18%		
24-month average	32	0.06%		

Average monthly growth for the past 6 months was 267, skewed upward by an abnormally high June datapoint. Based on the high June starting point and the positive growth in FY 2017-18, the Department has selected a trend slightly higher than the FY 2017-18 average without the June datapoint, with upward pressure in the request and out years as the monthy growth appears to be increasing over time.

February 2018 Projection Before Adjustments					
FY 2016-17	55,057	-0.20%	(111)		
FY 2017-18	54,451	-1.10%	(606)		
FY 2018-19	55,355	1.66%	904		
FY 2019-20	56,257	1.63%	902		
FY 2020-21					

HB 16-1321 Medicaid Buy-In for SLS, SCI, and BI Waivers			
FY 2016-17	0		
FY 2017-18	(2)		
FY 2018-19	(5)		
FY 2019-20	(5)		
FY 2020-21			

February 2	February 2018 Projection After Adjustments					
FY 2016-17	55,057	-0.20%	(111)			
FY 2017-18	54,449	-1.10%	(608)			
FY 2018-19	55,350	1.65%	901			
FY 2019-20	56,252	1.63%	902			
FY 2020-21						

Monthly Average Growth Actuals				
FY 2012-13 1st Half	193	0.39%		
FY 2012-13 2nd Half	204	0.40%		
FY 2012-13	198	0.39%		
FY 2013-14 1st Half	144	0.28%		
FY 2013-14 2nd Half	101	0.19%		
FY 2013-14	122	0.23%		
FY 2014-15 1st Half	238	0.44%		
FY 2014-15 2nd Half	120	0.22%		
FY 2014-15	179	0.33%		
FY 2015-16 1st Half	44	0.08%		
FY 2015-16 2nd Half	(35)	-0.06%		
FY 2015-16	4	0.01%		
FY 2016-17 1st Half	(159)	-0.29%		
FY 2016-17 2nd Half	40	0.08%		
FY 2016-17	(59)	-0.10%		
FY 2017-18 1st Half	(20)	-0.04%		
FY 2017-18 2nd Half	267	0.48%		
FY 2017-18	123	0.22%		

Monthly Average Growth Comparisons					
Request	Monthly	Change	Percent	Percent Change	
Request	S-1	R-1	S-1	R-1	
FY 2018-19 1st Half	135	39	0.25%	0.07%	
FY 2018-19 2nd Half	134	39	0.24%	0.07%	
FY 2018-19	134	39	0.24%	0.07%	
FY 2019-20 1st Half	25	128	0.04%	0.23%	
FY 2019-20 2nd Half	25	128	0.04%	0.22%	
FY 2019-20	25	128	0.04%	0.22%	
FY 2020-21 1st Half		53		0.09%	
FY 2020-21 2nd Half		57		0.10%	
FY 2020-21		55		0.09%	

## Working Adults and Children with Disabilities - Buy-In

HB 09-1293 (Colorado Health Care Affordability Act) establishes the Buy-In Program for Individuals with Disabilities, which will allow individuals to pay a premium to purchase Medicaid coverage if they are over income or are otherwise ineligible for Medicaid. The Buy-In Program for Working Adults with Disabilities was implemented on March 1, 2012 and allows eligible clients age 16 to 65 with income up to 450% of the federal poverty level that have a qualifying disability and are working to receive Medicaid by paying a monthly premium based on their income. The Buy-In Program for Disabled Children was implemented on July 1, 2012. This program allows children under age 19 with a qualifying disability and family income up to 300% of the federal poverty level to receive Medicaid by paying a monthly premium based on their family income.

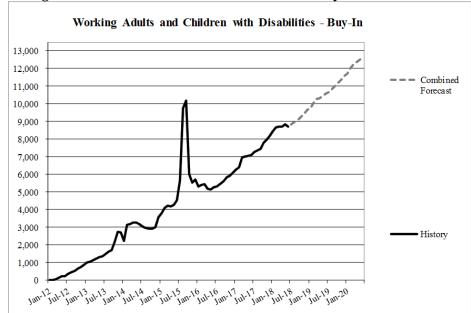
#### 25.5-5-206 (1), C.R.S.

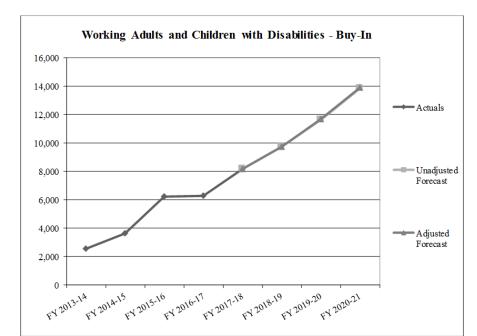
- (a) Subject to available appropriations, the state department is authorized to seek federal authorization to and to establish a Medicaid buy-in program or programs for:
  - (I) Disabled children; or
  - (II) Disabled adults who do not qualify for the Medicaid buy-in program established pursuant to part 14 of article 6 of this title.
- (b) The Medicaid buy-in program or programs established pursuant to paragraph (a) of this subsection (1) may provide for premium and cost-sharing charges on a sliding fee scale based upon a family's income.

#### 25.5-5-206 (2), C.R.S.

The state board shall promulgate rules consistent with any federal authorization to implement and administer the Medicaid buy-in program or programs established pursuant to paragraph (a) of subsection (1) of this section.

## Working Adults and Children with Disabilities – Buy-In: Model Results





	Working Adults and Children with Disabilities - Buy-In: Model Results <sup>1</sup>					
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change <sup>2</sup>
<b>Combined Forecast</b>	6,251	8,175	18.67%	9,701	1,526	154
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change <sup>2</sup>
<b>Combined Forecast</b>	6,251	9,701	19.99%	11,640	1,939	170
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change <sup>2</sup>
<b>Combined Forecast</b>	9,701	11,640	18.97%	13,848	2,208	196

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

# Working Adults and Children with Disabilities – Buy-In: Trend Selections

FY 2018-19: 18.67% FY 2019-20: 19.99% FY 2020-21: 18.97%

### Working Adults and Children with Disabilities – Buy-In: Justifications

- Average monthly caseload in FY 2017-18 for Working Adults and Children with Disabilities Buy-In was 8,175. The Department has selected models separately for working adults and children. See the selections below for more details.
- HB 09-1293 established the Buy-In Program for Working Adults with Disabilities beginning March 1, 2012 and for Disabled Children July 1, 2012. This program allows individuals to pay a premium to purchase Medicaid coverage if they are over income or are otherwise ineligible for Medicaid.
- HB 16-1321 allows for a Medicaid Buy-In option for Supported Living Services waiver (under the Office of Community Living) and the Spinal Cord Injury and Brain Injury waivers under Medical Services Premiums.

	Actuals	Monthly Change	% Change
Jun-16	5,265	1	
Jul-16	5,334	69	1.31%
Aug-16	5,452	118	2.21%
Sep-16	5,598	146	2.68%
Oct-16	5,825	227	4.06%
Nov-16	5,918	93	1.60%
Dec-16	6,114	196	3.31%
Jan-17	6,267	153	2.50%
Feb-17	6,382	115	1.84%
Mar-17	6,964	582	9.12%
Apr-17	7,018	54	0.78%
May-17	7,042	24	0.34%
Jun-17	7,102	60	0.85%
Jul-17	7,274	172	2.42%
Aug-17	7,366	92	1.26%
Sep-17	7,462	96	1.30%
Oct-17	7,797	335	4.49%
Nov-17	7,980	183	2.35%
Dec-17	8,204	224	2.81%
Jan-18	8,438	234	2.85%
Feb-18	8,663	225	2.67%
Mar-18	8,689	26	0.30%
Apr-18	8,698	9	0.10%
May-18	8,842	144	1.66%
Jun-18	8,690	(152)	-1.72%

February 2018 Forecast	
Forecasted June 2018 Level	9,014

Base trend from June 2018 level				
FY 2018-19	8,690	6.30%	515	

Working Adults and Children with Disabilities - Buy-In: Historical Caseload and Projections					
	Caseload	% Change	Level Change		
FY 2013-14	2,560	-	-		
FY 2014-15	3,627	41.68%	1,067		
FY 2015-16	6,217	71.41%	2,590	February 2018 Projection Before Adjustments	
FY 2016-17	6,251	0.55%	34	FY 2016-17 6,251 0.55% 34	
FY 2017-18	8,175	30.78%	1,924	FY 2017-18 8,170 30.70% 1,919	
FY 2018-19	9,701	18.67%	1,526	FY 2018-19 9,994 22.33% 1,824	
FY 2019-20	11,640	19.99%	1,939	FY 2019-20 12,025 20.32% 2,031	
FY 2020-21	13,848	18.97%	2,208	FY 2020-21	

HB 16-1321 Medicaid Buy-In for SLS, SCI, and BI Waivers		
FY 2017-18	0	
FY 2018-19	0	
FY 2019-20	0	
FY 2020-21	0	

November 2018 Projection After Adjustments				
FY 2017-18	8,175	30.78%	1,924	
FY 2018-19	9,701	18.67%	1,526	
FY 2019-20	11,640	19.99%	1,939	
FY 2020-21	13,848	18.97%	2,208	

Actuals			
	Monthly Change	% Change	
6-month average	81	0.98%	
12-month average	132	1.71%	
18-month average	143	2.00%	
24-month average	143	2.13%	

February 2018 Projection Before Adjustments				
FY 2016-17	6,251	0.55%	34	
FY 2017-18	8,170	30.70%	1,919	
FY 2018-19	9,994	22.33%	1,824	
FY 2019-20	12,025	20.32%	2,031	
FY 2020-21				

HB 16-1321 Medicaid Buy-In for SLS, SCI, and B Waivers	
FY 2016-17	0
FY 2017-18	18
FY 2018-19	38
FY 2019-20	40
FY 2020-21	

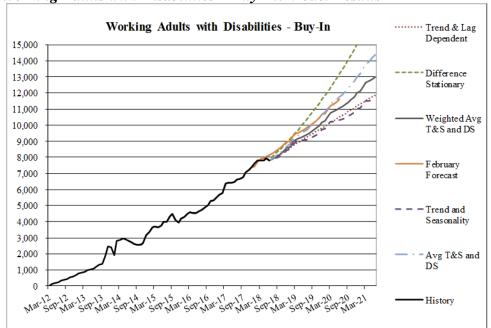
February 2018 Projection After Adjustments				
FY 2016-17	6,251	0.55%	34	
FY 2017-18	8,188	30.99%	1,937	
FY 2018-19	10,032	22.52%	1,844	
FY 2019-20	12,065	20.27%	2,033	
FY 2020-21				

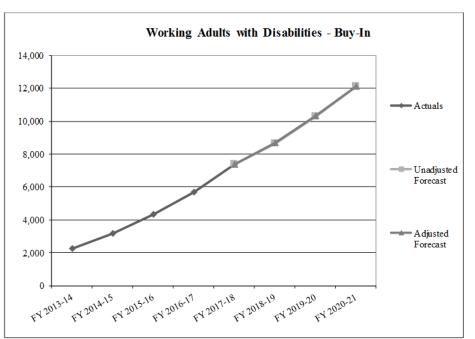
Gowth rates for the Buy-In programs tend to be volatile. The selected trend is a decrease from February, based on the last half of FY 2017-18.

Monthly Average Growth Actuals						
FY 2012-13 1st Half	103	24.0%				
FY 2012-13 2nd Half	85	8.2%				
FY 2012-13	94	16.1%				
FY 2013-14 1st Half	220	12.5%				
FY 2013-14 2nd Half	83	4.3%				
FY 2013-14	152	8.4%				
FY 2014-15 1st Half	62	2.09%				
FY 2014-15 2nd Half	159	4.09%				
FY 2014-15	110	3.09%				
FY 2015-16 1st Half	201	9.38%				
FY 2015-16 2nd Half	(75)	-1.31%				
FY 2015-16	63	4.04%				
FY 2016-17 1st Half	142	2.53%				
FY 2016-17 2nd Half	165	2.57%				
FY 2016-17	153	2.55%				
FY 2017-18 1st Half	184	2.44%				
FY 2017-18 2nd Half	81	0.98%				
FY 2017-18	132	1.71%				

Monthly Average Growth Comparisons					
Dagwagt	Monthly	Change	Percent	Change	
Request	S-1	R-1	S-1	R-1	
FY 2018-19 1st Half	165	156	1.75%	1.72%	
FY 2018-19 2nd Half	149	152	1.44%	1.52%	
FY 2018-19	157	154	1.59%	1.62%	
FY 2019-20 1st Half	188	169	1.65%	1.54%	
FY 2019-20 2nd Half	175	173	1.41%	1.45%	
FY 2019-20	181	171	1.53%	1.49%	
FY 2020-21 1st Half	0	193	0.00%	1.47%	
FY 2020-21 2nd Half	0	200		1.41%	
FY 2020-21	0	196		1.44%	







Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend and Seasonality	DBI-Adults	Constant, trend, and monthly seasonal variables	11.74	11.10	0.8148
Trend & Lag Dependent	DBI-Adults	Constant, trend, and 1 lag on the dependent variable	9.94	9.71	0.9525
Difference Stationary	dlog(DBI- Adults)	Constant and 1 lag on the dependent variable	-4.15	-4.43	0.9376
Weighted Avg T&S and DS			N/A	N/A	N/A

Working Adults with Disabilities - Buy-In: Model Results <sup>1</sup>							
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2	
Trend and Seasonality	5,657	7,375	15.13%	8,491	1,116	106	
Trend & Lag Dependent	5,657	7,375	21.61%	8,969	1,594	164	
Difference Stationary	5,657	7,375	22.82%	9,058	1,683	199	
Weighted Avg T&S and DS	5,657	7,375	17.06%	8,633	1,258	129	
Avg TL & DS	5,657	7,375	22.21%	9,013	1,638	181	
						I	

FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Trend and Seasonality	7,375	8,491	14.93%	9,759	1,268	106
Trend & Lag Dependent	7,375	8,969	18.90%	10,664	1,695	139
Difference Stationary	7,375	9,058	29.70%	11,748	2,690	252
Weighted Avg T&S and DS	7,375	8,633	18.80%	10,256	1,623	142
Avg TL & DS	7,375	9,013	24.33%	11,206	2,193	195

FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Trend and Seasonality	8,491	9,759	12.98%	11,026	1,267	106
Trend & Lag Dependent	8,969	10,664	15.60%	12,328	1,664	139
Difference Stationary	9,058	11,748	29.71%	15,238	3,490	327
Weighted Avg T&S and DS	8,633	10,256	17.77%	12,078	1,822	161
Avg TL & DS	9,013	11,206	23.00%	13,783	2,577	233

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

## Working Adults with Disabilities – Buy-In: Trend Selections

FY 2018-19: 30.37% FY 2019-20: 17.06% FY 2020-21: 17.77%

## Working Adults with Disabilities – Buy-In: Justifications

The Department estimates this eligibility category with sub-categories, to increase forecast accuracy. FY 2017-18 average monthly caseload was 7,375. The June 2018 data point was 346 lower than the February 2018 forecast; the Department has brought the forecast down from the November 2017 estimates.

	Actuals	Monthly Change	% Change
Jun-16	4,653	1	
Jul-16	4,750	97	2.08%
Aug-16	4,875	125	2.63%
Sep-16	5,032	157	3.22%
Oct-16	5,255	223	4.43%
Nov-16	5,334	79	1.50%
Dec-16	5,527	193	3.62%
Jan-17	5,672	145	2.62%
Feb-17	5,794	122	2.15%
Mar-17	6,355	561	9.68%
Apr-17	6,406	51	0.80%
May-17	6,413	7	0.11%
Jun-17	6,474	61	0.95%
Jul-17	6,613	139	2.15%
Aug-17	6,679	66	1.00%
Sep-17	6,764	85	1.27%
Oct-17	7,077	313	4.63%
Nov-17	7,225	148	2.09%
Dec-17	7,408	183	2.53%
Jan-18	7,610	202	2.73%
Feb-18	7,797	187	2.46%
Mar-18	7,798	1	0.01%
Apr-18	7,814	16	0.21%
May-18	7,923	109	1.39%
Jun-18	7,792	(131)	-1.65%

February 2018 Forecast			
Forecasted June 2018 Level	8,138		

Base trend from June 2018 level					
FY 2018-19	7,792	5.65%	417		

	Working Adults with Disabilities - Buy-In: Historical Caseload and Projections							
	Caseload	% Change	Level Change					
FY 2013-14	2,243	-	-					
FY 2014-15	3,189	42.18%	946					
FY 2015-16	4,345	36.25%	1,156	February 20	18 Projectio	on Before Ad	justments	
FY 2016-17	5,657	30.20%	1,312	FY 2016-17	5,657	30.20%	1,312	
FY 2017-18	7,375	30.37%	1,718	FY 2017-18	7,393	30.69%	1,736	
FY 2018-19	8,633	17.06%	1,258	FY 2018-19	8,964	21.25%	1,571	
FY 2019-20	10,256	18.80%	1,623	FY 2019-20	10,688	19.23%	1,724	
FY 2020-21	12,078	17.77%	1,822	FY 2020-21				

HB 16-1321 Medicaid Buy-In for SLS, SCI, and BI Waivers					
FY 2017-18	0				
FY 2018-19	0				
FY 2019-20	0				
FY 2020-21	0				

November 2018 Projection After Adjustments					
FY 2017-18	7,375	30.37%	1,718		
FY 2018-19	8,633	17.06%	1,258		
FY 2019-20	10,256	18.80%	1,623		
FY 2020-21	12,078	17.77%	1,822		

Actuals				
	Monthly Change	% Change		
6-month average	64	0.86%		
12-month average	110	1.57%		
18-month average	126	1.95%		
24-month average	131	2.19%		

February 2018 Projection Before Adjustments					
FY 2016-17	5,657	30.20%	1,312		
FY 2017-18	7,393	30.69%	1,736		
FY 2018-19	8,964	21.25%	1,571		
FY 2019-20	10,688	19.23%	1,724		
FY 2020-21					

HB 16-1321 Medicaid Buy-In for SLS, SCI, and BI Waivers		
FY 2016-17	0	
FY 2017-18	18	
FY 2018-19	38	
FY 2019-20	40	
FY 2020-21		

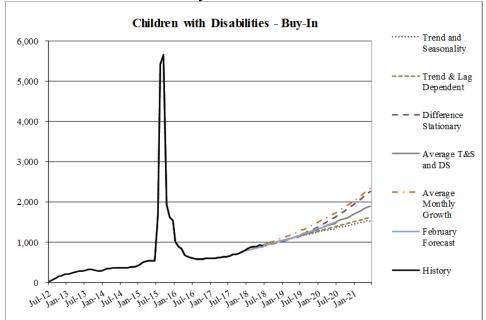
February 2018 Projection After Adjustments					
FY 2016-17	5,657	30.20%	1,312		
FY 2017-18	7,411	31.01%	1,754		
FY 2018-19	9,002	21.47%	1,591		
FY 2019-20	10,728	19.17%	1,726		
FY 2020-21					

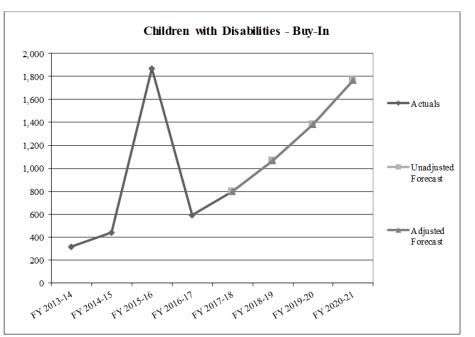
The Department selected a trend on par with the 18-month average monthly growth, resulting in FY 2018-19 average growth of 129 per month.

Monthly Average	Growth Actu	als
FY 2012-13 1st Half	71	18.66%
FY 2012-13 2nd Half	71	8.65%
FY 2012-13	71	13.65%
FY 2013-14 1st Half	221	15.09%
FY 2013-14 2nd Half	68	4.45%
FY 2013-14	145	9.77%
FY 2014-15 1st Half	55	2.17%
FY 2014-15 2nd Half	136	3.97%
FY 2014-15	96	3.07%
FY 2015-16 1st Half	34	1.03%
FY 2015-16 2nd Half	79	1.83%
FY 2015-16	57	1.43%
FY 2016-17 1st Half	146	2.92%
FY 2016-17 2nd Half	158	2.72%
FY 2016-17	152	2.82%
FY 2017-18 1st Half	156	2.28%
FY 2017-18 2nd Half	64	0.86%
FY 2017-18	110	1.57%

Monthly Average Growth Comparisons					
Dogwood	Monthly	Change	Percent Change		
Request	S-1 R-1		S-1	R-1	
FY 2018-19 1st Half	139	130	1.64%	1.61%	
FY 2018-19 2nd Half	130	127	1.41%	1.44%	
FY 2018-19	134	129	1.52%	1.52%	
FY 2019-20 1st Half	155	142	1.53%	1.46%	
FY 2019-20 2nd Half	150	143	1.36%	1.36%	
FY 2019-20	152	142	1.45%	1.41%	
FY 2020-21 1st Half		159	0.00%	1.39%	
FY 2020-21 2nd Half		163	0.00%	1.31%	
FY 2020-21		161	0.00%	1.35%	

# Children with Disabilities – Buy-In: Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend and Seasonality	DBI-Children	Constant, trend, and monthly seasonal variables	11.74	11.10	0.8148
Trend & Lag Dependent	DBI-Children	Constant, dummy for SSI issue, trend, and 4 lags on the dependent variable	9.94	9.71	0.9525
Difference Stationary	dlog(DBI- Children)	Constant, dummy for SSI issue, and 3 lags on the dependent variable	-4.15	-4.43	0.9376
Average T&L AMG			N/A	N/A	N/A

Children with Disabilities - Buy-In: Model Results <sup>1</sup>						
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2
Trend and Seasonality	594	800	29.75%	1,038	238	17
Trend & Lag Dependent	594	800	29.50%	1,036	236	20
Difference Stationary	594	800	27.88%	1,023	223	22
Average T&S and DS	594	800	28.88%	1,031	231	20
Average Monthly Growth	594	800	37.50%	1,100	300	28
Average T&L AMG	594	800	33.50%	1,068	268	25

FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Trend and Seasonality	800	1,038	19.94%	1,245	207	17
Trend & Lag Dependent	800	1,036	22.68%	1,271	235	20
Difference Stationary	800	1,023	36.07%	1,392	369	38
Average T&S and DS	800	1,031	27.84%	1,318	287	28
Average Monthly Growth	800	1,100	36.00%	1,496	396	38
Average T&L AMG	800	1,068	29.59%	1,384	316	29

FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Trend and Seasonality	1,038	1,245	16.55%	1,451	206	17
Trend & Lag Dependent	1,036	1,271	18.57%	1,507	236	20
Difference Stationary	1,023	1,392	40.09%	1,950	558	54
Average T&S and DS	1,031	1,318	28.98%	1,700	382	36
Average Monthly Growth	1,100	1,496	35.90%	2,033	537	51
Average T&L AMG	1,068	1,384	27.89%	1,770	386	35

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

### Children with Disabilities – Buy-In: Trend Selections

FY 2018-29: 33.50% FY 2019-20: 29.59% FY 2020-21: 27.89%

### Children with Disabilities – Buy-In: Justifications

The Department estimates this eligibility category with sub-categories, to increase forecast accuracy. The Department identified a data error for July 2015 through December 2015 that incorrectly assigned children to eligibility categories for individuals with disabilities, based on their parents' disability status. This error incorrectly moved clients from Eligible Children and Children's Basic Health Plan (CHP) to Individuals to 59 with Disabilities and Children with Disabilities – Buy-In. Due to the small caseload level for this population, Children with Disabilities – Buy-In was disproportionately affected by this data issue, which falsely inflated the FY 2015-16 actuals, resulting in the spike in clients that can be seen in the graph on page MC-52. Based on the most recent year actuals and the June 2018 data point, which was 23 higher than the estimate, the Department has maintained a similar forecast compared to the February 2018 estimates.

	Actuals	Monthly	%
	Actuals	Change	Change
Jun-16	612	-	-
Jul-16	584	(28)	-4.58%
Aug-16	577	(7)	-1.20%
Sep-16	566	(11)	-1.91%
Oct-16	570	4	0.71%
Nov-16	584	14	2.46%
Dec-16	587	3	0.51%
Jan-17	595	8	1.36%
Feb-17	588	(7)	-1.18%
Mar-17	609	21	3.57%
Apr-17	612	3	0.49%
May-17	629	17	2.78%
Jun-17	628	(1)	-0.16%
Jul-17	661	33	5.25%
Aug-17	687	26	3.93%
Sep-17	698	11	1.60%
Oct-17	720	22	3.15%
Nov-17	755	35	4.86%
Dec-17	796	41	5.43%
Jan-18	828	32	4.02%
Feb-18	866	38	4.59%
Mar-18	891	25	2.89%
Apr-18	884	(7)	-0.79%
May-18	919	35	3.96%
Jun-18	898	(21)	-2.29%

February 2018 Forecast	
Forecasted June 2018 Level	876

Base	trend from 3	June 2018 le	evel
FY 2018-19	898	12.25%	98

Children with Disabilities - Buy-In: Historical Caseload and Projections							ections
	Caseload	% Change	Level Change				
FY 2013-14	317	-	-				
FY 2014-15	438	38.17%	121				
FY 2015-16	1,872	327.40%	1,434	F	February 2018 Projection		
FY 2016-17	594	-68.27%	(1,278)	FY 2016-17	594	-68.27%	(1,
FY 2017-18	800	34.68%	206	FY 2017-18	777	30.81%	
FY 2018-19	1,068	33.50%	268	FY 2018-19	1,030	32.56%	
FY 2019-20	1,384	29.59%	316	FY 2019-20	1,337	29.81%	
FY 2020-21	1,770	27.89%	386	FY 2020-21			

Actuals				
	Monthly Change	% Change		
6-month average	17	2.06%		
12-month average	23	3.05%		
18-month average	17	2.42%		
24-month average	12	1.65%		

February 2018 Projection					
FY 2016-17	594	-68.27%	(1,278)		
FY 2017-18	777	30.81%	183		
FY 2018-19	1,030	32.56%	253		
FY 2019-20	1,337	29.81%	307		
FY 2020-21					

The Children with Disabilities Buy-In Program has seen steady increases over the last 6 months, compared to historic monthly growth. The Department predicts a slightly higher growth rate in FY 2018-19 than that of the most recent 6 months.

