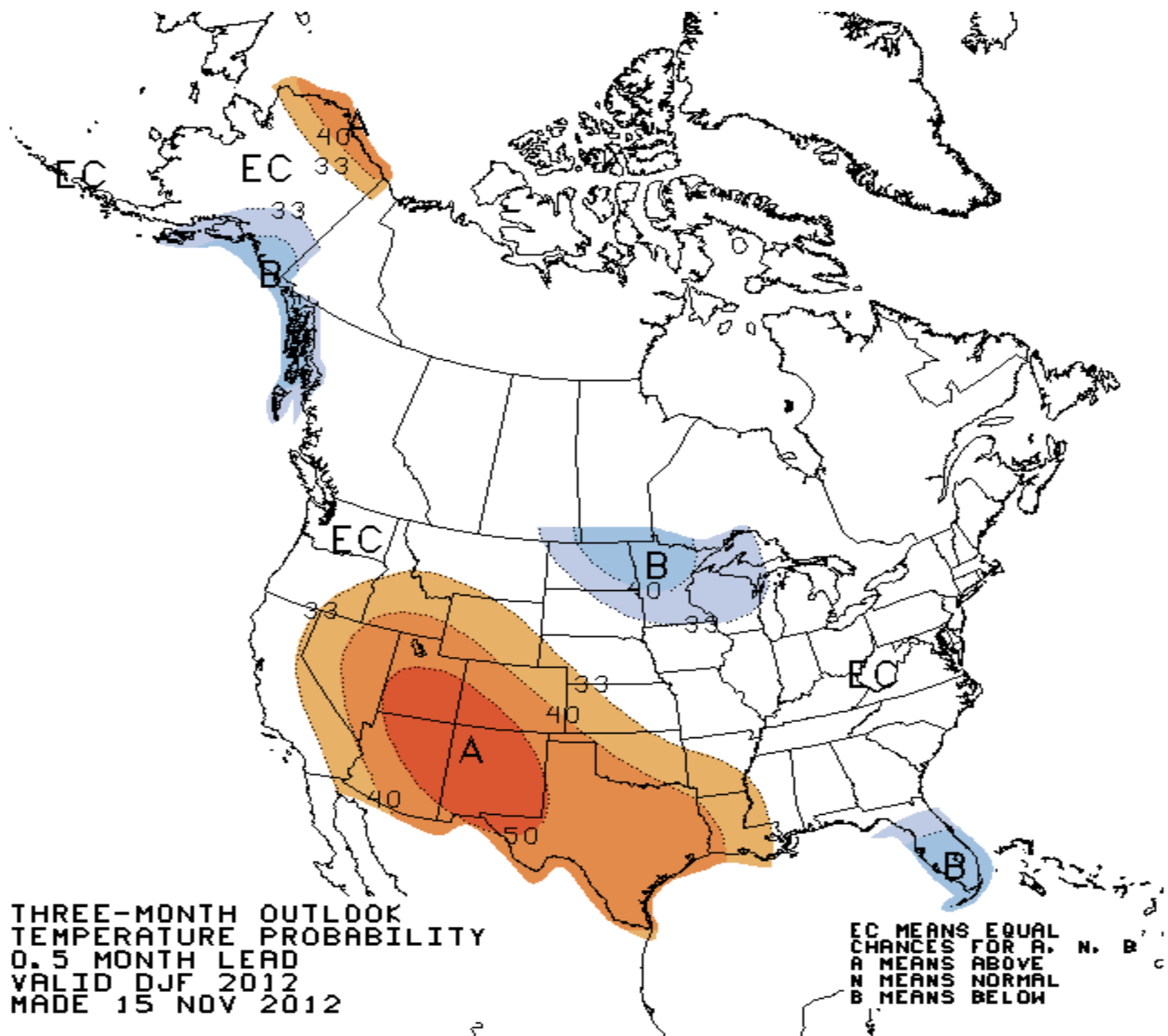
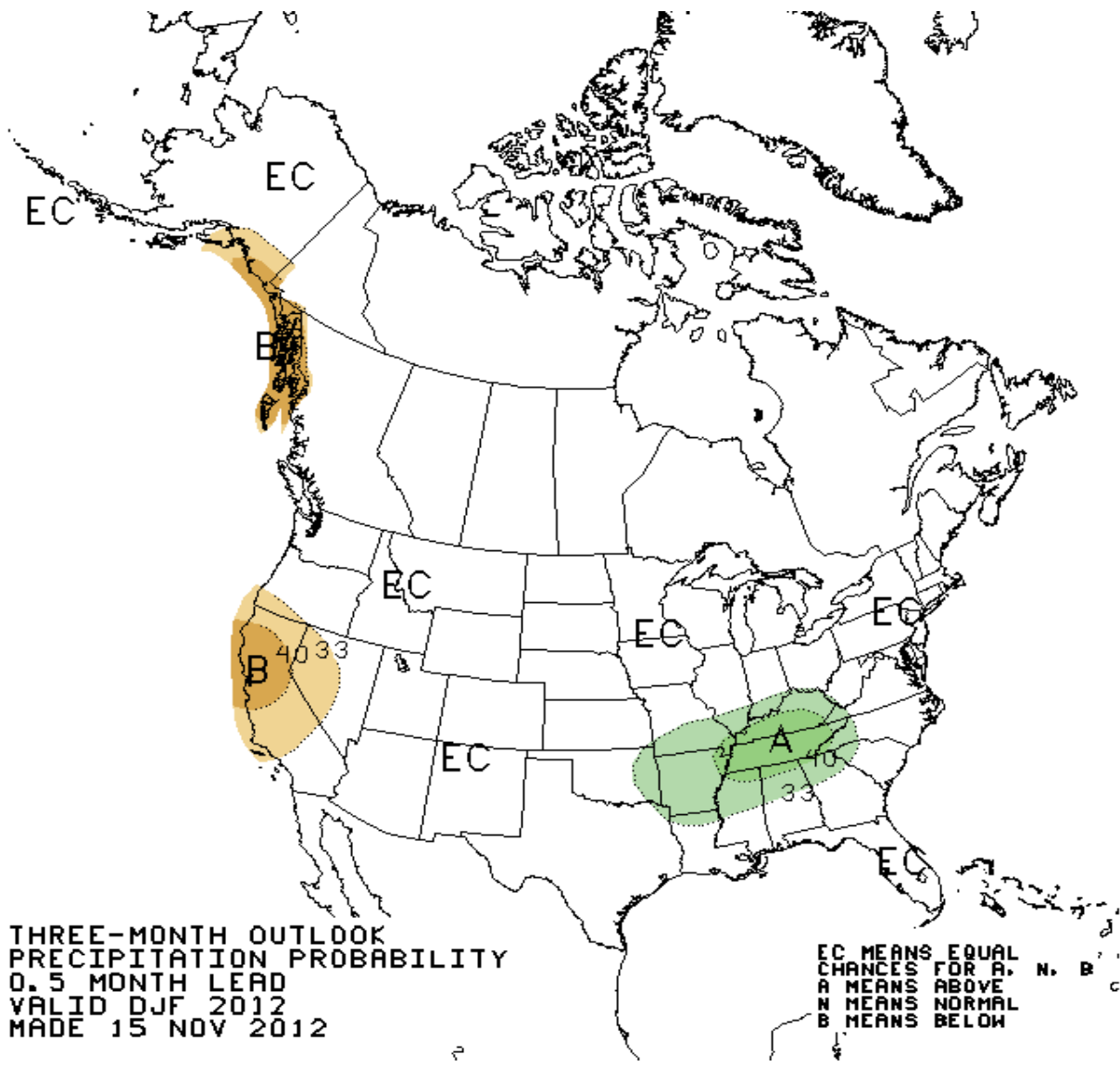


