Poverty Factors and Predictability

By Kishan Patel

Intro: Data

- Who: 12,600 People Surveyed

- Where: Across 7 different countries

- Measure: Poverty Probability Index (PPI)- % of target households living below the poverty line ($2.50/day threshold)
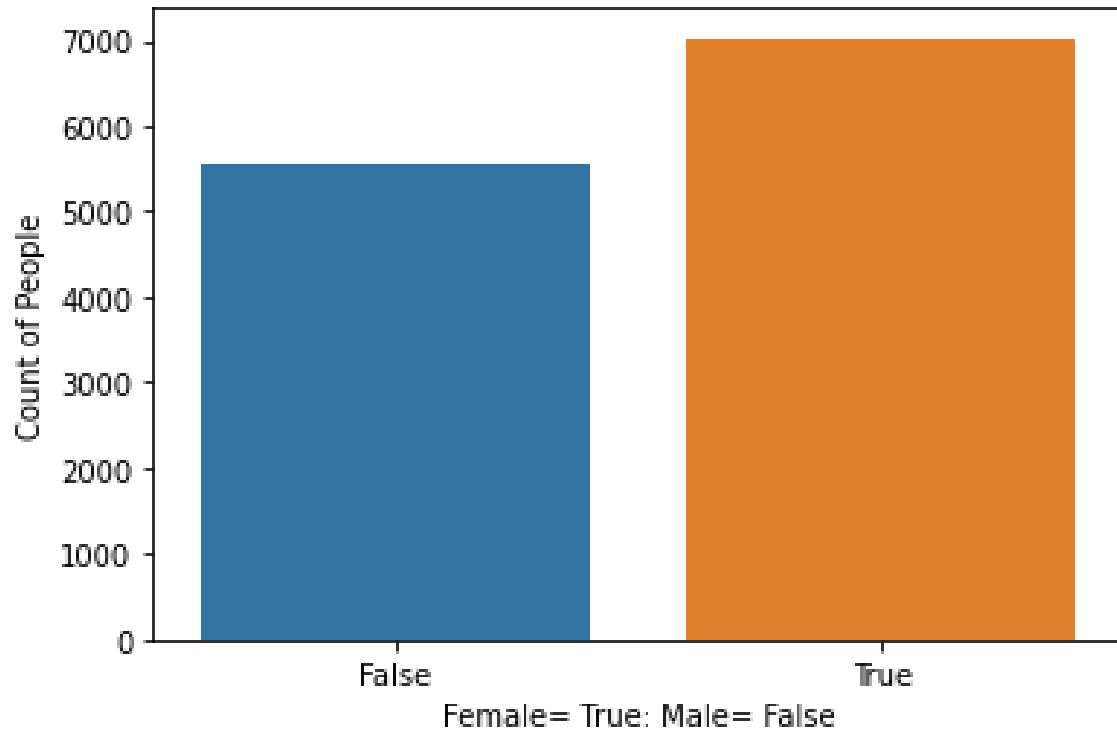
Question: What factors attribute to poverty?

Purpose: If we can define these poverty factors, we can focus on allocating resources to them to create a better economic system as a whole.
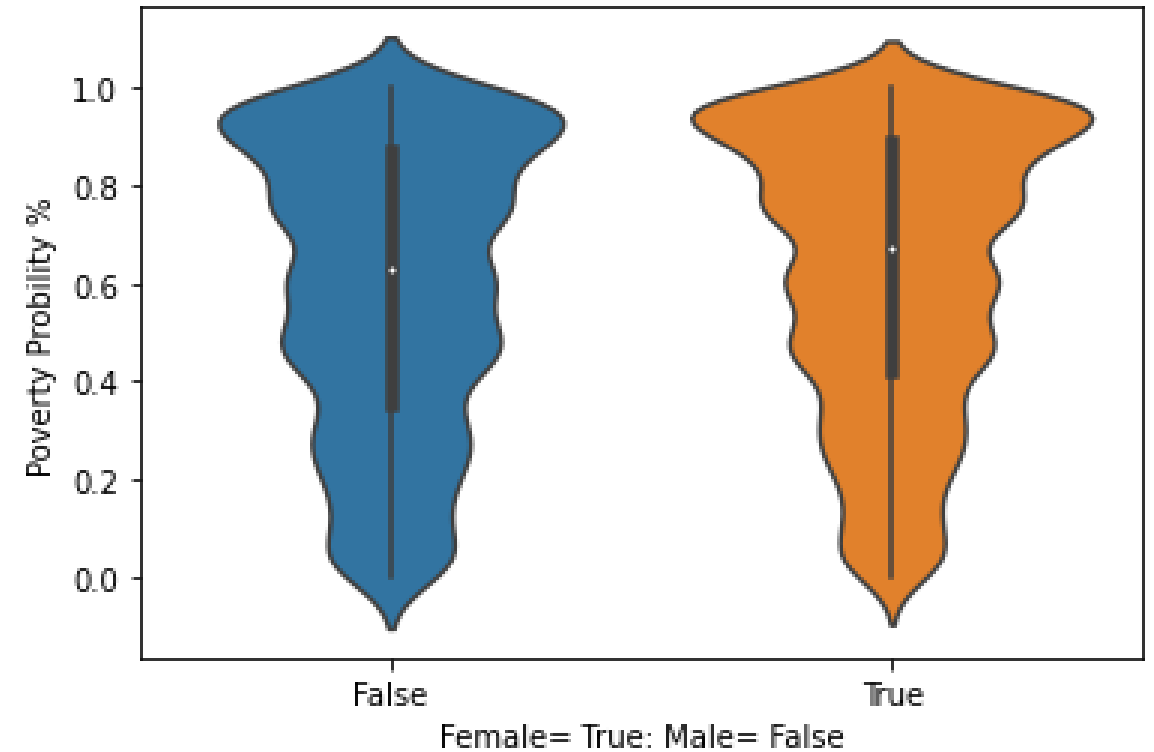
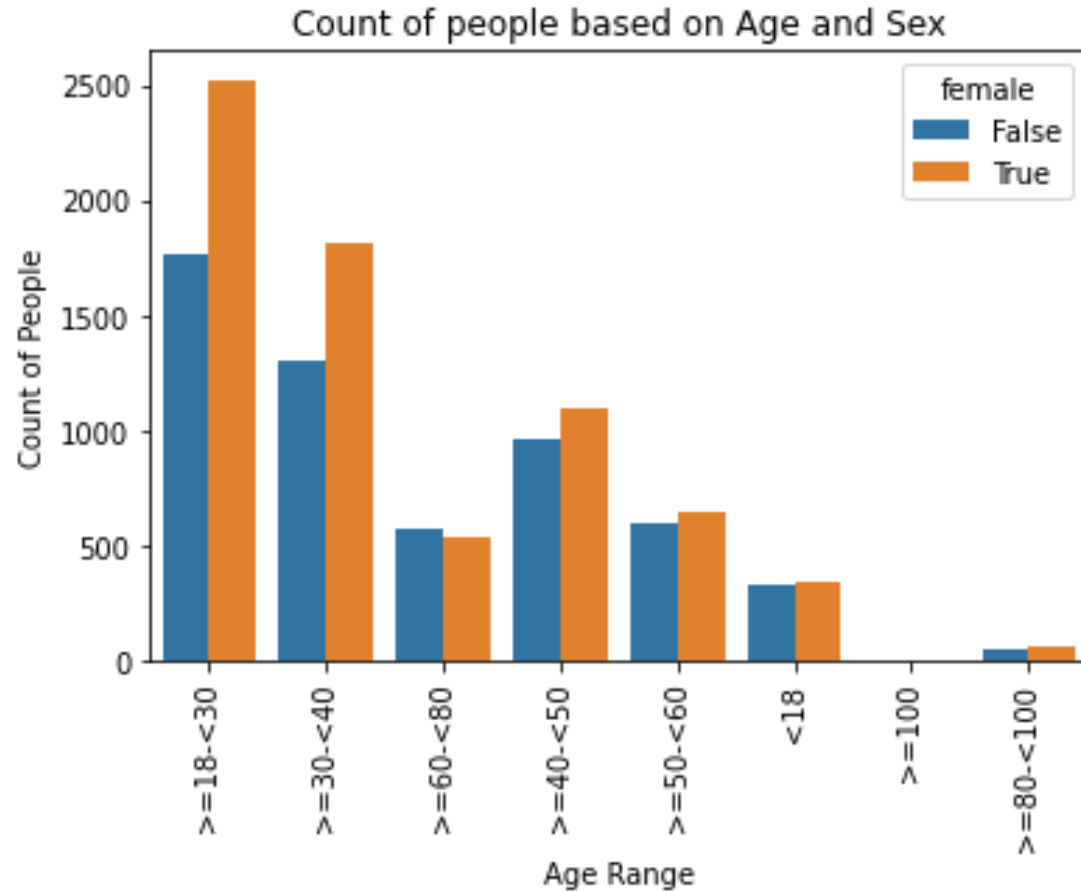# General Demographics

Sex

Count of Female vs Male
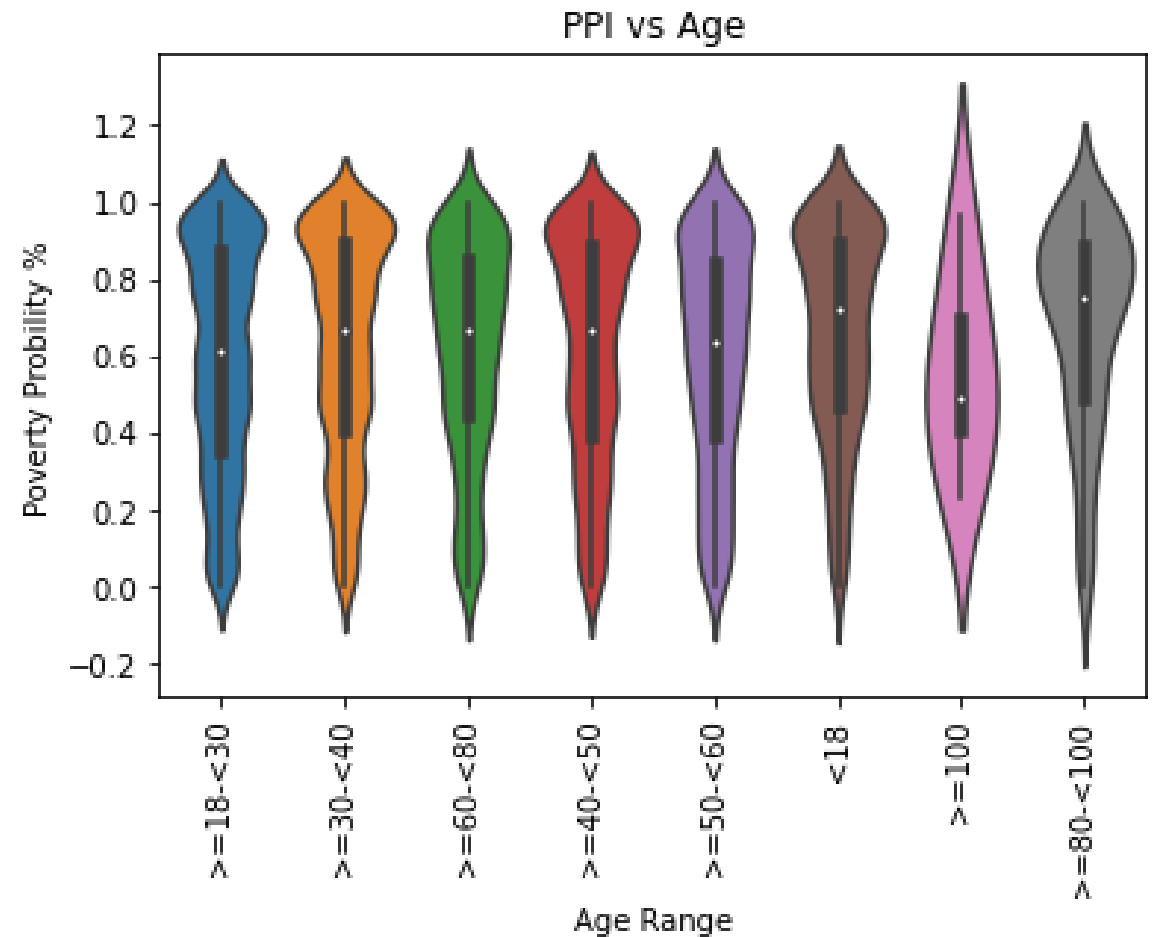
PPI vs Sex

-56% Female
-44% Male

-For both sexes, there are a higher amount of people who are above 80% PPI followed by an increase at 50% mark.