FY 2012-13 1st Half	32	
FY 2012-13 2nd Half	15	6.519
FY 2012-13	23	
FY 2013-14 1st Half	(1)	-0.089
FY 2013-14 2nd Half	14	4.679
FY 2013-14	7	2.29
FY 2014-15 1st Half	6	1.709
FY 2014-15 2nd Half	23	5.069
FY 2014-15	14	3.389
FY 2015-16 1st Half	167	58.959
FY 2015-16 2nd Half	(155)	-13.459
FY 2015-16	6	22.759
FY 2016-17 1st Half	(4)	-0.679
FY 2016-17 2nd Half	7	1.149
FY 2016-17	1	0.249
FY 2017-18 1st Half	28	4.049
FY 2017-18 2nd Half	17	2.069
FY 2017-18	23	3.059

Monthly Average Growth Comparisons					
Daguast	Monthly	Monthly Change		Change	
Request	S-1 R-1		S-1	R-1	
FY 2018-19 1st Half	26	26	2.78%	2.71%	
FY 2018-19 2nd Half	18	25	1.70%	2.22%	
FY 2018-19	22	25	2.24%	2.47%	
FY 2019-20 1st Half	32	27	2.65%	2.15%	
FY 2019-20 2nd Half	26	30	1.83%	2.09%	
FY 2019-20	29	29	2.24%	2.12%	
FY 2020-21 1st Half		34		2.06%	
FY 2020-21 2nd Half		37		2.04%	
FY 2020-21		35		2.05%	

## MAGI Parents/Caretakers to 68% FPL

One of the primary ways that adults have historically qualified for Medicaid is through Section 1931 of the federal Medicaid statute. Under Section 1931, families who were eligible for cash welfare assistance under the Aid to Families with Dependent Children program are still eligible for Medicaid even after the Aid to Families with Dependent Children was replaced by the Temporary Assistance for Needy Families program (referred to as Colorado Works) on July 16, 1996. Clients enrolled in the Temporary Assistance for Needy Families program are no longer automatically eligible for Medicaid. Therefore, the MAGI Parents/Caretakers to 68% FPL category includes adults who receive Medicaid under Section 1931 and those families who receive Temporary Aid to Needy Families financial assistance coupled with Medicaid. Also included in this category are adults receiving Transitional Medicaid. Transitional Medicaid is available to adults in families who have received 1931 Medicaid in three of the past six months and become ineligible due to an increase in earned income. Adults may receive Transitional Medicaid benefits for one year. In FY 2016-17, there were an average of 40,955 adults in this program. Although this program has been set to expire many times, it has been renewed regularly, though most recently it was made permanent.

Before 1999, caseload in this category was falling. Decreases in caseload can be attributed to economic expansion and effects of the Personal Responsibility Work and Opportunity Reconciliation Act, known as welfare reform. When welfare reform was instituted in Colorado in 1997, the link between cash assistance for welfare and Medicaid was broken. When the Department implemented this change into the Client Oriented Information Network eligibility data system, it was estimated that  $46,006^{12}$  clients had their cases closed in error. In reaction, the Tatum lawsuit was brought against the State. Starting in May 2001, the Department began to reinstate clients who inadvertently lost their Medicaid eligibility. This may help to explain why from 1997 to 1999 caseload fell, and may have contributed to a spike in caseload in FY 2001-02. For a complete explanation of the Tatum lawsuit, see the November 1, 2001 Budget Request, pages A-37 to A-38.

HB 05-1262 (Tobacco Tax bill) allows for expanding Medicaid eligibility to parents of children enrolled in either Medicaid or the Children's Basic Health Plan up to 60% of the federal poverty level (FPL). The increase in the percentage of allowable federal poverty level was implemented on July 1, 2006.

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<sup>&</sup>lt;sup>12</sup> Source: November 1, 2001 Budget Request, page A-37

#### 25.5-5-101 (1), C.R.S.

- (a) Individuals who meet the eligibility criteria for the aid to families with dependent children program pursuant to rules that were in effect on July 16, 1996;
- (b) Families who meet the eligibility criteria for the aid to families with dependent children program established in rules that were in effect on July 16, 1996, and who subsequently would have become ineligible under such eligibility criteria because of increased earnings or increased hours of employment whose eligibility is specified for a period of time by the federal government;
- (c) Qualified pregnant women . . . who meet the income resource requirements of the state's aid to families with dependent children program pursuant to rules that were in effect on July 16, 1996;

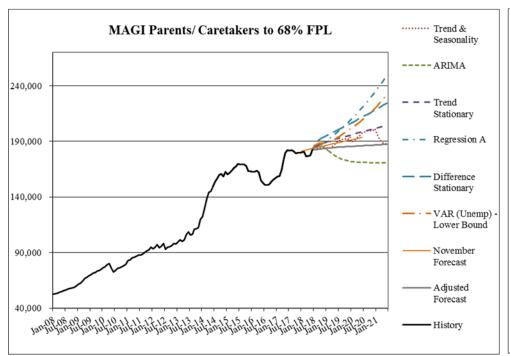
#### 25.5-5-201 (1), C.R.S.

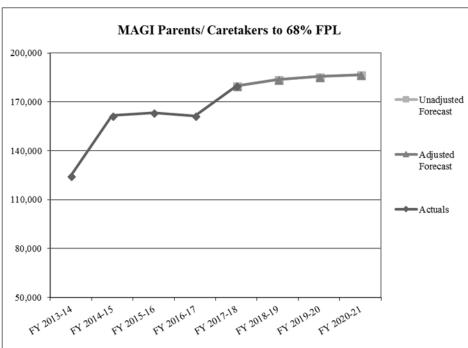
- (a) Individuals who would be eligible for but are not receiving cash assistance;
- (d) Individuals who would be eligible for aid to families with dependent children if child care were paid from earnings;
- (h) Persons who are eligible for cash assistance under the works program pursuant to section 26-2-706;

### 25.5-5-201 (1), C.R.S.

(m) (I)(A) Parents of children who are eligible for the medical assistance program or the children's basic health plan, article 8 of this title, whose family income does not exceed a specified percent of the federal poverty level, adjusted for family size, as set by the state board by rule, which percentage shall be not less than one hundred percent;

## MAGI Parents/Caretakers to 68% FPL: Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend & Seasonality	PC to 68%	Constant, dummy for October 2013, dummy for January 2014, dummy for July 2015, trend, seasonal dummy variables	21.32	20.85	0.9467
ARIMA	d(PC to 68%)	Constant, AR variables	-4.95	-5.15	0.9515
Trend Stationary	log(PC to 68%)	Constant, 4 lags on the dependent variable	-5.09	-5.34	0.9836
Difference Stationary	dlog(PC to 68%)	Constant, 1 lag on the dependent variable	-5.33	-5.47	0.3287
Regression A	dlog(PC to 68%)	Constant, unemployment, AR variables, MA variables	-5.00	-5.1	0.3765
Adjusted Forecast			NA	NA	NA
VAR (Unemp) - Lower Bound			NA	NA	NA

MAGI Parents/ Care	takers to 68% ]	FPL: Model Re	sults <sup>1</sup>			
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	161,422	179,853	2.84%	184,961	5,108	642
ARIMA	161,422	179,853	1.52%	182,587	2,734	(536)
Trend Stationary	161,422	179,853	5.04%	188,918	9,065	833
Difference Stationary	161,422	179,853	8.11%	194,439	14,586	1,475
Regression A	161,422	179,853	5.85%	190,374	10,521	1,334
Adjusted Forecast	161,422	179,853	2.15%	183,720	3,867	204
VAR (Unemp) - Lower Bound	161,422	179,853	5.26%	189,313	9,460	913
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	179,853	184,961	4.17%	192,674	7,713	642
ARIMA	179,853	182,587	-5.60%	172,362	(10,225)	(409)
Trend Stationary	179,853	188,918	3.64%	195,795	6,877	515
Difference Stationary	179,853	194,439	6.17%	206,436	11,997	983
Regression A	179,853	190,374	10.30%	209,983	19,609	1,857
Adjusted Forecast	179,853	183,720	0.97%	185,502	1,782	102
VAR (Unemp) - Lower Bound	179,853	189,313	6.56%	201,732	12,419	1,339
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	184,961	192,674	1.40%	195,371	2,697	(785)
ARIMA	182,587	172,362	-0.82%	170,949	(1,413)	(7)
Trend Stationary	188,918	195,795	3.11%	201,884	6,089	508
Difference Stationary	194,439	206,436	5.89%	218,595	12,159	1,040
Regression A	190,374	209,983	12.19%	235,580	25,597	2,370
Adjusted Forecast	183,720	185,502	0.66%	186,726	1,224	102
VAR (Unemp) - Lower Bound	189,313	201,732	9.56%	221,018	19,286	1,890

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

#### MAGI Parents/Caretakers to 68% FPL: Trend Selections

FY 2018-19: 2.15% FY 2019-20: 0.97% FY 2020-21: 0.66%

### MAGI Parents/Caretakers to 68% FPL: Justifications

- Average monthly caseload in FY 2016-17 for MAGI Parents/Caretakers to 68% FPL was 160,991, with negative caseload growth for the year. However, the Department identified a systems issue that inadvertently moved clients out of this category and into expansion categories. This issue was resolved in March 2017, and clients moved from MAGI Parents/Caretakers 69-133% FPL to this category through the end of the fiscal year. The effect of this system fix was previously accounted for as a bottom line impact, but because it is now baked into the end point for caseload, the bottom line impact was removed. Average monthly caseload in FY 2017-18 was 179,853.
- Recent data indicate that economic conditions began improving towards the end of 2012 and current forecasts indicate that this trend should continue. This economic recovery, however, is not projected to have a negative impact on caseload. SB 13-200 Medicaid Expansion was implemented January 2014 and the MAGI conversion was implemented in October 2013. These two factors have changed the population considerably. The Department believes it will see low growth continue in FY 2018-19, which will grow in the out-years based on the State Demographer's Office's forecast of increasing unemployment rates in Colorado during this time period.
- The Department believes that economic conditions are largely responsible for the growth from FY 2008-09 to FY 2011-12, as the seasonally adjusted unemployment rate increased from a low of 3.5% in March 2007 to a high of 9.3% in February 2011 (source: Bureau of Labor Statistics). The unemployment rate has largely exceeded 8.0% since April 2009, and has only recently fallen below that level, in October 2012. Unemployment is projected to grow and then flatten out over the next three fiscal years.
- In October 2017, there was a large decrease in caseload for most adult, income-based populations due to a system improvement for the process of verifying income for Medicaid eligibility purposes. The Department believes this represents a level-shift downward and has treated October 2017's caseload decrease as such.

	Actuals	Monthly	%
		Change	Change
Jun-16	152,679	-	-
Jul-16	150,888	(1,791)	-1.17%
Aug-16	150,673	(215)	-0.14%
Sep-16	151,271	598	0.40%
Oct-16	153,579	2,308	1.53%
Nov-16	155,687	2,108	1.37%
Dec-16	157,155	1,468	0.94%
Jan-17	158,234	1,079	0.69%
Feb-17	158,909	675	0.43%
Mar-17	164,569	5,660	3.56%
Apr-17	174,085	9,516	5.78%
May-17	179,878	5,793	3.33%
Jun-17	182,132	2,254	1.25%
Jul-17	181,640	(492)	-0.27%
Aug-17	182,123	483	0.27%
Sep-17	181,352	(771)	-0.42%
Oct-17	179,385	(1,967)	-1.08%
Nov-17	179,750	365	0.20%
Dec-17	179,877	127	0.07%
Jan-18	180,335	458	0.25%
Feb-18	180,744	409	0.23%
Mar-18	176,469	(4,275)	-2.37%
Apr-18	177,031	562	0.32%
May-18	177,139	108	0.06%
Jun-18	182,397	5,258	2.97%

February 2018 Forecast	
Forecasted June 2018 Level	183,728

Base	trend from	June 2018 l	evel
FY 2018-19	182,397	1.41%	2,544

		MAGI	Parents/ Ca	retakers to 68%	FPL: Histor	ical Caseloa	d and Projection
	Caseload	% Change	Level Change				
FY 2005-06	58,885	-	-				imarily attribu
FY 2006-07	55,850	-5.15%	(3,035)				d continues g
FY 2007-08	53,473	-4.26%	(2,377)			1 3	The decrease ing point, and
FY 2008-09	61,874	15.71%	8,401	1 3			election is red
FY 2009-10	74,839	20.95%	12,965	growth in the			accuon is icu
FY 2010-11	81,114	8.38%	6,275	growar ar u	L pust o II		
FY 2011-12	93,224	14.93%	12,110				
FY 2012-13	99,392	6.62%	6,168				
FY 2013-14	124,680	25.44%	25,288				
FY 2014-15	161,682	29.68%	37,002				
FY 2015-16	163,342	1.03%	1,660	1	February 201	18 Projection	ı
FY 2016-17	161,422	-1.18%	(1,920)	FY 2016-17	161,422	-1.18%	(1,920)
FY 2017-18	179,853	11.42%	18,431	FY 2017-18	181,632	12.52%	20,210
FY 2018-19	183,720	2.15%	3,867	FY 2018-19	186,391	2.62%	4,759
FY 2019-20	185,502	0.97%	1,782	FY 2019-20	191,312	2.64%	4,921
FY 2020-21	186,726	0.66%	1,224	FY 2020-21			

Reductions in FY 2015-16 are primarily attributable to the Transitional Medicaid issue. The selected trend continues growth, at a slightly lower rate than the previous projection. The decrease over the previous forecast is primarily due to the lower starting point, and the large decrease in March 2018. The current trend selection is reduced from the positive growth in the past 6 months.

February 2018 Projection						
FY 2016-17	161,422	-1.18%	(1,920)			
FY 2017-18	181,632	12.52%	20,210			
FY 2018-19	186,391	2.62%	4,759			
FY 2019-20	191,312	2.64%	4,921			
FY 2020-21						

Monthly Average Growth Actuals						
FY 2012-13 1st Half	(56)	-0.03%				
FY 2012-13 2nd Half	1,832	1.80%				
FY 2012-13	888	0.89%				
FY 2013-14 1st Half	1,844	1.67%				
FY 2013-14 2nd Half	4,952	3.78%				
FY 2013-14	3,398	2.73%				
FY 2014-15 1st Half	2,197	1.43%				
FY 2014-15 2nd Half	1,198	0.73%				
FY 2014-15	1,697	1.08%				
FY 2015-16 1st Half	(1,137)	-0.68%				
FY 2015-16 2nd Half	(1,735)	-1.08%				
FY 2015-16	(1,436)	-0.88%				
FY 2016-17 1st Half	746	0.49%				
FY 2016-17 2nd Half	4,163	2.51%				
FY 2016-17	2,454	1.50%				
FY 2017-18 1st Half	(376)	-0.21%				
FY 2017-18 2nd Half	420	0.24%				
FY 2017-18	22	0.02%				

Actuals						
	Monthly Change	% Change				
6-month average	420	0.24%				
12-month average	22	0.02%				
18-month average	1,402	0.85%				
24-month average	1,238	0.76%				

Monthly Average Growth Comparisons						
D	Monthly	Change	Percent Change			
Request	S-1	R-1	S-1	R-1		
FY 2018-19 1st Half	409	204	0.22%	0.11%		
FY 2018-19 2nd Half	410	204	0.22%	0.11%		
FY 2018-19	410	204	0.22%	0.11%		
FY 2019-20 1st Half	411	99	0.22%	0.05%		
FY 2019-20 2nd Half	411	105	0.21%	0.06%		
FY 2019-20	411	102	0.22%	0.06%		
FY 2020-21 1st Half		99	0.00%	0.05%		
FY 2020-21 2nd Half		105	0.00%	0.06%		
FY 2020-21		102	0.00%	0.05%		

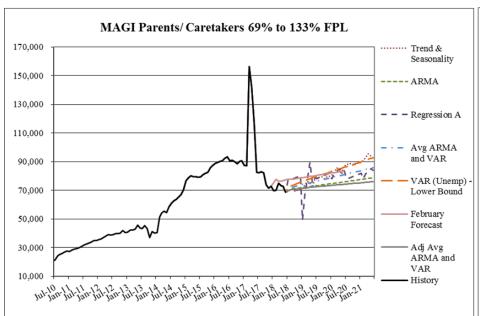
## MAGI Parents/Caretakers 69% to 133% FPL

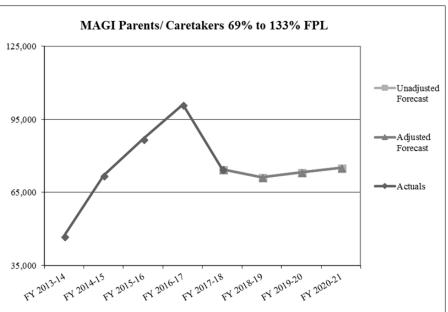
HB 09-1293 (Colorado Health Care Affordability Act) allowed for expanding Medicaid eligibility to parents of children enrolled in either Medicaid or the Children's Basic Health Plan up to 100% of the federal poverty level (FPL). The increase in the percentage of allowable federal poverty level was implemented on May 1, 2010. Medicaid Expansion SB 13-200 further expanded this population to 133% and the Department has changed the category Expansion Adults to 100% FPL to MAGI Parents/Caretakers 69% to 133% FPL to track these clients.

## 25.5-5-201 (1), C.R.S.

(m) Parents and caretaker relatives of children who are eligible for the medical assistance program whose family income does not exceed one hundred thirty-three percent of the federal poverty line, adjusted for family size;

## MAGI Parents/Caretakers 69% to 133% FPL: Model Results





Model	Dependent Variable	Independent Variables		Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend & Seasonality	PC 69-133%	Constant, dummy for Parent Indicator issue, trend, and seasonal dummy variables	21.89	21.52	0.8458
ARMA	d(PC 69-133%)	Constant, dummy for Parent Indicator issue, MA variables	-1.34	-1.57	0.0681
Regression A	dlog(PC 69- 133%)	Constant, dummy for Parent Indicator issue, dlog(unemployment), 4 lags on unemployment, and 1 lag on the dependent variable	-2.17	-2.39	0.3139
Avg ARMA and VAR			NA	NA	NA
Adj Avg ARMA and VAR			NA	NA	NA

N	IAGI Parents/	Caretakers 69°	% to 133% F	PL: Model Res	ults <sup>1</sup>	
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	101,059	74,610	-3.26%	72,178	(2,432)	764
ARMA	101,059	74,610	-3.88%	71,715	(2,895)	352
Regression A	101,059	74,610	1.48%	75,714	1,104	804
Avg ARMA and VAR	101,059	74,610	-1.14%	73,759	(851)	609
Adj Avg ARMA and VAR	101,059	74,610	-4.50%	71,253	(3,357)	298
VAR (Unemp) - Lower Bound	101,059	74,610	1.61%	75,811	1,201	865
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	74,610	72,178	12.71%	81,352	9,174	764
ARMA	74,610	71,715	3.96%	74,555	2,840	235
Regression A	74,610	75,714	7.58%	81,453	5,739	547
Avg ARMA and VAR	74,610	73,759	6.72%	78,716	4,957	400
Adj Avg ARMA and VAR	74,610	71,253	2.95%	73,355	2,102	149
VAR (Unemp) - Lower Bound	74,610	75,811	9.33%	82,884	7,073	565
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	72,178	81,352	10.99%	90,293	8,941	332
ARMA	71,715	74,555	3.85%	77,425	2,870	244
Regression A	75,714	81,453	-0.67%	80,907	(546)	(85)
Avg ARMA and VAR	73,759	78,716	6.11%	83,526	4,810	402
Adj Avg ARMA and VAR	71,253	73,355	2.43%	75,138	1,783	149
VAR (Unemp) - Lower Bound	75,811	82,884	8.13%	89,622	6,738	561

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

#### MAGI Parents/Caretakers 69% to 133% FPL: Trend Selections

FY 2018-19: -4.50% FY 2019-20: 2.95% FY 2020-21: 2.43%

### MAGI Parents/Caretakers 69% to 133% FPL: Justifications and Monthly Projections

- Average monthly caseload in FY 2017-18 for MAGI Parents/Caretakers 69% to 133% FPL was 74,610. The FY 2016-17 average monthly caseload is inflated due to a system error that began July 2015 that incorrectly moved clients from MAGI Parents/Caretakers to 68% FPL to this category, and a system error that began March 2017 that incorrectly moved clients from MAGI Adults to this category. The July 2015 system error was resolved March 2017. The March 2017 system error was resolved by June 2017. FY 2017-18 actual average monthly growth was -1,150, driven by the correction of systems issues. The June 2018 data point was 68,816, approximately 8,515 under the June 2018 estimate; excluding the June data point lowers this difference, thus the Department has slightly increased the forecast from February.
- Previously, the Department accounted for the expansion from 100% FPL to 133% FPL under SB 13-200 Medicaid Expansion as a bottom-line adjustment. This population is currently incorporated in the forecast, as the Department has determined there are now sufficient data points to forecast this expansion within statistical models. In FY 2016-17, the average monthly caseload attributable to this expansion was 41,524, and 36,163 in the first half of FY 2017-18.
- In January and April 2018, there was a large decrease in caseload for most adult, income-based populations due to a system improvement for the process of verifying income for Medicaid eligibility purposes. The Department believes this represents a level-shift downward and has treated January and April 2018's caseload decreases as such.

	Actuals	Monthly	%	
	Actuals	Change	Change	
Jun-16	93,307	-		
Jul-16	90,622	(2,685)	-2.88%	
Aug-16	91,044	422	0.47%	
Sep-16	90,010	(1,034)	-1.14%	
Oct-16	88,537	(1,473)	-1.64%	
Nov-16	90,158	1,621	1.83%	
Dec-16	90,730	572	0.63%	
Jan-17	87,555	(3,175)	-3.50%	
Feb-17	86,966	(589)	-0.67%	
Mar-17	156,205	69,239	79.62%	
Apr-17	141,660	(14,545)	-9.31%	
May-17	116,609	(25,051)	-17.68%	
Jun-17	82,613	(33,996)	-29.15%	
Jul-17	82,329	(284)	-0.34%	
Aug-17	83,011	682	0.83%	
Sep-17	82,088	(923)	-1.11%	
Oct-17	73,998	(8,090)	-9.86%	
Nov-17	71,489	(2,509)	-3.39%	
Dec-17	72,942	1,453	2.03%	
Jan-18	69,709	(3,233)	-4.43%	
Feb-18	70,071	362	0.52%	
Mar-18	74,829	4,758	6.79%	
Apr-18	73,217	(1,612)	-2.15%	
May-18	72,831	(386)	-0.53%	
Jun-18	68,816	(4,015)	-5.51%	

February 2018 Forecast					
Forecasted June 2018 Level	77,331				

Base	trend from	June 2018 l	evel
FY 2018-19	68,816	-7.77%	(5,794)

	MAGI Parents/ Caretakers 69% to 133% FPL: Historical Caseload and Projection								
	Caseload	% Change	Level Change						
FY 2011-12	35,461		-						
FY 2012-13	41,545	17.16%	6,084						
FY 2013-14	47,082	13.33%	5,537						
FY 2014-15	71,989	52.90%	24,907						
FY 2015-16	86,964	20.80%	14,975	February 2	018 Projecti	on Before Ad	ljustments		
FY 2016-17	101,059	16.21%	14,095	FY 2016-17	101,059	16.21%	14,095		
FY 2017-18	74,610	-26.17%	(26,449)	FY 2017-18	77,128	-23.68%	(23,931)		
FY 2018-19	71,253	-4.50%	(3,357)	FY 2018-19	78,809	2.18%	1,681		
FY 2019-20	73,355	2.95%	2,102	FY 2019-20	81,922	3.95%	3,113		
FY 2020-21	75,138	2.43%	1,783	FY 2020-21					

February 2018 Projection Before Adjustments							
FY 2016-17	101,059	16.21%	14,095				
FY 2017-18	77,128	-23.68%	(23,931)				
FY 2018-19	78,809	2.18%	1,681				
FY 2019-20	81,922	3.95%	3,113				
FY 2020-21							

FY 2016-17 average monthly caseload is inflated due to a system error with the Parent Indicator (used to identy Expansion Parents from Expansion Adults), which was fixed by the end of the fiscal year. The trends selected reflect downward pressure on expected growth going forward, but the growth rate is increased slightly from the previous forecast. The current forecast is overall reduced from the previous one due to the lower starting point.

Actuals			
	Monthly Change	% Change	
6-month average	(688)	-0.89%	
12-month average	(1,150)	-1.43%	
18-month average	(1,217)	0.12%	
24-month average	(1,020)	-0.02%	

Monthly Average Growth Actuals					
FY 2012-13 1st Half	254	0.67%			
FY 2012-13 2nd Half	526	1.31%			
FY 2012-13	390	0.99%			
FY 2013-14 1st Half	(562)	-1.01%			
FY 2013-14 2nd Half	3,054	6.82%			
FY 2013-14	1,246	2.90%			
FY 2014-15 1st Half	1,957	3.10%			
FY 2014-15 2nd Half	1,458	2.03%			
FY 2014-15	1,707	2.57%			
FY 2015-16 1st Half	1,419	1.72%			
FY 2015-16 2nd Half	960	1.07%			
FY 2015-16	1,189	1.40%			
FY 2016-17 1st Half	(430)	-0.45%			
FY 2016-17 2nd Half	(1,353)	3.22%			
FY 2016-17	(891)	1.38%			
FY 2017-18 1st Half	(1,612)	-1.97%			
FY 2017-18 2nd Half	(688)	-0.89%			
FY 2017-18	(1,150)	-1.43%			

Monthly Average Growth Comparisons					
Paguast	Monthly Change		Percent Change		
Request	S-1	R-1	S-1	R-1	
FY 2018-19 1st Half	237	397	0.30%	0.57%	
FY 2018-19 2nd Half	239	198	0.30%	0.28%	
FY 2018-19	238	298	0.30%	0.42%	
FY 2019-20 1st Half	265	149	0.33%	0.20%	
FY 2019-20 2nd Half	275	149	0.33%	0.20%	
FY 2019-20	270	149	0.33%	0.20%	
FY 2020-21 1st Half	0	147		0.20%	
FY 2020-21 2nd Half	0	151		0.20%	
FY 2020-21	0	149		0.20%	

Clients 108% -133%					
FPL					
Jun-16	42,721				
Jul-16	41,167				
Aug-16	41,694				
Sep-16	41,121				
Oct-16	39,993				
Nov-16	40,536				
Dec-16	41,549				
Jan-17	40,298				
Feb-17	39,513				
Mar-17	48,749				
Apr-17	45,308				
May-17	40,484				
Jun-17	37,874				
Jul-17	37,840				
Aug-17	38,390				
Sep-17	39,024				
Oct-17	34,769				
Nov-17	32,791				
Dec-17	34,163				
Jan-18	31,712				
Feb-18	31,940				
Mar-18	34,227				
Apr-18	32,698				
May-18	32,236				
Jun-18	31,917				

### **MAGI Adults**

HB 09-1293 (Colorado Health Care Affordability Act) authorizes the Department to expand Medicaid eligibility to Adults without Dependent Children (AwDC), now referred to as MAGI Adults, age 19 to 65 who are not eligible for Medicaid or Medicare with income up to 100% of the federal poverty level (FPL). The Department implemented the first stage of this expansion in May 2012, in which enrollment initially opened to individuals with income up to 10% FPL and enrollment was limited to 10,000.

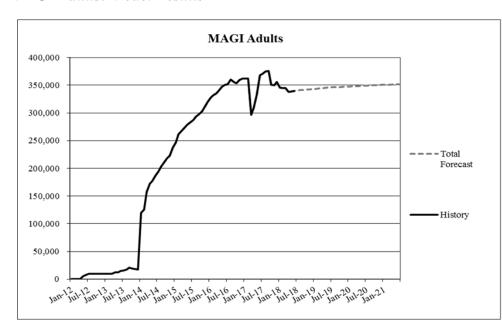
Due to the availability of funding in the FFY 2012-13 Hospital Provider Fee model, the Department planned to gradually increase the number of MAGI Adults served under 10% FPL in FY 2012-13 and FY 2013-14. The Department intended to enroll an additional 3,000 individuals from the wait list in April 2013, followed by 1,250 additional individuals per month from May through September 2013, setting the enrollment cap at 19,250 clients.