## 2012-2013 Winter Outlook for South Central and Southeast Colorado

The Climate Prediction Center (CPC) of the National Weather Service has recently issued the Outlook for the 2012-2013 Winter Season across the United States.



The above graphic depicts CPC's Temperature Outlook for December 2012 through February 2013 which indicates higher chances for warmer than normal conditions through the winter for the southwestern US, the Great Basin region through the central and southern Rockies, Texas and portions of the southern high plains, as well as the north slope of Alaska. There is a slight tilt toward cooler than normal conditions for the northern Plains and the western Great Lakes, the Florida Peninsula, as well as south central and southeastern portions of Alaska. The following graphic is the Precipitation Outlook for the 2012-2013 Winter Season which indicates an equal chance of above, below and near normal precipitation for much of the United States, save a slight nod to wetter than normal conditions across the Tennessee Valley along with a slightly better chance of below normal precipitation for parts of California, Nevada and portions of south central and southeast Alaska.

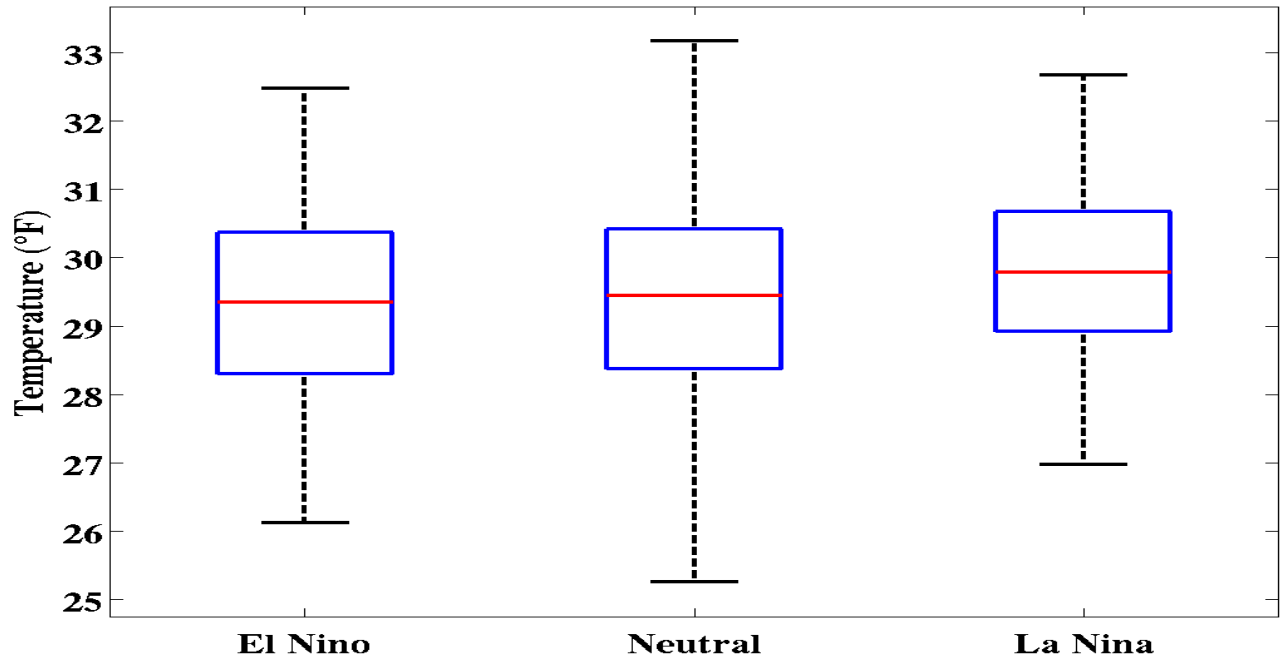


These projections are based on the current and the expected persistence of ENSO neutral (neither El Niño nor La Niña) conditions in the eastern Pacific Ocean. With ENSO neutral conditions in place, other natural modes of climate variability will likely play a bigger role in the weather patterns through the upcoming winter. One of the climate variability modes likely to affect the weather pattern through the winter is the Pacific Decadal Oscillation (PDO). The PDO is a long-term oscillation of the Pacific Ocean that fluctuates between positive and negative phases approximately every 20 to 30 years. The negative (cool) phase, which we are currently experiencing, is characterized by cooler than normal ocean temperatures in the eastern equatorial Pacific. This tends to keep high pressure in place across the US West Coast and lower pressure in place across the northern through central and eastern portions of the US. Other climate variability modes, such as the Arctic Oscillation (AO) and the Madden-Julian Oscillation (MJO), will also play a wildcard role in the weather for the upcoming winter, as these modes are not reliably predictable beyond a few weeks. More information on the PDO and other climate variability modes can be found at: <http://www.ncdc.noaa.gov/teleconnections/>

