



The Economics of Cannabis in New Mexico

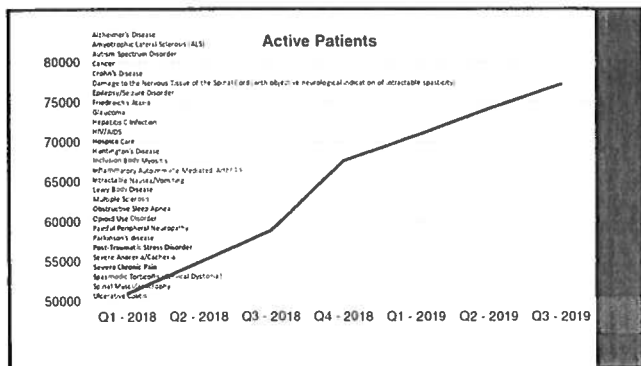
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Agenda

- New Mexico's current market
 - Demand
 - Demand-side issues
 - Regulatory solutions
 - Supply
 - Supply-side issues
 - Regulatory solutions
- Taxation potential (recreational)
- CBD/medical product crowd-out from recreational legalization
- Other factors associated with recreational legalization
- Pro-competitive regulatory recommendations

New Mexico Demand

- Licensed medical patients: chronic pain, PTSD, severe debilitating conditions; 6 new conditions added July 2019
- Unlicensed medical patients
 - Don't want to be in registry
 - Condition doesn't qualify
- Recreational users



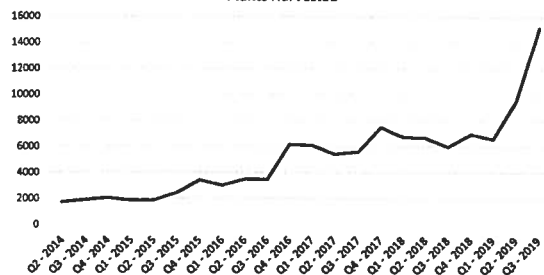
- ### Demand Side Issues with Recreational Legalization
- Addiction/dependence
 - Developing brains
 - Pregnant women
 - Drugged driving
 - Substitution v. complementarity with alcohol (and opioids)
 - Cannabis likely healthier than alcohol
 - Fetal alcohol syndrome; no fetal cannabis syndrome although correlated with worse outcomes
 - Acute and chronic alcohol use can kill; no evidence of deaths directly caused by cannabis
 - Driving effects less clear – both cause impairment
 - User tolerance and type of cannabis a significant component
 - Lab tests much more highly correlated with impairment for alcohol than cannabis
 - Probability of dependence may be similar

- ### Potential Regulatory Solutions
- Provide information, e.g., cigarette labels
 - Need underlying research
 - Restrict use to high benefit populations
 - Medical cannabis markets
 - Restrict use to less vulnerable populations
 - Only 21+
 - Cannabis-relevant field sobriety tests, public information campaign on risks
 - Preliminary, aggregate-level research suggests people go out less where cannabis is legal

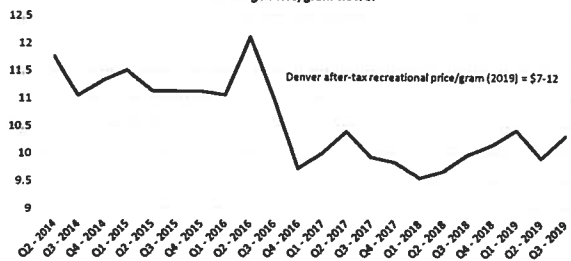
New Mexico Supply

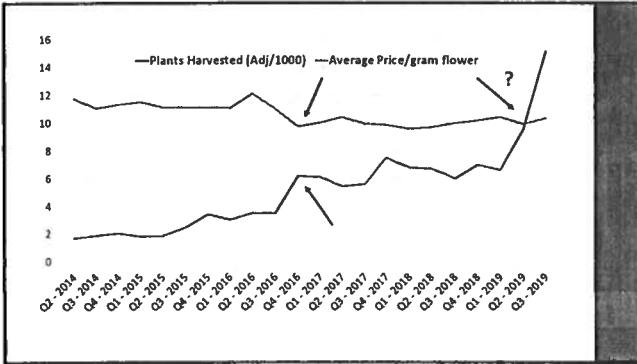
- Medical producers
 - Legal, nonprofit producers (35)
 - Vertically integrated licenses (growers => retail sales)
- Black market
 - Illegal grows
 - Spillovers from nonprofit producers, caregivers, home growers
 - Colorado, \$15 flight on 11/19, no border control on highways
- Omitting sales tax: NM prices never fall below \$8.85