Age

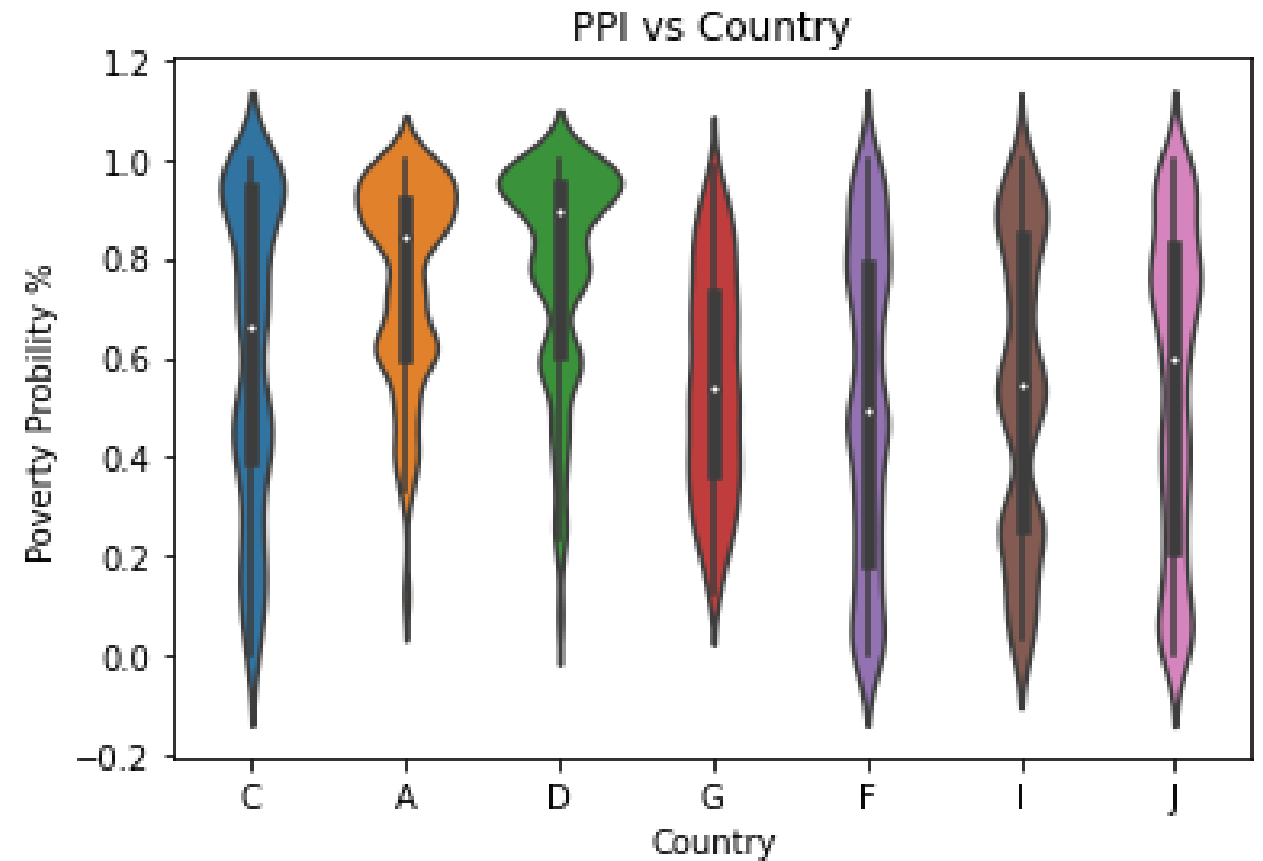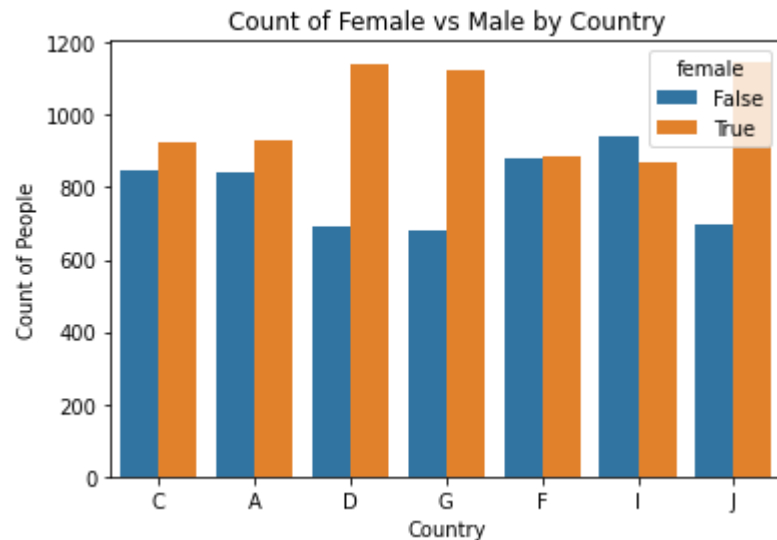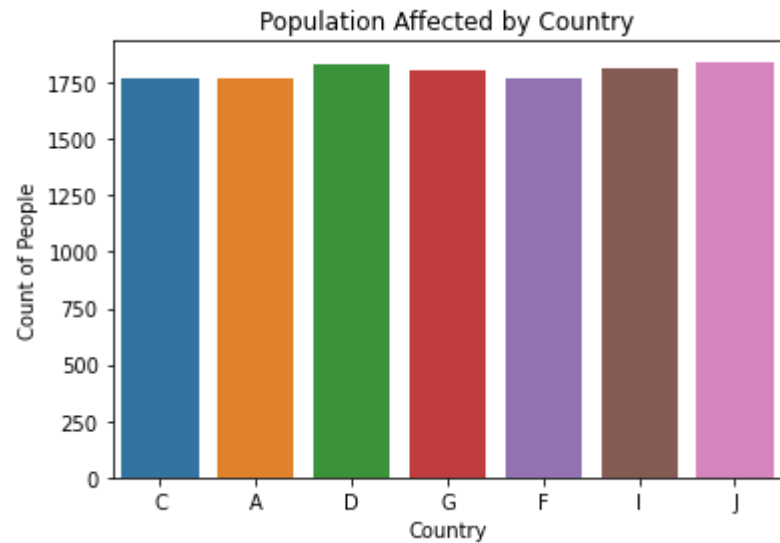Count of people based on Age and Sex

-34% >=18-<30
-25% >=30-<40
-16% >=40-<50

PPI vs Age

-From ages 18-79, there are a higher amount of people
With PPI above 80%.
-Starting at age 80, more people start to have a lower PPI.

Country

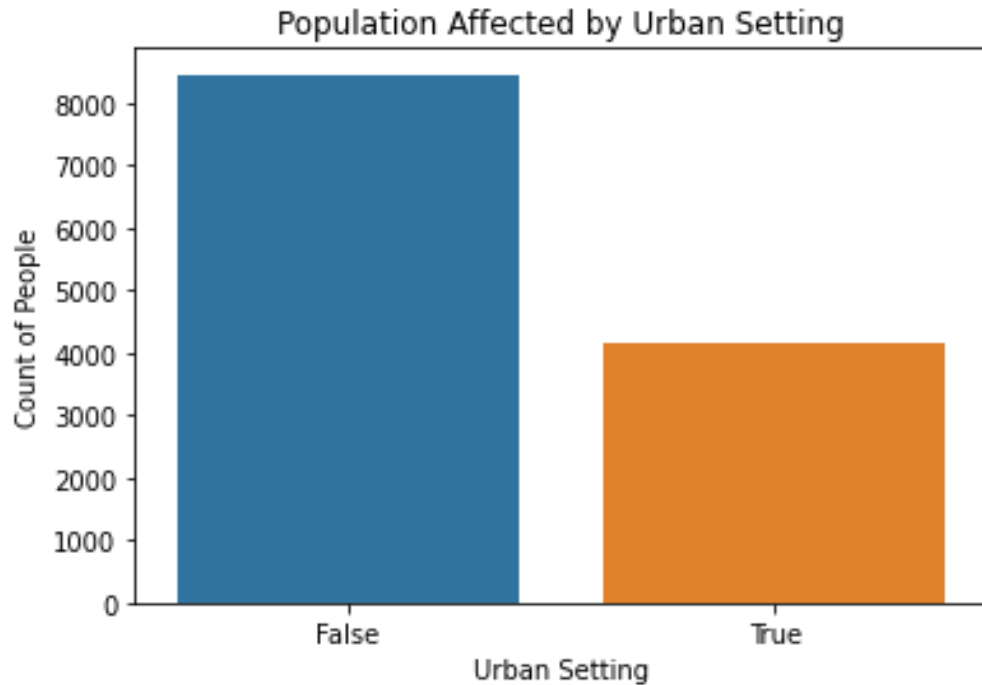Population Affected by Country
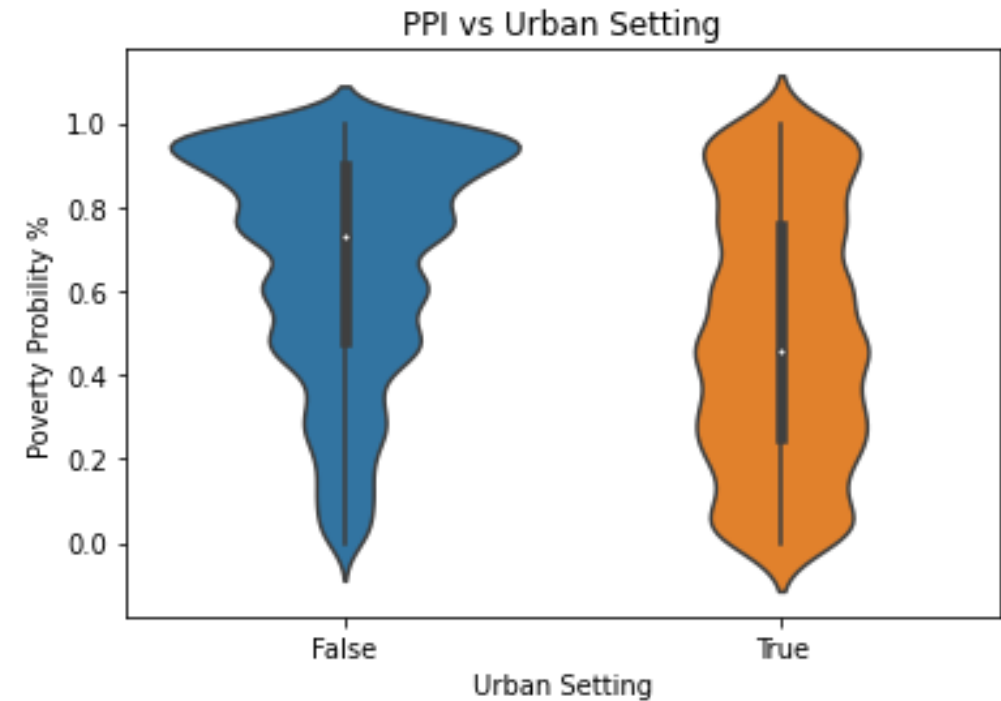
Count of Female vs Male by Country

PPI vs Country

-There was an about equal amount of people surveyed per country.
-Counties D, G and J seemed to have the most sex discrepancies.

-Countries A and D followed by C had more people with a higher PPI,
With country G being more uniform with its PPI.
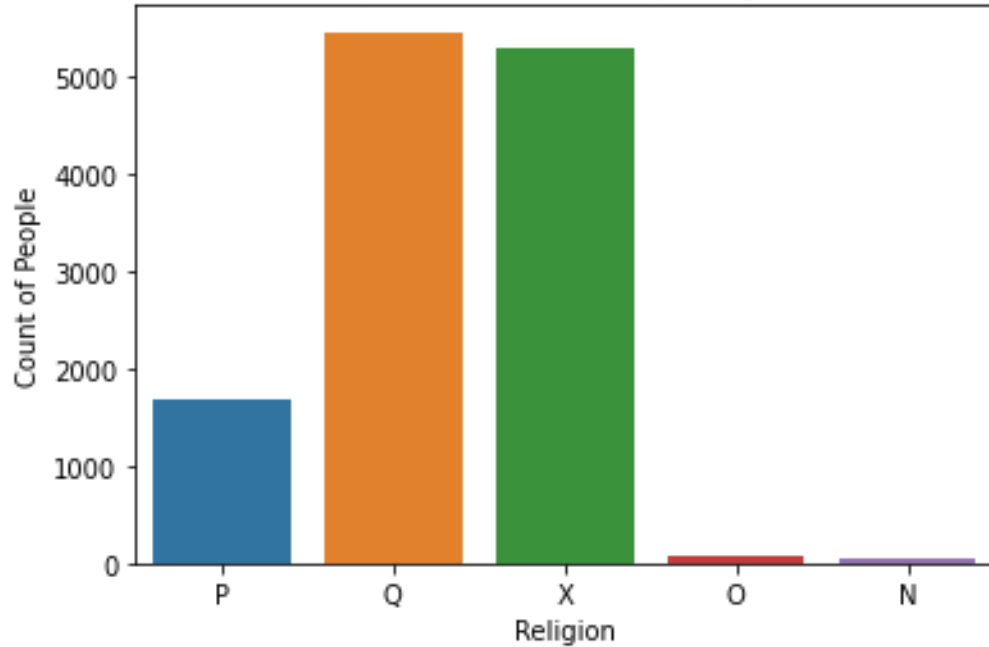
Urban Setting

-False 67%
-True 32%

-Most of the population was not urban.
-Those who weren't, had a higher pop with a PPI >80%.
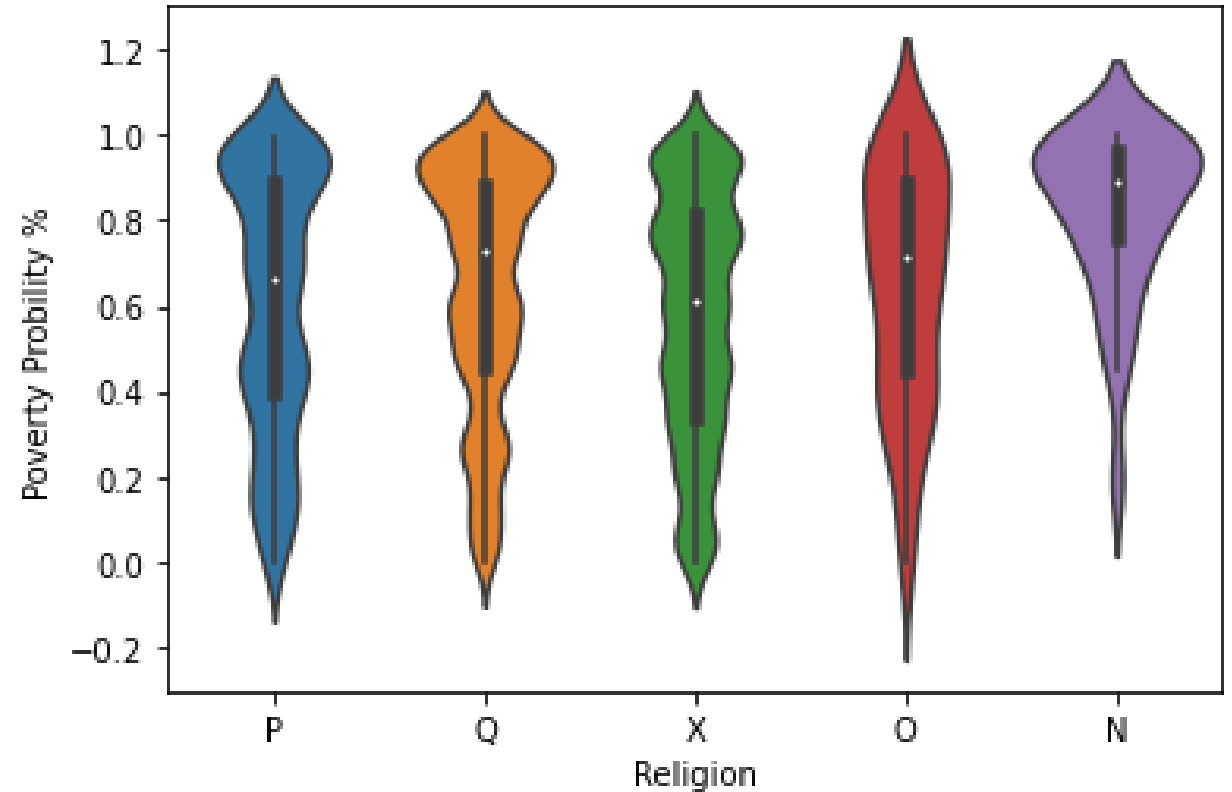-Those who were, had a uniform amount of PPI, Highest ranged from 20-50%.
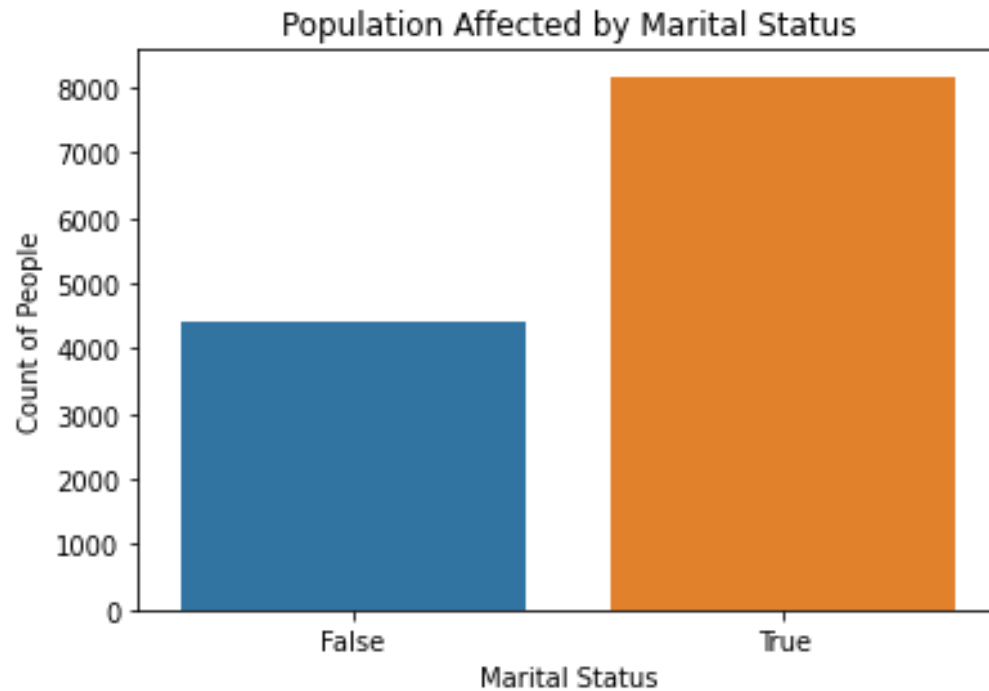
Religion