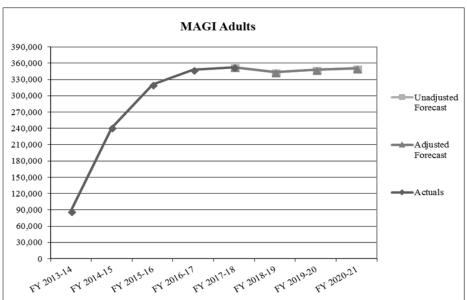
Beginning in January 2014, this enrollment cap was lifted under SB 13-200 Medicaid expansion, and the FPL for this category was extended through 133%. Aggressive growth has been seen for this eligibility since the implementation of Medicaid expansion.

#### 25.5-5-201 (1), C.R.S.

(p) Subject to federal approval, adults who are childless or without a dependent child in the home, as described in section 1902 (a) (10) (A) (i) (VIII) of the social security act, 42 U.S.C. sec. 1396a, who have attained nineteen years of age but have not attained sixty-five years of age, and whose family income does not exceed one hundred thirty-three percent of the federal poverty line, adjusted for family size;

## MAGI Adults: Model Results





	MAGI Adults: Model Results <sup>1</sup>					
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change <sup>2</sup>
<b>Combined Forecast</b>	347,848	352,607	-2.68%	343,166	(9,441)	499
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change <sup>2</sup>
<b>Combined Forecast</b>	352,607	343,166	1.27%	347,535	4,369	250
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change <sup>2</sup>
<b>Combined Forecast</b>	361,574	347,535	0.86%	350,520	2,985	250

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

#### MAGI Adults: Trend Selections

FY 2018-19: -2.68% FY 2019-20: 1.27% FY 2020-21: 0.86%

### MAGI Adults: Justifications and Monthly Projections

- Average monthly caseload in FY 2017-18 for MAGI Adults was 352,535. The average monthly growth in FY 2017-18 was approximately -2,363, with the June 2018 data point coming in 22,100 lower than anticipated in the February 2018 request. The Department has lowered the caseload estimate in FY 2018-19 to account for this, and believes that growth will remain somewhat flat due to a system fix that put downward pressure on caseload on a quarterly basis.
- The Department selects models separately for the age group 19-44 and the age group 45-64. See below for more details.
- Beginning March 2017, a system error caused clients in this population to move to the MAGI Parents/Caretakers 69-133% FPL population. This issue was resolved by June 2017 and can be seen clearly in the dip on the graph on page MC-68.
- In October 2017, January 2018, and April 2018 there were large decreases in caseload for most adult, income-based populations due to a system improvement for the process of verifying income for Medicaid eligibility purposes. The Department believes this represents a level-shift downward and has treated these quarterly caseload decreases as such.

		Monthly	
	Actuals	Change	% Change
Jun-16	350,396	-	-
Jul-16	351,908	1,512	0.43%
Aug-16	359,971	8,063	2.29%
Sep-16	356,125	(3,846)	-1.07%
Oct-16	353,370	(2,755)	-0.77%
Nov-16	358,986	5,616	1.59%
Dec-16	362,193	3,207	0.89%
Jan-17	362,098	(95)	-0.03%
Feb-17	361,837	(261)	-0.07%
Mar-17	296,427	(65,410)	-18.08%
Apr-17	309,197	12,770	4.31%
May-17	333,778	24,581	7.95%
Jun-17	368,291	34,513	10.34%
Jul-17	370,674	2,383	0.65%
Aug-17	374,722	4,048	1.09%
Sep-17	376,011	1,289	0.34%
Oct-17	350,968	(25,043)	-6.66%
Nov-17	350,249	(719)	-0.20%
Dec-17	356,175	5,926	1.69%
Jan-18	345,699	(10,476)	-2.94%
Feb-18	345,064	(635)	-0.18%
Mar-18	344,991	(73)	-0.02%
Apr-18	337,958	(7,033)	-2.04%
May-18	338,829	871	0.26%
Jun-18	339,937	1,108	0.33%

February 2018 Forecas	t
Forecasted June 2018 Level	362,037

I	Base	e trend from	June 2018	level
	FY 2018-19	339,937	-3.59%	(12,670)

MAGI Adults: Historical Caseload and Projection					jections
	Caseload	% Change	Level Change		
FY 2013-14	87,243	-	-		
FY 2014-15	241,392	176.69%	154,149		
FY 2015-16	320,374	32.72%	78,982	February 2018 Pro	ojection
FY 2016-17	347,848	8.58%	27,474	FY 2016-17 347,848	8.58%
FY 2017-18	352,607	1.37%	4,759	FY 2017-18 361,574	3.95%
FY 2018-19	343,166	-2.68%	(9,441)	FY 2018-19 366,408	1.34%
FY 2019-20	347,535	1.27%	4,369	FY 2019-20 374,513	2.21%
FY 2020-21	350,520	0.86%	2,985	FY 2020-21	

February 2018 Projection				
FY 2016-17	347,848	8.58%	27,474	
FY 2017-18	361,574	3.95%	13,726	
FY 2018-19	366,408	1.34%	4,834	
FY 2019-20	374,513	2.21%	8,105	
FY 2020-21				

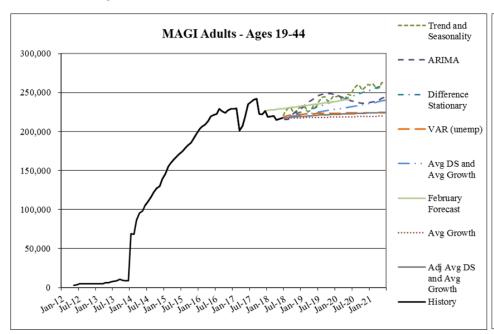
MAGI Adults increased aggressively with the expansion in January 2014. The growth appears to be slowing over time, and is overall negative in the past 12 months, due primarily to a system fix that puts downward pressure on caseload on a quarterly basis. Due to this and expected downward pressure from other systems changes, the Department has reduced the trend, compounded by the lower starting point.

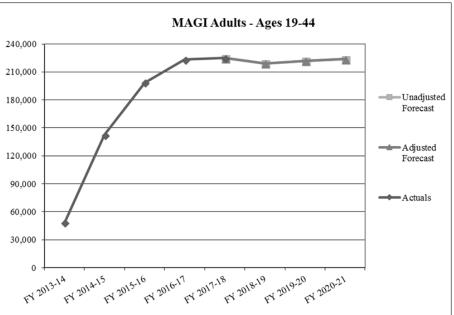
Actuals			
	Monthly Change	% Change	
6-month average	(2,706)	-0.77%	
12-month average	(2,363)	-0.64%	
18-month average	(1,236)	-0.18%	
24-month average	(436)	0.00%	

Monthly Average Growth Actuals					
FY 2012-13 1st Half	341	4.34%			
FY 2012-13 2nd Half	829	7.58%			
FY 2012-13	585	5.96%			
FY 2013-14 1st Half	387	2.97%			
FY 2013-14 2nd Half	28,329	108.64%			
FY 2013-14	14,358	55.81%			
FY 2014-15 1st Half	8,374	4.06%			
FY 2014-15 2nd Half	7,644	3.00%			
FY 2014-15	8,009	3.53%			
FY 2015-16 1st Half	6,197	2.08%			
FY 2015-16 2nd Half	5,051	1.52%			
FY 2015-16	5,624	1.80%			
FY 2016-17 1st Half	1,966	0.56%			
FY 2016-17 2nd Half	1,016	0.74%			
FY 2016-17	1,491	0.65%			
FY 2017-18 1st Half	(2,019)	-0.52%			
FY 2017-18 2nd Half	(2,706)	-0.77%			
FY 2017-18	(2,363)	-0.64%			
FY 2017-18	(2,363)	-0.64%			

Monthly Average Growth Comparisons							
Request	Monthly	Change	Percent Change				
	S-1	R-1	S-1	R-1			
FY 2018-19 1st Half	663	501	0.18%	0.15%			
FY 2018-19 2nd Half	693	498	0.19%	0.14%			
FY 2018-19	678	499	0.19%	0.15%			
FY 2019-20 1st Half	626	248	0.17%	0.07%			
FY 2019-20 2nd Half	731	251	0.19%	0.07%			
FY 2019-20	678	250	0.18%	0.07%			
FY 2020-21 1st Half		245		0.07%			
FY 2020-21 2nd Half		255		0.07%			
FY 2020-21		250		0.07%			

# MAGI Adults, Age 19 to 44: Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Adj Avg DS and Avg Growth			NA	NA	NA
Trend and Seasonality	Adults 19-44	Constant, dummy for Parent Indicator issue, trend, seasonal dummy variables	23.08	22.47	0.2446
ARIMA	d(Adults 19-44)	Constant, dummy for Parent Indicator issue, AR variables, MA variables	-3.72	-4.19	0.7542
Difference Stationary	log(Adults 19- 44)	Constant, dummy for Parent Indicator issue, dlog(unemployment), 1 lag on the dependent variable	-3.38	-3.57	-0.0792
VAR (unemp)	dlog(Adults 19- 44)	Constant, 2 lags on the dependent variable	19.45	18.98	0.9300
Avg DS and Avg Growth			NA	NA	NA
Avg Growth			NA	NA	NA

MAGI Adults Age 19-44: Model Results <sup>1</sup>							
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2	
Adj Avg DS and Avg Growth	223,349	224,997	-2.54%	219,282	(5,715)	308	
Trend and Seasonality	223,349	224,997	1.74%	228,912	3,915	1,222	
ARIMA	223,349	224,997	2.04%	229,587	4,590	2,288	
Difference Stationary	223,349	224,997	-0.09%	224,795	(202)	1,165	
VAR (unemp)	223,349	224,997	-1.34%	221,982	(3,015)	483	
Avg DS and Avg Growth	223,349	224,997	-1.65%	221,285	(3,712)	619	
Avg Growth	223,349	224,997	-3.22%	217,752	(7,245)	72	
		D 1 1	D	D			

FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Adj Avg DS and Avg Growth	224,997	219,282	1.23%	221,979	2,697	154
Trend and Seasonality	224,997	228,912	6.40%	243,562	14,650	1,222
ARIMA	224,997	229,587	6.95%	245,543	15,956	(417)
Difference Stationary	224,997	224,795	6.05%	238,395	13,600	1,094
VAR (unemp)	224,997	221,982	0.69%	223,514	1,532	49
Avg DS and Avg Growth	224,997	221,285	3.27%	228,521	7,236	583
Avg Growth	224,997	217,752	0.40%	218,623	871	73

FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Adj Avg DS and Avg Growth	219,282	221,979	0.83%	223,821	1,842	154
Trend and Seasonality	228,912	243,562	6.02%	258,224	14,662	1,222
ARIMA	229,587	245,543	-2.72%	238,864	(6,679)	384
Difference Stationary	224,795	238,395	6.07%	252,866	14,471	1,316
VAR (unemp)	221,982	223,514	0.11%	223,760	246	7
Avg DS and Avg Growth	221,285	228,521	3.36%	236,199	7,678	694
Avg Growth	217,752	218,623	0.40%	219,497	874	73

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

### MAGI Adults, Age 19 to 44: Trend Selections

FY 2018-19: -2.54% FY 2019-20: 1.23% FY 2020-21: 0.83%

### MAGI Adults, Age 19 to 44: Justifications and Monthly Projections

The Department estimates this eligibility category with two age group sub-categories, to increase forecast accuracy. For FY 2017-18, caseload experienced flat growth with an average monthly growth of -1,488 clients, primarily driven by a system fix that began to affect eligibility on October 2017. The Department has adjusted its forecast downward from the February 2018 level accordingly, expecting slow growth in FY 2019-20 and FY 2020-21.

In October 2017, January 2018, and April 2018 there were large decreases in caseload for most adult, income-based populations due to a system improvement for the process of verifying income for Medicaid eligibility purposes. The Department believes this represents a level-shift downward and has treated these quarterly caseload decreases as such.

	Actuals	Monthly Change	% Change
Jun-16	221,633	-	
Jul-16	222,886	1,253	0.57%
Aug-16	228,842	5,956	2.67%
Sep-16	226,134	(2,708)	-1.18%
Oct-16	223,839	(2,295)	-1.01%
Nov-16	227,446	3,607	1.61%
Dec-16	229,067	1,621	0.71%
Jan-17	229,443	376	0.16%
Feb-17	229,699	256	0.11%
Mar-17	201,259	(28,440)	-12.38%
Apr-17	207,345	6,086	3.02%
May-17	219,092	11,747	5.67%
Jun-17	235,141	16,049	7.33%
Jul-17	237,814	2,673	1.14%
Aug-17	241,035	3,221	1.35%
Sep-17	242,117	1,082	0.45%
Oct-17	222,827	(19,290)	-7.97%
Nov-17	222,346	(481)	-0.22%
Dec-17	226,664	4,318	1.94%
Jan-18	218,942	(7,722)	-3.41%
Feb-18	219,523	581	0.27%
Mar-18	220,235	712	0.32%
Apr-18	215,075	(5,160)	-2.34%
May-18	216,092	1,017	0.47%
Jun-18	217,289	1,197	0.55%

February 2018 Forecast		
Forecasted June 2018 Level	229,471	

Base trend from June 2018 level					
FY 2018-19	217,289	-3.43%	(7,708)		

	MAGI Adults Ages 19-44: Historical Caseload and Projection							
	Caseload	% Change	Level Change					
FY 2013-14	48,325	-	-					
FY 2014-15	142,485	194.85%	94,160					
FY 2015-16	198,654	39.42%	56,169	February 2	018 Project	ion Before A	djus tme	
FY 2016-17	223,349	12.43%	24,695	FY 2016-17	223,349	12.43%	24,	
FY 2017-18	224,997	0.74%	1,648	FY 2017-18	230,228	3.08%	6,	
FY 2018-19	219,282	-2.54%	(5,715)	FY 2018-19	232,553	1.01%	2,	
FY 2019-20	221,979	1.23%	2,697	FY 2019-20	238,623	2.61%	6,	
FY 2020-21	223,821	0.83%	1,842	FY 2020-21				

February 2	February 2018 Projection Before Adjustments						
FY 2016-17	223,349	12.43%	24,695				
FY 2017-18	230,228	3.08%	6,879				
FY 2018-19	232,553	1.01%	2,325				
FY 2019-20	238,623	2.61%	6,070				
FY 2020-21							

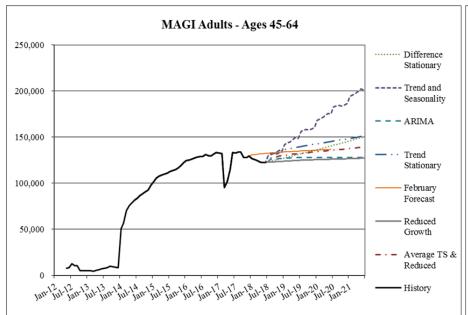
MAGI Adults Age 19 to 44 increased aggressively with the expansion in January 2014. However, a system fix resulted in a large decrease in October 2017, and quarterly thereafter, and this population was artificially deflated from March through June 2017 due to a different sysem issue. The growth appears to be slowing over time. However, the Department expects growth to continue, but at a lower rate than previous assumptions.

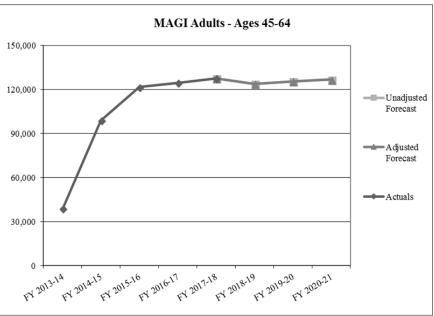
Actuals				
	Monthly Change	% Change		
6-month average	(1,563)	-0.69%		
12-month average	(1,488)	-0.62%		
18-month average	(654)	-0.20%		
24-month average	(181)	-0.01%		

Monthly Average Growth Actuals							
FY 2012-13 1st Half	166	4.42%					
FY 2012-13 2nd Half	495	9.15%					
FY 2012-13	330	6.78%					
FY 2013-14 1st Half	155	2.53%					
FY 2013-14 2nd Half	16,098	124.83%					
FY 2013-14	8,127	63.68%					
FY 2014-15 1st Half	5,603	4.74%					
FY 2014-15 2nd Half	5,455	3.60%					
FY 2014-15	5,529	4.17%					
FY 2015-16 1st Half	4,335	2.38%					
FY 2015-16 2nd Half	4,012	1.94%					
FY 2015-16	4,173	2.16%					
FY 2016-17 1st Half	1,239	0.56%					
FY 2016-17 2nd Half	1,012	0.65%					
FY 2016-17	1,126	0.61%					
FY 2017-18 1st Half	(1,413)	-0.55%					
FY 2017-18 2nd Half	(1,563)	-0.69%					
FY 2017-18	(1,488)	-0.62%					

Monthly Average Growth Comparisons					
Request	Monthly	Change	Percent Change		
Request	S-1	R-1	S-1	R-1	
FY 2018-19 1st Half	465	310	0.20%	0.14%	
FY 2018-19 2nd Half	493	306	0.21%	0.14%	
FY 2018-19	479	308	0.21%	0.14%	
FY 2019-20 1st Half	482	154	0.20%	0.07%	
FY 2019-20 2nd Half	585	154	0.24%	0.07%	
FY 2019-20	534	154	0.22%	0.07%	
FY 2020-21 1st Half		151		0.07%	
FY 2020-21 2nd Half		157		0.07%	
FY 2020-21		154		0.07%	

# MAGI Adults, Age 45 to 64: Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Reduced Growth			NA	NA	NA
Trend and Seasonality	Adults 45+	Constant, dummy for Parent Indicator issue, trend, seasonal dummy variables	23.62	23.18	0.7771
ARIMA	d(Adults 45+)	Constant, dummy for Parent Indicator issue, MA variables	-3.33	-3.7	0.8381
Trend Stationary	log(Adults 45+)	Constant, dummy for Parent Indicator issue, trend, 1 lag on the dependent variable	-2.90	-3.15	0.7122
Difference Stationary	dlog(Adults 45+)	Constant, dummy for Parent Indicator issue, 1 lag on the dependent variable	-2.15	-2.29	-0.0177
Average TS & Reduced			N/A	N/A	N/A

	MAGI Adults Age 45-64: Model Results <sup>1</sup>						
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2	
Reduced Growth	124,499	127,610	-2.92%	123,884	(3,726)	191	
Trend and Seasonality	124,499	127,610	8.97%	139,057	11,447	2,183	
ARIMA	124,499	127,610	-0.69%	126,729	(881)	430	
Trend Stationary	124,499	127,610	6.22%	135,547	7,937	1,401	
Difference Stationary	124,499	127,610	-0.24%	127,304	(306)	720	
Average TS & Reduced	124,499	127,610	1.65%	129,716	2,106	796	
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2	
Reduced Growth	127,610	123,884	1.35%	125,556	1,672	96	
Trend and Seasonality	127,610	139,057	18.84%	165,255	26,198	2,183	
ARIMA	127,610	126,729	0.92%	127,895	1,166	9	
Trend Stationary	127,610	135,547	5.22%	142,623	7,076	486	
Difference Stationary	127,610	127,304	7.00%	136,215	8,911	766	
Average TS & Reduced	127,610	129,716	3.37%	134,087	4,371	291	
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2	
Reduced Growth	123,884	125,556	0.91%	126,699	1,143	96	
Trend and Seasonality	139,057	165,255	15.85%	191,448	26,193	2,183	
ARIMA	126,729	127,895	0.02%	127,921	26	0	
Trend Stationary	135,547	142,623	4.12%	148,499	5,876	498	
Difference Stationary	127,304	136,215	7.00%	145,750	9,535	819	
Average TS & Reduced	129,716	134,087	2.62%	137,600	3,513	297	

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

## MAGI Adults, Age 45-64: Trend Selections

FY 2018-19: -2.92% FY 2010-20: 1.35% FY 2020-21: 0.91%

### MAGI Adults, Age 45-64: Justifications and Monthly Projections

The Department estimates this eligibility category with two age group sub-categories, to increase forecast accuracy. Average monthly caseload in FY 2017-18 was 127,610 clients. Average monthly growth in FY 2017-18 was -875, primarily driven by large quarterly decreases. The June 2018 data point was approximately 9,918 lower than predicted in the February 2018 request; the Department has decreased the forecast in comparison to the previous estimates accordingly.

In October 2017, January 2018, and April 2018 there were large decreases in caseload for most adult, income-based populations due to a system improvement for the process of verifying income for Medicaid eligibility purposes. The Department believes this represents a level-shift downward and has treated these quarterly caseload decreases as such.

#### FY 2019-20 BUDGET REQUEST: CASELOAD NARRATIVE

		~	
	Actuals	Monthly Change	% Change
Jun-16	128,763	-	-
Jul-16	129,022	259	0.20%
Aug-16	131,129	2,107	1.63%
Sep-16	129,991	(1,138)	-0.87%
Oct-16	129,531	(460)	-0.35%
Nov-16	131,540	2,009	1.55%
Dec-16	133,126	1,586	1.21%
Jan-17	132,655	(471)	-0.35%
Feb-17	132,138	(517)	-0.39%
Mar-17	95,168	(36,970)	-27.98%
Apr-17	101,852	6,684	7.02%
May-17	114,686	12,834	12.60%
Jun-17	133,150	18,464	16.10%
Jul-17	132,860	(290)	-0.22%
Aug-17	133,687	827	0.62%
Sep-17	133,894	207	0.15%
Oct-17	128,141	(5,753)	-4.30%
Nov-17	127,903	(238)	-0.19%
Dec-17	129,511	1,608	1.26%
Jan-18	126,757	(2,754)	-2.13%
Feb-18	125,541	(1,216)	-0.96%
Mar-18	124,756	(785)	-0.63%
Apr-18	122,883	(1,873)	-1.50%
May-18	122,737	(146)	-0.12%
Jun-18	122,648	(89)	-0.07%

February 2018 Forecast				
Forecasted June 2018 Level	132,566			

Bas	e trend fron	n June 2018	level
FY 2018-19	122,648	-3.89%	(4,962)

	MAGI Adults Ages 45-64: Historical Caseload and Projections						
	Caseload	%	Level				
	Caseroau	Change	Change				
FY 2013-14	38,918	-	-				
FY 2014-15	98,907	154.14%	59,989				
FY 2015-16	121,720	23.07%	22,813	February 2	018 Project	ion Before A	djustme
FY 2016-17	124,499	2.28%	2,779	FY 2016-17	124,499	2.28%	2,
FY 2017-18	127,610	2.50%	3,111	FY 2017-18	131,346	5.50%	6,
FY 2018-19	123,884	-2.92%	(3,726)	FY 2018-19	133,855	1.91%	2,
FY 2019-20	125,556	1.35%	1,672	FY 2019-20	135,890	1.52%	2,
FY 2020-21	126,699	0.91%	1,143	FY 2020-21			

February 2018 Projection Before Adjustments					
FY 2016-17	124,499	2.28%	2,779		
FY 2017-18	131,346	5.50%	6,847		
FY 2018-19	133,855	1.91%	2,509		
FY 2019-20	135,890	1.52%	2,035		
FY 2020-21					

A system fix resulted in downward pressure in October 2017 and quarterly thereafter. The Department selected a trend on par with the previous forecast, with upward pressure in the request and out years due to the State Demographer's Office's estimates of unemployment rates, though the forecast is overall reduced due to the low starting point.

Actuals				
	Monthly	%		
	Change	Change		
6-month average	(1,144)	-0.90%		
12-month average	(875)	-0.67%		
18-month average	(582)	-0.06%		
24-month average	(255)	0.10%		

Monthly Average Growth Actuals							
FY 2012-13 1st Half	(550)	-2.95%					
FY 2012-13 2nd Half	334	6.07%					
FY 2012-13	(108)	1.56%					
FY 2013-14 1st Half	232	3.46%					
FY 2013-14 2nd Half	12,188	91.75%					
FY 2013-14	6,210	47.60%					
FY 2014-15 1st Half	2,769	3.15%					
FY 2014-15 2nd Half	2,189	2.12%					
FY 2014-15	2,479	2.63%					
FY 2015-16 1st Half	1,863	1.61%					
FY 2015-16 2nd Half	1,039	0.83%					
FY 2015-16	1,451	1.22%					
FY 2016-17 1st Half	727	0.56%					
FY 2016-17 2nd Half	4	1.17%					
FY 2016-17	366	0.86%					
FY 2017-18 1st Half	(607)	-0.44%					
FY 2017-18 2nd Half	(1,144)	-0.90%					
FY 2017-18	(875)	-0.67%					
•	-						

Monthly Average Growth Comparisons					
Request	Monthly	Change	Percent Change		
Request	S-1	R-1	S-1	R-1	
FY 2018-19 1st Half	198	190	0.15%	0.15%	
FY 2018-19 2nd Half	200	192	0.15%	0.15%	
FY 2018-19	199	191	0.15%	0.15%	
FY 2019-20 1st Half	144	94	0.11%	0.07%	
FY 2019-20 2nd Half	145	97	0.11%	0.08%	
FY 2019-20	145	96	0.11%	0.08%	
FY 2020-21 1st Half		94		0.07%	
FY 2020-21 2nd Half		97		0.08%	
FY 2020-21		96		0.08%	

#### **Breast and Cervical Cancer Program**

The Breast and Cervical Cancer Treatment Program (BCCP) was authorized under SB 01S2-012 and began enrolling eligible women in July 2002. Women under this optional coverage group were screened using the Centers for Disease Control's national breast and cervical cancer early detection and prevention guidelines, and found to have breast or cervical cancer. These women are between the ages of 40 and 64, uninsured, and otherwise not eligible for Medicaid. The Colorado Department of Public Health and Environment (CDPHE) administers the screening program as a grantee of the Centers of Disease Control. Regulations for the nationwide screening program indicate that the program is for low-income women, which CDPHE has interpreted to be less than 250% of the federal poverty level. To date, all 50 states have approved the option of covering these women under Medicaid.

HB 14-1045 most recently extended State authorization of this program. With the approval of CDPHE's FY 2016-17 R-4 in the FY 2016-17 Long Bill (HB 16-1405), the age range for cervical cancer screenings and treatment was extended to include women ages 21 to 39.

25.5-5-308 (1), C.R.S.

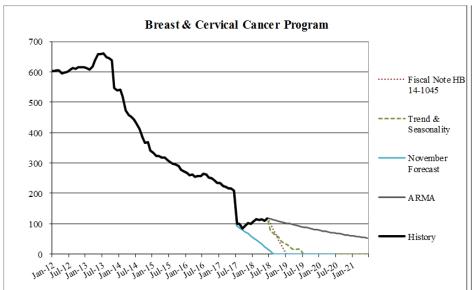
The general assembly hereby finds and declares that breast and cervical cancer are significant health problems for women in this state. The general assembly further finds and declares that these cancers can and should be prevented and treated whenever possible. It is therefore the intent of the general assembly to enact this section to provide for the prevention and treatment of breast and cervical cancer to women where it is not otherwise available for reasons of cost.