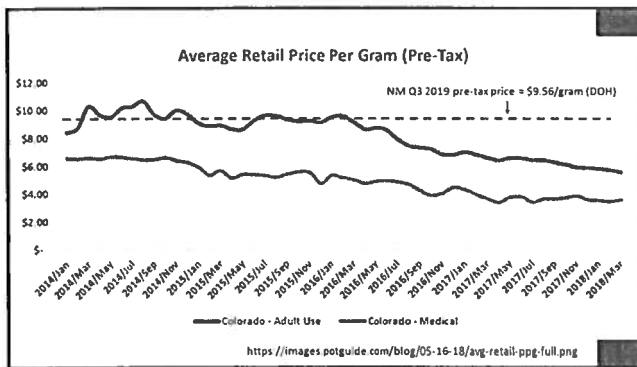
Plants Harvested



Average Price/gram flower







Major Supply-Side Concerns

- Shortages, prices too high for medical patients
 - Not enough high CBD products, not enough product overall
- Quality
 - Profit motivation can lead to over-differentiation
 - Difficult to regulate quality and many markets insufficiently competitive to ensure quality
 - Lack of information on which types of cannabis benefit which conditions
 - Testing viewed as biased and unreliable in most states; often poorly enforced if at all; studies show potency values are often inflated
- Well-established, sophisticated black market
- Economies of scale
 - Can lower costs or prevent entry; restrict market to only large firms

Supply-Side Regulatory Solutions

- Healthy competition through low barriers to entry to address high prices, low quality, sufficient supply, black market
 - Low license fees and required resources to encourage entry into cannabis industry
 - Healthy competition => competition on price, quality => lower prices and higher quality => decrease in size of black market
 - More firms = more supply at the same price
 - Watch for anti-competitive behavior
- Quality
 - If hard for consumers to assess, may require more than competition to ensure high quality
 - Penalties for poor quality, e.g., published recalls, public testing results, OSHA style inspections
- Take advantage of economies of scale by removing plant count limits
 - May increase average size of firms in the market; decrease ability of smaller firms to compete
 - Subsidize entry for smaller firms by providing access to credit

Taxing (Recreational) Cannabis

- Taxation, licensing, zoning should attempt to address the negative consequences of consumption and production
 - Drugged driving enforcement costs
 - Zoning to reduce negative effects of smell, any crime?
 - Invest in research to understand long-term effects
 - Subsidization of cannabis treatment programs
- Tax revenues are likely limited (see California)
 - Depends on how much of legal demand can access black market (either in NM or by driving or flying to CO)
 - Depends how much producers are already charging pre-tax
- Tradeoffs between more taxes, higher fees and larger black market

Will Recreational Demand Crowd Out Medical Demand?

- Concern that recreational users will demand higher THC levels, so producers will phase out lower THC/high CBD strains
- Only an issue if supply is constrained, e.g., by plant counts and limited numbers of licenses
- As long as consumers are willing to pay more than the cost of production, retailers will fulfill market demand for high THC and high CBD products
- Recent research suggests that THC enhances or may even be the primary driver of therapeutic benefits => rec and med demand may weight THC similarly in the long run
- Unclear why rec users would be willing to pay more for recreational benefits than medical users would be willing to pay to obtain medical benefits

Other Factors Associated with Recreational Legalization

- Free up police resources, reduce prison populations
- Improve labor force productivity with records wiped clean
 - Improves employment opportunities; job-worker matching
 - Or increases likelihood to commit other crimes because "got away" with cannabis crime
- Job creation in cannabis industry and in supplier industries, complementary industries
- Smell, particularly from growing facilities
- Crime
- Puts from other resources; environmental issues (water use, strips soil/also can be used to clean soil)
- Attract homeless...only if laws differ across regions
 - Supply-side or demand-side driven?
 - Come for jobs and then don't find one
 - Come to consume cannabis and can't afford to live
 - Colorado, Denver
- Spillovers to other markets: restaurants/bars, types of foods purchased, pharmaceutical markets
- Cannabis tourism (clock is ticking)

Efficient Regulation of Cannabis, Medical or Recreational

- Ensure competition = make it easy to get become a licensed grower, producer, retailer, etc.
 - Lower prices, higher quality, sufficient supply, minimize black market
- Allow for economies of scale:
 - Remove plant limits
 - Preserve low barriers to entry by subsidizing new entrants
 - Provide access to capital markets (financing)
- Use taxes and licensing fees:
 - Effective regulatory oversight, e.g., random quality inspections, public testing results/recalls
 - Control negative effects, e.g., support efforts to decrease and penalize impaired driving, other irresponsible behavior (public intoxication, care for dependents)
 - Provide support to those dealing with cannabis addiction and dependence
 - Fund research to understand long-term benefits and costs to NM from cannabis

THANK YOU!

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