Population Affected by Religion

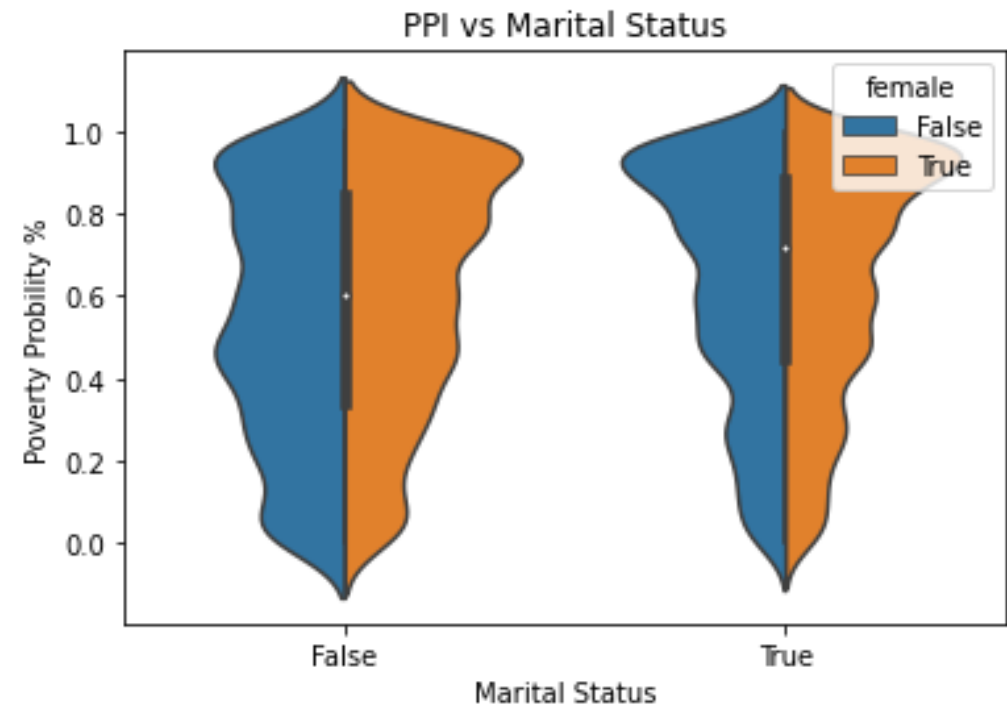PPI vs Religion

Q	43%
X	42%
P	13%

-Pop of religions P and Q seem to spike at a PPI >80%
-Pop of religion X and 2 seem to but more uniform
-Most Pop of religion N seem to be concentrated at a higher PPI.

Marital Status

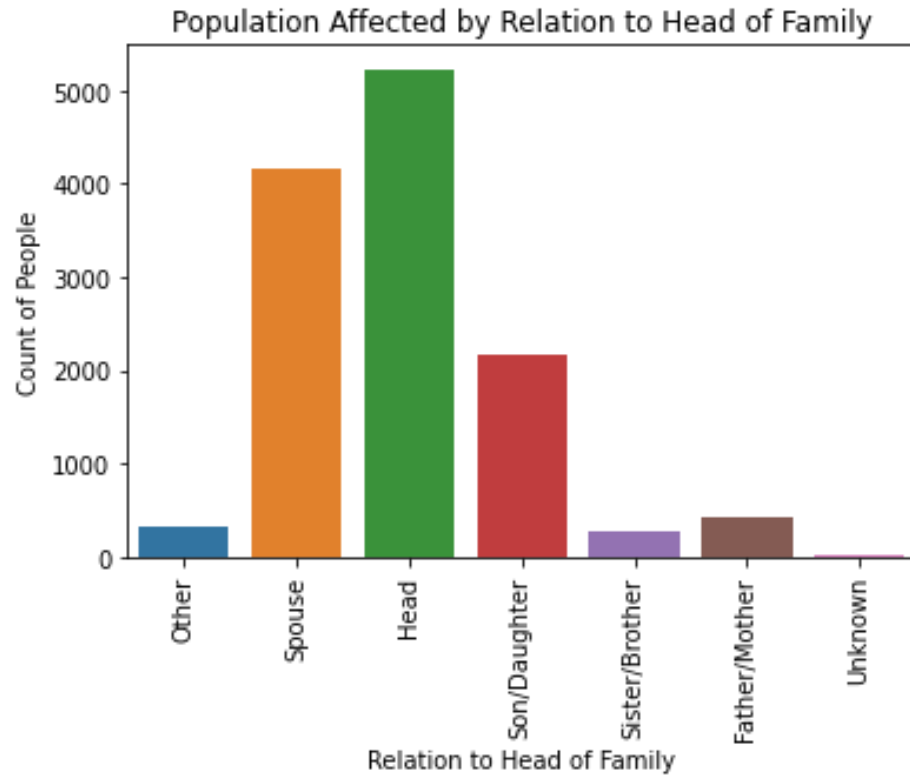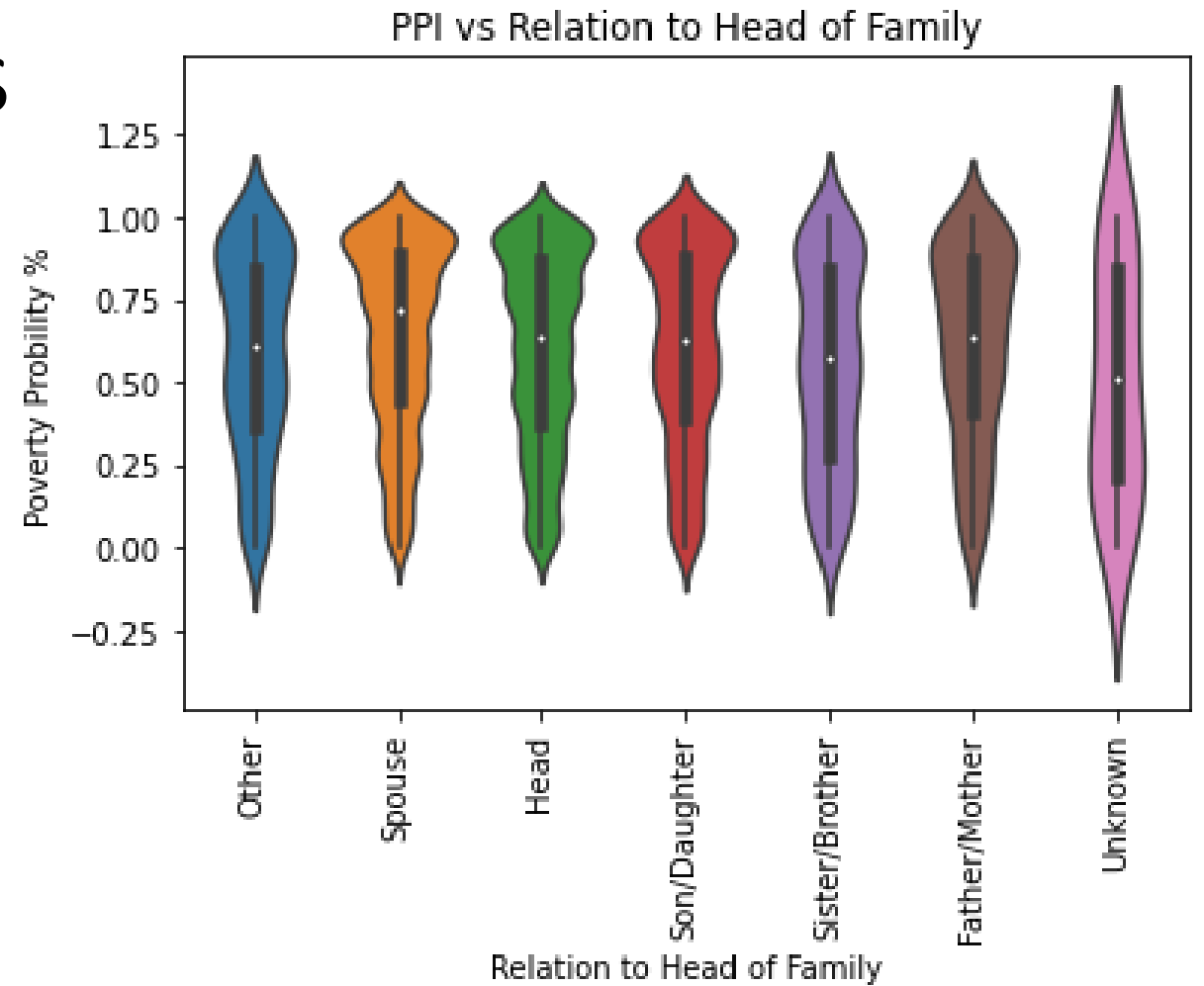-True   65%
-False   35%

- There were more married people than single.
- Of the married, there was an equal amount of people with a higher PPI >80%.
- Of the unmarried, males were more uniform with a peak at 40% PPI and another at 70%. Females were seeing higher above 70%

Family Member Status

Population Affected by Relation to Head of Family

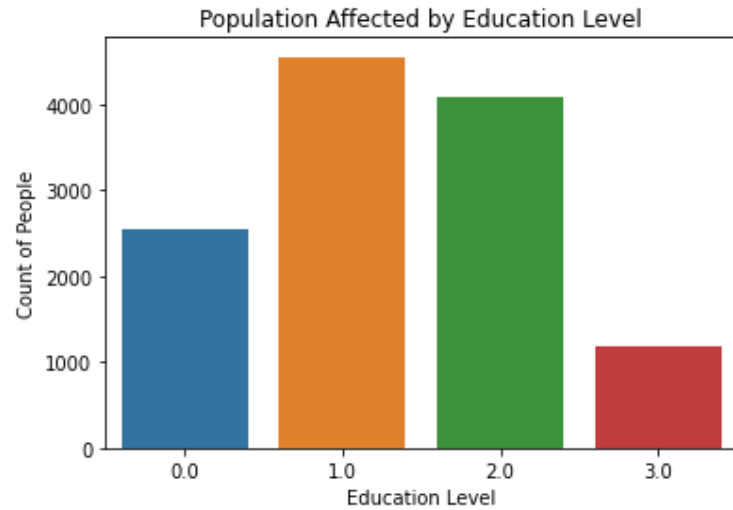PPI vs Relation to Head of Family

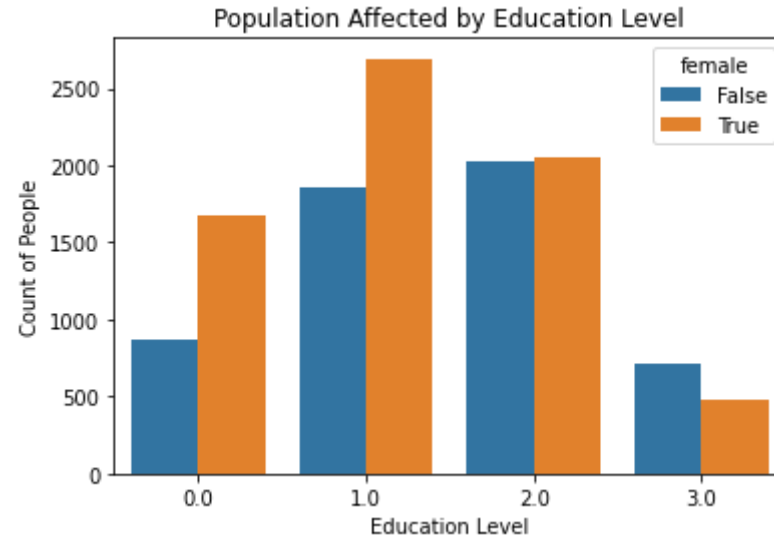Head   43%
Spouse   33%
Son/Daughter   17%

-Most reported that they were Head of the house or the spouse of the head.
- Most showed having a higher PPI >75%, with Sister/Brother status being more uniform throughout.
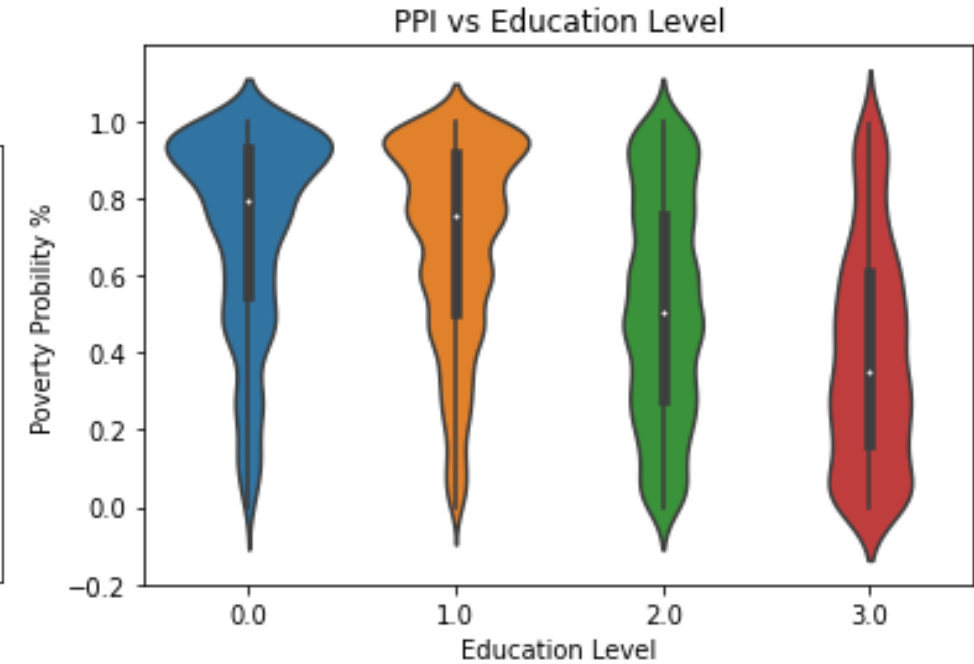
Education