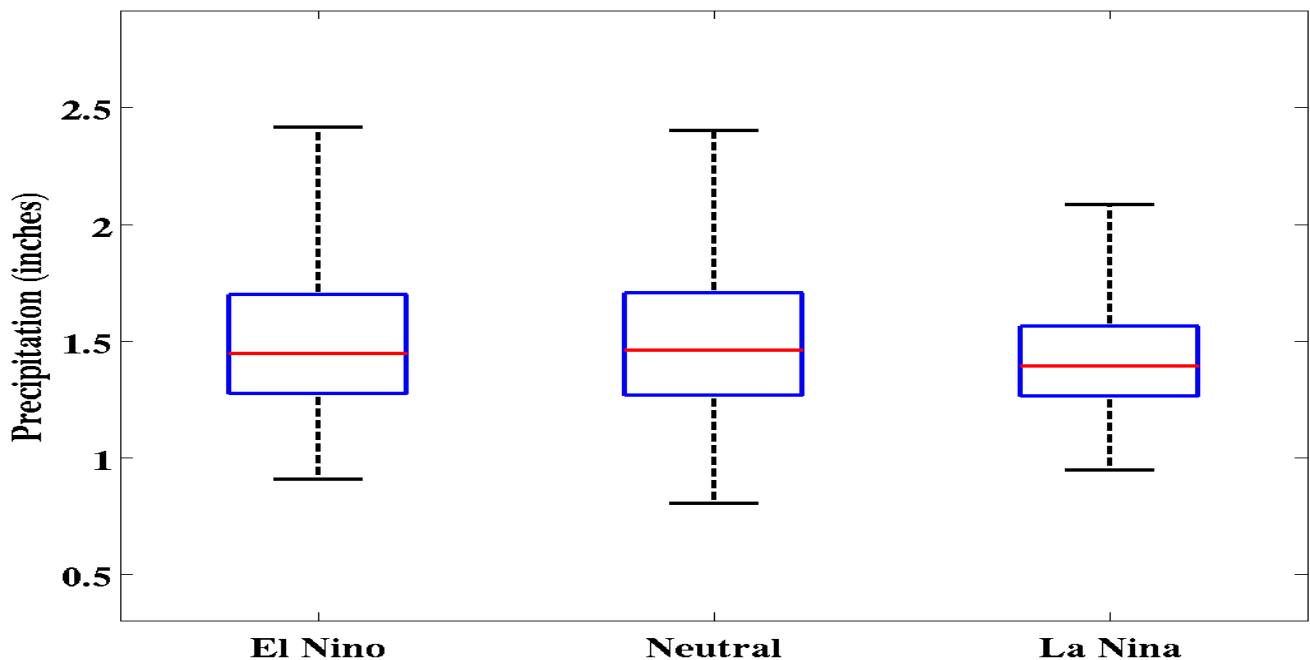
What does this mean for the upcoming winter season across south central and southeast Colorado?

In general terms, there is a greater than 40 percent chance that the average temperature for the winter months of December 2012 through February 2013 will be above the 30 year climatological average, with equal chances of seeing above, below or near normal precipitation. The following graphics from CPC illustrate a wider range of possible temperature and precipitation distribution through the winter across south central and southeast Colorado during ENSO neutral conditions as compared to El Nino or La Nina conditions.