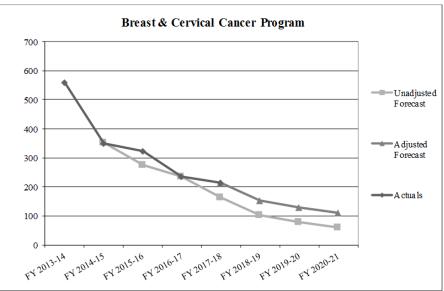
25.5-5-308 (2), C.R.S.

As used in this section, unless the context otherwise requires:

- (a) "Eligible person" means a person who:
- (I)(A) Has been screened for breast or cervical cancer under the centers for disease control and prevention's national breast and cervical cancer early detection program established under Title XV of the federal "Public Health Service Act", 42 U.S.C. sec. 300k et seq., in accordance with the requirements of section 1504 of such act, 42 U.S.C. sec. 300n, on or after July 1, 2002, unless the centers for Medicare and Medicaid services approves the state department's amendment to the medical assistance plan and the state department is able to implement the breast and cervical cancer prevention and treatment program before such date, then the person must be screened on or after the implementation date of such program; or
- (B) Has been screened for breast or cervical cancer by a provider who does not receive funds through the centers for disease control and prevention's national breast and cervical cancer early detection program but whose screening activities are recognized by the department of public health and environment as part of screening activities under the centers for disease control and prevention's national breast and cervical cancer early detection program. This sub-subparagraph (B) shall apply only if the state department receives authority to receive federal financial participation for such persons. The state department shall request authority for federal financial participation when the state department determines that the amount of moneys accumulated in the eligibility expansion account created in paragraph (c) of subsection (8) of this section, including any amounts pledged or promised through a gift, grant, or donation, is sufficient to sustain the projected number of additional persons who would be eligible for the program under this sub-subparagraph (B).
- (II) Has been diagnosed with breast or cervical cancer and is in need of breast or cervical cancer treatment;
- (III) Has not yet attained sixty-five years of age; and
- (IV) Does not have any creditable coverage as defined under federal law pursuant to 42 U.S.C. sec. 300gg (c).

# Breast and Cervical Cancer Program: Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Fiscal Note HB 14-1045					
Trend & Seasonality	ВССР	Constant, Trend, Seasonal Dummy Variables	11.25	10.84	0.9249
ARMA	dlog(BCCP)	Constant	-1.59	-1.78	-0.0269

Breast and Cervical Cancer Program: Model Results <sup>1</sup>						
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change <sup>2</sup>
Fiscal Note HB 14- 1045	235	105	-73.33%	28	(77)	(10)
Trend & Seasonality	235	105	-62.86%	39	(66)	(9)
ARMA	235	105	-1.90%	103	(2)	(2)

FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change <sup>2</sup>
Fiscal Note HB 14- 1045	105	28	-100.00%	0	(28)	0
Trend & Seasonality	105	39	-100.00%	0	(39)	(1)
ARMA	105	103	-23.30%	79	(24)	(2)

FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change <sup>2</sup>
Fiscal Note HB 14- 1045	28	0	0.00%	0	0	0
Trend & Seasonality	39	0	0.00%	0	0	0
ARMA	103	79	-24.05%	60	(19)	(1)

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

### Breast and Cervical Cancer Program:

FY 2018-19: -1.90% FY 2019-20: -23.30% FY 2020-21: -24.05%

## Breast and Cervical Cancer Program: Justifications

- Average monthly caseload in FY 2017-18 for BCCP was -8. The forecast has been adjusted accordingly.
- The expansion in MAGI Adults on January 2014 resulted in clients who were already on BCCP to move to the MAGI Adults category. Following guidance from CMS, the Department manually moved clients from MAGI Adults to BCCP based on clients being in the BCCP program on December 2013 and clients not having a break in their Medicaid eligibility. The Department did not account for breaks in cancer treatment, the third criteria for a client to no longer be eligible for this manual adjustment. In June 2017, the Department performed analysis on the base list of BCCP clients who were on Medicaid in December 2013 and found that all clients in the list had a break in treatment of at least one month. Based on this analysis, the Department is no longer performing this manual adjustment, effective July 1, 2017, and the forecast has been adjusted accordingly.
- There is one adjustment for this population:
  - o The estimated population of clients in this category with higher than 133% FPL.

	Actuals	Monthly Change	% Change
Jun-16	304	-	-
Jul-16	313	9	2.96%
Aug-16	310	(3)	-0.96%
Sep-16	311	1	0.32%
Oct-16	312	1	0.32%
Nov-16	306	(6)	-1.92%
Dec-16	303	(3)	-0.98%
Jan-17	295	(8)	-2.64%
Feb-17	285	(10)	-3.39%
Mar-17	285	0	0.00%
Apr-17	279	(6)	-2.11%
May-17	274	(5)	-1.79%
Jun-17	264	(10)	-3.65%
Jul-17	150	(114)	-43.18%
Aug-17	145	(5)	-3.33%
Sep-17	132	(13)	-8.97%
Oct-17	139	7	5.30%
Nov-17	149	10	7.19%
Dec-17	151	2	1.34%
Jan-18	157	6	3.97%
Feb-18	165	8	5.10%
Mar-18	163	(2)	-1.21%
Apr-18	169	6	3.68%
May-18	165	(4)	-2.37%
Jun-18	169	4	2.42%

February 2018 Forecast				
Forecasted June 2018 Level	104			

Base trend from June 2018 level				
FY 2018-19	169	9.03%	14	

Actuals				
	Monthly Change	% Change		
6-month average	3	1.93%		
12-month average	(8)	-2.50%		
18-month average	(7)	-2.42%		
24-month average	(6)	-1.83%		

		B	reast and Cer	ical Cancer Program: Historica	l Caseload an	d Projections			
	Caseload	% Change	Level Change	With the expansion of MA	AGI Adulte	in January			
FY 2005-06	188	-	-	2014, clients that would h					
FY 2006-07	228	21.28%	40						
FY 2007-08	270	18.42%	42	8					
FY 2008-09	317	17.41%	47	47 BCCP caseload, especially after July 2017 when the Department removed the manual adjustment from MAGI Adults to BCCP after performing day analysis to ensure the adjustment is no longer					
FY 2009-10	425	34.07%	108						
FY 2010-11	531	24.94%	106						
FY 2011-12	597	12.43%	66						
FY 2012-13	623	4.36%	26	necessary.					
FY 2013-14	559	-10.27%	(64)						
FY 2014-15	351	-37.21%	(208)						
FY 2015-16	322	-8.26%	(29)	February 2018 Projection	on Before Ad	justments			
FY 2016-17	235	-27.02%	(87)	FY 2016-17 235	-27.02%	(87)			
FY 2017-18	105	-55.32%	(130)	FY 2017-18 92	-60.85%	(143)			
FY 2018-19	103	-1.90%	(2)	FY 2018-19 65	-29.35%	(27)			
FY 2019-20	79	-23.30%	(24)	FY 2019-20 43	-33.85%	(22)			
FY 2020-21	60	-24.05%	(19)	FY 2020-21					

Clients over 133% FPL			
FY 2017-18	50		
FY 2018-19	51		
FY 2019-20	51		
FY 2020-21	51		

November 2018 Projections After Adjustments						
FY 2017-18	155	-47.41%	(140)			
FY 2018-19	154	-0.65%	(1)			
FY 2019-20	130	-15.58%	(24)			
FY 2020-21	111	-14.62%	(19)			

With the expansion of MAGI Adults in January
2014, clients that would have been eligible for
BCCP are now eligible for MAGI Adults.
Consequently, there is an expected decline in
BCCP caseload, especially after July 2017 when
the Department removed the manual adjustment
from MAGI Adults to BCCP after performing data
analysis to ensure the adjustment is no longer
necessary.

February 2018 Projection Before Adjustments				
FY 2016-17	235	-27.02%	(87)	
FY 2017-18	92	-60.85%	(143)	
FY 2018-19	65	-29.35%	(27)	
FY 2019-20	43	-33.85%	(22)	
FY 2020-21				

Clients ove	r 133% FPL
FY 2016-17	60
FY 2017-18	50
FY 2018-19	51
FY 2019-20	51
FY 2020-21	

February 2018 Projection After Adjustments				
FY 2016-17	295	-8.31%	(27)	
FY 2017-18	142	-51.86%	(153)	
FY 2018-19	116	-18.31%	(26)	
FY 2019-20	94	-18.97%	(22)	
FY 2020-21				

Monthly Average	ge Growth Act	uals
FY 2012-13 1st Half	3	0.41%
FY 2012-13 2nd Half	7	1.15%
FY 2012-13	5	0.78%
FY 2013-14 1st Half	(20)	-3.12%
FY 2013-14 2nd Half	(11)	-2.03%
FY 2013-14	(15)	-2.58%
FY 2014-15 1st Half	(14)	-3.02%
FY 2014-15 2nd Half	(7)	-1.93%
FY 2014-15	(10)	-2.48%
FY 2015-16 1st Half	(6)	-1.67%
FY 2015-16 2nd Half	(2)	-0.75%
FY 2015-16	(4)	-1.21%
FY 2016-17 1st Half	(0)	-0.04%
FY 2016-17 2nd Half	(7)	-2.26%
FY 2016-17	(3)	-1.15%
FY 2017-18 1st Half	(19)	-6.94%
FY 2017-18 2nd Half	3	1.93%
FY 2017-18	(8)	-2.50%

	nts Over % FPL
Jun-16	47
Jul-16	49
Aug-16	49
Sep-16	59
Oct-16	62
Nov-16	63
Dec-16	68
Jan-17	62
Feb-17	62
Mar-17	63
Apr-17	63
May-17	58
Jun-17	56
Jul-17	50
Aug-17	40
Sep-17	47
Oct-17	46
Nov-17	48
Dec-17	51
Jan-18	50
Feb-18	50
Mar-18	50
Apr-18	55
May-18	56
Jun-18	51

Monthly Average Growth Comparisons					
Daguest	Monthly Change		Percent Change		
Request	S-1	R-1	S-1	R-1	
FY 2018-19 1st Half	(2)	(2)	-1.92%	-1.37%	
FY 2018-19 2nd Half	(2)	(2)	-1.95%	-1.43%	
FY 2018-19	(2)	(2)	-1.93%	-1.40%	
FY 2019-20 1st Half	(2)	(2)	-1.64%	-1.36%	
FY 2019-20 2nd Half	(1)	(2)	-1.52%	-1.33%	
FY 2019-20	(2)	(2)	-1.58%	-1.34%	
FY 2020-21 1st Half	0	(1)	0.00%	-1.11%	
FY 2020-21 2nd Half	0	(1)	0.00%	-1.17%	
FY 2020-21	0	(1)	0.00%	-1.14%	

### **MAGI Eligible Children**

One of the primary ways that children qualify for Medicaid is through Section 1931 of the federal Medicaid statute. Under Section 1931, families who were eligible for cash welfare assistance under the Aid to Families with Dependent Children program are still eligible for Medicaid even after the Aid to Families with Dependent Children was replaced by the Temporary Assistance for Needy Families welfare program (referred to as Colorado Works) on July 16, 1996, and clients under the Temporary Assistance for Needy Families program were no longer automatically eligible for Medicaid. Per HB 09-1293 children enrolled in Medicaid will receive continuous eligibility for twelve months.

This category also includes children on Transitional Medicaid. Transitional Medicaid is available to children in families who have received 1931 Medicaid three of the past six months and become ineligible due to an increase in earned income. Children receive Transitional Medicaid benefits for one year. In FY 2016-17, there were an average of 28,219 children on Transitional Medicaid. Although this program has been set to expire many times, it was most recently made permanent.

Children who are born to women enrolled in the Baby and Kid Care program (MAGI Eligible Pregnant Adults) are also included in this category. Between 1986 and 1991, Congress extended Medicaid to new groups of pregnant women and children. Referred to as Baby and Kid Care in Colorado, this program was authorized through the Medicare Catastrophic Coverage Act of 1988. The program enrolls Baby Care women (see the MAGI Eligible Pregnant Adults section of this document for information on these women) and Kid Care children. Kid Care children are born to women with incomes up to 142% of the federal poverty level. The Baby and Kid Care Program serves a much higher income level than the 1931 Families program, and pregnant mothers are not subject to resource or asset limitations to qualify for the program. Moreover, the Baby and Kid Care Program has never had a cash-assistance component and was unaffected by welfare reform in 1996.

In previous years, this caseload was adjusted to include Ribicoff children. Ribicoff children were children aged six to 19, with incomes up to 100% of the federal poverty level with resources limited to \$1,000 who were born after September 30, 1983. Beginning with age six, a new age cohort was phased-in each year. Caseload was adjusted upwards to include these children. However, the final cohort of children was phased-in during FY 2002-03, so no further caseload adjustments are needed. Therefore, the MAGI Eligible Children category includes: children in families who receive Medicaid under Section 1931, children in families who receive Temporary Aid to Needy Families financial assistance coupled with Medicaid, children who are eligible for Kid Care, Ribicoff children, and children who receive Transitional Medicaid.

SB 11-008 expanded Medicaid eligibility to children of all ages with incomes up to 133% FPL (142% FPL after October 2013 due to income disregards for MAGI) in January 2013. Children ages 6 and up with incomes from 108% FPL to 142% FPL with no other insurance are considered SB 11-008 eligible children and receive the enhanced CHP+ federal match, since these children would have otherwise been eligible for CHP+. There are, however, children that do not receive the enhanced CHP+ federal match that are over age 6 with incomes from 108% FPL to 142% FPL; these are the children with other insurance that would not have otherwise qualified for CHP+.

### 25.5-5-101 (1), C.R.S.

- (a) Individuals who meet the eligibility criteria for the aid to families with dependent children program pursuant to rules that were in effect on July 16, 1996;
- (b) Families who meet the eligibility criteria for the aid to families with dependent children program established in rules that were in effect on July 16, 1996, and who subsequently would have become ineligible under such eligibility criteria because of increased earnings or increased hours of employment whose eligibility is specified for a period of time by the federal government;
- (c) Qualified pregnant women, and children under the age of seven, who meet the income resource requirements of the state's aid to families with dependent children program pursuant to rules that were in effect on July 16, 1996;
- (d) A newborn child born of a woman who is categorically needy. Such child is deemed Medicaid-eligible on the date of birth and remains eligible for one year so long as the woman remains categorically needy and the child is a member of her household;
- (m) Low-income pregnant women, and children through the age of six, whose income is at or below a certain percentage of the federal poverty level as determined by the federal government;

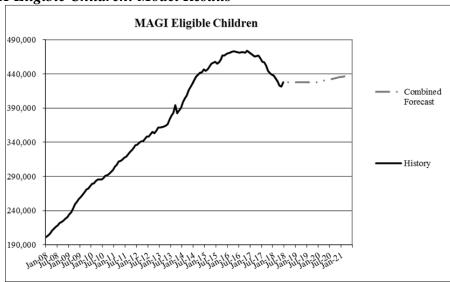
### 25.5-5-201 (1), C.R.S.

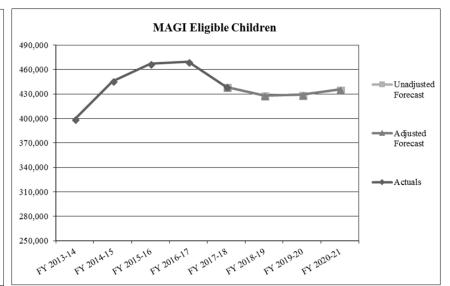
- (a) Individuals who would be eligible for but are not receiving cash assistance;
- (d) Individuals who would be eligible for aid to families with dependent children if child care were paid from earnings;
- (e) Individuals under the age of twenty-one who would be eligible for aid to families with dependent children but do not qualify as dependent children;
- (h) Persons who are eligible for cash assistance under the works program pursuant to section 26-2-706, C.R.S.;

### 25.5-5-205 (3), C.R.S.

- (a) On and after April 1, 1990, children under the age of six years and pregnant women shall be eligible for benefits under the baby and kid care program... (b) The percentage level of the federal poverty line, as defined pursuant to 42 U.S.C. sec. 9902 (2), used to determine eligibility under this subsection (3) shall be one hundred thirty-three percent...;
- (c) (I) On and after September 1, 2011, children born after September 30, 1983, who have attained six years of age but have not attained nineteen years of age shall be eligible for benefits under the baby and kid care program. For the purpose of eligibility under this paragraph (c) only, such individual's family income shall exceed the eligibility threshold used in determining eligibility for aid to families with dependent children assistance pursuant to rules in effect on July 16, 1996, and the method adopted by the state board pursuant to sections 25.5-5-101 (4) (c) and 25.5-5-201 (5) (c), but shall not exceed the equivalent of the percentage level of the federal poverty line that is specified pursuant to subparagraph (II) of this paragraph (c).
- (II) The percentage level of the federal poverty line, as defined pursuant to 42 U.S.C. sec. 9902 (2), used to determine eligibility under this paragraph (c) shall be equivalent to the family income eligibility threshold applied to children under six years of age pursuant to paragraph (b) of this subsection (3).

# MAGI Eligible Children: Model Results





MAGI Eligible Children: Model Results <sup>1</sup>						
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change <sup>2</sup>
<b>Combined Forecast</b>	469,297	438,772	-2.43%	428,111	(10,661)	(0)
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change <sup>2</sup>
<b>Combined Forecast</b>	438,772	428,111	0.24%	429,138	1,027	269
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change <sup>2</sup>
<b>Combined Forecast</b>	428,111	429,138	1.48%	435,495	6,357	592

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

### MAGI Eligible Children: Trend Selections

FY 2018-19: -2.43% FY 2019-20: 0.24% FY 2020-21: 1.48%

### MAGI Eligible Children: Justifications

- Average monthly caseload in FY 2017-18 for MAGI Eligible Children was 438,772. The June 2018 data point was approximately 11,152 below the February 2018 request. The Department has dampened the forecast for FY 2018-19, based on the low starting point even with a level shift upwards due to a system fix in the data feed between CBMS and interChange. For the request and out years, the Department is reintroducing positive growth based on the State Demographer's Office's projections of increasing unemployment rate over time.
- The Department selects models separately for the age group 0-1, the age group 2-5, and the age group 6-18, based on the age groups for CHP+ rates. See below for more details.
- The Department identified a data error for July 2015 through December 2015 that incorrectly assigned children to eligibility categories for individuals with disabilities, based on their parents' disability status. This error incorrectly moved clients from Eligible Children and Children's Basic Health Plan (CHP) to Individuals to 59 with Disabilities and Children with Disabilities Buy-In.
- This population is affected by economic conditions in similar ways as the MAGI Parents/Caretakers, as children on Medicaid have eligibility granted as a function of a parent or guardian in most cases. Caseload trends in this category are highly affected by economic conditions, and tend to be positively correlated with the population of children aged 0 to 18. Growth in the 0 to 18 population dropped from around 2.3% per year from FY 1995-96 to FY 2001-02 to about 0.9% per year from FY 2002-03 to FY 2011-12. The economy is expected to continue improving, though the unemployment rate is expected to grow (see page MC-13)<sup>13</sup>, but the Department does not expect this to be accompanied by a declining Medicaid caseload due to expansionary policy changes.
- In October 2017, there was a large decrease in caseload for most adult, income-based populations due to a system improvement for the process of verifying income for Medicaid eligibility purposes. The Department believes this represents a level-shift downward and has treated October 2017's caseload decrease as such. While the Department does not anticipate a large impact on children's caseload for this system fix, the October 2017 data point indicates there may have been a small effect on children as well.

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<sup>&</sup>lt;sup>13</sup> Source: Office of State Planning and Budgeting, September 2017 Economic and Fiscal Review, page 42

### FY 2019-20 BUDGET REQUEST: CASELOAD NARRATIVE

	Actuals	Monthly Change	% Change
Jun-16	472,050	-	-
Jul-16	470,963	(1,087)	-0.23%
Aug-16	471,980	1,017	0.22%
Sep-16	471,754	(226)	-0.05%
Oct-16	471,116	(638)	-0.14%
Nov-16	473,863	2,747	0.58%
Dec-16	472,054	(1,809)	-0.38%
Jan-17	469,992	(2,062)	-0.44%
Feb-17	467,770	(2,222)	-0.47%
Mar-17	465,588	(2,182)	-0.47%
Apr-17	466,511	923	0.20%
May-17	467,044	533	0.11%
Jun-17	462,931	(4,113)	-0.88%
Jul-17	457,780	(5,151)	-1.11%
Aug-17	457,326	(454)	-0.10%
Sep-17	452,116	(5,210)	-1.14%
Oct-17	444,507	(7,609)	-1.68%
Nov-17	441,219	(3,288)	-0.74%
Dec-17	439,244	(1,975)	-0.45%
Jan-18	437,341	(1,903)	-0.43%
Feb-18	433,460	(3,881)	-0.89%
Mar-18	429,162	(4,298)	-0.99%
Apr-18	423,241	(5,921)	-1.38%
May-18	421,753	(1,488)	-0.35%
Jun-18	428,112	6,359	1.51%

February 2018 Forecast			
Forecasted June 2018 Level	439,264		

Base trend from June 2018 level						
FY 2018-19	428,112	-2.43%	(10,660)			

		MAG	I Eligible Cl	nildren: Historical (	Caseload and	Projections	_
	Caseload	% Change	Level Change				
FY 2005-06	214,158						
FY 2006-07	205,390	-4.09%	(8,768)				
FY 2007-08	204,022	-0.67%	(1,368)				
FY 2008-09	235,129	15.25%	31,107				
FY 2009-10	275,672	17.24%	40,543				
FY 2010-11	302,410	9.70%	26,738				
FY 2011-12	334,633	10.66%	32,223				
FY 2012-13	359,843	7.53%	25,210				
FY 2013-14	399,032	10.89%	39,189				
FY 2014-15	445,723	11.70%	46,691				
FY 2015-16	467,193	4.82%	21,470	February 20	18 Projectio	on Before Ad	į
FY 2016-17	469,297	0.45%	2,104	FY 2016-17	469,297	0.45%	
FY 2017-18	438,772	-6.50%	(30,525)	FY 2017-18	443,986	-5.39%	
FY 2018-19	428,111	-2.43%	(10,661)	FY 2018-19	439,248	-1.07%	=
FY 2019-20	429,138	0.24%	1,027	FY 2019-20	439,248	0.00%	
FY 2020-21	435,495	1.48%	6,357	FY 2020-21			

February 2018 Projection Before Adjustments					
FY 2016-17	469,297	0.45%	2,104		
FY 2017-18	443,986	-5.39%	(25,311)		
FY 2018-19	439,248	-1.07%	(4,738)		
FY 2019-20	439,248	0.00%	0		
FY 2020-21					

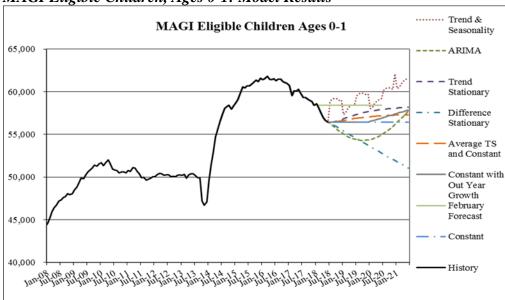
The Department has dampened the forecast for FY 2018-19, based on the low starting point even with a level shift upwards due to a systems fix for the data feed between CBMS and interChange. For the request and out years, the Department is reintroducing positive growth based on the State Demographer's Office's projections of increasing unemployment rate over time.

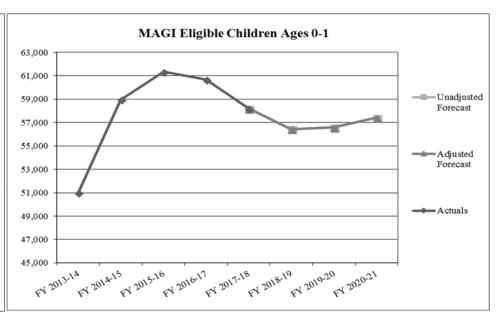
Actuals				
	Monthly Change	% Change		
6-month average	(1,855)	-0.42%		
12-month average	(2,902)	-0.65%		
18-month average	(2,441)	-0.54%		
24-month average	(1,831)	-0.40%		

Monthly Averag	e Growth Ac	tuals
FY 2012-13 1st Half	2,199	0.62%
FY 2012-13 2nd Half	2,026	0.55%
FY 2012-13	2,113	0.59%
FY 2013-14 1st Half	2,716	0.73%
FY 2013-14 2nd Half	6,009	1.49%
FY 2013-14	4,362	1.11%
FY 2014-15 1st Half	3,400	0.80%
FY 2014-15 2nd Half	1,917	0.44%
FY 2014-15	2,659	0.62%
FY 2015-16 1st Half	1,859	0.41%
FY 2015-16 2nd Half	507	0.11%
FY 2015-16	1,183	0.26%
FY 2016-17 1st Half	1	0.00%
FY 2016-17 2nd Half	(1,521)	-0.33%
FY 2016-17	(760)	-0.16%
FY 2017-18 1st Half	(3,948)	-0.89%
FY 2017-18 2nd Half	(1,855)	-0.43%
FY 2017-18	(2,902)	-0.66%

Monthly Average Growth Comparisons						
Daguest	Monthly	Change	Percent	Change		
Request	S-1	R-1	S-1	R-1		
FY 2018-19 1st Half	(5)	0	0.00%	0.00%		
FY 2018-19 2nd Half	2	0	0.00%	0.00%		
FY 2018-19	(2)	0	0.00%	0.00%		
FY 2019-20 1st Half	(2)	0	0.00%	0.00%		
FY 2019-20 2nd Half	2	592	0.00%	0.14%		
FY 2019-20	0	296	0.00%	0.07%		
FY 2020-21 1st Half		588		0.14%		
FY 2020-21 2nd Half		595		0.14%		
FY 2020-21		592		0.14%		

MAGI Eligible Children, Ages 0-1: Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend & Seasonality	MAGI Children 0-1	Constant, trend, seasonal dummy variables	19.27	18.79	-0.0414
ARIMA	log(MAGI Children 0-1)	Constant, AR variables, MA variables	-7.02	-7.31	0.9544
Trend Stationary	log(MAGI Children 0-1)	Constant and 1 lag on the dependent variable	-5.90	-6.03	0.9807
Difference Stationary	dlog(MAGI Children 0-1)	Constant and 1 lag on the dependent variable	-7.4	-7.5	-0.0147
Average TS and Constant			NA	NA	NA
Constant			NA	NA	NA
Constant with Out Year Growth			NA	NA	NA

	MAGI	Eligible Childre	en Ages 0-1: Mo	del Results <sup>1</sup>		
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	60,668	58,194	0.62%	58,555	361	178
ARIMA	60,668	58,194	-5.07%	55,244	(2,950)	(166)
Trend Stationary	60,668	58,194	-2.41%	56,792	(1,402)	70
Difference Stationary	60,668	58,194	-4.62%	55,505	(2,689)	(150)
Average TS and Constant	60,668	58,194	-2.71%	56,617	(1,577)	35
Constant	60,668	58,194	-3.01%	56,442	(1,752)	0
Constant with Out Year Growth	60,668	58,194	-3.01%	56,442	(1,752)	0
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	58,194	58,555	1.09%	59,193	638	53
ARIMA	58,194	55,244	-1.37%	54,487	(757)	43
Trend Stationary	58,194	56,792	1.55%	57,672	880	54
Difference Stationary	58,194	55,505	-3.34%	53,651	(1,854)	(152)
Average TS and Constant	58,194	56,617	0.78%	57,059	442	27
Constant	58,194	56,442	0.00%	56,442	0	0
Constant with Out Year Growth	58,194	56,442	0.24%	56,577	135	39
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	58,555	59,193	2.80%	60,850	1,657	199
ARIMA	55,244	54,487	3.41%	56,345	1,858	232
Trend Stationary	56,792	57,672	0.71%	58,081	409	21
Difference Stationary	55,505	53,651	-3.34%	51,859	(1,792)	(147)
Average TS and Constant	56,617	57,059	0.36%	57,264	205	11
Constant	56,442	56,442	0.00%	56,442	0	0
Constant with Out Year Growth	56,442	56,577	1.49%	57,420	843	79

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

# MAGI Eligible Children, Ages 0-1: Trend Selections

FY 2018-19: -3.01% FY 2019-20: -0.24% FY 2020-21: 1.49%

## MAGI Eligible Children, Ages 0-1: Justifications

The Department estimates this eligibility category with three age group sub-categories, to increase forecast accuracy. Average monthly caseload for FY 2017-18 was 58,194. The June 2018 data point was 1,985 below what was forecast in February 2018. The Department expects no growth through FY 2018-19, and the population to stabilize in the request year and beyond.