Education Level

Population Affected by Education Level

Population Affected by Education Level

PPI vs Education Level

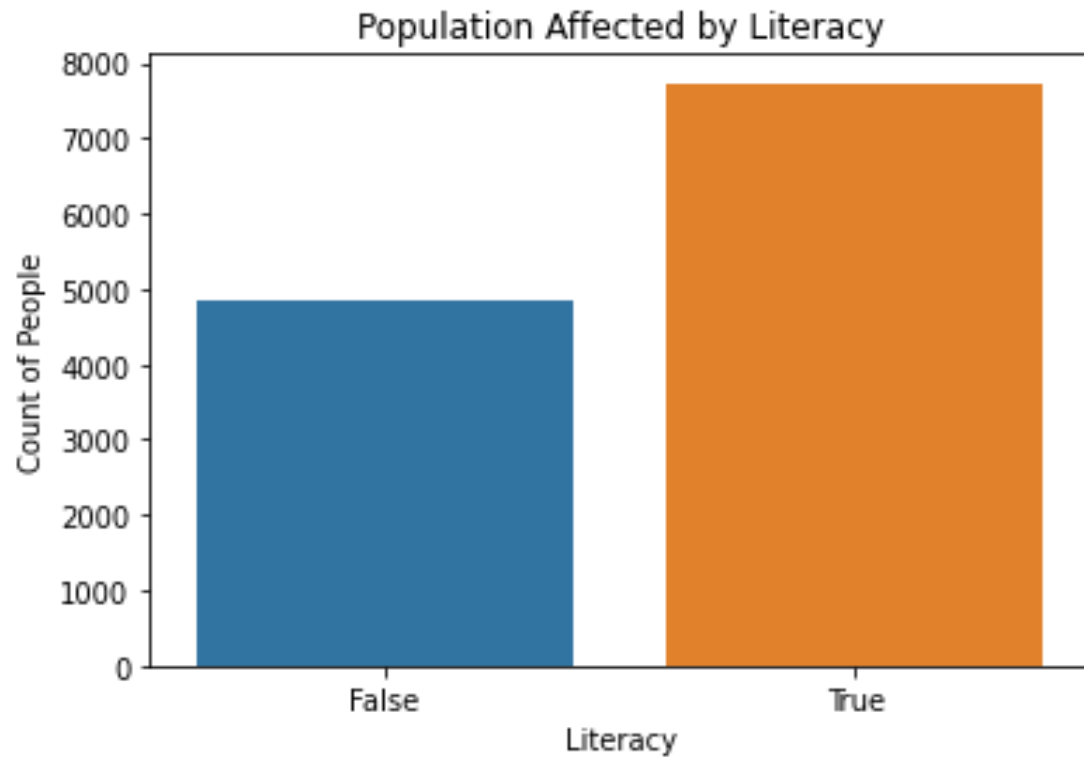|	
1.0	37%
2.0	33%
0.0	21%
3.0	10%

-There were more people with type 1 and 2 education.
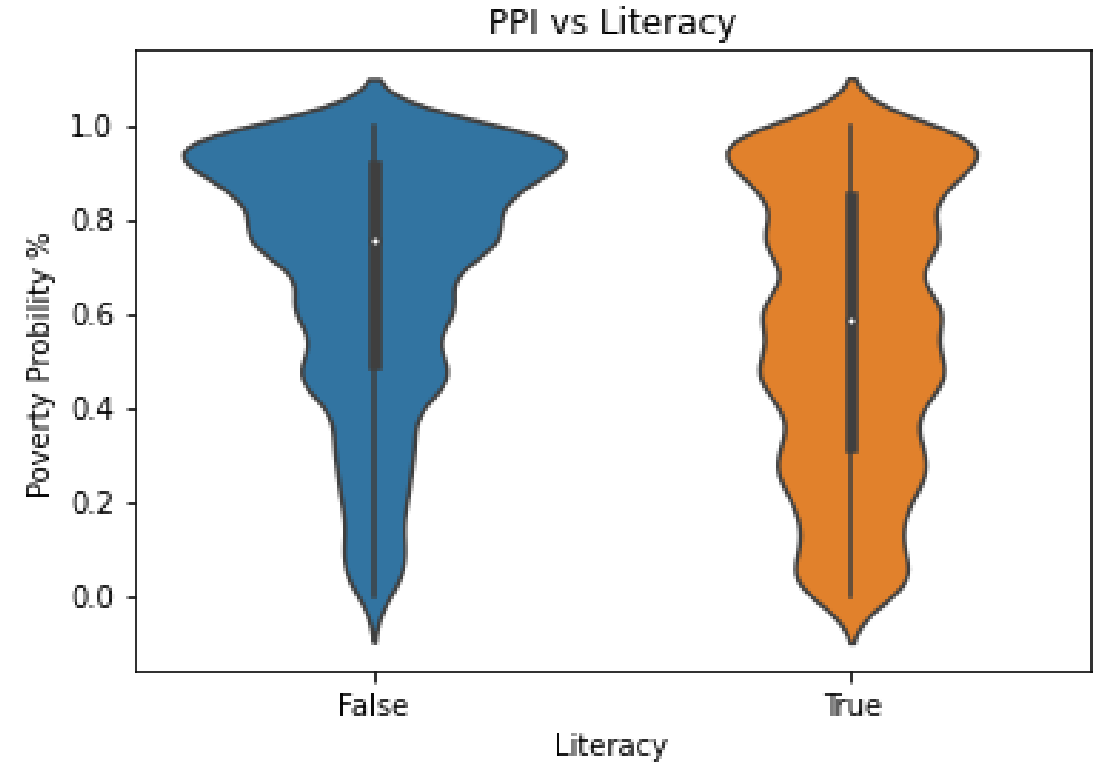-Females seemed to have gone under more schooling but more males have a higher (3) education.

-People with lower education seem to have a higher PPI score.
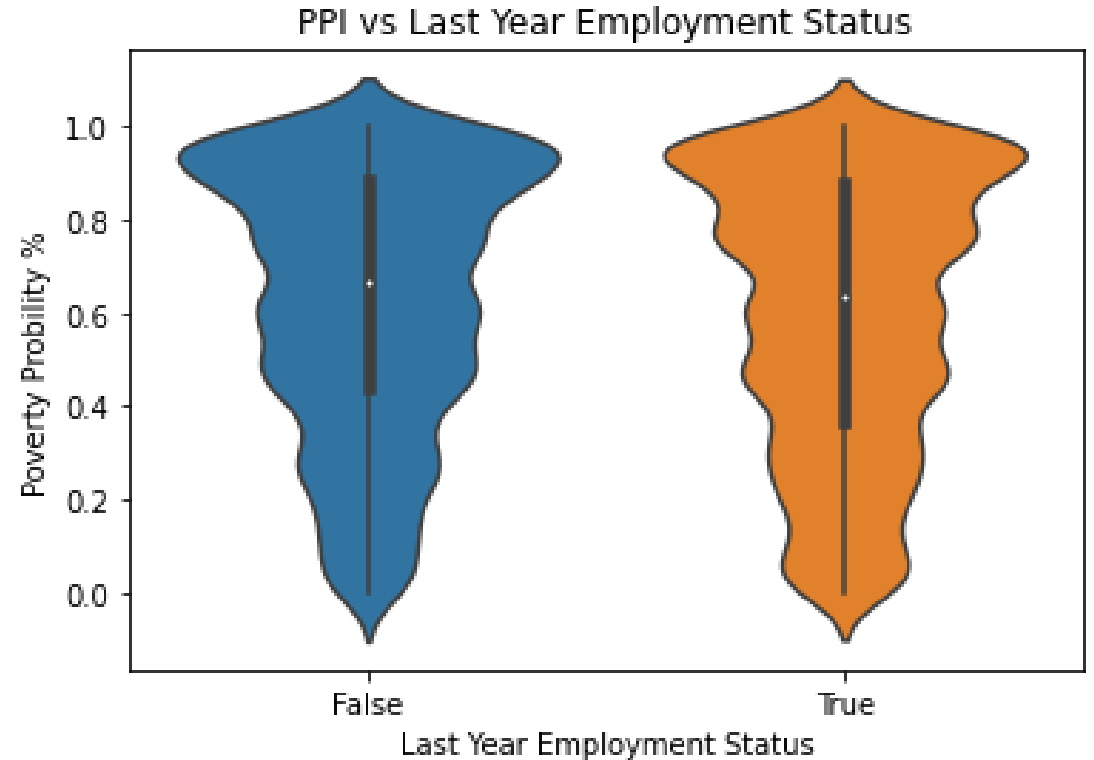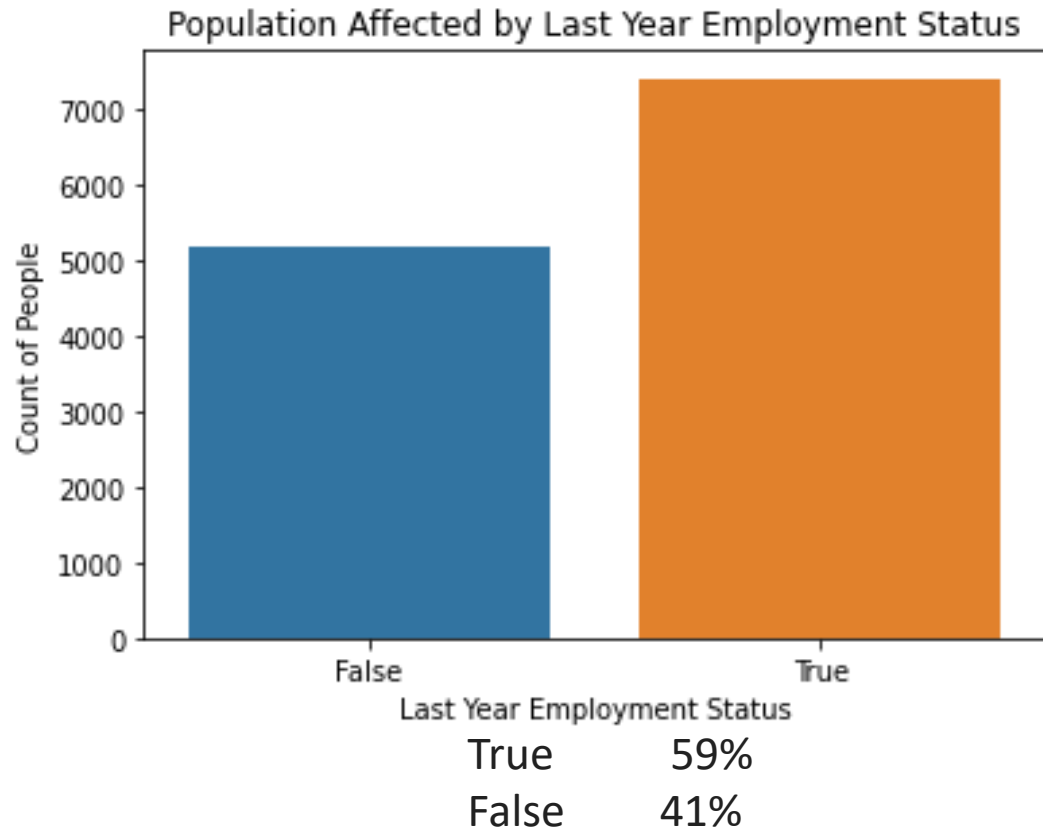
Literacy

Population Affected by Literacy

True   61%
False   39%

PPI vs Literacy

-People who cold not read had a higher PPI, while people who could were more uniform.

FINANCE

Previous Year Employment

Population Affected by Last Year Employment Status

True	59%
False	41%

Previous Year Employment Category:

Employed	59%
Housewife or student	29%
Other	5%
Unemployed	4%
Retired or disabled	3%

Previous Year Employment Type:

Not working	36%
Self employed	25%
Irregular seasonal	19%
Salaried	16%
Other	5%

PPI vs Last Year Employment Status

- More people were employed the previous year than not.
- Those who were not employed had a higher PPI spiking at 50% and then again at 90%
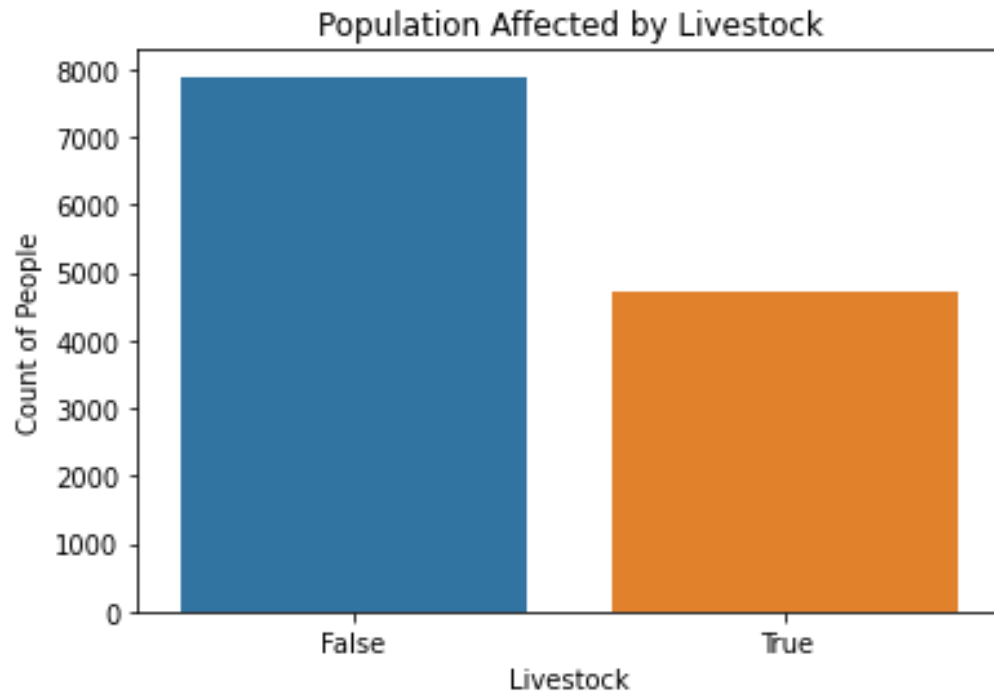
Insurance

Population Affected by Insurance
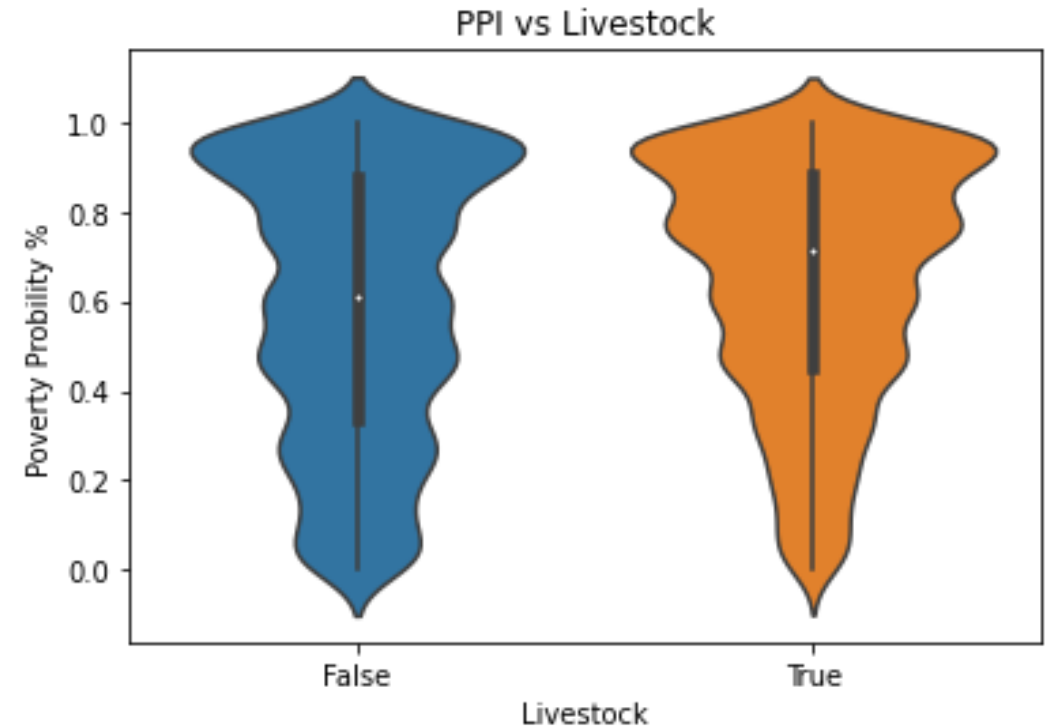
False 87%
True 13%

