# Beans – Census of Agriculture Data

## Defining the producer group

1. Producers with positive value of sales in the following (note that dry lima beans nor lentils are included). We intended to include chickpeas, but there are no harvested acres in the region.
   1. Dry Beans Harvested (Excl Chickpeas and Limas), Acres
   2. Dry Beans Harvested (Excl Chickpeas and Limas), Hundredweight
   3. Dry Beans Irrigated (Excl Chickpeas and Limas), Acres
   4. Dry Beans Harvested (Excl Chickpeas and Limas) Value of Sales

## Data

1. Statistics
   1. Mean, se, total, n
   2. Much of the data is presented as a total and as a percent
      1. This makes it so we can have an average percent on the operation-level and an average percent on the group level.
2. Data grouping by
   1. Local, nonlocal, all
   2. Organic, non-organic, all
      1. Right now, organic is defined as operations with positive cropland and pastureland treated with organic fertilizer. Next data pull, I will use Certified Organic acres, I just don’t have the data yet.
      2. Very small sample sizes, likely will have disclosure problems.
3. Acreage – total and as s percent of total cropland
   1. Total cropland acres
   2. Total harvested acres
   3. Cover crop acres
   4. Harvested acres dry beans
   5. Harvested acres corn
   6. Harvested acres wheat
   7. Harvested acres soybeans
   8. Harvested acres fruit/veg
   9. Harvested acres hay (includes all hay and forage)
   10. Pasture acres
4. Sales
   1. Dry bean sales
   2. Dry bean sales as a percent of total value of sales
5. Production
   1. Dry bean production (CWT)
   2. Yield per acre dry beans
6. Production practices – total and as s percent of total cropland
   1. No till acres
   2. Reduced till acres
   3. Intensive till acres
   4. Cropland acres fertilized
   5. Pastureland acres fertilized
   6. Acres on which manure was applied
   7. Cropland and pastureland treated with organic fertilizer
   8. Land treated for insects on hay or other crops, acres
   9. Land treated for weeds in crops and pasture, acres
   10. Land treated for nematodes in crops, acres
   11. Land treated for diseases in crops and orchards, acres
   12. Crops on which chemicals for defoliation applied, acres
7. Variable expenses (all at the whole farm level in dollars), data provided as a total and as a percent of total variable expense, defined both with and without other production expenses.
   1. Fertilizer
   2. Chemicals
   3. Seeds and plants
   4. Breeding stock, other livestock purchased or leased
   5. Feed
   6. Gas, fuel, oil
   7. Utilities
   8. Repairs and maintenance
   9. Hired labor, contract labor
   10. Customwork
   11. Other production expenses (Include storage and warehousing,  
       marketing expenses, insurance, etc. Exclude health insurance premiums and payroll taxes)
   12. Total variable expense
8. Farm characteristics
   1. Operation with a beginning farmer
   2. Gross cash farm income (sales + government payments)
   3. Gross cash farm income categories (<$75K, $75K-$350K, $350K-$1M, >$1M)
   4. Total value of production
   5. Return on assets
   6. Operating profit margin
   7. Net farm income
   8. Total acres operated
   9. Tenure – full owner, part owner, full tentant
   10. Has crop insurance (1/0)
   11. Receives government payments (1/0)
   12. Primary commodity
       1. Field crops
       2. Fruit/veg
       3. Other crops
       4. Livestock
       5. Dairy
       6. Poultry
       7. Other animal

## Data needs for environmental analysis

* Input and output data for each cultivated crop separately, plus mix/rotation, by acre
* Jasmine needs to attribute impacts to a specific product, but she can model the current mix and the new mix and compare two scenarios. But she does need to be able to say how much of the environmental impact goes to beans, corn, etc.?
* How do they decide how much to allocate to each crop when there is a crop rotation? Called allocation decisions.
  + Lots of choices, we need to figure out which to use

## Model

* Current production, based on the enterprise (i.e., all crops grown), per acre
* Shift that will occur, that will have a new input structure on per acre basis
* We want the environmental impact of the farm, i.e., the net effect of the change. We are interested in the enterprise as a whole. We want the net environmental impact of each scenario.