	Actuals	Monthly Change	% Change
Jun-16	61,519	-	-
Jul-16	61,307	(212)	-0.34%
Aug-16	61,482	175	0.29%
Sep-16	61,447	(35)	-0.06%
Oct-16	61,186	(261)	-0.42%
Nov-16	61,087	(99)	-0.16%
Dec-16	60,969	(118)	-0.19%
Jan-17	60,714	(255)	-0.42%
Feb-17	59,542	(1,172)	-1.93%
Mar-17	60,133	591	0.99%
Apr-17	60,049	(84)	-0.14%
May-17	60,266	217	0.36%
Jun-17	59,839	(427)	-0.71%
Jul-17	59,341	(498)	-0.83%
Aug-17	59,317	(24)	-0.04%
Sep-17	59,145	(172)	-0.29%
Oct-17	58,974	(171)	-0.29%
Nov-17	58,842	(132)	-0.22%
Dec-17	58,426	(416)	-0.71%
Jan-18	58,600	174	0.30%
Feb-18	58,048	(552)	-0.94%
Mar-18	57,523	(525)	-0.90%
Apr-18	56,988	(535)	-0.93%
May-18	56,677	(311)	-0.55%
Jun-18	56,441	(236)	-0.42%

February 2018 Forecast	
Forecasted June 2018 Level	58,426

Base trend from June 2018 level					
FY 2018-19	56,441	-3.01%	(1,753)		

	MAGI Eigible Children Ages 0-1: Historical Caseload and Projections									
	Caseload	% Change	Level Change							
FY 2009-10	51,325	-	-							
FY 2010-11	50,713	-1.19%	(612)							
FY 2011-12	50,069	-1.27%	(644)							
FY 2012-13	50,186	0.23%	117							
FY 2013-14	51,005	1.63%	819							
FY 2014-15	58,968	15.61%	7,963							
FY 2015-16	61,323	3.99%	2,355	February 20	)18 Projectio	on Before A	djus tm			
FY 2016-17	60,668	-1.07%	(655)	FY 2016-17	60,668	-1.07%				
FY 2017-18	58,194	-4.08%	(2,474)	FY 2017-18	58,714	-3.22%	(1			
FY 2018-19	56,442	-3.01%	(1,752)	FY 2018-19	58,420	-0.50%				
FY 2019-20	56,577	0.24%	135	FY 2019-20	58,420	0.00%				
FY 2020-21	57,420	1.49%	843	FY 2020-21						

February 2018 Projection Before Adjustments						
FY 2016-17	60,668	-1.07%	(655)			
FY 2017-18	58,714	-3.22%	(1,954)			
FY 2018-19	58,420	-0.50%	(294)			
FY 2019-20	58,420	0.00%	0			
FY 2020-21						

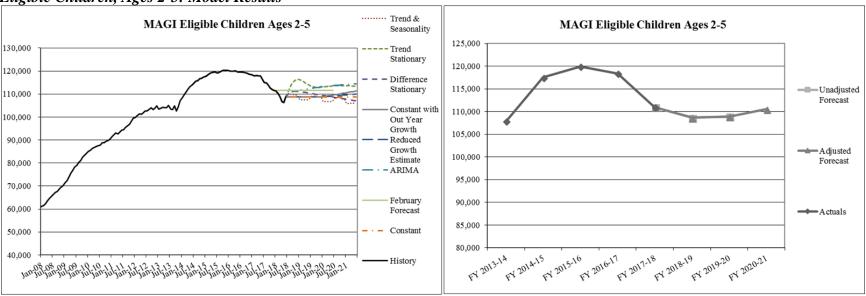
MAGI Eligible Children Ages 0-1 saw an unexpected increase in January 2014. Prior to that increase, this age group had relatively low growth in FY 2012-13 and FY 2013-14. Negative growth has been increasing over time. The Department expects no growth through FY 2018-19, and the population to stabilize in the request year and beyond.

Actuals					
	Monthly Change	% Change			
6-month average	(331)	-0.57%			
12-month average	(283)	-0.49%			
18-month average	(252)	-0.43%			
24-month average	(212)	-0.36%			

Monthly Average Growth Actuals						
FY 2012-13 1st Half	(6)	-0.01%				
FY 2012-13 2nd Half	18	0.04%				
FY 2012-13	6	0.01%				
FY 2013-14 1st Half	(544)	-1.09%				
FY 2013-14 2nd Half	1,588	3.13%				
FY 2013-14	522	1.02%				
FY 2014-15 1st Half	292	0.51%				
FY 2014-15 2nd Half	389	0.66%				
FY 2014-15	340	0.58%				
FY 2015-16 1st Half	153	0.25%				
FY 2015-16 2nd Half	(16)	-0.02%				
FY 2015-16	69	0.11%				
FY 2016-17 1st Half	(92)	-0.15%				
FY 2016-17 2nd Half	(188)	-0.31%				
FY 2016-17	(140)	-0.23%				
FY 2017-18 1st Half	(236)	-0.40%				
FY 2017-18 2nd Half	(331)	-0.57%				
FY 2017-18	(283)	-0.49%				

Monthly Average Growth Comparisons						
Dagwaat	Monthly	Change	Percent	Change		
Request	S-1	R-1	S-1	R-1		
FY 2018-19 1st Half	(2)	0	0.00%	0.00%		
FY 2018-19 2nd Half	2	0	0.00%	0.00%		
FY 2018-19	0	0	0.00%	0.00%		
FY 2019-20 1st Half	(2)	0	0.00%	0.00%		
FY 2019-20 2nd Half	2	79	0.00%	0.14%		
FY 2019-20	0	39	0.00%	0.07%		
FY 2020-21 1st Half		79		0.14%		
FY 2020-21 2nd Half		79		0.14%		
FY 2020-21		79		0.14%		

MAGI Eligible Children, Ages 2-5: Model Results



Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend & Seasonality	MAGI Children 2-5	Constant, trend, seasonal dummy variables	20.26	19.78	-0.1481
ARIMA	log(MAGI Children 2- 5)	Constant, AR variables, MA variables	-6.97	-7.19	0.9773
Trend Stationary	log(MAGI Children 2- 5)	Constant, trend, 2 lags on the dependent variable	-6.46	-6.61	0.9471
Difference Stationary	dlog(MAGI Children 2-5)	Constant and 1 lag on the dependent variable	-7.40	-7.48	0.2158
Constant			NA	NA	NA
Constant with Out Year Growth			NA	NA	NA
Reduced Growth Estimate					

MAGI Eligible Children Ages 2-5: Model Results <sup>1</sup>						
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	118,410	110,979	-2.11%	108,637	(2,342)	(63)
ARIMA	118,410	110,979	0.49%	111,523	544	313
Trend Stationary	118,410	110,979	3.39%	114,741	3,762	437
Difference Stationary	118,410	110,979	-0.16%	110,801	(178)	146
Constant	118,410	110,979	-2.10%	108,648	(2,331)	0
Constant with Out Year Growth	118,410	110,979	-2.10%	108,648	(2,331)	0
Reduced Growth Estimate	118,410	110,979	-2.10%	108,648	(2,331)	0

FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	110,979	108,637	-0.70%	107,877	(760)	(63)
ARIMA	110,979	111,523	1.44%	113,129	1,606	104
Trend Stationary	110,979	114,741	-1.36%	113,181	(1,560)	(29)
Difference Stationary	110,979	110,801	-1.19%	109,482	(1,319)	(142)
Constant	110,979	108,648	0.00%	108,648	0	0
Constant with Out Year Growth	110,979	108,648	0.24%	108,909	261	75
Reduced Growth Estimate	110,979	108,648	0.12%	108,778	130	37

FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	108,637	107,877	-0.70%	107,122	(755)	(63)
ARIMA	111,523	113,129	0.84%	114,079	950	62
Trend Stationary	114,741	113,181	0.35%	113,577	396	(5)
Difference Stationary	110,801	109,482	-1.55%	107,785	(1,697)	(140)
Constant	108,648	108,648	0.00%	108,648	0	0
Constant with Out Year Growth	108,648	108,909	1.48%	110,521	1,612	150
Reduced Growth Estimate	108,648	108,778	0.74%	109,583	805	75

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

# MAGI Eligible Children, Ages 2-5: Trend Selections

FY 2018-19: -2.10% FY 2019-20: 0.24% FY 2020-21: 1.48%

## MAGI Eligible Children, Ages 2-5: Justifications

The Department estimates this eligibility category with three age group sub-categories, to increase forecast accuracy. Average monthly caseload for FY 2017-18 was 110,979 clients, and the June 2018 data point was 2,974 lower than previously anticipated in the February 2018 forecast. The selected trend adjusts for the low starting point in June 2018 with no growth in FY 2018-19, but expects this category to stabilize and slowly grow again in the request and out years

	Actuals	Monthly Change	% Change
Jun-16	119,581	-	-
Jul-16	119,466	(115)	-0.10%
Aug-16	119,477	11	0.01%
Sep-16	119,308	(169)	-0.14%
Oct-16	119,012	(296)	-0.25%
Nov-16	118,734	(278)	-0.23%
Dec-16	118,433	(301)	-0.25%
Jan-17	118,348	(85)	-0.07%
Feb-17	117,952	(396)	-0.33%
Mar-17	118,037	85	0.07%
Apr-17	117,871	(166)	-0.14%
May-17	117,818	(53)	-0.04%
Jun-17	116,465	(1,353)	-1.15%
Jul-17	114,994	(1,471)	-1.26%
Aug-17	114,888	(106)	-0.09%
Sep-17	113,805	(1,083)	-0.94%
Oct-17	112,575	(1,230)	-1.08%
Nov-17	111,952	(623)	-0.55%
Dec-17	111,620	(332)	-0.30%
Jan-18	111,274	(346)	-0.31%
Feb-18	110,145	(1,129)	-1.01%
Mar-18	108,778	(1,367)	-1.24%
Apr-18	106,776	(2,002)	-1.84%
May-18	106,295	(481)	-0.45%
Jun-18	108,646	2,351	2.21%

February 2018 Forecast	
Forecasted June 2018 Level	111,620

Bas	vel		
FY 2018-19	108,646	-2.10%	(2,333)

MAGI Eligible Children Ages 2-5: Historical Caseload and Projection								tions
	Caseload	% Change	Level Change					
FY 2009-10	84,091	-	-					
FY 2010-11	91,035	8.26%	6,944					
FY 2011-12	99,043	8.80%	8,008					
FY 2012-13	103,886	4.89%	4,843					
FY 2013-14	107,876	3.84%	3,990					
FY 2014-15	117,520	8.94%	9,644					
FY 2015-16	119,917	2.04%	2,397	I	February 20	018 Projectio	on Before Ac	ljus tn
FY 2016-17	118,410	-1.26%	(1,507)	F	Y 2016-17	118,410	-1.26%	(1
FY 2017-18	110,979	-6.28%	(7,431)	F	Y 2017-18	112,466	-5.02%	(.
FY 2018-19	108,648	-2.10%	(2,331)	F	Y 2018-19	111,623	-0.75%	
FY 2019-20	108,909	0.24%	261	F	Y 2019-20	111,623	0.00%	
FY 2020-21	110,521	1.48%	1,612	F	Y 2020-21			

February 2018 Projection Before Adjustments					
FY 2016-17	118,410	-1.26%	(1,507)		
FY 2017-18	112,466	-5.02%	(5,944)		
FY 2018-19	111,623	-0.75%	(843)		
FY 2019-20	111,623	0.00%	0		
FY 2020-21					

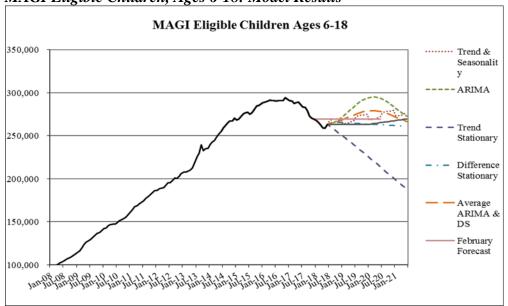
The averge monthly growth for MAGI Eligble Children Ages 2-5 over the last 24 months was increasingly negative until the past 6 months, which is inflated by the June level shift due to a system fix. The selected trend adjusts for the low starting point in June 2018 with no growth in FY 2018-19, but expects this category to stabilize and slowly grow again in the request and out years.

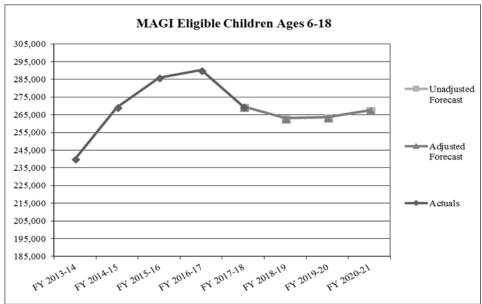
Actuals				
	Monthly Change	% Change		
6-month average	(496)	-0.44%		
12-month average	(652)	-0.57%		
18-month average	(544)	-0.47%		
24-month average	(456)	-0.40%		

Monthly Average Growth Actuals					
FY 2012-13 1st Half	373	0.36%			
FY 2012-13 2nd Half	12	0.01%			
FY 2012-13	192	0.19%			
FY 2013-14 1st Half	354	0.35%			
FY 2013-14 2nd Half	1,158	1.05%			
FY 2013-14	756	0.70%			
FY 2014-15 1st Half	556	0.48%			
FY 2014-15 2nd Half	368	0.31%			
FY 2014-15	462	0.40%			
FY 2015-16 1st Half	113	0.09%			
FY 2015-16 2nd Half	(114)	-0.09%			
FY 2015-16	(1)	0.00%			
FY 2016-17 1st Half	(191)	-0.16%			
FY 2016-17 2nd Half	(328)	-0.28%			
FY 2016-17	(260)	-0.22%			
FY 2017-18 1st Half	(808)	-0.70%			
FY 2017-18 2nd Half	(496)	-0.44%			
FY 2017-18	(652)	-0.57%			

Monthly Average Growth Comparisons					
Dogwood	Monthly	Change	Percent	Change	
Request	S-1	R-1	S-1	R-1	
FY 2018-19 1st Half	0	0	0.00%	0.00%	
FY 2018-19 2nd Half	0	0	0.00%	0.00%	
FY 2018-19	0	0	0.00%	0.00%	
FY 2019-20 1st Half	0	0	0.00%	0.00%	
FY 2019-20 2nd Half	0	150	0.00%	0.14%	
FY 2019-20	0	75	0.00%	0.07%	
FY 2020-21 1st Half		150		0.14%	
FY 2020-21 2nd Half		150		0.13%	
FY 2020-21		150		0.14%	

# MAGI Eligible Children, Ages 6-18: Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend & Seasonality	MAGI Children 6-18	Constant, trend, seasonal dummy variables	22.71	22.24	-0.0107
ARIMA	log(MAGI Children 6- 18)	Constant, AR variables, MA variables	-6.71	-6.92	0.9694
Trend Stationary	log(MAGI Children 6- 18)	Constant, trend, 1 lag on the dependent variable	-6.98	-7.09	0.9842
Difference Stationary	dlog(MAGI Children 6- 18)	Constant and 1 lag on the dependent variable	-6.76	-6.85	0.1684
Average ARIMA & DS			NA	NA	NA
Constant with Out Year Growth					

	MAGI Eligible Children Ages 6-18: Model Results <sup>1</sup>					
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	290,219	269,599	-0.83%	267,361	(2,238)	381
ARIMA	290,219	269,599	0.95%	272,160	2,561	1,714
Trend Stationary	290,219	269,599	-6.99%	250,754	(18,845)	(1,939)
Difference Stationary	290,219	269,599	-1.59%	265,312	(4,287)	139
Average ARIMA & DS	290,219	269,599	-0.32%	268,736	(863)	926
Constant with Out Year Growth	290,219	269,599	-2.44%	263,021	(6,578)	0
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	269,599	267,361	1.71%	271,933	4,572	381
ARIMA	269,599	272,160	7.44%	292,409	20,249	842
Trend Stationary	269,599	250,754	-9.91%	225,904	(24,850)	(2,146)
Difference Stationary	269,599	265,312	-0.62%	263,667	(1,645)	(157)
Average ARIMA & DS	269,599	268,736	3.46%	278,034	9,298	343
Constant with Out Year Growth	269,599	263,021	0.24%	263,652	631	182
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	267,361	271,933	1.68%	276,501	4,568	381
ARIMA	272,160	292,409	-3.25%	282,906	(9,503)	(1,755)
Trend Stationary	250,754	225,904	-11.51%	199,902	(26,002)	(2,162)
Difference Stationary	265,312	263,667	-0.71%	261,795	(1,872)	(156)
Average ARIMA & DS	268,736	278,034	-2.04%	272,362	(5,672)	(956)
Constant with Out Year Growth	263,021	263,652	1.48%	267,554	3,902	364

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

# MAGI Eligible Children, Ages 6-18: Trend Selections

FY 2018-19: -2.44% FY 2019-20: 0.24% FY 2020-21: 1.48%

# MAGI Eligible Children, Ages 6-18: Justifications

MAGI Eligible Children Ages 6-18 have had an average monthly growth of -1,029 per month for the last 6 months and -1,967 per month for the last 12 months, suggesting decreasing negative growth over time, though this data is skewed by the level shift due to a system fix in June. The forecast assumes this population will stabilize with no growth in FY 2018-19 and a return to positive growth at a low rate in the out years.

### FY 2019-20 BUDGET REQUEST: CASELOAD NARRATIVE

	Actuals	Monthly Change	% Change
Jun-16	290,950	-	-
Jul-16	290,190	(760)	-0.26%
Aug-16	291,021	831	0.29%
Sep-16	290,999	(22)	-0.01%
Oct-16	290,918	(81)	-0.03%
Nov-16	294,042	3,124	1.07%
Dec-16	292,652	(1,390)	-0.47%
Jan-17	290,930	(1,722)	-0.59%
Feb-17	290,276	(654)	-0.22%
Mar-17	287,418	(2,858)	-0.98%
Apr-17	288,591	1,173	0.41%
May-17	288,960	369	0.13%
Jun-17	286,627	(2,333)	-0.81%
Jul-17	283,445	(3,182)	-1.11%
Aug-17	283,121	(324)	-0.11%
Sep-17	279,166	(3,955)	-1.40%
Oct-17	272,958	(6,208)	-2.22%
Nov-17	270,425	(2,533)	-0.93%
Dec-17	269,198	(1,227)	-0.45%
Jan-18	267,467	(1,731)	-0.64%
Feb-18	265,267	(2,200)	-0.82%
Mar-18	262,861	(2,406)	-0.91%
Apr-18	259,477	(3,384)	-1.29%
May-18	258,781	(696)	-0.27%
Jun-18	263,025	4,244	1.64%

February 2018 Forecast	
Forecasted June 2018 Level	269,218

Base	e trend from J	une 2018 le	vel
FY 2018-19	263,025	-2.44%	(6,574)

	MAGI Eligible Children Ages 6-18: Historical Caseload and Projection							
	Caseload	% Change	Level Change					
FY 2009-10	140,256	-	-					
FY 2010-11	160,662	14.55%	20,406					
FY 2011-12	185,521	15.47%	24,859					
FY 2012-13	205,770	10.91%	20,249					
FY 2013-14	240,151	16.71%	34,381					
FY 2014-15	269,234	12.11%	29,083					
FY 2015-16	285,953	6.21%	16,719	February 20	018 Projectio	on Before Ac	ljustm	
FY 2016-17	290,219	1.49%	4,266	FY 2016-17	290,219	1.49%	4	
FY 2017-18	269,599	-7.10%	(20,620)	FY 2017-18	272,806	-6.00%	(17	
FY 2018-19	263,021	-2.44%	(6,578)	FY 2018-19	269,205	-1.32%	(3	
FY 2019-20	263,652	0.24%	631	FY 2019-20	269,205	0.00%		
FY 2020-21	267,554	1.48%	3,902	FY 2020-21				

February 2018 Projection Before Adjustments							
FY 2016-17	290,219	1.49%	4,266				
FY 2017-18	272,806	-6.00%	(17,413)				
FY 2018-19	269,205	-1.32%	(3,601)				
FY 2019-20	269,205	0.00%	0				
FY 2020-21							

MAGI Eligible Children Ages 6-18 have had an average monthly growth of -1,029 per month for the last 6 months and -1,967 per month for the last 12 months, suggesting decreasing negative growth over time, though this data is skewed by the level shift due to a system fix in June. The forecast assumes this population will stabilize with no growth in FY 2018-19 and a return to positive growth at a low rate in the out years.

Actuals					
	Monthly Change	% Change			
6-month average	(1,029)	-0.38%			
12-month average	(1,967)	-0.71%			
18-month average	(1,646)	-0.59%			
24-month average	(1,164)	-0.42%			

Monthly Average Growth Actuals							
FY 2012-13 1st Half	1,832	0.92%					
FY 2012-13 2nd Half	1,996	0.95%					
FY 2012-13	1,914	0.93%					
FY 2013-14 1st Half	2,907	1.32%					
FY 2013-14 2nd Half	3,263	1.34%					
FY 2013-14	3,085	1.33%					
FY 2014-15 1st Half	2,553	0.98%					
FY 2014-15 2nd Half	1,160	0.43%					
FY 2014-15	1,856	0.70%					
FY 2015-16 1st Half	1,594	0.57%					
FY 2015-16 2nd Half	636	0.22%					
FY 2015-16	1,115	0.39%					
FY 2016-17 1st Half	284	0.10%					
FY 2016-17 2nd Half	(1,004)	-0.34%					
FY 2016-17	(360)	-0.12%					
FY 2017-18 1st Half	(2,905)	-1.04%					
FY 2017-18 2nd Half	(1,029)	-0.38%					
FY 2017-18	(1,967)	-0.71%					

r								
Monthl	Monthly Average Growth Comparisons							
D	Monthly	Change	Percent	Percent Change				
Request	S-1	R-1	S-1	R-1				
FY 2018-19 1st Half	(3)	0	0.00%	0.00%				
FY 2018-19 2nd Half	0	0	0.00%	0.00%				
FY 2018-19		0		0.00%				
FY 2019-20 1st Half	0	0	0.00%	0.00%				
FY 2019-20 2nd Half	0	364	0.00%	0.14%				
FY 2019-20	0	182	0.00%	0.07%				
FY 2020-21 1st Half	0	360	0.00%	0.14%				
FY 2020-21 2nd Half	0	367	0.00%	0.14%				
FY 2020-21	0	364	0.00%	0.14%				

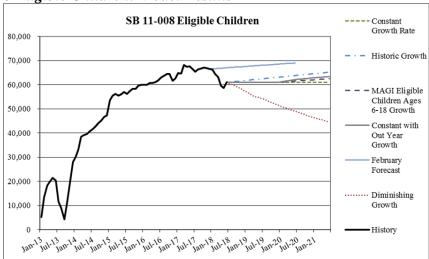
### SB 11-008 Eligible Children

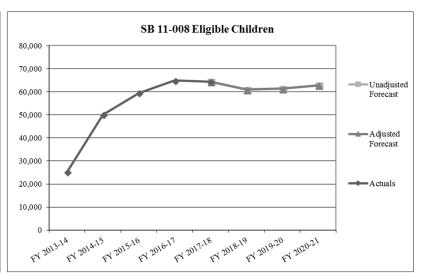
Prior to the implementation of SB 11-008 in January 2013, children age 0 to 5 whose family income was under 133% FPL were eligible for Medicaid, and children ages 6 to 18 whose family income was under 100% FPL were eligible for Medicaid. SB 11-008 increased the FPL threshold for children ages 6 to 18 up to 133% FPL, 142% FPL with income disregards applied after October 2013. Services for clients that would have been eligible for CHP+ before the implementation of SB 11-008 receive the enhanced CHP+ federal match. These clients are identified as Medicaid eligible children that are over the age of 6, with incomes above 108% FPL, and no other insurance.

25.5-5-101 (1), C.R.S.

(m) Children under the age of nineteen who meet the eligibility criteria pursuant to section 1902 (a) (10) (A) of the federal "Social Security Act".

SB 11-008 Eligible Children: Model Results





SB 11-008 Eligible Children: Model Results <sup>1</sup>							
FY 2018-19	FY 2016-17	FY 2017- 18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2	
Diminishing Growth	64,907	64,346	-10.91%	57,326	(7,020)	(542)	
Constant Growth Rate	64,907	64,346	-5.22%	60,987	(3,359)	0	
Historic Growth	64,907	64,346	-4.05%	61,740	(2,606)	115	
Constant with Out Year Growth	64,907	64,346	-5.22%	60,987	(3,359)	0	
MAGI Eligible Children Ages 6- 18 Growth	64,907	64,346	-5.22%	60,987	(3,359)	0	
FY 2019-20	FY 2017-18	Projected FY 2018- 19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2	
Diminishing Growth	64,346	57,326	-10.32%	51,410	(5,916)	(455)	
Constant Growth Rate	64,346	60,987	0.00%	60,987	0	0	
Historic Growth	64,346	61,740	2.27%	63,141	1,401	118	
Constant with Out Year Growth	64,346	60,987	0.57%	61,335	348	99	
MAGI Eligible Children Ages 6- 18 Growth	64,346	60,987	0.24%	61,133	146	42	
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019- 20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2	
Diminishing Growth	57,326	51,410	-9.53%	46,511	(4,899)	(376)	
Constant Growth Rate	60,987	60,987	0.00%	60,987	0	0	
Historic Growth	61,740	63,141	2.27%	64,574	1,433	121	
Constant with Out Year Growth	60,987	61,335	2.42%	62,819	1,484	99	
MAGI Eligible Children Ages 6- 18 Growth	60,987	61,133	1.48%	62,038	905	84	

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

## SB 11-008 Eligible Children: Trend Selections

FY 2017-18: -5.22% FY 2018-19: 0.57% FY 2019-20: 2.42%

## SB 11-008 Eligible Children: Justifications

Average monthly caseload in FY 2017-18 for SB 11-008 Eligible Children was 64,346. The June 2018 data point was approximately 6,026 lower than the February forecast, and average monthly growth in FY 2017-18 was -459, with the second half of FY 2017-18 driving the negative growth. Growth was boosted by a very high June 2018 data point due to a system fix. The Department has selected a trend with no growth in FY 2018-19 to reflect this, with a return to positive growth in the out years.