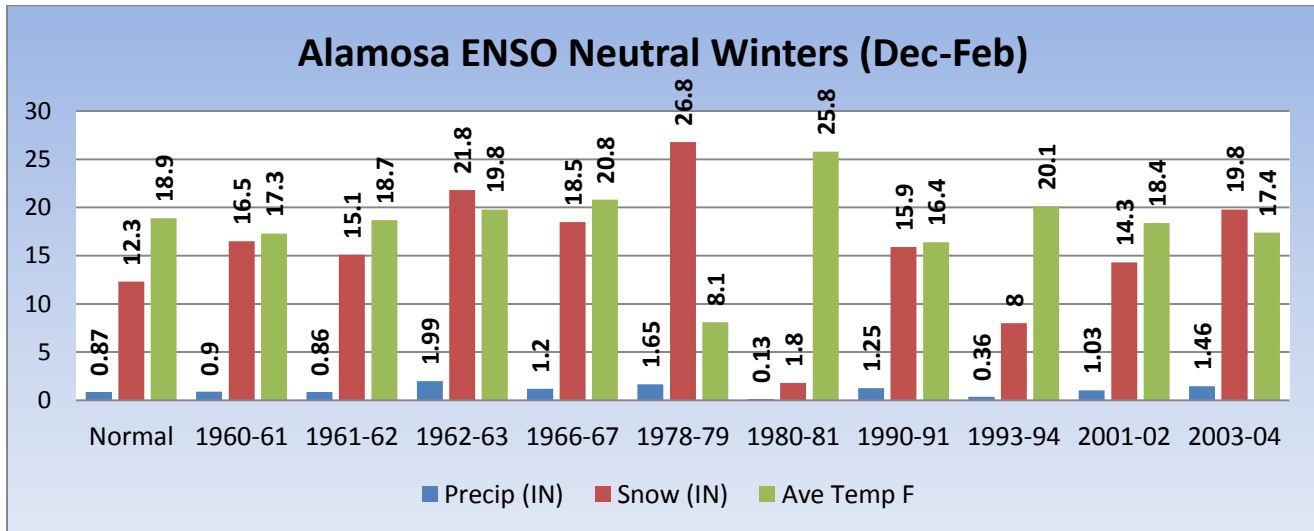
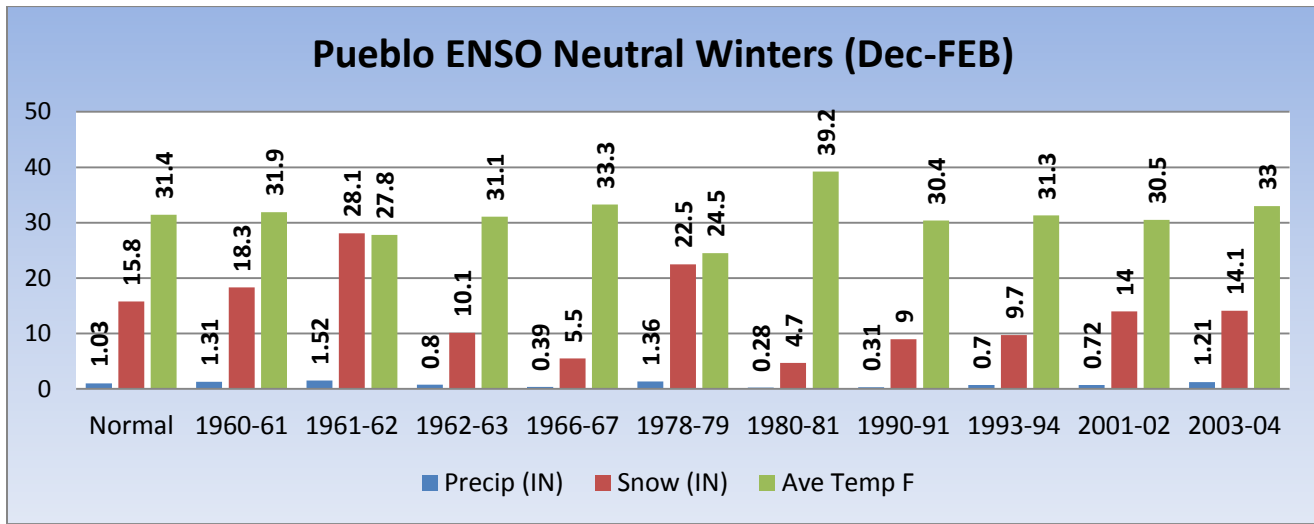
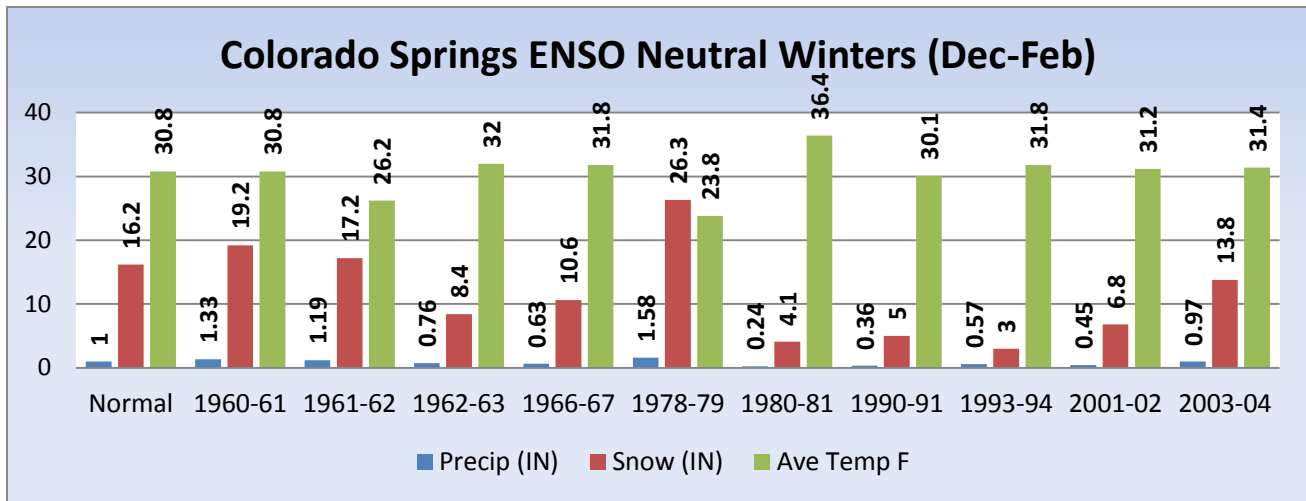
**DJF Temperature Distribution for Climate Div. #047**



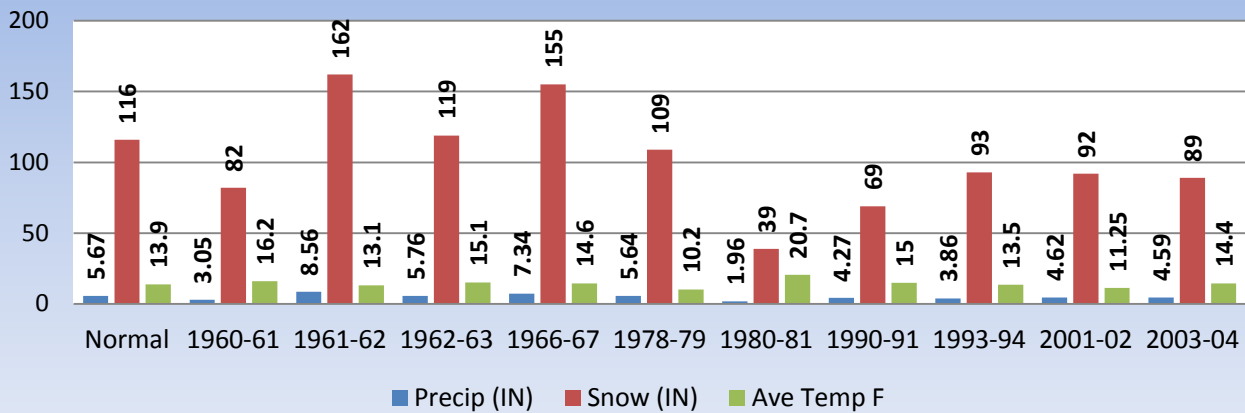
**DJF Precipitation Distribution for Climate Div. #047**



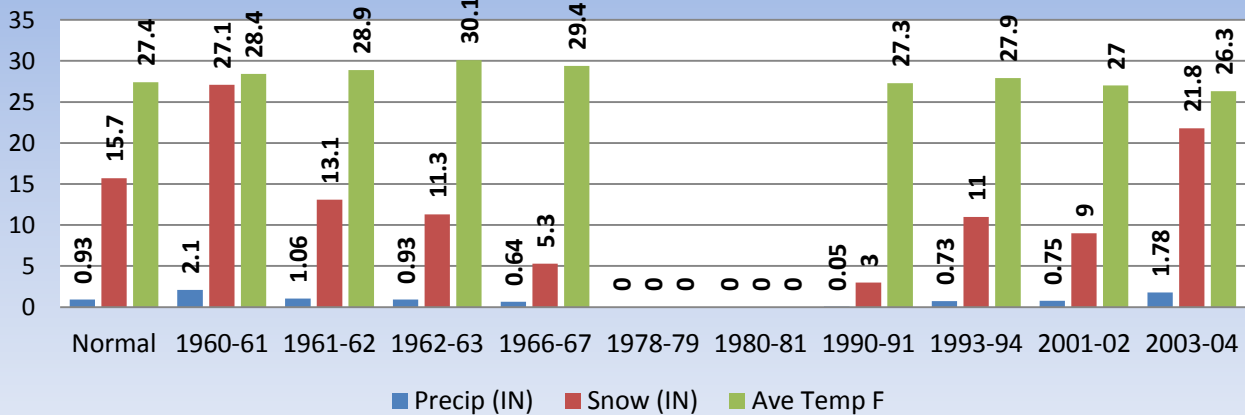
The next set of graphics are collected from the official observation sites for Colorado Springs, Pueblo and Alamosa, along with other COOP stations across south central and southeast Colorado during selective past ENSO neutral winters. Missing and incomplete data sets are represented by zeroes with some COOP stations only reporting precipitation data.