PPI vs Insurance
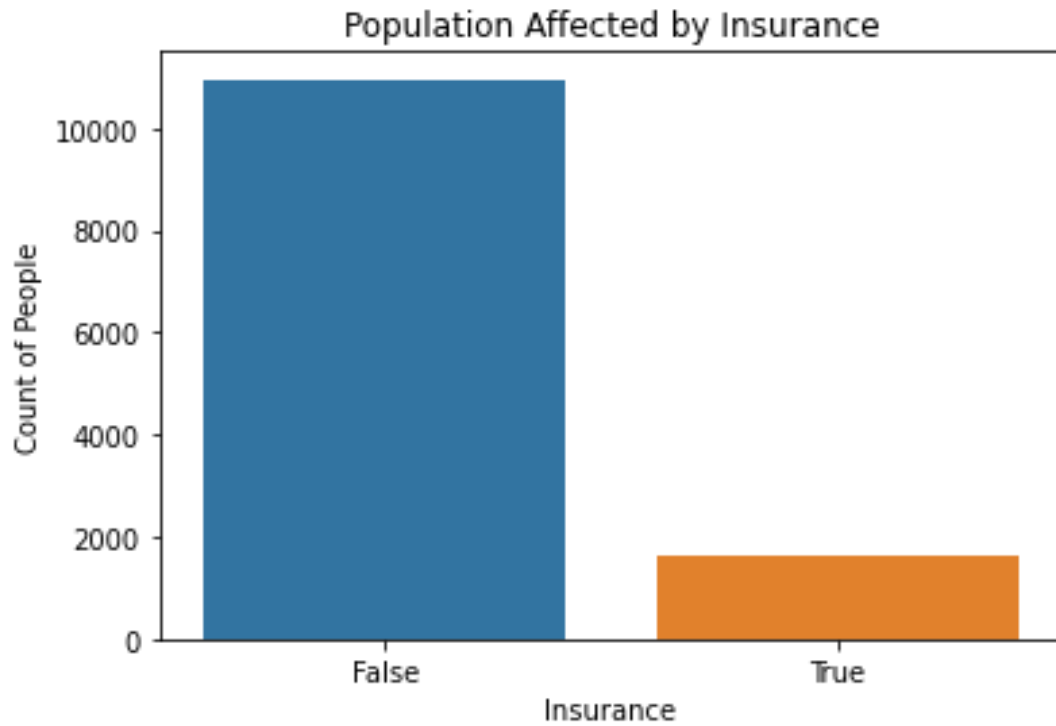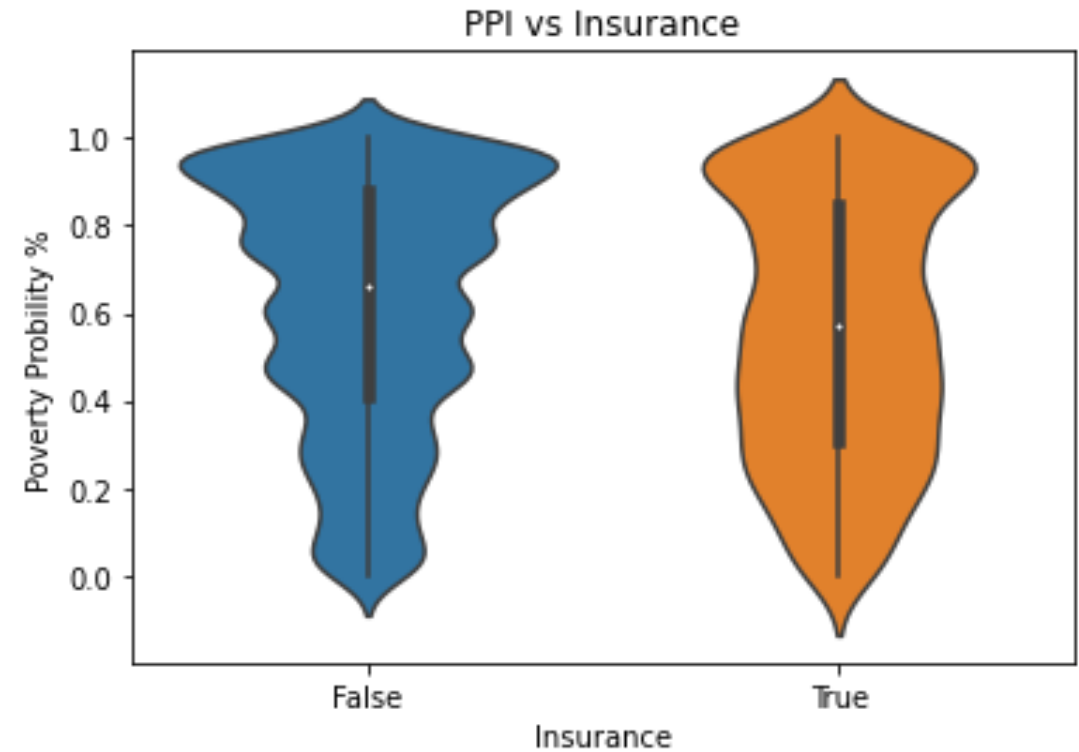
-Only 13% had insurance, those who did seemed to have more of a lower PPI score

Income: From Livestock

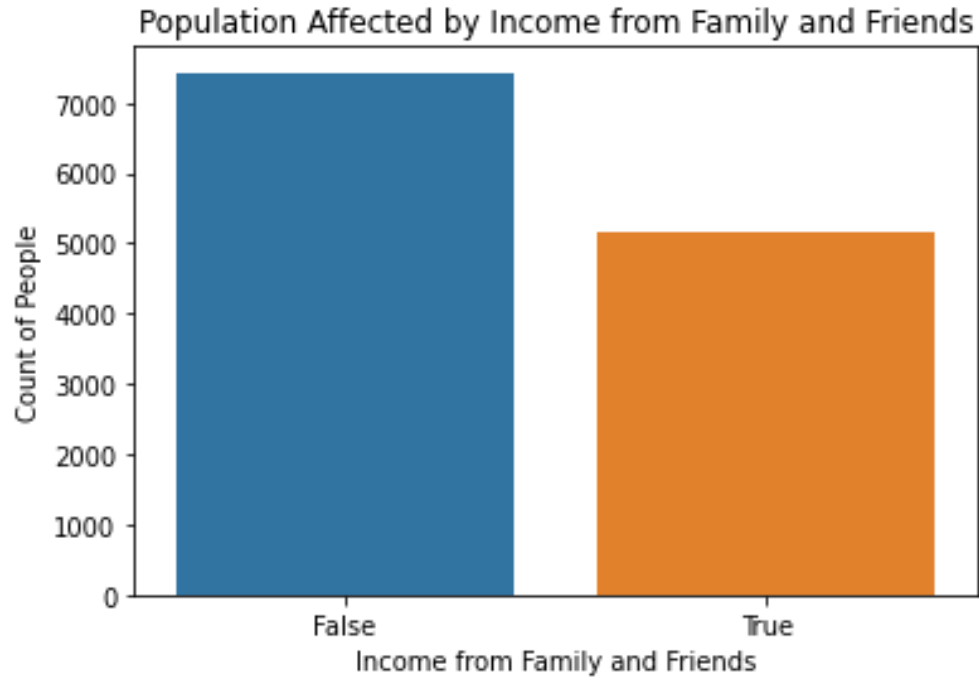False 63%
True 37%

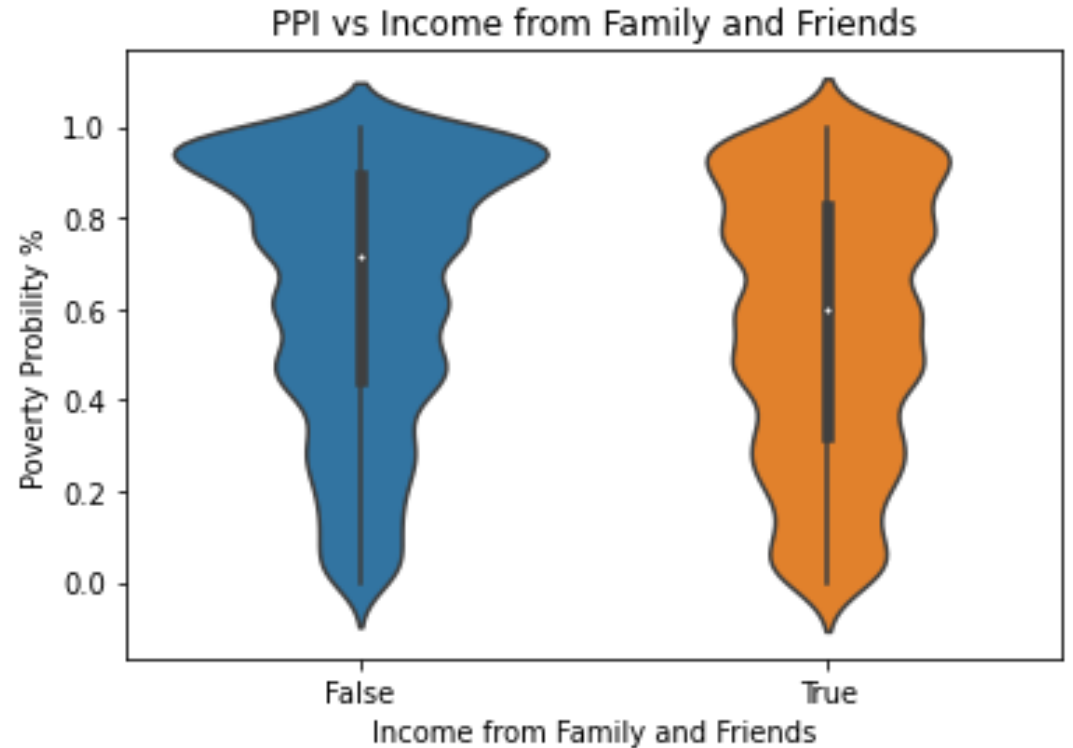-More people who got their main income from livestock had a PPI score >70%

Income: From Family and Friends

Population Affected by Income from Family and Friends
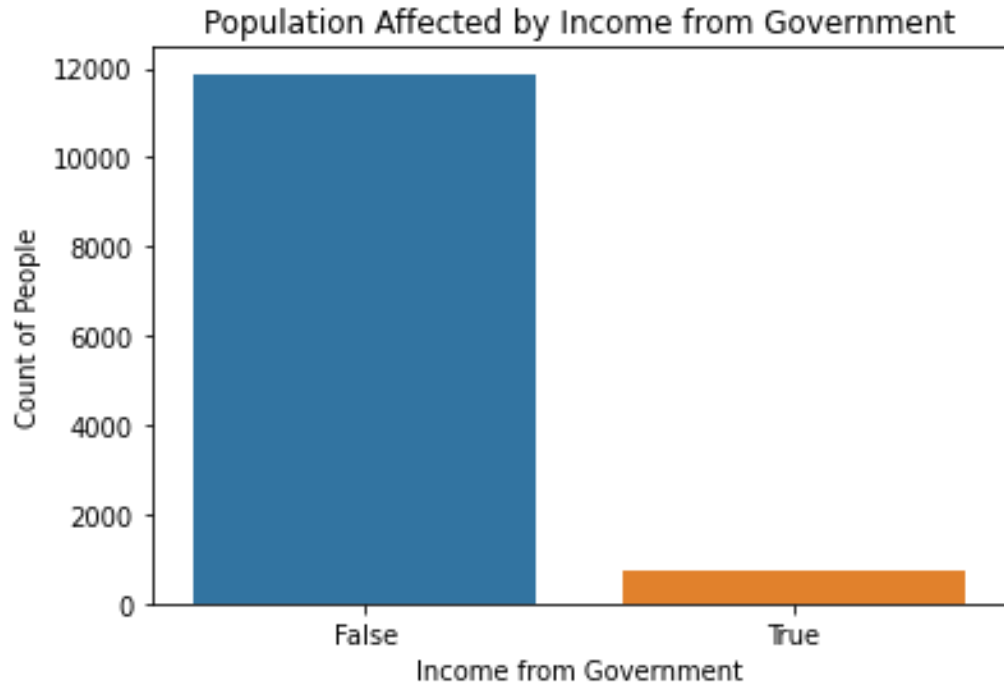

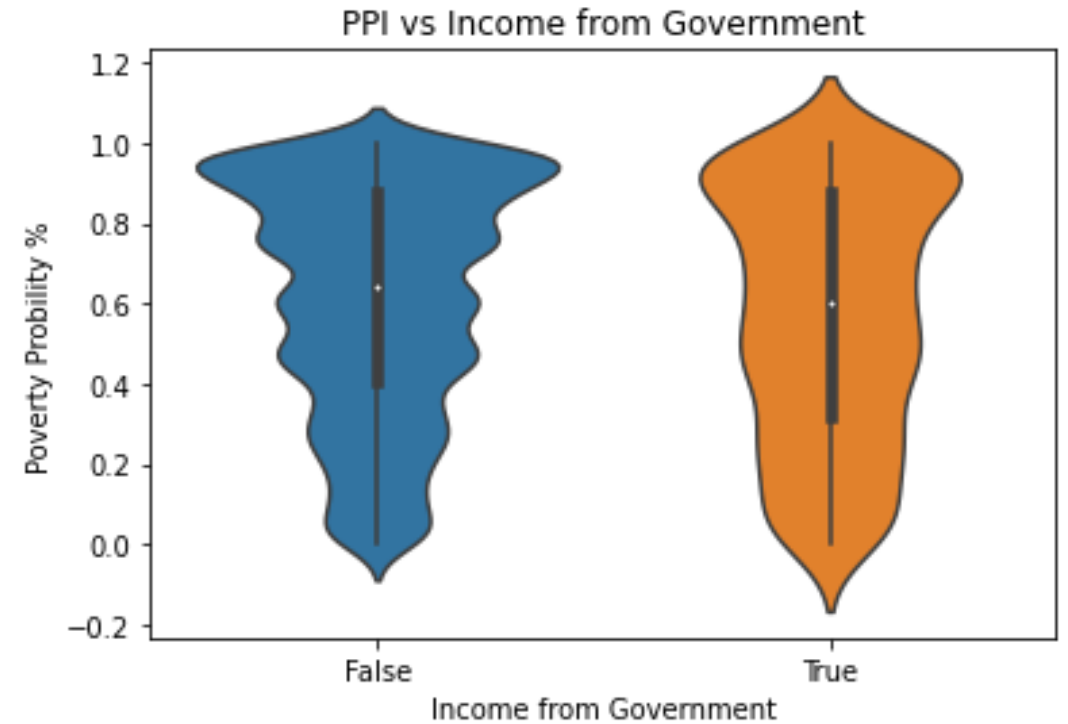PPI vs Income from Family and Friends

False 59%
True 41%

-People who had financial help from family and friends seemed to have more uniform PPI scores vs who didn't have help.
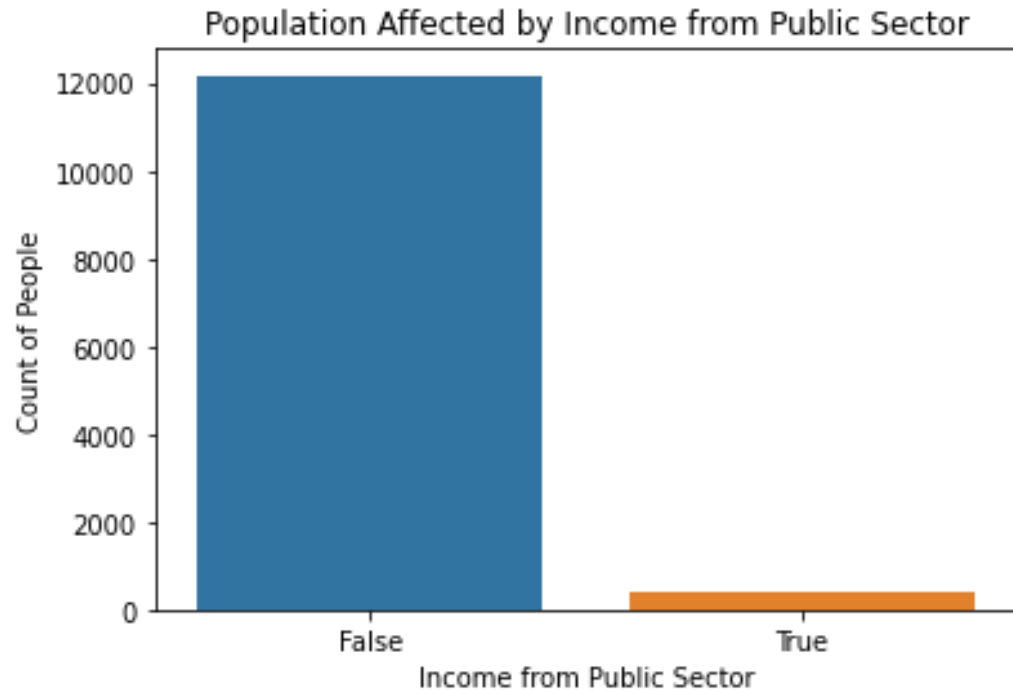
Income: From Government

