Fixed wireless mmwave technology can meet the needs of underserved and economically disadvantaged communities by providing gigabit internet service at about one-tenth the cost and with much less environmental disruption than fixed-line fiber to the premises (FTTP). In New Mexico and in many communities cost is the main deterrent to internet adoption. Thus, the primary social benefit of our BarelasGig fixed wireless network is the economical gigabit internet service it can provide.

The Barelas community realizes that having modern high speed internet service increases safety and is an economic asset that will strengthen existing businesses and attract new ones.

Recent research by Ohio State University has shown that for an investment of \$100 for high speed broadband in a community, each household can realize an annual benefit of \$1850, which includes a 3% increase in the value of the homes.¹ They cited the high speed broadband investment in a small business in Minnesota that made a tenfold difference in sales from \$400,000 to \$4 million." With the economic investment from our WINS grant, Barelas would like to see that same kind of economic boost.

¹Measuring Broadband''s (Public) Return on Investment, by Tim Marema, Daily Yonder, June 5, 2018.