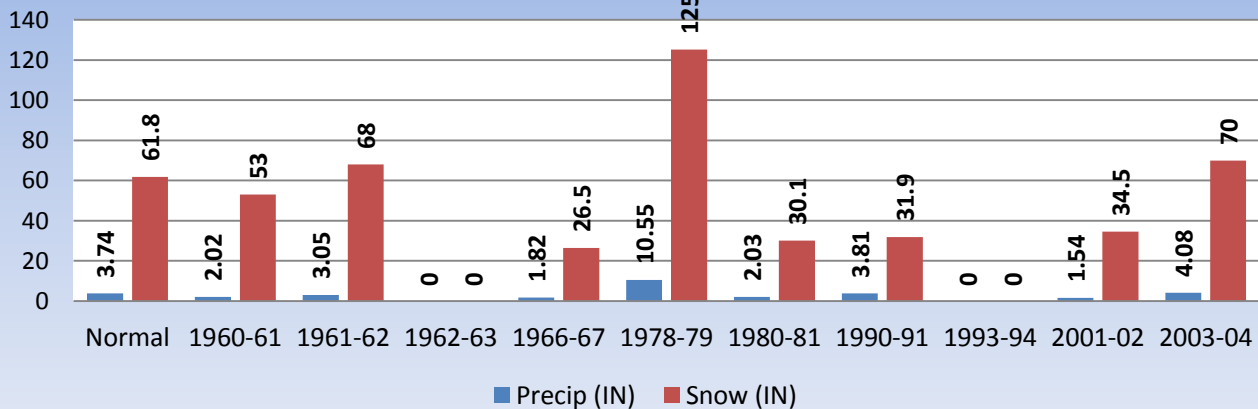
### Climax ENSO Neutral Winters (Dec-Feb)



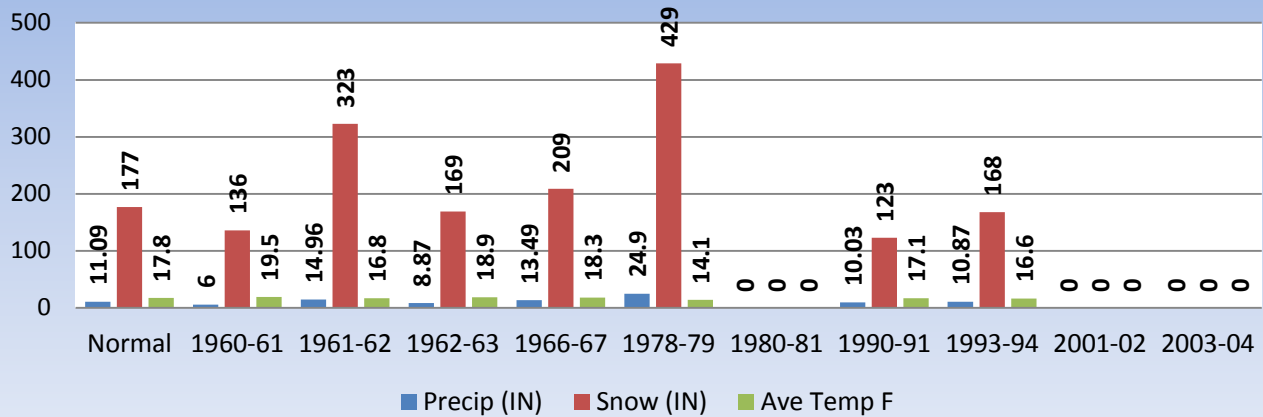
### Salida ENSO Neutral Winters (Dec-Feb)



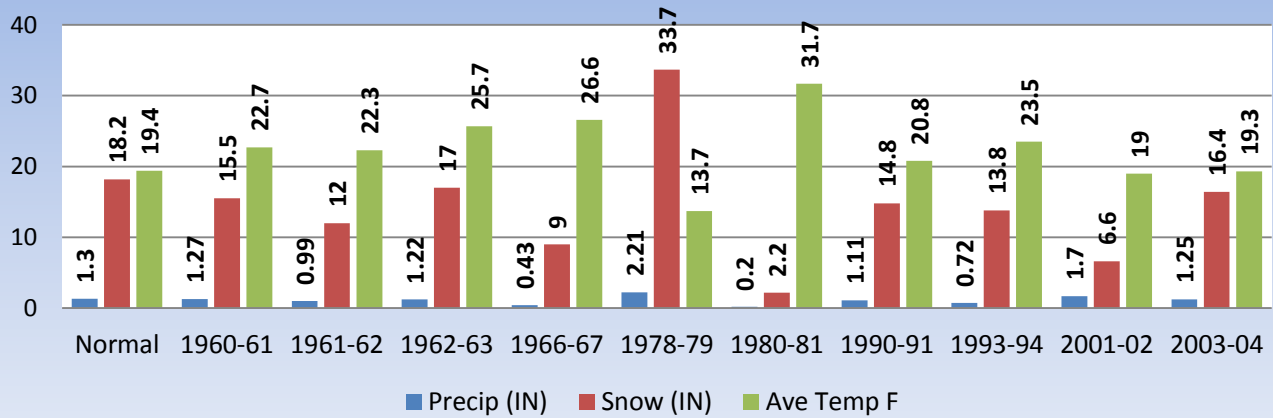
### Sargents ENSO Neutral Winters (Dec-Feb)