Population Affected by Income from Government

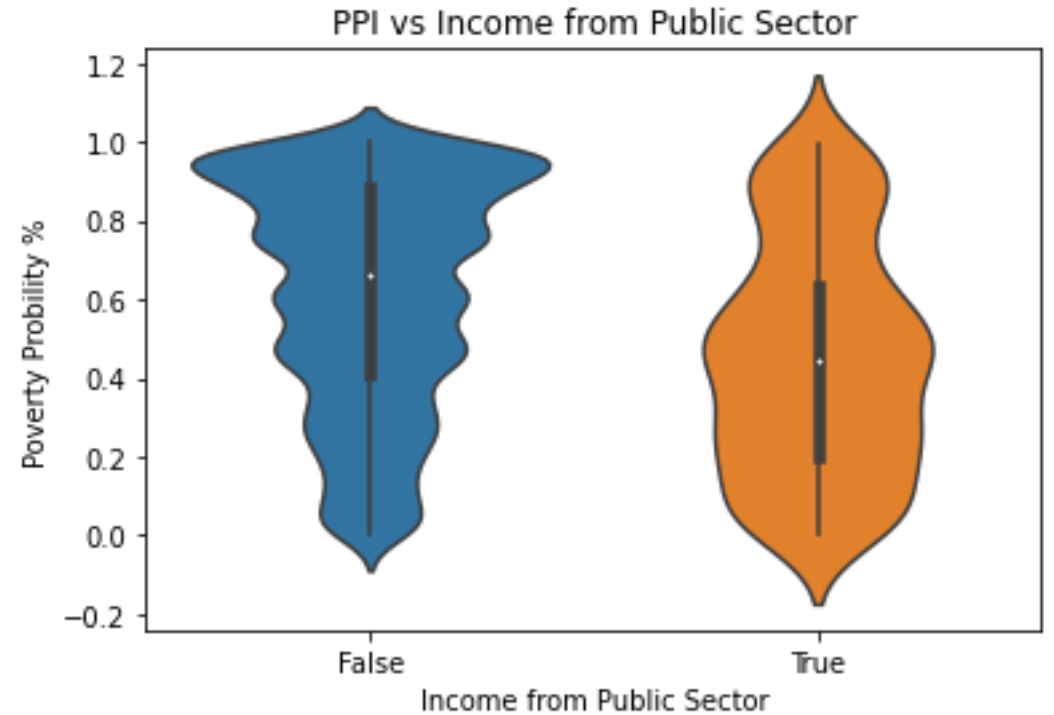PPI vs Income from Government

False 94%
True 6%

- Only 6% of the population received help form the government. Those who did seemed to have more uniform PPI scores but still peaked above >80%.
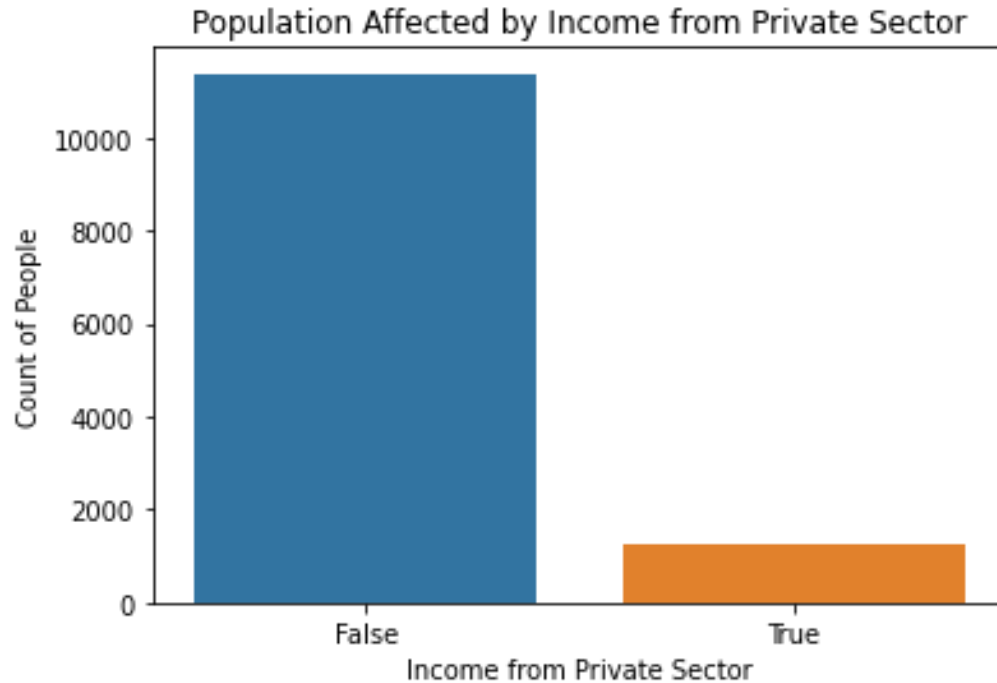
Income: From Public Sector
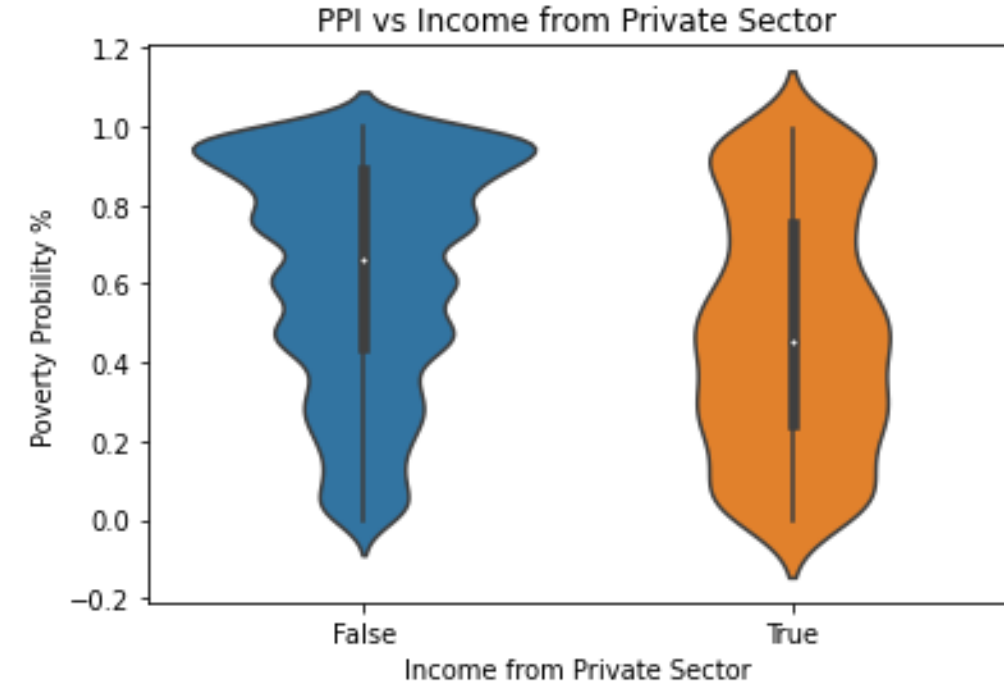

False 97%
True 3%

-Only 3% received help from a private sector.
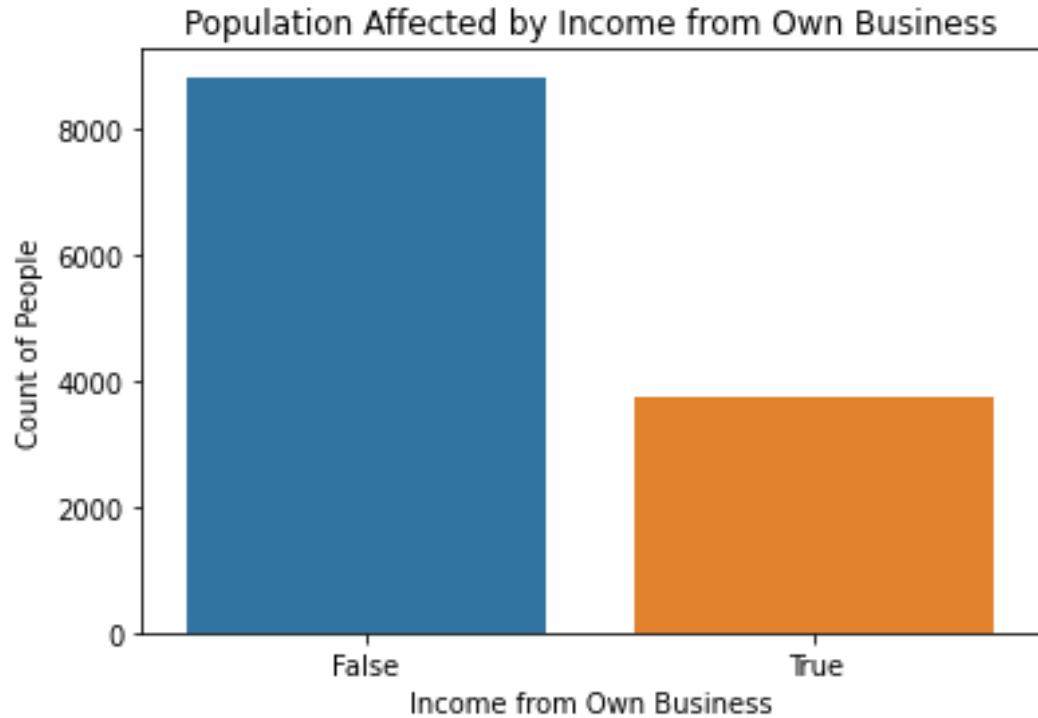Most who did had a PPI <50%

Income: From Private Sector

False 90%
True 10%

-Only 10% received help from a private sector. Most who did had a PPI <50%

Income: From Own Business

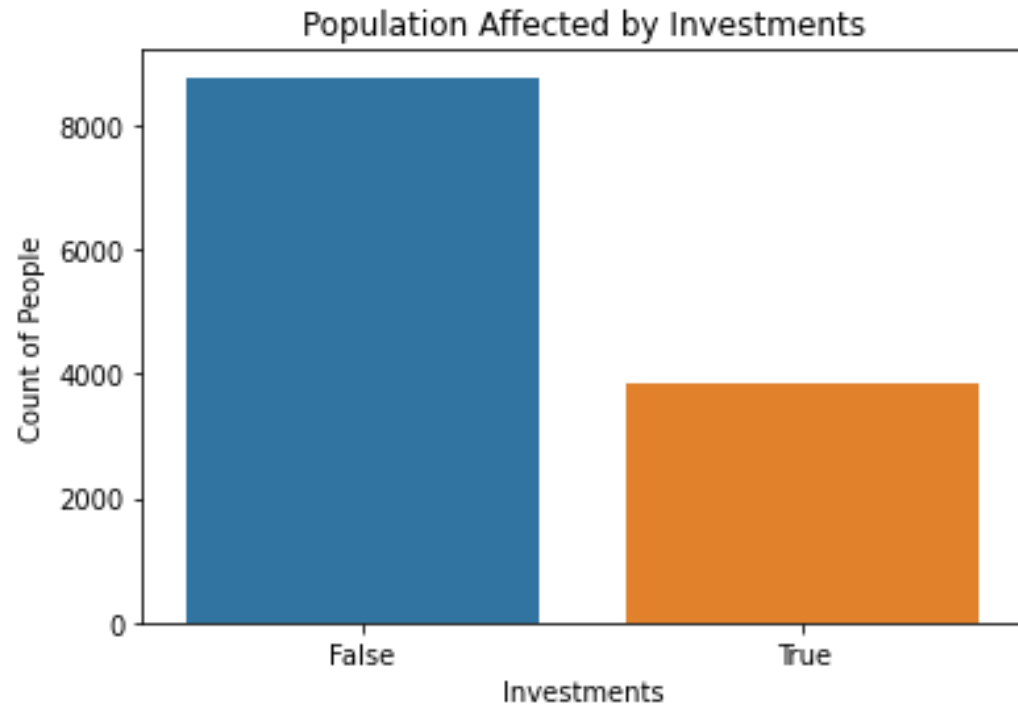Population Affected by Income from Own Business
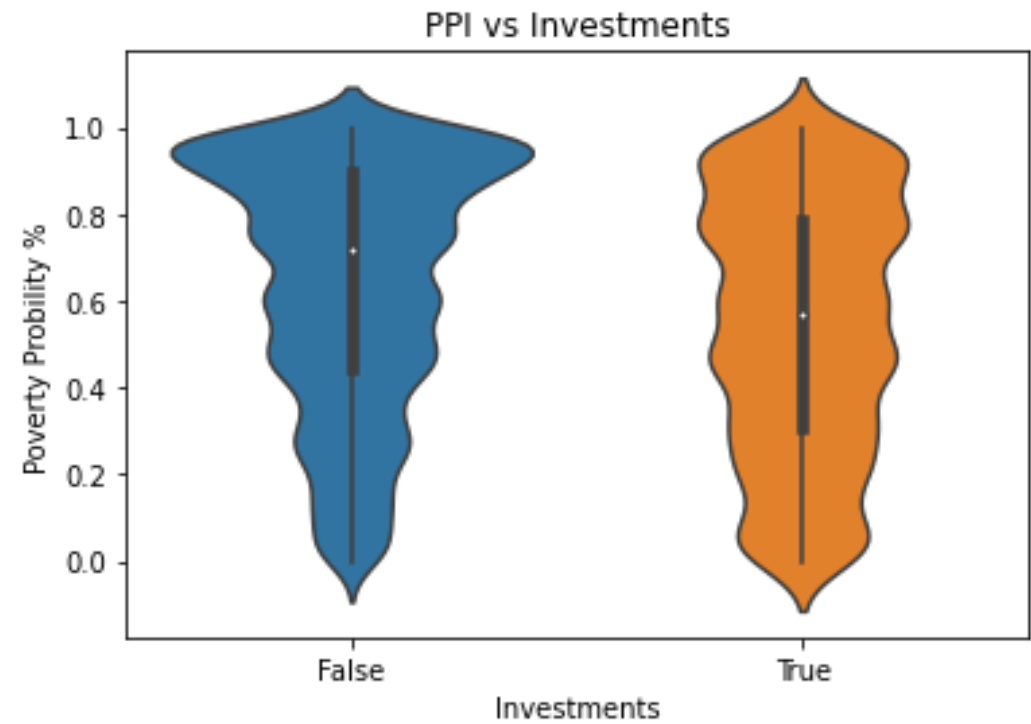

