A new inverse method is developed for attributing the anomalous forcing functions responsible for the changes in the statistical means, or climate states, of atmospheric observations and simulations. Attributing the causes of observed climate change to a variety of physical and dynamical processes is a contemporary problem of great significance in climate science. Mathematically the inversion problem to find the anomalous forcing functions is a difficult one because it relies on a solution to the turbulence closure problem. The equation for the statistical mean climate state involves the covariance of fluctuations and the covariance or two-point function in turn involves the three-point function and so on to all orders. Here we employ a method motivated by recent advances in closure theory for inhomogeneous turbulence that expresses the covariance of fluctuations as a linear term in the statistical mean state and constant term. We apply the method to climates obtained from the statistics of direct numerical simulations of atmospheric circulations during the second half of the 20th century. The anomalous forcing functions responsible for dramatic changes in the southern hemisphere climate since the mid-1970s are calculated using the closure and linear regression to estimate the parameters that determine the changed forcing. We demonstrate that the forcing functions obtained by this inverse method, from which climate change may be attributed, are in very good agreement with the forcing functions used in simulations of observed climate states during the 20th century.