### FY 2019-20 BUDGET REQUEST: CASELOAD NARRATIVE

	Actuals	Monthly Change	% Change
Jun-16	61,809	-	
Jul-16	62,983	1,174	1.90%
Aug-16	63,716	733	1.16%
Sep-16	64,432	716	1.12%
Oct-16	64,454	22	0.03%
Nov-16	61,650	(2,804)	-4.35%
Dec-16	62,524	874	1.42%
Jan-17	64,732	2,208	3.53%
Feb-17	64,616	(116)	-0.18%
Mar-17	68,165	3,549	5.49%
Apr-17	67,508	(657)	-0.96%
May-17	67,596	88	0.13%
Jun-17	66,503	(1,093)	-1.62%
Jul-17	65,467	(1,036)	-1.56%
Aug-17	66,362	895	1.37%
Sep-17	66,778	416	0.63%
Oct-17	67,110	332	0.50%
Nov-17	66,946	(164)	-0.24%
Dec-17	66,517	(429)	-0.64%
Jan-18	66,260	(257)	-0.39%
Feb-18	64,494	(1,766)	-2.67%
Mar-18	63,155	(1,339)	-2.08%
Apr-18	59,499	(3,656)	-5.79%
May-18	58,572	(927)	-1.56%
Jun-18	60,990	2,418	4.13%

February 2018 Forecast				
Forecasted June 2018 Level 67,016				

Base trend from June 2018 level							
FY 2018-19	60,990	-5.22%	(3,356)				

	SB 11-008 Eligible Children: Historical Caseload and Projection							
	Caseload	%	Level					
	Caseroau	Change	Change					
FY 2014-15	50,113	-	-					
FY 2015-16	59,501	18.73%	9,388	February 2018 Projection Before Adjustment				
FY 2016-17	64,907	9.09%	5,406	FY 2016-17 64,907 9.09% 5,4				
FY 2017-18	64,346	-0.86%	(561)	FY 2017-18 66,666 2.71% 1,7				
FY 2018-19	60,987	-5.22%	(3,359)	FY 2018-19 67,553 1.33% 8				
FY 2019-20	61,335	0.57%	348	FY 2019-20 68,553 1.48% 1,0				
FY 2020-21	62,819	2.42%	1,484	FY 2020-21				

February 2018 Projection Before Adjustments							
FY 2016-17	64,907	9.09%	5,406				
FY 2017-18	66,666	2.71%	1,759				
FY 2018-19	67,553	1.33%	887				
FY 2019-20	68,553	1.48%	1,000				
FY 2020-21							

Average monthly growth appears to be decreasing over time, boosted by a very high June 2018 data point due to a system fix. The Department has selected a trend with no growth in FY 2018-19 to reflect this, with a return to positive growth in the out years.

Actuals					
	Monthly Change	% Change			
6-month average	(921)	-1.39%			
12-month average	(459)	-0.69%			
18-month average	(85)	-0.11%			
24-month average	(34)	-0.03%			

Monthly Average Growth Actuals           FY 2012-13 1st Half         0         0.00           FY 2012-13 2nd Half         3,388         0.00           FY 2012-13         1,694         0.00           FY 2013-14 1st Half         1,288         26,279           FY 2013-14 2nd Half         2,116         6,449           FY 2013-14         1,702         16,359           FY 2014-15 1st Half         1,087         2,119           FY 2014-15 2nd Half         1,631         2,689           FY 2014-15         1,359         2,409           FY 2015-16 1st Half         468         0,699           FY 2015-16 2nd Half         324         0,479           FY 2015-16         396         0,589	
FY 2012-13 2nd Half 3,388 0.009 FY 2012-13 1,694 0.009 FY 2013-14 1st Half 1,288 26.279 FY 2013-14 2nd Half 2,116 6.449 FY 2013-14 1,702 16.359 FY 2014-15 1st Half 1,087 2.119 FY 2014-15 2nd Half 1,631 2.689 FY 2014-15 1,359 2.409 FY 2015-16 1st Half 468 0.699 FY 2015-16 2nd Half 324 0.479 FY 2015-16 396 0.589	
FY 2012-13 1,694 0.006 FY 2013-14 1st Half 1,288 26.279 FY 2013-14 2nd Half 2,116 6.449 FY 2013-14 1,702 16.359 FY 2014-15 1st Half 1,087 2.119 FY 2014-15 2nd Half 1,631 2.689 FY 2014-15 1st Half 468 0.699 FY 2015-16 1st Half 324 0.479 FY 2015-16 396 0.589	00%
FY 2013-14 1st Half 1,288 26.279 FY 2013-14 2nd Half 2,116 6.449 FY 2013-14 1,702 16.359 FY 2014-15 1st Half 1,087 2.119 FY 2014-15 2nd Half 1,631 2.689 FY 2014-15 1st Half 468 0.699 FY 2015-16 1st Half 324 0.479 FY 2015-16 2nd Half 324 0.479 FY 2015-16 396 0.589	00%
FY 2013-14 2nd Half 2,116 6.449 FY 2013-14 1,702 16.359 FY 2014-15 1st Half 1,087 2.119 FY 2014-15 2nd Half 1,631 2.689 FY 2014-15 1,359 2.400 FY 2015-16 1st Half 468 0.699 FY 2015-16 2nd Half 324 0.479 FY 2015-16 396 0.589	00%
FY 2013-14 1,702 16.359 FY 2014-15 1st Half 1,087 2.119 FY 2014-15 2nd Half 1,631 2.689 FY 2014-15 1,359 2.400 FY 2015-16 1st Half 468 0.699 FY 2015-16 2nd Half 324 0.479 FY 2015-16 396 0.589	27%
FY 2014-15 1st Half 1,087 2.119 FY 2014-15 2nd Half 1,631 2.689 FY 2014-15 1,359 2.409 FY 2015-16 1st Half 468 0.699 FY 2015-16 2nd Half 324 0.479 FY 2015-16 396 0.589	4%
FY 2014-15 2nd Half 1,631 2.68' FY 2014-15 1,359 2.40' FY 2015-16 1st Half 468 0.69' FY 2015-16 2nd Half 324 0.47' FY 2015-16 396 0.58'	35%
FY 2014-15 1,359 2.409 FY 2015-16 1st Half 468 0.699 FY 2015-16 2nd Half 324 0.479 FY 2015-16 396 0.589	1%
FY 2015-16 1st Half 468 0.699 FY 2015-16 2nd Half 324 0.479 FY 2015-16 396 0.589	68%
FY 2015-16 2nd Half 324 0.479 FY 2015-16 396 0.589	0%
FY 2015-16 396 0.589	j9%
570 0,20	7%
	8%
FY 2016-17 1st Half 119 0.219	21%
FY 2016-17 2nd Half 663 0.949	94%
FY 2016-17 391 0.579	57%
FY 2017-18 1st Half 2 0.029	)2%
FY 2017-18 2nd Half (921) -1.139	3%
FY 2017-18 (459) -0.569	66%

Monthly Average Growth Comparisons							
D	Monthly	Change	Percent Change				
Request	S-1	R-1	S-1	R-1			
FY 2018-19 1st Half	83	0	0.12%	0.00%			
FY 2018-19 2nd Half	83	0	0.12%	0.00%			
FY 2018-19	83	0	0.12%	0.00%			
FY 2019-20 1st Half	83	0	0.12%	0.00%			
FY 2019-20 2nd Half	83	198	0.12%	0.32%			
FY 2019-20	83	99	0.12%	0.16%			
FY 2020-21 1st Half		99		0.16%			
FY 2020-21 2nd Half		99		0.16%			
FY 2020-21		99		0.16%			

#### **Foster Care**

Federal law mandates that states provide Medicaid to individuals under Title IV-E of the Social Security Act (42 U.S.C. 470-479A) for adoption assistance and foster care. Title IV-E is a subpart of Title IV, Child Welfare, of the federal Social Security Act. Title IV-E provides federal reimbursement to states for the room and board costs of children placed in foster homes and other out-of-home placements. This is an entitlement program for children who are eligible and for whom the state can seek reimbursement. Eligibility is determined on family circumstances at the time when the child was removed from the home. Once eligible, the state determines if it can claim reimbursement for maintenance costs for the child. Adoption assistance is available for children with special health care needs who meet the same requirements. States have the option to extend Medicaid to former foster care children aged 18 through 20 years who were eligible for Title IV-E prior to their 18th birthday. During the 2007 legislative session, SB 07-002 was passed extending Medicaid eligibility through age 20 for children for whom adoption assistance or foster care maintenance payments are made under Title IV-E of the Social Security Act, which was implemented in July 2008. Eligibility for children receiving state subsidized adoption or foster care payments (non-Title IV-E) was extended through age 20 in the 2008 Legislative Session through SB 08-099, which was implemented in July 2009. Pursuant to the ACA, eligibility for children enrolled in Medicaid that turned 21 while in foster care was increased to age 26 in January 2014. This expansion was mandatory and was not subject to the Supreme Court of the United States ruling which found the Medicaid expansion unconstitutionally coercive of states.

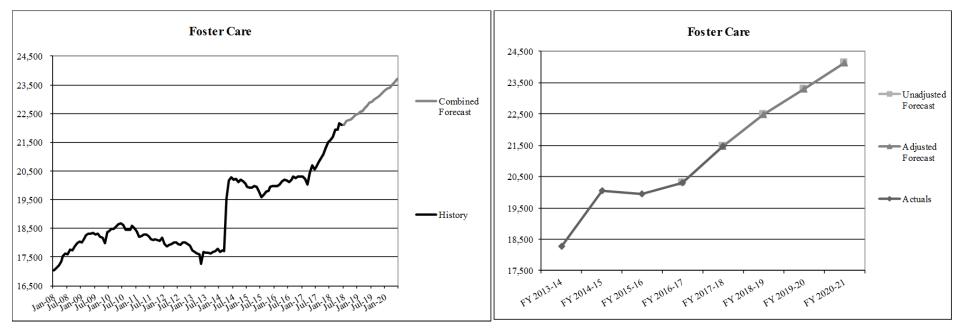
25.5-5-101 (1), C.R.S.

(e) Children for whom adoption assistance or foster care maintenance payments are made under Title IV-E of the "Social Security Act", as amended;

25.5-5-201 (1), C.R.S.

- (1) Children for whom subsidized adoption assistance payments are made by the state pursuant to article 7 of title 26, C.R.S, but who do not meet the requirements of Title IV-E of the "Social Security Act", as amended;
- (n) Individuals under the age of twenty-one years eligible for medical assistance pursuant to paragraph (l) of this subsection (1) or section 25.5-5-101 (1) (e) immediately prior to attaining the age of eighteen years or otherwise becoming emancipated;

### Foster Care: Model Results



Foster Care: Model Results <sup>1</sup>						
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change <sup>2</sup>
<b>Combined Forecast</b>	20,340	21,473	4.70%	22,483	1,010	66
FY 2018-19	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change <sup>2</sup>
Combined Forecast	22,473	22,483	3.59%	23,290	807	70
FY 2019-20	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change <sup>2</sup>
<b>Combined Forecast</b>	22,483	23,252	3.63%	24,135	845	71

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

### Foster Care: Trend Selections

FY 2017-18: 4.70% FY 2018-19: 3.59% FY 2019-20: 3.%

# Foster Care: Justifications

• Average monthly caseload in FY 2017-18 for Foster Care was 21,473. Actual caseload for clients aged 22 to 26 in FY 2017-18 was 1,400; monthly actuals for the past 12 months can be seen in the chart below. This Over 21 population has been in decline over the last twelve months.

SB 13-200 Medicaid Expansion Actuals				
Jul-17	1,447			
Aug-17	1,428			
Sep-17	1,403			
Oct-17	1,394			
Nov-17	1,400			
Dec-17	1,403			
Jan-18	1,391			
Feb-18	1,397			
Mar-18	1,391			
Apr-18	1,397			
May-18	1,411			
Jun-18	1,339			

• The Department selects models separately for the age group 0-18 and the age group 19-26. See below for more details.

	Actuals	Monthly Change	% Change
Jun-16	20,162	-	
Jul-16	20,118	(44)	-0.22%
Aug-16	20,203	85	0.42%
Sep-16	20,296	93	0.46%
Oct-16	20,260	(36)	-0.18%
Nov-16	20,306	46	0.23%
Dec-16	20,296	(10)	-0.05%
Jan-17	20,297	1	0.00%
Feb-17	20,235	(62)	-0.31%
Mar-17	20,034	(201)	-0.99%
Apr-17	20,433	399	1.99%
May-17	20,681	248	1.219
Jun-17	20,557	(124)	-0.60%
Jul-17	20,651	94	0.469
Aug-17	20,804	153	0.74%
Sep-17	20,941	137	0.66%
Oct-17	21,093	152	0.73%
Nov-17	21,305	212	1.01%
Dec-17	21,485	180	0.84%
Jan-18	21,576	91	0.42%
Feb-18	21,701	125	0.589
Mar-18	21,926	225	1.049
Apr-18	21,947	21	0.109
May-18	22,153	206	0.94%
Jun-18	22,094	(59)	-0.27%

February 2018 Forecast	
Forecasted June 2018 Level	22,062

Base trend from June 2018 level					
FY 2018-19	22,094	2.89%	621		

			Foste	r Care: Historical Ca	as eload and	Projections
	Caseload	% Change	Level Change			
FY 2005-06	16,460	-	-			
FY 2006-07	16,724	1.60%	264			
FY 2007-08	17,141	2.49%	417			
FY 2008-09	18,033	5.20%	892			
FY 2009-10	18,381	1.93%	348			
FY 2010-11	18,393	0.07%	12			
FY 2011-12	18,034	-1.95%	(359)			
FY 2012-13	17,777	-1.43%	(257)			
FY 2013-14	18,267	2.76%	490			
FY 2014-15	20,036	9.68%	1,769			
FY 2015-16	19,935	-0.50%	(101)	F	ebruary 201	8 Projection
FY 2016-17	20,310	1.88%	375	FY 2016-17	20,310	1.88%
FY 2017-18	21,473	5.73%	1,163	FY 2017-18	21,429	5.51%
FY 2018-19	22,483	4.70%	1,010	FY 2018-19	22,516	5.07%
FY 2019-20	23,290	3.59%	807	FY 2019-20	23,252	3.27%
FY 2020-21	24,135	3.63%	845	FY 2020-21		

Actuals						
	Monthly Change	% Change				
6-month average	102	0.47%				
12-month average	128	0.60%				
18-month average	100	0.48%				
24-month average	81	0.38%				

The 24-month average growth for Foster Care is 81, and the 6-
month average growth is 102. The Department expects this
population to continue to increase. The predicted average
monthly growth for FY 2018-19 is 66 per month.

	FY 2012-13 (28)	_
	FY 2013-14 1st Half 17	(
	FY 2013-14 2nd Half 413	2
	FY 2013-14 215	1
	FY 2014-15 1st Half (35)	-(
	FY 2014-15 2nd Half (44)	-
	FY 2014-15 (40)	7
	FY 2015-16 1st Half 31	
on	FY 2015-16 2nd Half 31	
375	FY 2015-16 31	(
1,119	FY 2016-17 1st Half 22	(
1,087	FY 2016-17 2nd Half 44	(
736	FY 2016-17 33	(
	FY 2017-18 1st Half 155	(
<u> </u>	FY 2017-18 2nd Half 102	(
	FY 2017-18 128	(

Monthly Average Growth Comparisons							
Daguage	Monthly	Change	Percent Change				
Request	S-1	R-1	S-1	R-1			
FY 2018-19 1st Half	78	60	0.35%	0.27%			
FY 2018-19 2nd Half	52	72	0.23%	0.32%			
FY 2018-19	65	66	0.29%	0.29%			
FY 2019-20 1st Half	70	63	0.30%	0.27%			
FY 2019-20 2nd Half	49	76	0.21%	0.32%			
FY 2019-20	60	70	0.26%	0.30%			
FY 2020-21 1st Half	0	65	0.00%	0.27%			
FY 2020-21 2nd Half	0	77	0.00%	0.32%			
FY 2020-21	0	71	0.00%	0.30%			

Monthly Average Growth Actuals

(21)

(35)

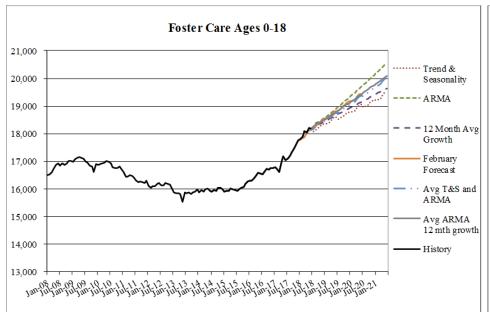
-0.11%

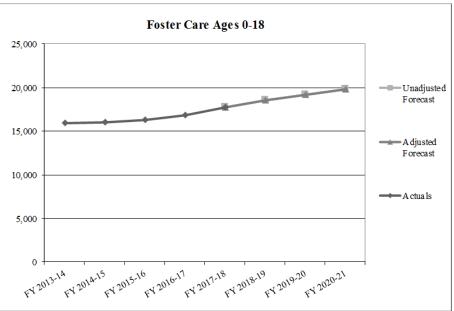
-0.18%

FY 2012-13 1st Half

FY 2012-13 2nd Half

# Foster Care, Ages 0-18: Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend & Seasonality	FC 0-18	Constant, trend, seasonal dummy variables	14.98	14.53	0.806
ARMA	dlog(FC 0- 18)	Constant, AR variables, MA variables	-7.22	-7.48	0.1975
12 Month Avg Growth			NA	NA	NA
Avg T&S and ARMA			NA	NA	NA
Avg ARMA 12 mth growth			NA	NA	NA

	_	Foster	Care Ages 0-	18: Model Resu	lts <sup>1</sup>	
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	16,780	17,725	3.48%	18,342	617	36
ARMA	16,780	17,725	4.82%	18,579	854	60
12 Month Avg Growth	16,780	17,725	4.06%	18,445	720	40
Avg T&S and ARMA	16,780	17,725	4.15%	18,461	736	48
Avg ARMA 12 mth growth	16,780	17,725	4.43%	18,510	785	50
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	17,725	18,342	2.37%	18,777	435	36
ARMA	17,725	18,579	4.05%	19,331	752	67
12 Month Avg Growth	17,725	18,445	2.63%	18,930	485	40
Avg T&S and ARMA	17,725	18,461	3.21%	19,054	593	52
Avg ARMA 12 mth growth	17,725	18,510	3.34%	19,128	618	54
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	18,342	18,777	2.32%	19,213	436	36
ARMA	18,579	19,331	4.28%	20,158	827	70
12 Month Avg Growth	18,445	18,930	2.56%	19,415	485	40
Avg T&S and ARMA	18,461	19,054	3.31%	19,685	631	53
Avg ARMA 12 mth growth	18,510	19,128	3.43%	19,784	656	55

<sup>1</sup> Bold denotes Trend Selection

<sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

# Foster Care, Ages 0-18: Trend Selections

FY 2018-19: 4.43% FY 2019-20: 3.34% FY 2020-21: 3.43%

# Foster Care, Ages 0-18: Justifications

The Department began estimating this eligibility category with two age group sub-categories, to increase forecast accuracy. The June 2018 data point was 9 clients higher than what was forecasted in the February 2018 forecast. Given this the department has selected a trend close to what was forecasted in February 2018.

	Actuals	Monthly Change	% Change
Jun-16	16,556	-	-
Jul-16	16,536	(20)	-0.12%
Aug-16	16,607	71	0.43%
Sep-16	16,714	107	0.64%
Oct-16	16,699	(15)	-0.09%
Nov-16	16,753	54	0.32%
Dec-16	16,739	(14)	-0.08%
Jan-17	16,779	40	0.24%
Feb-17	16,712	(67)	-0.40%
Mar-17	16,616	(96)	-0.57%
Apr-17	16,968	352	2.12%
May-17	17,193	225	1.33%
Jun-17	17,041	(152)	-0.88%
Jul-17	17,096	55	0.32%
Aug-17	17,204	108	0.63%
Sep-17	17,326	122	0.71%
Oct-17	17,459	133	0.77%
Nov-17	17,622	163	0.93%
Dec-17	17,755	133	0.75%
Jan-18	17,818	63	0.35%
Feb-18	17,905	87	0.49%
Mar-18	18,081	176	0.98%
Apr-18	18,045	(36)	-0.20%
May-18	18,207	162	0.90%
Jun-18	18,181	(26)	-0.14%

February 2018 Forecast	
Forecasted June 2018 Level	18,171

Base trend from June 2018 level						
FY 2018-19	18,181	2.57%	456			

	Foster Care Ages 0-18: Historical Caseload and Projections						
	Caseload	% Change	Level Change				
FY 2009-10	16,898	-	-				
FY 2010-11	16,634	-1.56%	(264)				
FY 2011-12	16,191	-2.66%	(443)				
FY 2012-13	15,964	-1.40%	(227)				
FY 2013-14	15,910	-0.34%	(54)				
FY 2014-15	15,961	0.32%	51				
FY 2015-16	16,252	1.82%	291		F	ebruary 201	8 Pro
FY 2016-17	16,780	3.25%	528		FY 2016-17	16,780	
FY 2017-18	17,725	5.63%	945		FY 2017-18	17,683	3
FY 2018-19	18,510	4.43%	785		FY 2018-19	18,514	4
FY 2019-20	19,128	3.34%	618		FY 2019-20	19,155	4
FY 2020-21	19,784	3.43%	656		FY 2020-21		

Actuals				
	Monthly Change	% Change		
6-month average	71	0.40%		
12-month average	95	0.54%		
18-month average	80	0.46%		
24-month average	68	0.39%		

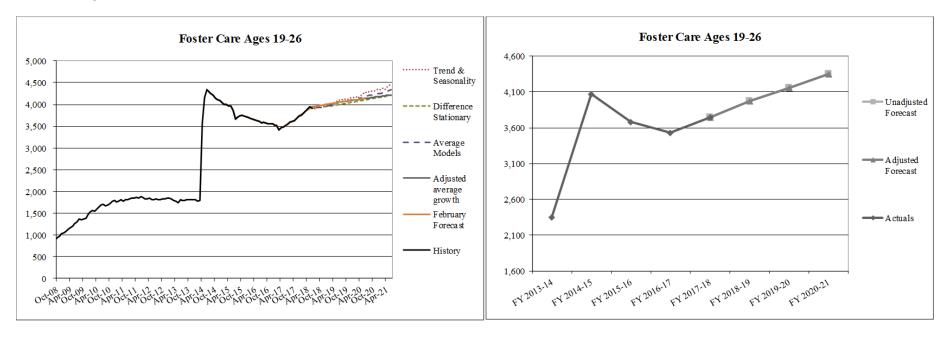
Over the last 6 months, Foster Care Ages 0-18 has been increasing about 71 per month, and with a 24-month average growth of 68 per month. Historically, this population has a lot of fluctuations in growth. The Department predicts that this population's growth will slow in FY 2018-19, with a monthly average growth rate of 50.

February 2018 Projection					
FY 2016-17	16,780	1.82%	528		
FY 2017-18	17,683	3.25%	903		
FY 2018-19	18,514	5.38%	831		
FY 2019-20	19,155	4.70%	641		
FY 2020-21					

Monthly Average	Monthly Average Growth Actuals						
FY 2012-13 1st Half	(27)	-0.17%					
FY 2012-13 2nd Half	(29)	-0.17%					
FY 2012-13	(28)	-0.17%					
FY 2013-14 1st Half	18	0.11%					
FY 2013-14 2nd Half	(8)	-0.05%					
FY 2013-14	5	0.03%					
FY 2014-15 1st Half	6	0.04%					
FY 2014-15 2nd Half	(5)	-0.03%					
FY 2014-15	0	0.00%					
FY 2015-16 1st Half	54	0.33%					
FY 2015-16 2nd Half	49	0.30%					
FY 2015-16	51	0.32%					
FY 2016-17 1st Half	31	0.18%					
FY 2016-17 2nd Half	50	0.30%					
FY 2016-17	40	0.24%					
FY 2017-18 1st Half	119	0.69%					
FY 2017-18 2nd Half	71	0.40%					
FY 2017-18	95	0.54%					

Monthly Average Growth Comparisons					
Request	Monthly	Change	Percent Change		
Request	S-1	R-1	S-1	R-1	
FY 2018-19 1st Half	69	50	0.38%	0.27%	
FY 2018-19 2nd Half	43	50	0.23%	0.27%	
FY 2018-19	56	50	0.31%	0.27%	
FY 2019-20 1st Half	63	53	0.33%	0.28%	
FY 2019-20 2nd Half	42	54	0.22%	0.28%	
FY 2019-20	53	54	0.28%	0.28%	
FY 2020-21 1st Half		55		0.28%	
FY 2020-21 2nd Half		56		0.28%	
FY 2020-21		55		0.28%	

# Foster Care, Ages 19-26: Model Results



Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend & Seasonality	FC 19-26	Constant, trend, seasonal dummy variables	19.27	18.79	0.7406
Difference Stationary	dlog(FC 19- 26)	Constant, 2 lags on the dependent variable	-7.02	-7.31	0.9544
Average Models			NA	NA	NA
Adjusted average growth			NA	NA	NA

	Foster Care Ages 19-26: Model Results <sup>1</sup>						
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2	
Trend & Seasonality	3,530	3,748	6.00%	3,973	225	4	
Difference Stationary	3,530	3,748	5.52%	3,955	207	(215)	
Average Models	3,530	3,748	5.76%	3,964	216	16	
Adjusted average growth	3,530	3,748	6.78%	4,002	254	7	
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2	
Trend & Seasonality	3,748	3,973	4.76%	4,162	189	0	
Difference Stationary	3,748	3,955	2.48%	4,053	98	0	
Average Models	3,748	3,964	3.61%	4,107	143	16	
Adjusted average growth	3,748	4,002	2.37%	4,097	95	9	
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2	
Trend & Seasonality	3,973	4,162	4.54%	4,351	189	(115)	
Difference Stationary	3,955	4,053	2.62%	4,159	106	0	
Average Models	3,964	4,107	3.60%	4,255	148	16	
Adjusted average growth	4,002	4,097	2.10%	4,183	86	9	

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

# Foster Care, Ages 19-26: Trend Selections

FY 2018-19: 6.00% FY 2019-20: 4.76% FY 2020-21: 5.54%

# Foster Care, Ages 19-26: Justifications

The Department estimates this eligibility category with two age group sub-categories, to increase forecast accuracy. The FY 2017-18 actual average monthly growth was 33 clients per month. The Department has maintained the forecast from February.