PPI vs Income from Own Business

False 70%
True 30%
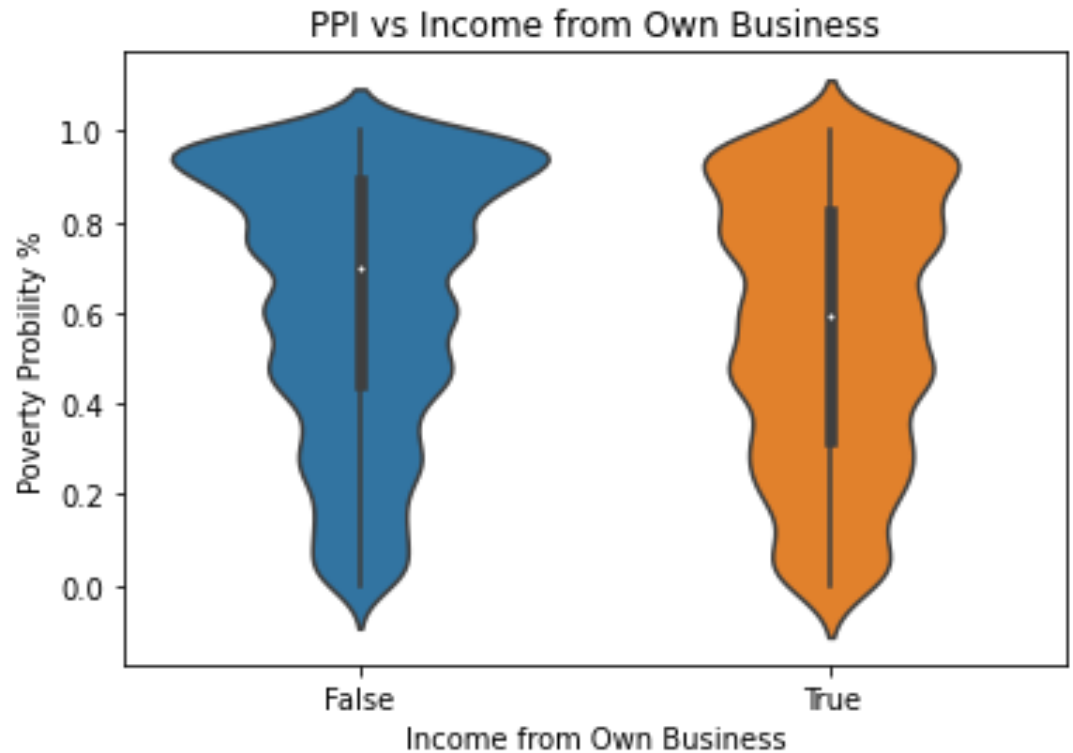
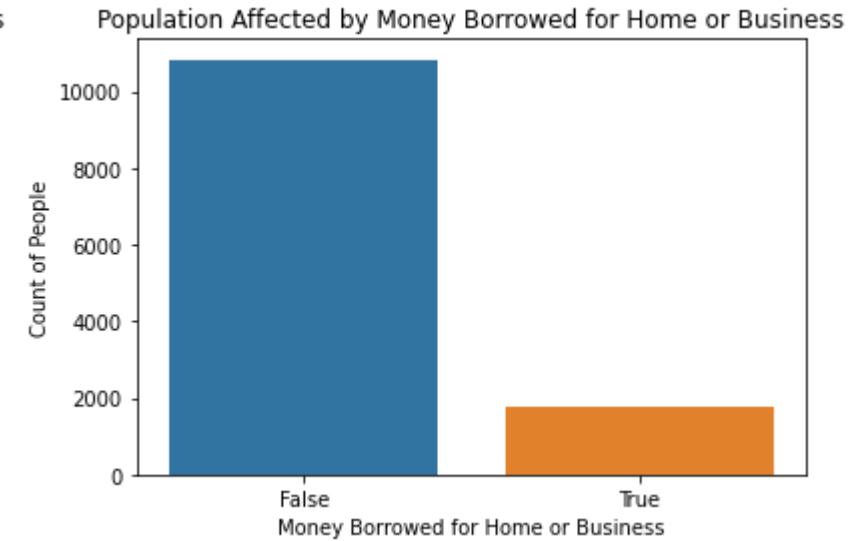-People who had their own business had lower PPI
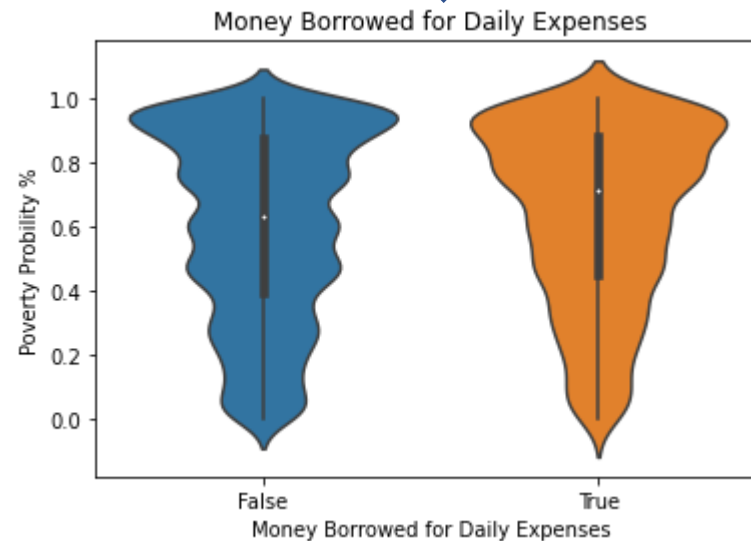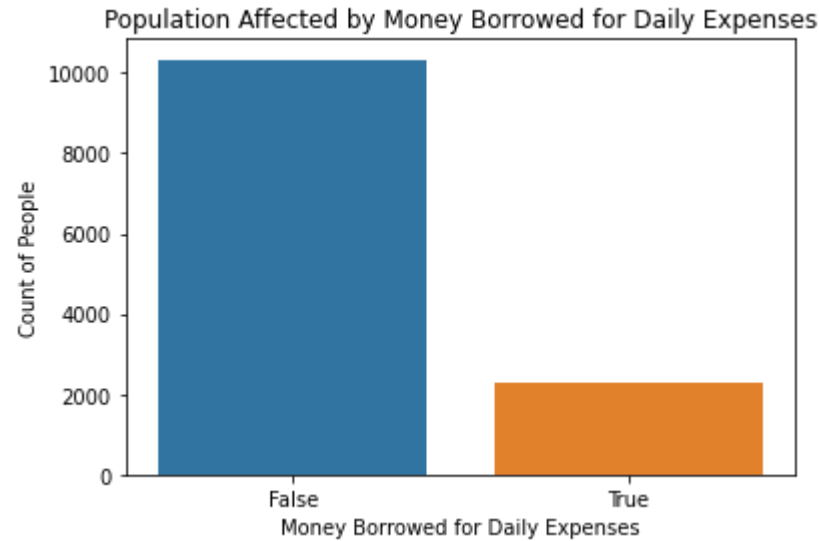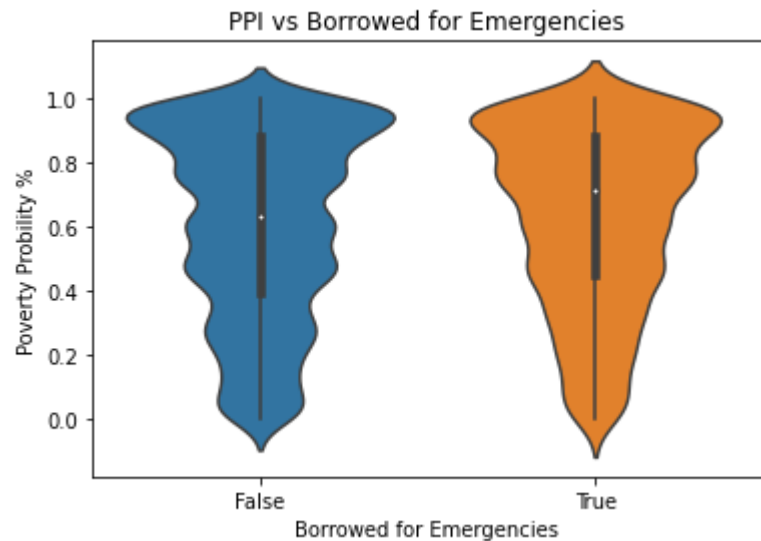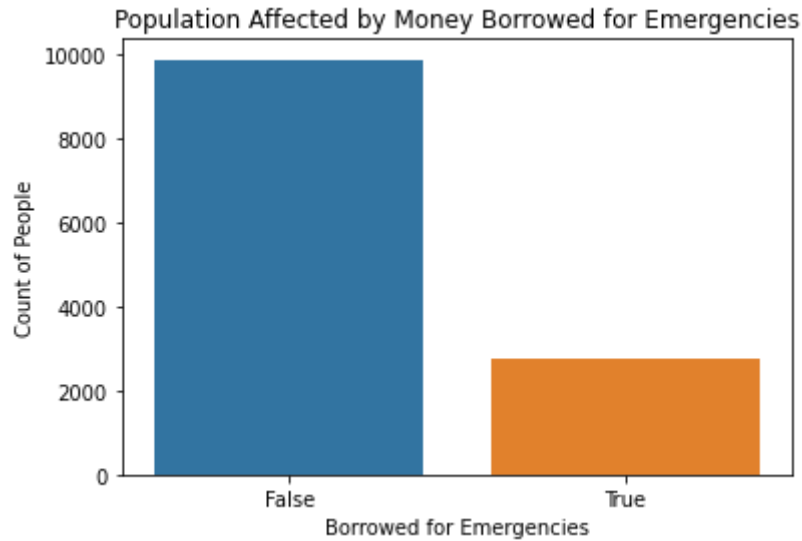
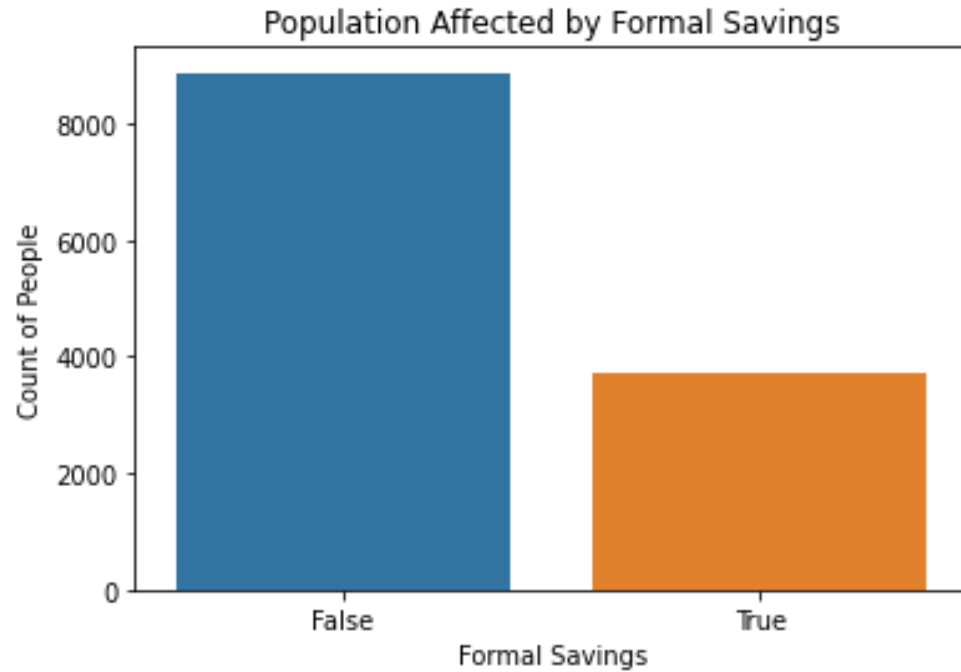# Investments

False 70%
True 30%

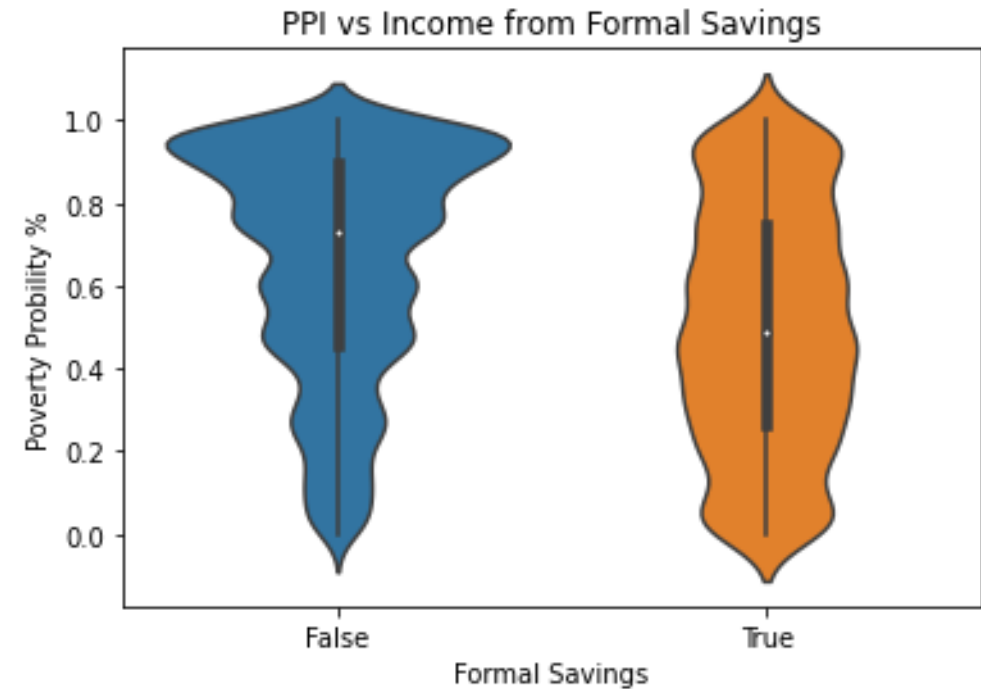-Those who invested money had a lower PPI score

