



*Figure 3.* Logic model followed to identify the presence of neighboring four-year institutions from community colleges across rural —40 mile (Rapino & Fields, 2013) radius— and non-rural areas —20 mile (Rapino & Fields, 2013) radius. In these specifications, the definition of rural area was taken from the U.S. Department of Agriculture Economic Research Service under the 1993 and 2003 Rural-Urban Continuum Codes forms, classification schema. The criterion to define rural area was having a population of 2,500 to 19,999, not adjacent to a metro area (U.S. Department of Agriculture Economic Research Service, 2020). The implementation of the logic models relied on geographical information systems techniques. To test for potential effect heterogeneity given sector of four-year neighbors, models will examine the proportion of neighbors that are public (red) institutions versus private non-profit (yellow), and for-profit (blue) four-year neighbors.