#### FY 2019-20 BUDGET REQUEST: CASELOAD NARRATIVE

	Actuals	Monthly Change	% Change
Jun-16	3,606	-	
Jul-16	3,582	(24)	-0.67%
Aug-16	3,596	14	0.39%
Sep-16	3,582	(14)	-0.39%
Oct-16	3,561	(21)	-0.59%
Nov-16	3,553	(8)	-0.22%
Dec-16	3,557	4	0.11%
Jan-17	3,518	(39)	-1.10%
Feb-17	3,523	5	0.14%
Mar-17	3,418	(105)	-2.98%
Apr-17	3,465	47	1.38%
May-17	3,488	23	0.66%
Jun-17	3,516	28	0.80%
Jul-17	3,555	39	1.11%
Aug-17	3,600	45	1.27%
Sep-17	3,615	15	0.42%
Oct-17	3,634	19	0.53%
Nov-17	3,683	49	1.35%
Dec-17	3,730	47	1.28%
Jan-18	3,758	28	0.75%
Feb-18	3,796	38	1.01%
Mar-18	3,845	49	1.29%
Apr-18	3,902	57	1.48%
May-18	3,946	44	1.13%
Jun-18	3,913	(33)	-0.84%

February 2018 Forecast	
Forecasted June 2018 Level	3,944

Base trend from June 2018 level					
FY 2018-19	3,913	4.40%	165		

	Caseload	% Change	Level Change
FY 2009-10	1,484	-	-
FY 2010-11	1,759	18.53%	275
FY 2011-12	1,844	4.83%	85
FY 2012-13	1,813	-1.68%	(31)
FY 2013-14	2,357	30.01%	544
FY 2014-15	4,075	72.89%	1,718
FY 2015-16	3,684	-9.60%	(391)
FY 2016-17	3,530	-4.18%	(154)
FY 2017-18	3,748	6.18%	218
FY 2018-19	3,973	6.00%	225
FY 2019-20	4,162	4.76%	189
FY 2020-21	4,351	4.54%	189

Actuals				
	Monthly Change	% Change		
6-month average	31	0.80%		
12-month average	33	0.90%		
18-month average	20	0.54%		
24-month average	13	0.35%		

FY 2017-18	3,746	6.12%	(154)
FY 2018-19	4,002	6.83%	216
FY 2019-20	4,097	2.37%	256
FY 2020-21			

3,530

FY 2016-17

February 2018 Projection

-4.18%

(391)

Foster Care Ages 19-26: Historical Caseload and Projections

Foster Care Ages 19-26 expanded from a maximum age of 21 to age 26 beginning January 2014. The first large increase can be seen in April 2014. Though this population recently expanded, this group decreased over the first few years after expansion, but at a decreasing rate. For the majority of the past year, this population has been steadily increasing, with postive 24-month average growth of 13. The Department expects this increase to continue over FY 2018-19, and has a selected an average growth rate increased slightly from the 24-month actuals.

Monthly Average Growth Actuals				
FY 2012-13 1st Half	7	0.36%		
FY 2012-13 2nd Half	(6)	-0.30%		
FY 2012-13	0	0.039		
FY 2013-14 1st Half	(1)	-0.049		
FY 2013-14 2nd Half	420	19.749		
FY 2013-14	210	9.859		
FY 2014-15 1st Half	(41)	-0.979		
FY 2014-15 2nd Half	(39)	-0.989		
FY 2014-15	(40)	-0.989		
FY 2015-16 1st Half	(23)	-0.589		
FY 2015-16 2nd Half	(18)	-0.489		
FY 2015-16	(20)	-0.539		
FY 2016-17 1st Half	(8)	-0.239		
FY 2016-17 2nd Half	(7)	-0.189		
FY 2016-17	(8)	-0.209		
FY 2017-18 1st Half	36	0.999		
FY 2017-18 2nd Half	31	0.809		
FY 2017-18	33	0.909		

Monthly Average Growth Comparisons						
Dagwagt	Monthly	Change	Percent	Percent Change		
Request	S-1	R-1	S-1	R-1		
FY 2018-19 1st Half	9	10	0.22%	0.25%		
FY 2018-19 2nd Half	9	22	0.22%	0.54%		
FY 2018-19	9	16	0.22%	0.40%		
FY 2019-20 1st Half	7	10	0.18%	0.24%		
FY 2019-20 2nd Half	7	22	0.17%	0.51%		
FY 2019-20	7	16	0.17%	0.38%		
FY 2020-21 1st Half		10		0.23%		
FY 2020-21 2nd Half		22		0.49%		
FY 2020-21		16		0.36%		

Clients A	_
133%	FPL
Jun-16	1,643
Jul-16	1,614
Aug-16	1,619
Sep-16	1,613
Oct-16	1,591
Nov-16	1,577
Dec-16	1,568
Jan-17	1,543
Feb-17	1,523
Mar-17	1,489
Apr-17	1,470
May-17	1,461
Jun-17	1,458
Jul-17	1,447
Aug-17	1,428
Sep-17	1,403
Oct-17	1,394
Nov-17	1,400
Dec-17	1,403
Jan-18	1,391
Feb-18	1,397
Mar-18	1,391
Apr-18	1,397
May-18	1,411
Jun-18	1,339

### **MAGI Eligible Pregnant Adults**

Between 1986 and 1991, Congress extended Medicaid to new groups of pregnant women and children. Referred to as Baby and Kid Care in Colorado, the program was authorized through the Medicare Catastrophic Coverage Act of 1988. The program enrolls Baby Care women and Kid Care children (see the Eligible Children section of this document for information on children). Baby Care-Adults are women with incomes up to 185% FPL beginning January 1, 2013 (195% FPL after income disregards are applied in October 2013). Coverage includes prenatal care and delivery services, plus 60 days of postpartum care. The Baby and Kid Care Program serves a much higher income level than the 1931 families program, and pregnant mothers were never subject to resource/asset limitations to qualify for the program. Moreover, the Baby and Kid Care Program has never had a cash-assistance component and was unaffected by welfare reform.

#### 25.5-5-101 (1), C.R.S.

(m) Low-income pregnant women, and children through the age of six, whose income is at or below a certain percentage of the federal poverty level as determined by the federal government;

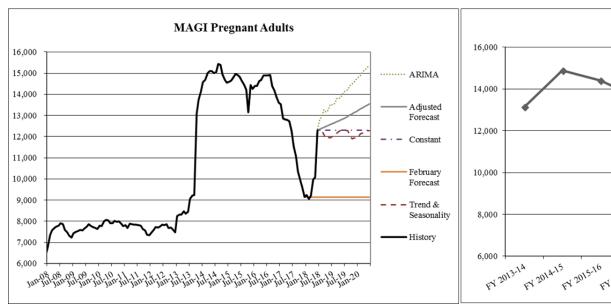
### 25.5-5-201 (2), C.R.S.

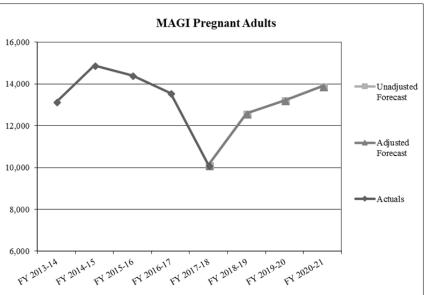
(b) Notwithstanding the five-year waiting period established in paragraph (a) of this subsection (2), but subject to the availability of sufficient appropriations and the receipt of federal financial participation, the state department may provide benefits under this article and articles 4 and 6 of this title to a pregnant woman who is a qualified alien and a child under nineteen years of age who is a qualified alien so long as such woman or child meets eligibility criteria other than citizenship.

#### 25.5-5-205 (3), C.R.S.

- (a) On and after April 1, 1990, children under the age of six years and pregnant women shall be eligible for benefits under the baby and kid care program...
- (II) For pregnant women, the percentage level of the federal poverty line, as defined pursuant to 42 U.S.C. sec. 9902 (2), used to determine eligibility under this subsection (3) shall be one hundred eighty-five percent. If the federal government establishes a new federal minimum percentage level of the federal poverty line used to determine eligibility under this subsection (3) that is different from the level set in this subparagraph (II), the state department is authorized to meet such federal minimum level without requiring additional legislation; however, such minimum federal level shall be established by rule of the state board.

# MAGI Pregnant Adults: Model Results





Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend & Seasonality	MAGI Pregnant	Constant, SB 250 dummy, October 2013 dummy, trend, seasonal dummy variables	17.61	17.43	0.7406
ARIMA	dlog(MAGI Pregnant)	Constant, SB 250 dummy, October 2013 dummy, AR variables, MA variables	-3.18	-3.29	0.0492
Adjusted Forecast			NA	NA	NA
Constant			NA	NA	NA

MAGI Pregnant Adults: Model Results <sup>1</sup>						
FY 2018-19	FY 2016- 17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	13,567	10,125	19.87%	12,137	2,012	(1)
ARIMA	13,567	10,125	33.02%	13,468	3,343	150
Adjusted Forecast	13,567	10,125	24.34%	12,589	2,464	45
Constant	13,567	10,125	21.46%	12,298	2,173	0
FY 2019-20	FY 2017- 18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
FY 2019-20 Trend & Seasonality		FY 2018-19	Growth	2019-20		Monthly
	18	FY 2018-19 Caseload	Growth Rate	2019-20 Caseload	Change	Monthly Change 2
Trend & Seasonality	18 10,125	FY 2018-19 Caseload 12,137	Growth Rate	2019-20 Caseload 12,124	Change (13)	Monthly Change 2
Trend & Seasonality ARIMA	18 10,125 10,125	FY 2018-19 Caseload 12,137 13,468	Growth Rate -0.11% 9.56%	2019-20 Caseload 12,124 14,756	(13) 1,288	Monthly Change 2 (1) 108

FY 2020-21	Projected FY 2018- 19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	12,137	12,124	-0.11%	12,111	(13)	(1)
ARIMA	13,468	14,756	9.53%	16,162	1,406	121
Adjusted Forecast	12,589	13,218	5.19%	13,904	686	56
Constant	12,298	12,298	0.00%	12,298	0	0

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

## MAGI Pregnant Adults: Trend Selections

FY 2018-19: 24.34% FY 2019-20: 5.00% FY 2020-21: 5.19%

## MAGI Pregnant Adults: Justifications

- Average monthly caseload in FY 2017-18 for MAGI Pregnant Adults was 10,125. The June 2018 data point was approximately 3,160 more than the predicted value in the February2018 forecast, mostly due to steady increases in the second half of FY 2017-18. The Department predicts positive growth for this population, with an increase due to the high starting point in June (driven by a level shift from a system fix)..
- In October 2013, over 3,000 clients were moved from MAGI Parents/Caretakers categories into MAGI Pregnant Adults. This was a one-time change in how pregnant adults were categorized by eligibility.

	Actuals	Monthly	%
	Actuals	Change	Change
Jun-16	14,883	-	-
Jul-16	14,896	13	0.09%
Aug-16	14,911	15	0.10%
Sep-16	14,401	(510)	-3.42%
Oct-16	14,168	(233)	-1.62%
Nov-16	13,876	(292)	-2.06%
Dec-16	13,608	(268)	-1.93%
Jan-17	13,527	(81)	-0.60%
Feb-17	12,860	(667)	-4.93%
Mar-17	12,813	(47)	-0.37%
Apr-17	12,786	(27)	-0.21%
May-17	12,727	(59)	-0.46%
Jun-17	12,236	(491)	-3.86%
Jul-17	11,545	(691)	-5.65%
Aug-17	11,069	(476)	-4.12%
Sep-17	10,343	(726)	-6.56%
Oct-17	9,948	(395)	-3.82%
Nov-17	9,601	(347)	-3.49%
Dec-17	9,138	(463)	-4.82%
Jan-18	9,238	100	1.09%
Feb-18	9,067	(171)	-1.85%
Mar-18	9,198	131	1.44%
Apr-18	9,967	769	8.36%
May-18	10,082	115	1.15%
Jun-18	12,298	2,216	21.98%

February 2018 Forecast	
Forecasted June 2018 Level	9,138

Base	Base trend from June 2018 level					
FY 2018-19	12,298	21.46%	2,173			

		MAGI Preg	gnant Adults	: Historical Caseload ar	nd Projectio	ns
	Caseload	%	Level			
		Change	Change			
FY 2005-06	5,119	-	-			
FY 2006-07	5,182	1.23%	63			
FY 2007-08	6,288	21.34%	1,106			
FY 2008-09	6,976	10.94%	688			
FY 2009-10	7,830	12.24%	854			
FY 2010-11	7,868	0.49%	38			
FY 2011-12	7,630	-3.02%	(238)			
FY 2012-13	8,024	5.16%	394			
FY 2013-14	13,160	64.01%	5,136			
FY 2014-15	14,897	13.20%	1,737			
FY 2015-16	14,413	-3.25%	(484)	F	ebruary 20	18
FY 2016-17	13,567	-5.87%	(846)	FY 2016-17	13,567	
FY 2017-18	10,125	-25.37%	(3,442)	FY 2017-18	9,706	
FY 2018-19	12,589	24.34%	2,464	FY 2018-19	9,138	
FY 2019-20	13,218	5.00%	629	FY 2019-20	9,138	
FY 2020-21	13,904	5.19%	686	FY 2020-21		

Actuals					
Monthly % Change Chang					
6-month average	527	5.36%			
12-month average	5	0.31%			
18-month average	(73)	-0.37%			
24-month average	(108)	-0.65%			

MAGI Pregnant Adults saw a large increase in October 2013 when nearly 4,000 clients were moved from MAGI Parents/Caretakers over to MAGI Pregnant Adults. Since that shift, this population remained steady, with seasonal fluctuations, until September 2016, from which point forward, this population has decreased until the second half of FY 2017-18. The Department predicts positive growth for this population, with an increase due to the high starting point in June (driven by a level shift from a system fix).

February 2018 Projection					
FY 2016-17	13,567	-5.87%	(846)		
FY 2017-18	9,706	-28.46%	(3,861)		
FY 2018-19	9,138	-5.85%	(568)		
FY 2019-20	9,138	0.00%	0		
FY 2020-21					

Monthly Average Growth Actuals						
FY 2012-13 1st Half	(63)	-0.82%				
FY 2012-13 2nd Half	165	2.17%				
FY 2012-13	51	0.68%				
FY 2013-14 1st Half	947	9.77%				
FY 2013-14 2nd Half	145	1.00%				
FY 2013-14	546	5.39%				
FY 2014-15 1st Half	(78)	-0.51%				
FY 2014-15 2nd Half	47	0.32%				
FY 2014-15	(15)	-0.09%				
FY 2015-16 1st Half	(95)	-0.52%				
FY 2015-16 2nd Half	105	0.73%				
FY 2015-16	5	0.10%				
FY 2016-17 1st Half	(213)	-1.47%				
FY 2016-17 2nd Half	(229)	-1.74%				
FY 2016-17	(221)	-1.61%				
FY 2017-18 1st Half	(516)	-4.74%				
FY 2017-18 2nd Half	527	5.36%				
FY 2017-18	5	0.31%				
-	•					

Monthly Average Growth Comparisons					
Paguast	Monthly	Change	Percent Change		
Request	S-1	R-1	S-1	R-1	
FY 2018-19 1st Half	0	45	0.00%	0.36%	
FY 2018-19 2nd Half	0	45	0.00%	0.35%	
FY 2018-19	0	45	0.00%	0.36%	
FY 2019-20 1st Half	0	59	0.00%	0.45%	
FY 2019-20 2nd Half	0	59	0.00%	0.44%	
FY 2019-20	0	59	0.00%	0.45%	
FY 2020-21 1st Half		56		0.41%	
FY 2020-21 2nd Half		56		0.40%	
FY 2020-21		56		0.40%	

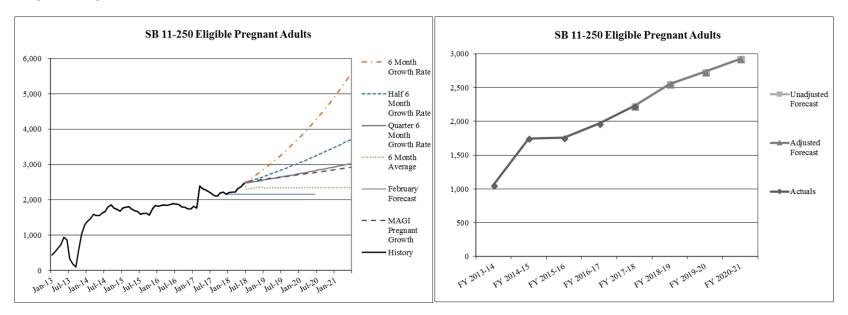
## **SB 11-250 Eligible Pregnant Adults**

Prior to the implementation of SB 11-250 in January 2013, pregnant adults whose family income was under 133% FPL were eligible for Medicaid. SB 11-250 increased the FPL threshold up to 185% FPL, 195% FPL with income disregards applied after October 2013. Services for clients that would have been eligible for CHP+ before the implementation of SB 11-008 receive the enhanced CHP+ federal match. These clients are identified as Medicaid eligible pregnant adults with incomes above 142% FPL and no other insurance.

25.5-5-201 (1)

(m.5) Pregnant women, whose family income does not exceed one hundred eighty-five percent of the federal poverty line, adjusted for family size.

# SB 11-250 Eligible Pregnant Adults: Model Results



SB 11-250 Eligible Pregnant Adults: Model Results <sup>1</sup>						
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2
6 Month Growth Rate	1,968	2,229	28.26%	2,859	630	64
Half 6 Month Growth Rate	1,968	2,229	19.02%	2,653	424	30
Quarter 6 Month Growth Rate	1,968	2,229	14.67%	2,556	327	14
6 Month Average	1,968	2,229	4.76%	2,335	106	(10)
MAGI Pregnant Growth	1,968	2,229	13.10%	2,521	292	9

FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
6 Month Growth Rate	2,229	2,859	30.95%	3,744	885	83
Half 6 Month Growth Rate	2,229	2,653	14.51%	3,038	385	34
Quarter 6 Month Growth Rate	2,229	2,556	7.04%	2,736	180	15
6 Month Average	2,229	2,335	0.21%	2,340	5	0
MAGI Pregnant Growth	2,229	2,521	5.00%	2,647	126	12

FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
6 Month Growth Rate	2,859	3,744	30.96%	4,903	1,159	109
Half 6 Month Growth Rate	2,653	3,038	14.52%	3,479	441	39
Quarter 6 Month Growth Rate	2,556	2,736	7.02%	2,928	192	17
6 Month Average	2,335	2,340	0.00%	2,340	0	0
MAGI Pregnant Growth	2,521	2,647	5.21%	2,785	138	11

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

## SB 11-250 Eligible Pregnant Adults: Trend Selections

FY 2018-19: 14.67% FY 2019-20: 7.04% FY 2020-21: 7.02%

## SB 11-250 Eligible Pregnant Adults: Justifications

• Average monthly caseload in FY 2017-18 for SB 11-250 Eligible Pregnant Adults was 2,229. The June 2018 data point was 309 over the predicted value in the February forecast. The Department expects the SB 11-250 Pregnant adults population to behave similarly to the MAGI Pregnant Adults population, so the trend selected reflects low positive growth.

	Actuals	Monthly Change	% Change
Jun-16	1,893	-	
Jul-16	1,883	(10)	-0.53%
Aug-16	1,872	(11)	-0.58%
Sep-16	1,797	(75)	-4.01%
Oct-16	1,790	(7)	-0.39%
Nov-16	1,738	(52)	-2.91%
Dec-16	1,736	(2)	-0.12%
Jan-17	1,816	80	4.61%
Feb-17	1,765	(51)	-2.81%
Mar-17	2,392	627	35.52%
Apr-17	2,321	(71)	-2.97%
May-17	2,276	(45)	-1.94%
Jun-17	2,229	(47)	-2.07%
Jul-17	2,177	(52)	-2.33%
Aug-17	2,119	(58)	-2.66%
Sep-17	2,105	(14)	-0.66%
Oct-17	2,197	92	4.37%
Nov-17	2,222	25	1.14%
Dec-17	2,154	(68)	-3.06%
Jan-18	2,202	48	2.23%
Feb-18	2,219	17	0.77%
Mar-18	2,216	(3)	-0.14%
Apr-18	2,316	100	4.51%
May-18	2,363	47	2.03%
Jun-18	2,463	100	4.23%

February 2018 Forecast			
Forecasted June 2018 Level	2,154		

Base trend from June 2018 level						
FY 2018-19	2,463	10.50%	234			

SB 11-250 Eligible Pregnan	t Adults: Historical Caseload and Projections

	Caseload	% Change	Level Change
		Change	Change
FY 2014-15	1,749	-	-
FY 2015-16	1,759	0.57%	10
FY 2016-17	1,968	11.88%	209
FY 2017-18	2,229	13.26%	261
FY 2018-19	2,556	14.67%	327
FY 2019-20	2,736	7.04%	180
FY 2020-21	2,928	7.02%	192

Actuals					
	Monthly Change	% Change			
6-month average	52	2.27%			
12-month average	20	0.87%			
18-month average	40	2.27%			
24-month average	24	1.34%			

February 2018 Projection				
FY 2016-17	1,968	11.88%	209	
FY 2017-18	2,158	9.65%	190	
FY 2018-19	2,154	-0.19%	(4)	
FY 2019-20	2,154	0.00%	0	
FY 2020-21				

Monthly Averag	e Growth Act	uals
FY 2012-13 1st Half	0	0.00%
FY 2012-13 2nd Half	144	0.00%
FY 2012-13	72	0.00%
FY 2013-14 1st Half	72	64.40%
FY 2013-14 2nd Half	57	4.06%
FY 2013-14	64	34.23%
FY 2014-15 1st Half	7	0.50%
FY 2014-15 2nd Half	(2)	-0.05%
FY 2014-15	3	0.23%
FY 2015-16 1st Half	30	1.87%
FY 2015-16 2nd Half	8	0.43%
FY 2015-16	19	1.15%
FY 2016-17 1st Half	(26)	-1.42%
FY 2016-17 2nd Half	82	5.06%
FY 2016-17	28	1.82%
FY 2017-18 1st Half	(13)	-0.53%
FY 2017-18 2nd Half	52	2.27%
FY 2017-18	20	0.87%

The Department expects the SB 11-250 Pregnant Adults population to behave similarly to the MAGI Pregnant Adults population, so the trend selected reflects low positive growth, based on the most recent actuals.

Monthly Average Growth Comparisons						
Request	Monthly	Change	Percent	Change		
Request	S-1	R-1	S-1	R-1		
FY 2018-19 1st Half	0	14	0.00%	0.57%		
FY 2018-19 2nd Half	0	15	0.00%	0.57%		
FY 2018-19	0	14	0.00%	0.57%		
FY 2019-20 1st Half	0	15	0.00%	0.57%		
FY 2019-20 2nd Half	0	16	0.00%	0.57%		
FY 2019-20	0	15	0.00%	0.57%		
FY 2020-21 1st Half		16		0.57%		
FY 2020-21 2nd Half		17		0.57%		
FY 2020-21		17		0.57%		

## Non-Citizens – Emergency Services Only

Section 403 of the Personal Responsibility Work Opportunity Reconciliation Act provides that certain immigrants arriving in the United States after August 22, 1996 are ineligible for full Medicaid benefits for their first five years of residence. The five-year ban only applies to immigrants who arrived in the United States after August 22, 1996. Full Medicaid coverage of individuals for the first five years is optional. Per federal regulations, states must provide mandatory full coverage for:

- Refugees for the first seven years after entry into the United States;
- Asylees for the first seven years after asylum is granted;
- Individuals whose deportation is being withheld for the first seven years after the initial withhold;
- Victims of trafficking;
- Lawful permanent residents who have 40 qualifying quarters of Social Security coverage;
- Cuban or Haitian entrants; and,
- Immigrants who are honorably discharged veterans of the United States military.

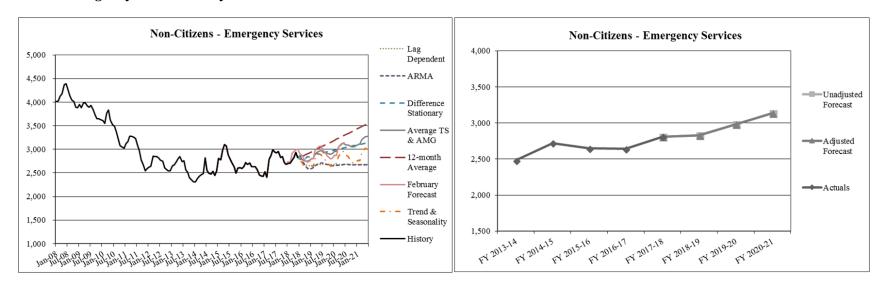
Regardless of whether the individual is an optional or mandatory immigrant, federal law requires all states to provide emergency medical services for individuals who otherwise meet Medicaid eligibility criteria, except for proof of U.S. citizenship.

In April 2001, an eligibility policy change was implemented such that clients are now only counted as eligible in the months they receive emergency medical care. Prior to this policy change, eligibility for this group continued as it would for any other category, although only for emergency medical services. For example, a Non-Citizen with an emergency visit on April 2000 could be eligible in that month, and continue to be eligible for as many months as he/she met other eligibility criteria. The same client would only be eligible for one month, had the emergency service occurred in April 2001. Thus, caseloads presented from April 2001 and forward are much lower than in previous years.

#### 25.5-5-103 (3), C.R.S.

(a) Emergency medical assistance shall be provided to any person who is not a citizen of the United States, including undocumented aliens, aliens who are not qualified aliens, and qualified aliens who entered the United States on or after August 22, 1996, who has an emergency medical condition and meets one of the categorical requirements set forth in section 25.5-5-101; except that such persons shall not be required to meet any residency requirement other than that required by federal law.