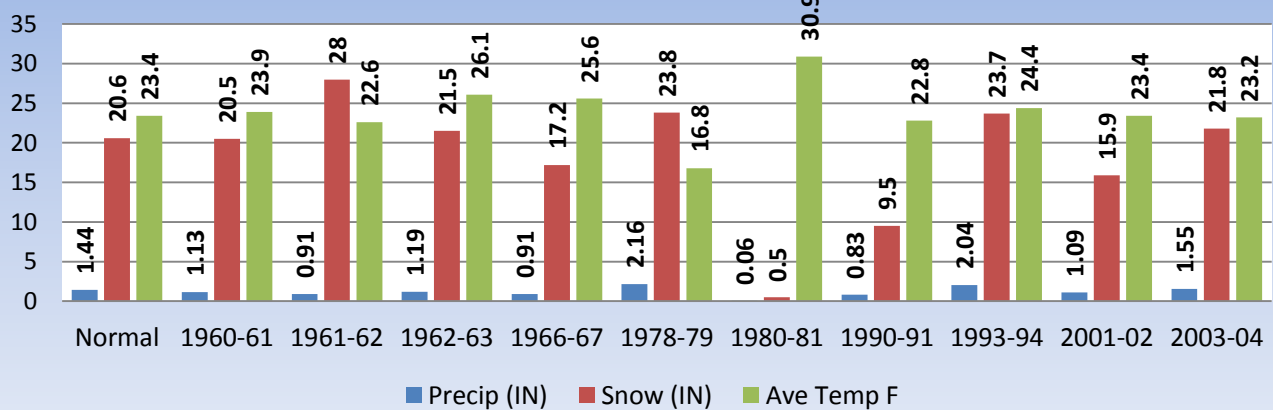
### Wolf Creek Pass 1East ENSO Neutral Winters (Dec-Feb)



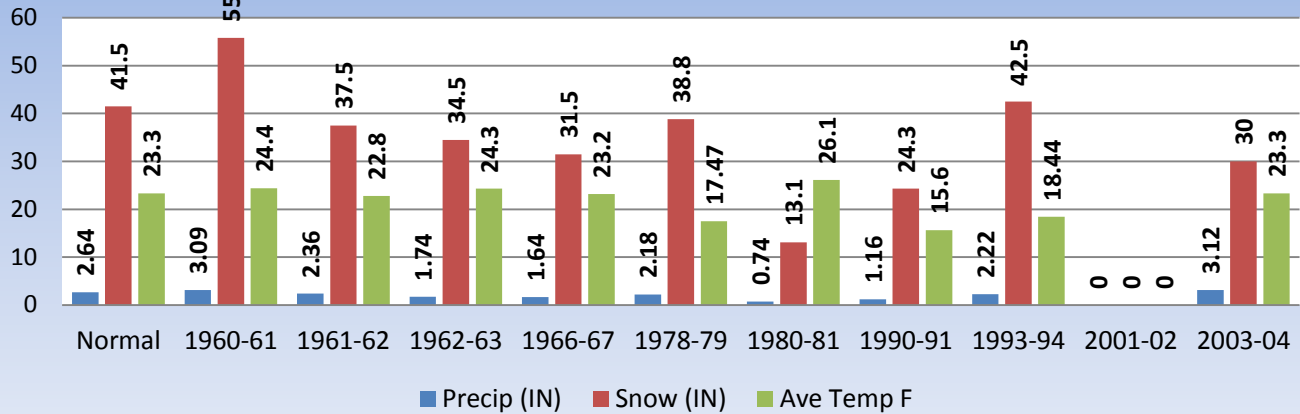
### Del Norte 2East ENSO Winters (Dec-Feb)



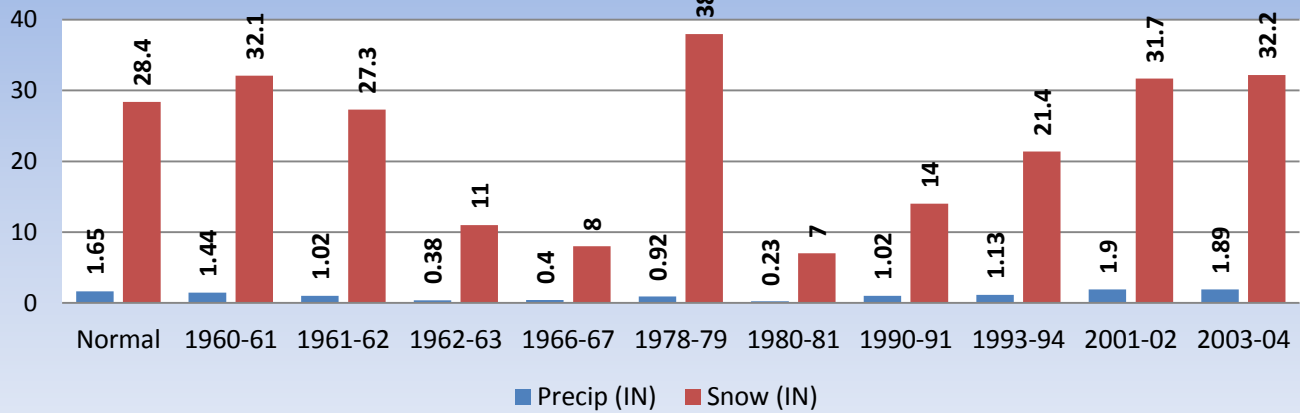
### Great Sand Dunes NP ENSO Neutral Winters (Dec-Feb)



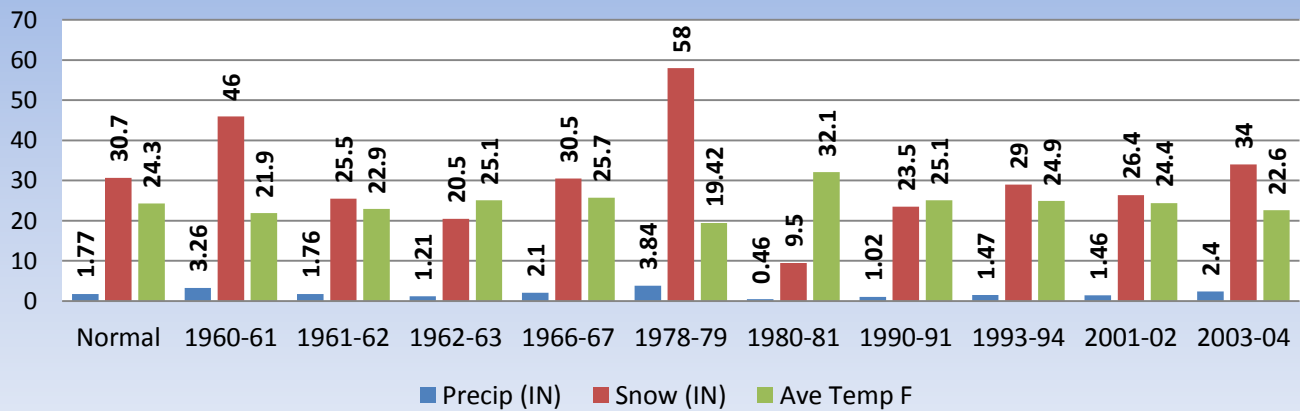
### Ruxton Park ENSO Neutral Winters (Dec-Feb)