# Non-Citizens- Emergency Services Only: Model Results



Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend & Seasonality	NC	Constant, trend, and seasonal dummy variables	13.7	13.22	0.2825
Lag Dependent	NC	Constant and 4 lags on the dependent variable	12.2	12.08	0.7027
ARMA	log(NC)	Constant, AR variables, MA variables	-3.24	-3.46	0.6893
Difference Stationary	dlog(NC)	Constant and 5 lags on the dependent variable	-3.14	-3.37	0.0689
12-month Average			NA	NA	NA
Average TS & AMG			NA	NA	NA

Non-Citizens- Emergency Services: Model Results <sup>1</sup>						
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	2,640	2,809	-2.95%	2,726	(83)	5
Lag Dependent	2,640	2,809	-4.45%	2,684	(125)	(13)
ARMA	2,640	2,809	-4.77%	2,675	(134)	(10)
Difference Stationary	2,640	2,809	2.14%	2,869	60	8
12-month Average	2,640	2,809	4.49%	2,935	126	18
Average TS & AMG	2,640	2,809	0.75%	2,830	21	11
		Projected	Projected	Projected	Lovel	Average

FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2
Trend & Seasonality	2,809	2,726	2.09%	2,783	57	5
Lag Dependent	2,809	2,684	-0.26%	2,677	(7)	0
ARMA	2,809	2,675	-0.11%	2,672	(3)	(3)
Difference Stationary	2,809	2,869	3.76%	2,977	108	9
12-month Average	2,809	2,935	8.42%	3,182	247	21
Average TS & AMG	2,809	2,830	5.41%	2,983	153	13
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2
FY 2020-21 Trend & Seasonality	FY 2018-19	FY 2019-20	Growth	FY 2020-21		Monthly
	FY 2018-19 Caseload	FY 2019-20 Caseload	Growth Rate	FY 2020-21 Caseload	Change	Monthly Change 2
Trend & Seasonality	FY 2018-19 Caseload 2,726	FY 2019-20 Caseload 2,783	Growth Rate	FY 2020-21 Caseload 2,841	Change 58	Monthly Change 2
Trend & Seasonality Lag Dependent	FY 2018-19 Caseload 2,726 2,684	FY 2019-20 Caseload 2,783 2,677	Growth Rate 2.08% -0.07%	FY 2020-21 Caseload 2,841 2,675	<b>Change</b> 58 (2)	Monthly Change 2
Trend & Seasonality Lag Dependent ARMA	FY 2018-19 Caseload 2,726 2,684 2,675	FY 2019-20 Caseload 2,783 2,677 2,672	Growth Rate  2.08%  -0.07%  -0.04%	FY 2020-21 Caseload 2,841 2,675 2,671	58 (2) (1)	Monthly Change 2 5 0

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

### Non-Citizens: Trend Selections

FY 2018-19: 2.14% FY 2019-20: 3.76% FY 2020-21: 3.80%

# Non-Citizens: Justifications

Average monthly caseload in FY 2017-18 for Non-Citizens was 2,809. The June 2018 data point was approximately 170 under the predicted value in the February 2018 forecast. The Department has adjusted the current forecast accordingly.

	Actuals	Monthly Change	% Change
Jun-16	2,635	-	
Jul-16	2,630	(5)	-0.19%
Aug-16	2,634	4	0.15%
Sep-16	2,571	(63)	-2.39%
Oct-16	2,455	(116)	-4.51%
Nov-16	2,434	(21)	-0.86%
Dec-16	2,430	(4)	-0.16%
Jan-17	2,526	96	3.95%
Feb-17	2,406	(120)	-4.75%
Mar-17	2,789	383	15.92%
Apr-17	2,868	79	2.83%
May-17	2,992	124	4.32%
Jun-17	2,941	(51)	-1.70%
Jul-17	2,925	(16)	-0.54%
Aug-17	2,957	32	1.09%
Sep-17	2,831	(126)	-4.26%
Oct-17	2,842	11	0.39%
Nov-17	2,716	(126)	-4.43%
Dec-17	2,677	(39)	-1.44%
Jan-18	2,704	27	1.01%
Feb-18	2,707	3	0.11%
Mar-18	2,763	56	2.07%
Apr-18	2,823	60	2.17%
May-18	2,930	107	3.79%
Jun-18	2,831	(99)	-3.38%

February 2018 Forecast	
Forecasted June 2018 Level	3,001

Base	trend from	June 2018	level
FY 2018-19	2,831	0.78%	22

			Non-	Citizens - Emergency	Services: Hi	storical Cas	eload and P	rojections
	Caseload	% Change	Level Change			Over 1	08%	
FY 2005-06	6,212	-	-	1,200				
FY 2006-07	5,201	-16.27%	(1,011)	1,000				
FY 2007-08	4,191	-19.42%	(1,010)	800				
FY 2008-09	3,987	-4.87%	(204)					
FY 2009-10	3,693	-7.37%	(294)	600				~
FY 2010-11	3,213	-13.00%	(480)	400				
FY 2011-12	2,770	-13.79%	(443)	200				
FY 2012-13	2,684	-3.10%	(86)	0				
FY 2013-14	2,481	-7.56%	(203)		Oct land April	15 15 16 C	16 216 216 217	12 14 12
FY 2014-15	2,722	9.71%	241	In. Vb. In.	On lar Why	in On Jun W.D.	10. Oc. 101.	40. In. Oc. 1
FY 2015-16	2,649	-2.68%	(73)	F	ebruary 2018	8 Projection	ı	
FY 2016-17	2,640	-0.34%	(9)	FY 2016-17	2,640	-0.34%	(9)	
FY 2017-18	2,809	6.40%	169	FY 2017-18	2,856	8.18%	216	
FY 2018-19	2,869	2.14%	60	FY 2018-19	2,881	0.88%	25	
FY 2019-20	2,977	3.76%	108	FY 2019-20	2,950	2.40%	69	
FY 2020-21	3,090	3.80%	113	FY 2020-21				

A	ctuals	
	Monthly Change	% Change
6-month average	26	0.96%
12-month average	(9)	-0.29%
18-month average	22	0.95%
24-month average	8	0.38%

Though this population has seen consistent declines from FY 2006-07 through the first half of FY 2013-14, the overall trend appears flat from January 2014 forward. The selected trend assumes an average monthly growth rate of 8 per month in FY 2018-19, which is on par with the 24-month average. This population tends to decrease in the first half of a fiscal year and increase in the second half. High growth March 2017 may be due to a level-shift resulting from better identification of this population in the new MMIS system.

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February 2018 Projection						
FY 2016-17	2,640	-0.34%	(9)			
FY 2017-18	2,856	8.18%	216			
FY 2018-19	2,881	0.88%	25			
FY 2019-20	2,950	2.40%	69			
FY 2020-21						

Monthly Average Growth Actuals					
FY 2012-13 1st Half	(46)	-1.70%			
FY 2012-13 2nd Half	33	1.29%			
FY 2012-13	(7)	-0.20%			
FY 2013-14 1st Half	(71)	-2.76%			
FY 2013-14 2nd Half	85	3.47%			
FY 2013-14	7	0.36%			
FY 2014-15 1st Half	(47)	-1.63%			
FY 2014-15 2nd Half	57	2.29%			
FY 2014-15	5	0.33%			
FY 2015-16 1st Half	(45)	-1.56%			
FY 2015-16 2nd Half	3	0.14%			
FY 2015-16	(21)	-0.71%			
FY 2016-17 1st Half	(34)	-1.33%			
FY 2016-17 2nd Half	85	3.43%			
FY 2016-17	26	1.05%			
FY 2017-18 1st Half	(44)	-1.53%			
FY 2017-18 2nd Half	26	0.96%			
FY 2017-18	(9)	-0.29%			

Paguagt	Monthly (	Change	Percent Change		
Request	S-1	R-1	S-1	R-1	
FY 2018-19 1st Half	(42)	1	-1.46%	0.06%	
FY 2018-19 2nd Half	54	14	1.90%	0.47%	
FY 2018-19	6	8	0.22%	0.26%	
FY 2019-20 1st Half	(42)	8	-1.42%	0.29%	
FY 2019-20 2nd Half	54	9	1.85%	0.31%	
FY 2019-20	6	9	0.22%	0.30%	
FY 2020-21 1st Half	0	9	0.00%	0.31%	
FY 2020-21 2nd Half	0	10	0.00%	0.31%	
FY 2020-21	0	10	0.00%	0.31%	

Clients 108% -133% FPL				
Jun-16	593			
Jul-16	593			
Aug-16	600			
Sep-16	597			
Oct-16	585			
Nov-16	609			
Dec-16	617			
Jan-17	640			
Feb-17	610			
Mar-17	710			
Apr-17	719			
May-17	739			
Jun-17	728			
Jul-17	745			
Aug-17	783			
Sep-17	758			
Oct-17	796			
Nov-17	768			
Dec-17	741			
Jan-18	744			
Feb-18	746			
Mar-18	736			
Apr-18	738			
May-18	752			
Jun-18	741			

### **Partial Dual Eligibles**

Medicare-eligible beneficiaries who have incomes at a certain federal poverty level and limited resources may qualify to have Medicaid cover some of their out-of-pocket expenses, such as their Medicare Part B premiums and other coinsurance and deductibles. The two groups of clients that qualify for this cost-sharing program are Qualified Medicare Beneficiaries and Special Low Income Medicare Beneficiaries. This group, formerly known as Qualified Medicare Beneficiaries/Special Low Income Medicare Beneficiaries, is now collectively known as Partial Dual Eligibles. Qualified Medicare Beneficiaries have incomes at or below 100% of the federal poverty level, and resources twice the standard allowed under the federal Supplemental Security Income program. These clients receive hospital insurance and supplementary medical insurance premium coverage along with Medicare coinsurance and deductibles. Special Low Income Medicare Beneficiaries have incomes greater than 100% of the federal poverty level, but less than 120%. For Special Low Income Medicare Beneficiaries, Medicaid only pays the supplementary medical insurance premiums.

#### 25.5-5-101 (1), C.R.S.

(1) Individuals with income and resources at a level which qualifies them as Medicare-eligible under section 301 of Title III of the federal "Medicare Catastrophic Coverage Act".

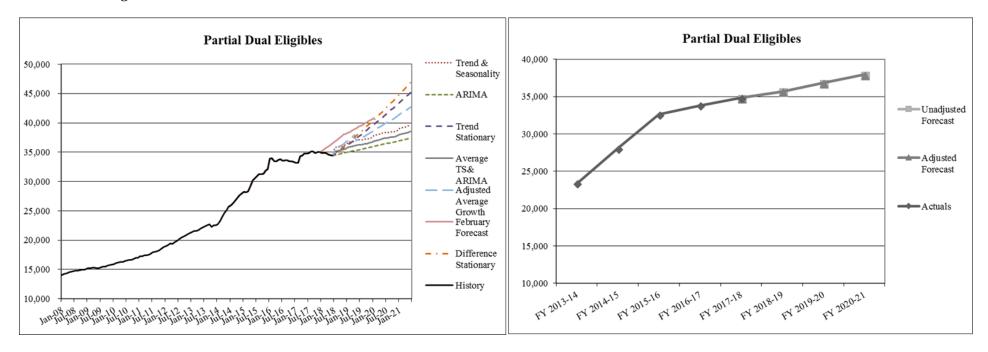
#### 25.5-5-104, C.R.S.

Qualified Medicare beneficiaries are Medicare-eligible individuals with income and resources at a level which qualifies them as eligible under section 301 of Title III of the federal "Medicare Catastrophic Coverage Act of 1988", as amended, or subsequent amending federal legislation.

#### 25.5-5-105, C.R.S.

Qualified disabled and working individuals are persons with income and resources and disability status, as determined by the social security administration, which qualify them as "qualified disabled and working individuals" under sections 6012 and 6408 of the federal "Omnibus Budget Reconciliation Act of 1989", or subsequent amending federal legislation. The state department is hereby designated as the single state agency to administer benefits available to qualified disabled and working individuals. Such benefits are limited to Medicare cost-sharing expenses as determined by the federal government.

# Partial Dual Eligibles: Model Results



Model	Dependent Variable	Independent Variables	Schwarz Info Criterion	Akaike Info Criterion	Adjusted R <sup>2</sup>
Trend & Seasonality	PDE	Constant, trend, seasonal dummy variables	19.11	18.95	0.8983
ARIMA	dlog(PDE)	Constant	-5.81	-5.86	
Trend Stationary	log(PDE)	Constant, trend, 2 lags on the dependent variable	-5.72	-5.91	0.9994
Difference Stationary	dlog(PDE)	Constant and 1 lag on the dependent variable	-4.58	-4.61	0.0091
Adjusted Average Growth			NA	NA	NA
Average TS& ARIMA			NA	NA	NA

	Partial Dual Eligibles: Model Results <sup>1</sup>						
FY 2018-19	FY 2016-17	FY 2017-18	Projected Growth Rate	Projected FY 2018-19 Caseload	Level Change	Average Monthly Change 2	
Trend & Seasonality	33,809	34,828	4.55%	36,413	1,585	222	
ARIMA	33,809	34,828	0.39%	34,964	136	80	
Trend Stationary	33,809	34,828	3.74%	36,131	1,303	269	
Difference Stationary	33,809	34,828	4.51%	36,399	1,571	308	
Adjusted Average Growth	33,809	34,828	5.31%	36,677	1,849	230	
Average TS& ARIMA	33,809	34,828	2.47%	35,688	860	151	
FY 2019-20	FY 2017-18	Projected FY 2018-19 Caseload	Projected Growth Rate	Projected FY 2019-20 Caseload	Level Change	Average Monthly Change 2	
Trend & Seasonality	34,828	36,413	3.42%	37,658	1,245	104	
ARIMA	34,828	34,964	2.80%	35,943	979	83	
Trend Stationary	34,828	36,131	9.58%	39,592	3,461	300	
Difference Stationary	34,828	36,399	10.87%	40,356	3,957	346	
Adjusted Average Growth	34,828	36,677	5.18%	38,577	1,900	219	
Average TS& ARIMA	34,828	35,688	3.12%	36,801	1,113	93	
FY 2020-21	Projected FY 2018-19 Caseload	Projected FY 2019-20 Caseload	Projected Growth Rate	Projected FY 2020-21 Caseload	Level Change	Average Monthly Change 2	
Trend & Seasonality	36,413	37,658	3.31%	38,904	1,246	104	
ARIMA	34,964	35,943	2.80%	36,949	1,006	85	
Trend Stationary	36,131	39,592	9.51%	43,357	3,765	326	
Difference Stationary	36,399	40,356	10.87%	44,743	4,387	383	
Adjusted Average Growth	36,677	38,577	7.15%	41,335	2,758	239	
Average TS& ARIMA	35,688	36,801	3.06%	37,927	1,126	95	

<sup>&</sup>lt;sup>1</sup> Bold denotes Trend Selection

<sup>&</sup>lt;sup>2</sup> Average monthly change is calculated as that between June of the respective fiscal year and June of the prior fiscal year. This is not directly comparable to the annual level change, which is calculated as the difference between the annual average caseload.

## Partial Dual Eligibles: Trend Selections

FY 2018-19: 4.55% FY 2019-21: 3.42% FY 2020-21: 3.31%

# Partial Dual Eligibles: Justification

- Average monthly caseload in FY 2017-18 for Partial Dual Eligibles was 34,828. The June 2018 data point was nearly 1,038 lower than the previous estimate in the February 2018 request. The Department has lowered the forecast accordingly.
- These clients have higher income than Adults 65 and Older or Disabled Adults 60 to 64, and are relatively healthy. Given increased life expectancy, more people are living healthier longer, which would support strong growth rates in this population. In addition, this population may be affected by the "baby boomers", defined by the U.S. Census Bureau as the generation born between 1946 and 1964, beginning in calendar year 2006.

	Actuals	Monthly Change	% Change
Jun-16	33,813	-	-
Jul-16	33,512	(301)	-0.89%
Aug-16	33,636	124	0.37%
Sep-16	33,623	(13)	-0.04%
Oct-16	33,461	(162)	-0.48%
Nov-16	33,416	(45)	-0.13%
Dec-16	33,390	(26)	-0.08%
Jan-17	33,173	(217)	-0.65%
Feb-17	33,167	(6)	-0.02%
Mar-17	34,322	1,155	3.48%
Apr-17	34,407	85	0.25%
May-17	34,806	399	1.16%
Jun-17	34,798	(8)	-0.02%
Jul-17	34,833	35	0.10%
Aug-17	35,078	245	0.70%
Sep-17	35,157	79	0.23%
Oct-17	34,883	(274)	-0.78%
Nov-17	34,999	116	0.33%
Dec-17	35,001	2	0.01%
Jan-18	34,842	(159)	-0.45%
Feb-18	34,868	26	0.07%
Mar-18	34,817	(51)	-0.15%
Apr-18	34,553	(264)	-0.76%
May-18	34,463	(90)	-0.26%
Jun-18	34,444	(19)	-0.06%

February 2018 Forecast	t
Forecasted June 2018 Level	35,482

Base trend from June 2018 level					
FY 2018-19	34,444	-1.10%	(384)		

Partial Dual Eligibles: Historical Caseload and Projections						tions
	Caseload	% Change	Level Change			
FY 2005-06	11,092	-	-			
FY 2006-07	12,908	16.37%	1,816			
FY 2007-08	14,214	10.12%	1,306			
FY 2008-09	15,075	6.06%	861			
FY 2009-10	15,919	5.60%	844			
FY 2010-11	17,090	7.36%	1,171			
FY 2011-12	18,871	10.42%	1,781			
FY 2012-13	21,206	12.37%	2,335			
FY 2013-14	23,378	10.24%	2,172			
FY 2014-15	28,045	19.96%	4,667			
FY 2015-16	32,585	16.19%	4,540	F	ebruary 201	18 Pro
FY 2016-17	33,809	3.76%	1,224	FY 2016-17	33,809	
FY 2017-18	34,828	3.01%	1,019	FY 2017-18	35,057	
FY 2018-19	36,413	4.55%	1,585	FY 2018-19	36,943	
FY 2019-20	37,658	3.42%	1,245	FY 2019-20	39,636	,
FY 2020-21	38,904	3.31%	1,246	FY 2020-21		

Actuals					
	Monthly Change	% Change			
6-month average	(93)	-0.27%			
12-month average	(30)	-0.08%			
18-month average	59	0.18%			
24-month average	26	0.08%			

Partial Dual Eligibles has seen negative growth at an increasing rate between the last 12 months and the last 6 months, skewed heavily by the most recent 6 months of data. The Department expects positive growth to return, but reduced from the previous forecast, due to an aging population.

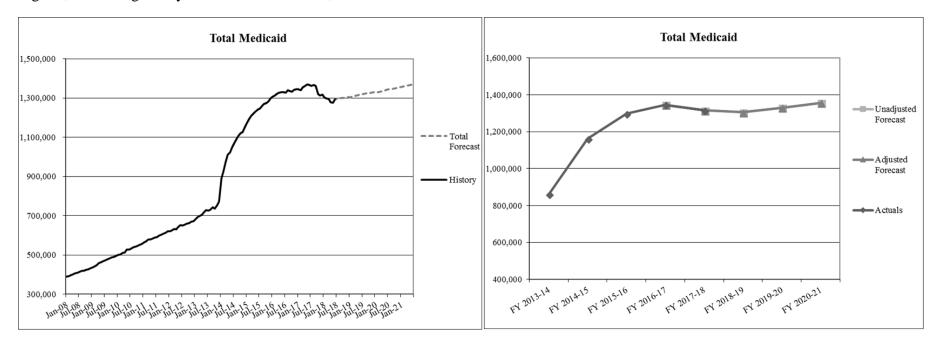
February 2018 Projection			
FY 2016-17	33,809	3.76%	1,224
FY 2017-18	35,057	3.69%	1,248
FY 2018-19	36,943	5.38%	1,886
FY 2019-20	39,636	7.29%	2,693
FY 2020-21			

ı		
Monthly Average Growth Actuals		
FY 2012-13 1st Half	215	1.05%
FY 2012-13 2nd Half	158	0.73%
FY 2012-13	187	0.89%
FY 2013-14 1st Half	61	0.28%
FY 2013-14 2nd Half	524	2.20%
FY 2013-14	292	1.24%
FY 2014-15 1st Half	378	1.42%
FY 2014-15 2nd Half	436	1.51%
FY 2014-15	407	1.47%
FY 2015-16 1st Half	264	0.85%
FY 2015-16 2nd Half	278	0.87%
FY 2015-16	271	0.86%
FY 2016-17 1st Half	(71)	-0.21%
FY 2016-17 2nd Half	235	0.70%
FY 2016-17	82	0.25%
FY 2017-18 1st Half	34	0.10%
FY 2017-18 2nd Half	(93)	-0.27%
FY 2017-18	(30)	-0.08%

Monthly Average Growth Comparisons				
Dogwood	Monthly Change		Percent Change	
Request	S-1	R-1	S-1	R-1
FY 2018-19 1st Half	264	301	0.74%	0.86%
FY 2018-19 2nd Half	252	143	0.67%	0.39%
FY 2018-19	258	222	0.71%	0.63%
FY 2019-20 1st Half	203	65	0.52%	0.17%
FY 2019-20 2nd Half	213	143	0.53%	0.38%
FY 2019-20	208	104	0.53%	0.28%
FY 2020-21 1st Half	0	65	0.00%	0.17%
FY 2020-21 2nd Half	0	143	0.00%	0.37%
FY 2020-21	0	104	0.00%	0.27%

#### TOTAL MEDICAID SUMMARY

Average monthly caseload for total Medicaid in FY 2017-18 was 1,303,345. The June 2018 data point was nearly 44,392, or 3.32%, lower than the previous estimate from the February 2018 request, driven primarily by a system update which effects the end of every quarter, which improved the process for verifying income for Medicaid eligibility purposes, primarily affecting adult, income-based populations. The Department believes the increase in June 2018 represents a level-shift upward and has treated caseload increase as such. The Department predicts an overall reduction in caseload in FY 2018-19, over FY 2017-18, with low growth in the request and out years. Average monthly caseload for total Medicaid in FY 2018-19 is projected to not grow, and then grow by 1.41% in FY 2019-20, and 1.75% in FY 2020-21.



### FY 2019-20 BUDGET REQUEST: CASELOAD NARRATIVE

		~	
	Actuals	Monthly	%
	Actuals	Change	Change
Jun-16	1,330,977	-	-
Jul-16	1,327,921	(3,056)	-0.23%
Aug-16	1,338,693	10,772	0.81%
Sep-16	1,334,904	(3,789)	-0.28%
Oct-16	1,332,134	(2,770)	-0.21%
Nov-16	1,341,398	9,264	0.70%
Dec-16	1,343,704	2,306	0.17%
Jan-17	1,343,979	275	0.02%
Feb-17	1,340,089	(3,890)	-0.29%
Mar-17	1,353,769	13,680	1.02%
Apr-17	1,362,458	8,689	0.64%
May-17	1,369,103	6,645	0.49%
Jun-17	1,365,940	(3,163)	-0.23%
Jul-17	1,360,760	(5,180)	-0.38%
Aug-17	1,366,880	6,120	0.45%
Sep-17	1,361,174	(5,706)	-0.42%
Oct-17	1,319,016	(42,158)	-3.10%
Nov-17	1,313,234	(5,782)	-0.44%
Dec-17	1,318,334	5,100	0.39%
Jan-18	1,303,683	(14,651)	-1.11%
Feb-18	1,298,809	(4,874)	-0.37%
Mar-18	1,294,260	(4,549)	-0.35%
Apr-18	1,277,738	(16,522)	-1.28%
May-18	1,276,946	(792)	-0.06%
Jun-18	1,291,770	14,824	1.16%

February 2018 Forecast	
Forecasted June 2018 Level	1,336,162

Base	trend from	June 2018	level
FY 2018-19	1,291,770	-1.78%	(23,397)

			Total N
	Caseload	%	Level
	Cusciona	Change	Change
FY 2005-06	402,218	-	-
FY 2006-07	392,229	-2.48%	(9,989)
FY 2007-08	391,962	-0.07%	(267)
FY 2008-09	436,812	11.44%	44,850
FY 2009-10	498,797	14.19%	61,985
FY 2010-11	560,759	12.42%	61,962
FY 2011-12	619,963	10.56%	59,204
FY 2012-13	682,994	10.17%	63,031
FY 2013-14	860,957	26.06%	177,963
FY 2014-15	1,161,157	34.87%	300,200
FY 2015-16	1,296,986	11.70%	135,829
FY 2016-17	1,346,114	3.79%	49,128
FY 2017-18	1,315,167	-2.30%	(30,947)
FY 2018-19	1,303,345	-0.90%	(11,822)
FY 2019-20	1,321,749	1.41%	18,404
FY 2020-21	1,344,825	1.75%	23,076

Total Adjustments		
FY 2017-18	50	
FY 2018-19	51	
FY 2019-20	51	
FY 2020-21	51	

November 2018 Projection After Adjustments			
FY 2017-18	1,315,217	-2.30%	(30,897)
FY 2018-19	1,303,396	-0.90%	(11,821)
FY 2019-20	1,321,800	1.41%	18,404
FY 2020-21	1,344,876	1.75%	23,076

N	Medicaid: Historical Caseload and Projections		
	The forecast for the Medicaid population is lower than the February		
	2018 forecast. This is largely due to the low starting point even with an		
	overall level shift upward due to a system fix between CBMS and		
)	interChange.		

Actuals		
Monthly Change % C		% Change
6-month average	(4,427)	-0.34%
12-month average	(6,181)	-0.46%
18-month average	(2,885)	-0.21%
24-month average	(1,634)	-0.12%

February 2018 Projection Before Adjustments			
FY 2016-17	1,346,114	3.79%	49,128
FY 2017-18	1,335,281	-0.80%	(10,833)
FY 2018-19	1,350,361	1.13%	15,080
FY 2019-20	1,376,343	1.92%	25,982
FY 2020-21			

Total Adjustments				
FY 2016-17	60			
FY 2017-18	66			
FY 2018-19	84			
FY 2019-20	86			
FY 2020-21				

February 2018 Projection After Adjustments						
FY 2016-17	1,346,174	3.79%	49,188			
FY 2017-18	1,335,347	-0.80%	(10,827)			
FY 2018-19	1,350,445	1.13%	15,098			
FY 2019-20	1,376,429	1.92%	25,984			
FY 2020-21						

Monthly Average Growth Actuals						
FY 2012-13 1st Half	3,460	0.53%				
FY 2012-13 2nd Half	9,533	1.37%				
FY 2012-13	6,496	0.95%				
FY 2013-14 1st Half	7,313	0.99%				
FY 2013-14 2nd Half	45,752	5.29%				
FY 2013-14	26,533	3.14%				
FY 2014-15 1st Half	17,618	1.62%				
FY 2014-15 2nd Half	14,711	1.24%				
FY 2014-15	16,164	1.43%				
FY 2015-16 1st Half	9,488	0.75%				
FY 2015-16 2nd Half	5,436	0.41%				
FY 2015-16	7,462	0.58%				
FY 2016-17 1st Half	2,121	0.16%				
FY 2016-17 2nd Half	3,706	0.28%				
FY 2016-17	2,914	0.22%				
FY 2017-18 1st Half	(7,934)	-0.58%				
FY 2017-18 2nd Half	(4,427)	-0.34%				
FY 2017-18	(6,181)	-0.46%				
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Monthly Average Growth Comparisons								
Request	Monthly Change		Percent Change					
	S-1	R-1	S-1	R-1				
FY 2018-19 1st Half	2,179	1,810	0.16%	0.14%				
FY 2018-19 2nd Half	2,271	1,471	0.17%	0.11%				
FY 2018-19	2,225	1,640	0.17%	0.13%				
FY 2019-20 1st Half	2,025	1,360	0.15%	0.10%				
FY 2019-20 2nd Half	2,229	2,256	0.16%	0.17%				
FY 2019-20	2,127	1,808	0.15%	0.14%				
FY 2020-21 1st Half		1,778		0.13%				
FY 2020-21 2nd Half		1,907		0.14%				
FY 2020-21		1,843		0.14%				