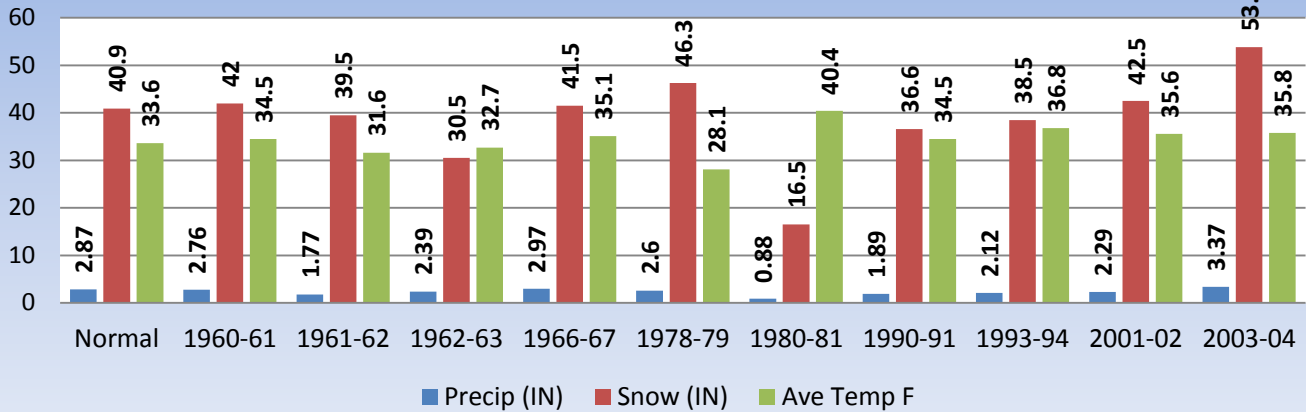
### Eastonville 2NNW ENSO Neutral Winters (Dec-Feb)



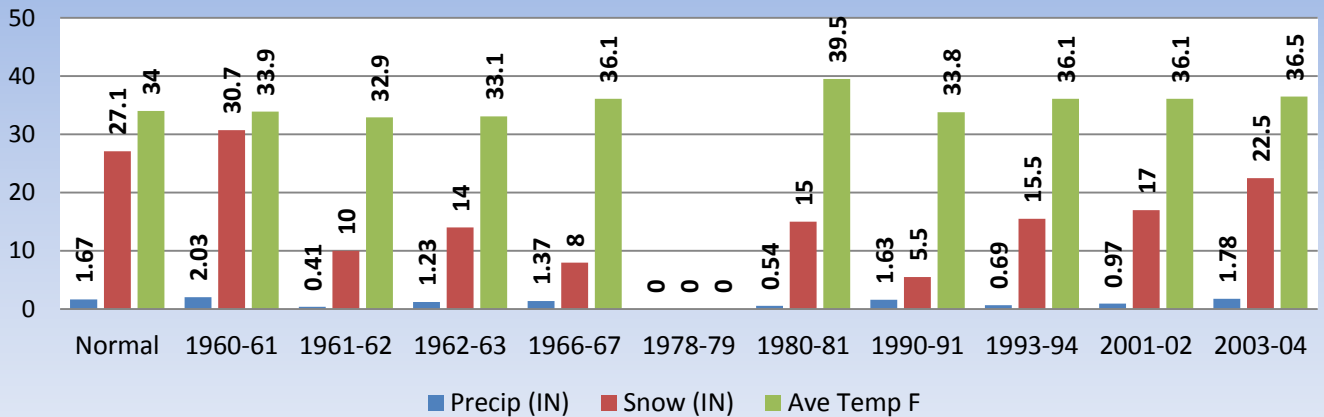
### Westcliffe ENSO Neutral Winters (Dec-Feb)



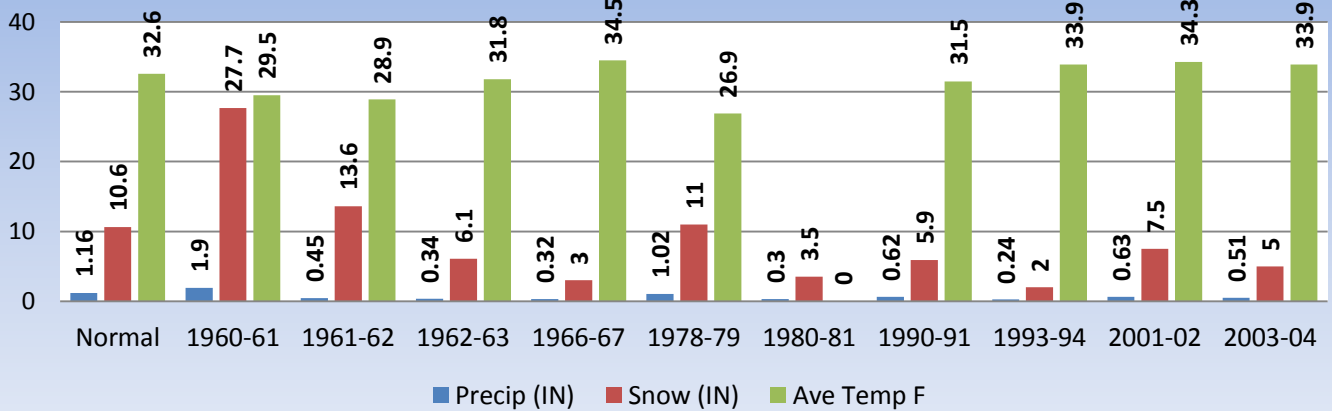
### Walsenburg ENSO Neutral Winters (Dec-Feb)



### Trinidad ENSO Neutral Winters (Dec-Feb)

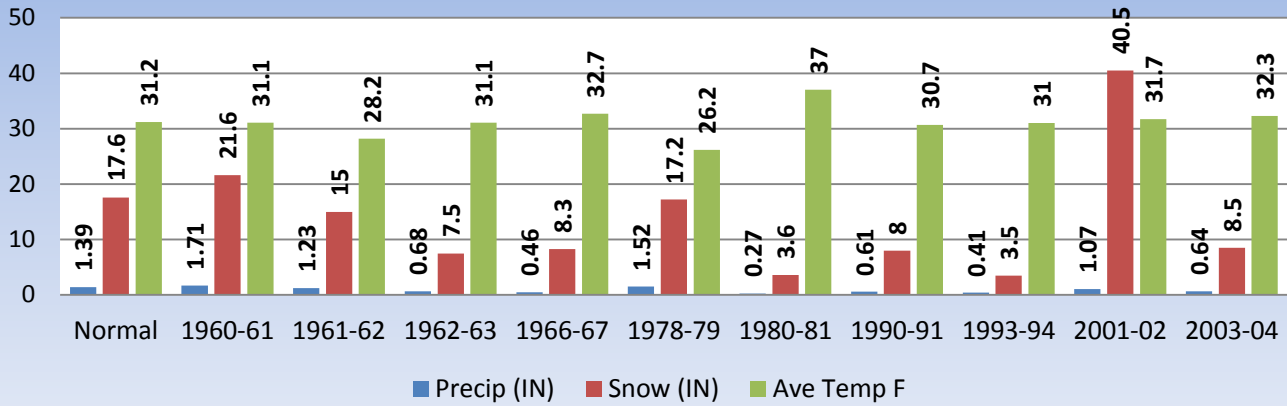


### Las Animas ENSO Neutral Winters (Dec-Feb)

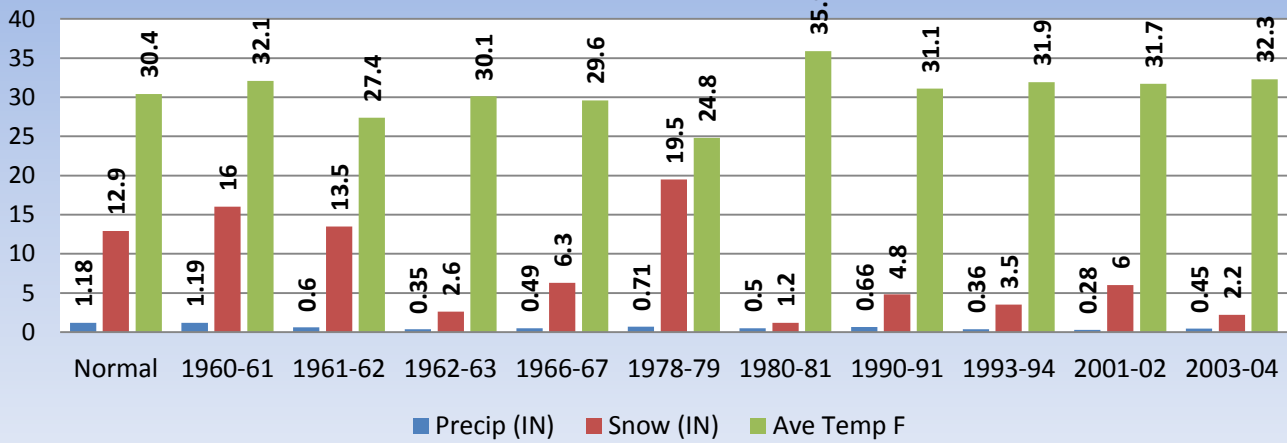




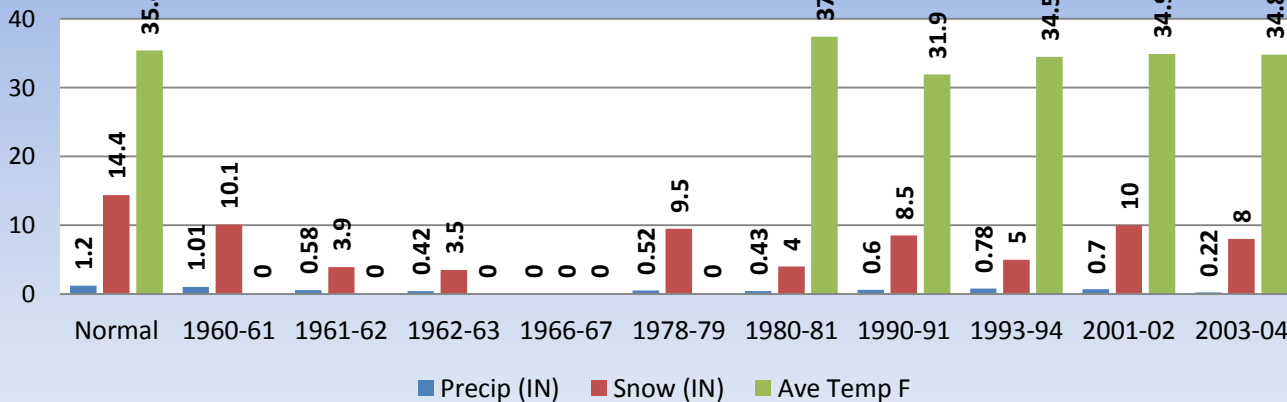
### Lamar ENSO Neutral Winters (Dec-Feb)



### Holly ENSO Neutral Winters (Dec-Feb)



### Campo 7S ENSO Neutral Winters (Dec-Feb)



The data collected from observation sites across south central and southeast Colorado during previous ENSO neutral winters also indicate a wide range of distribution, especially in precipitation. Of particular interest is the data from the winters of 1961-62 and 1962-63, which had similar characteristics to the current state. In looking at this limited data set of 2 winter seasons, a possible trend of near normal precipitation may be gleaned across portions of south central Colorado, along with a possible trend of below normal precipitation across southeast Colorado.

So what will happen this winter? We will still see snow and cold temperatures; however the frequency of storms may be decreased, especially across southeastern Colorado. Time will tell. One thing that does seem certain is the likely persistence of drought conditions across Colorado.