Money Borrowed

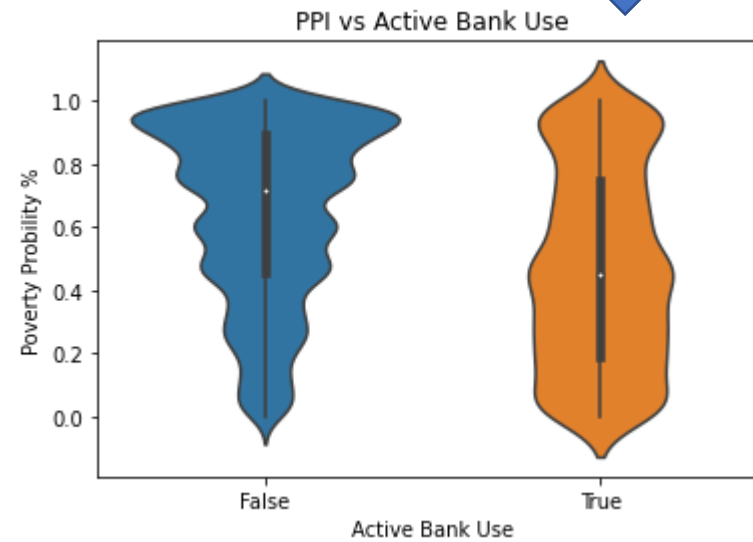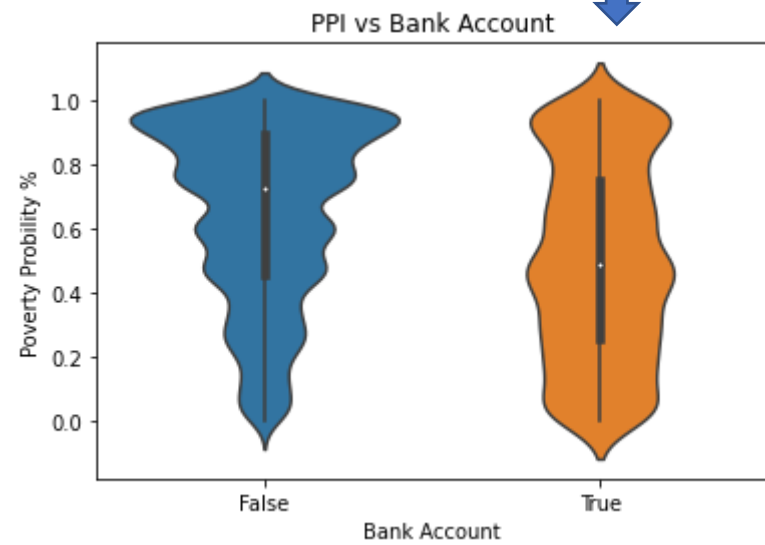-Most who borrowed money still had a high PPI score
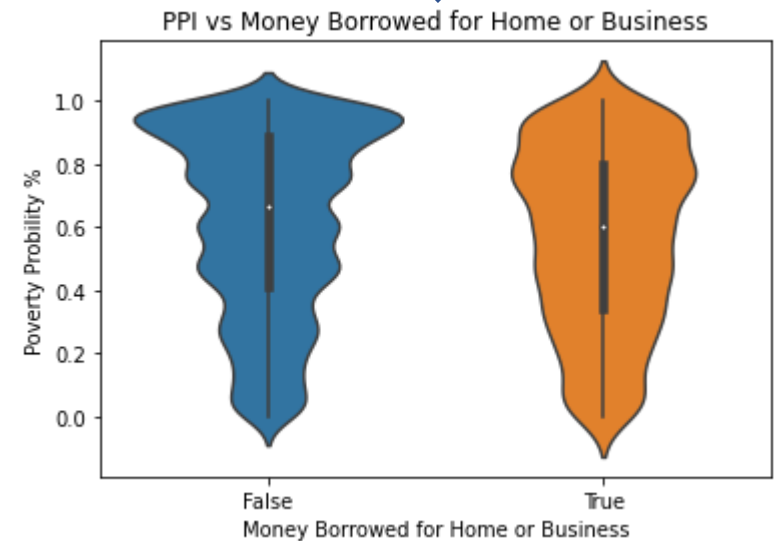
Formal Savings

False 70%
True 30%

-Only 30% of the population had savings.
-Most who did, maintained a peak PPI <60%

Bank Account vs Active Use
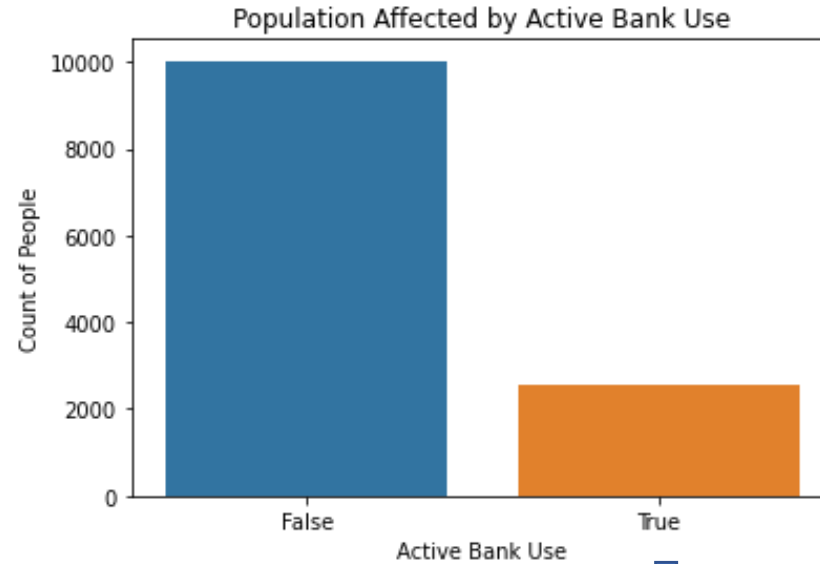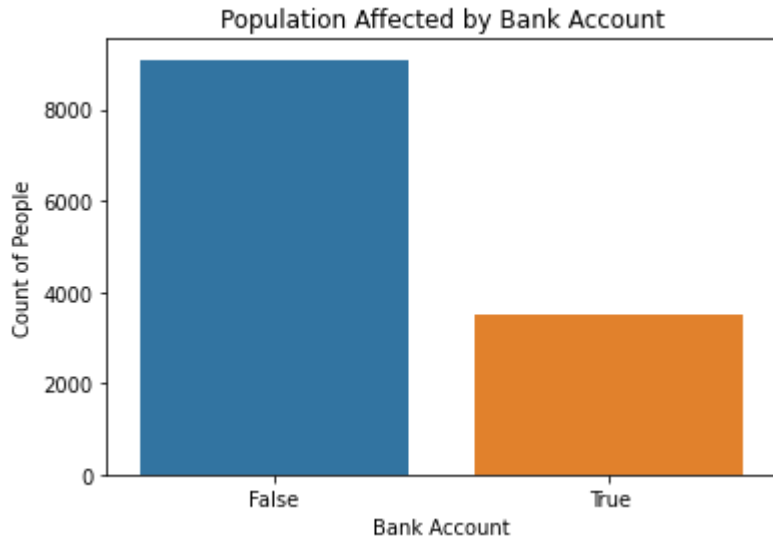
- Lower PPI with Bank Account
- Even Lower PPI with Active Use

False 72% True 28%   False 80% True 20%

Money Market Account vs Active Use
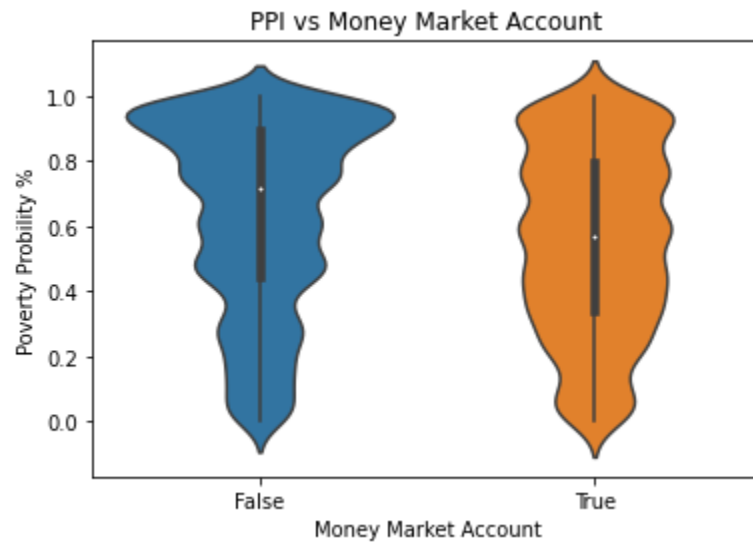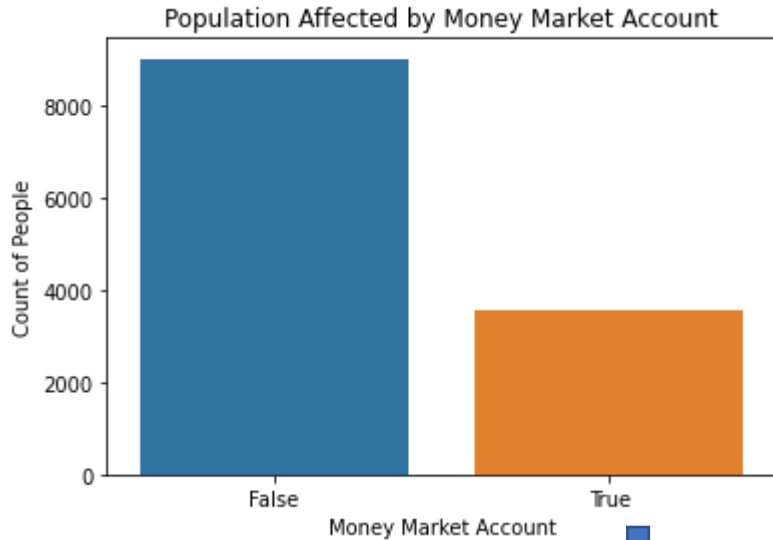
False 72% True 28%
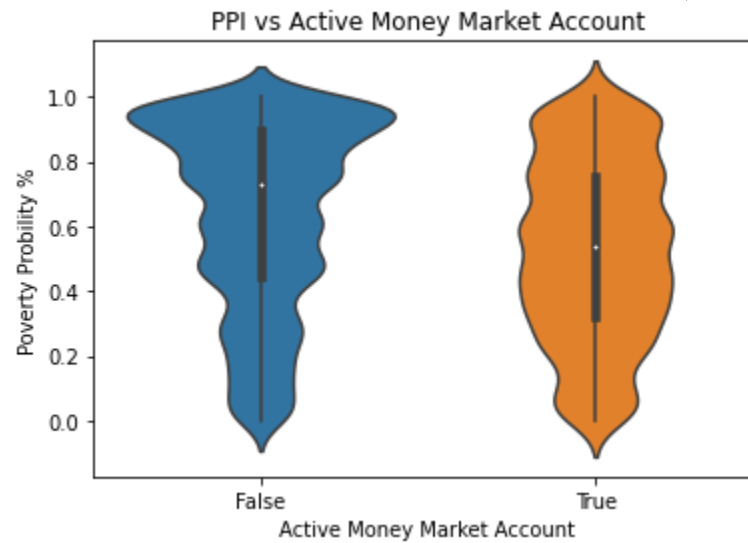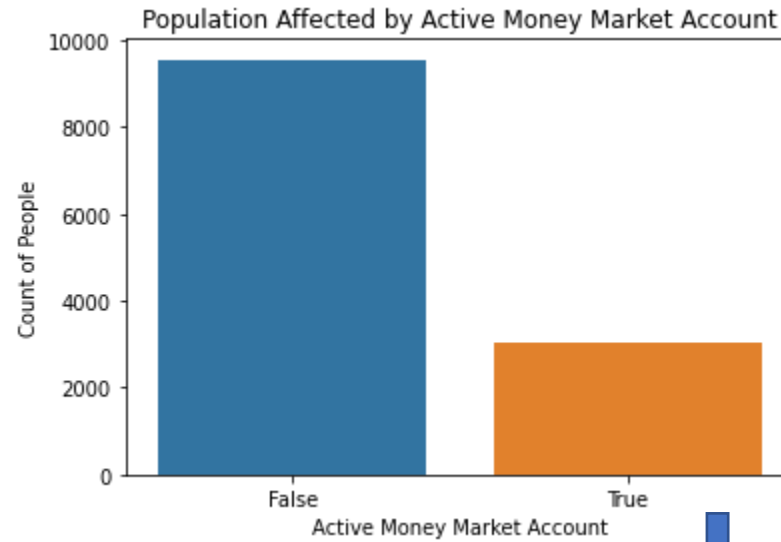
False 76% True 24%

- Lower PPI with MM Account
- Even Lower PPI with Active Use

*MM account- Pays a higher interest rate than regular bank account

Non-Bank Financial Institutions vs Active Use
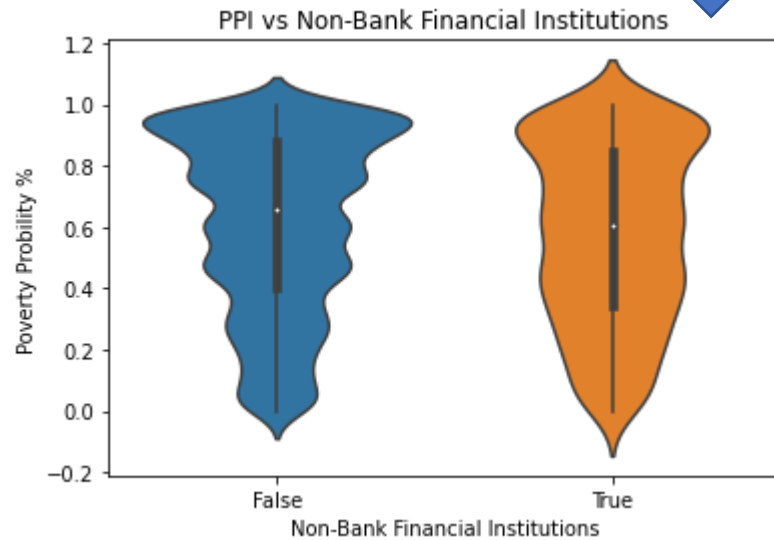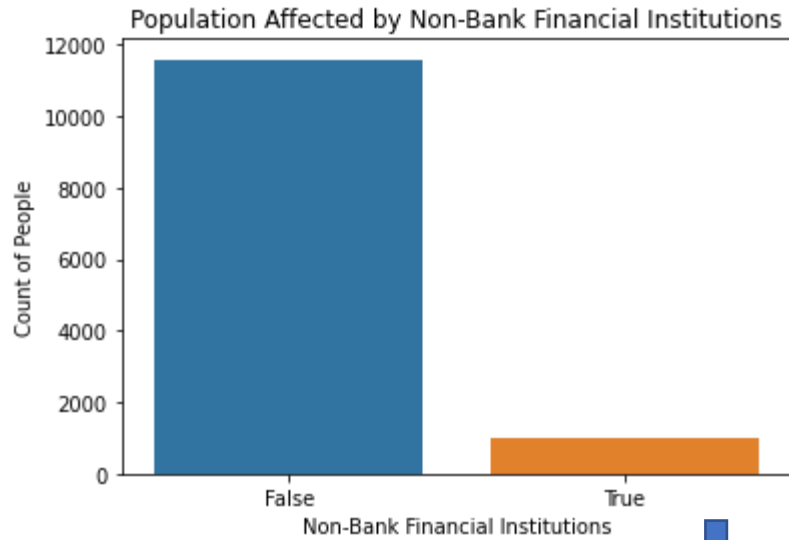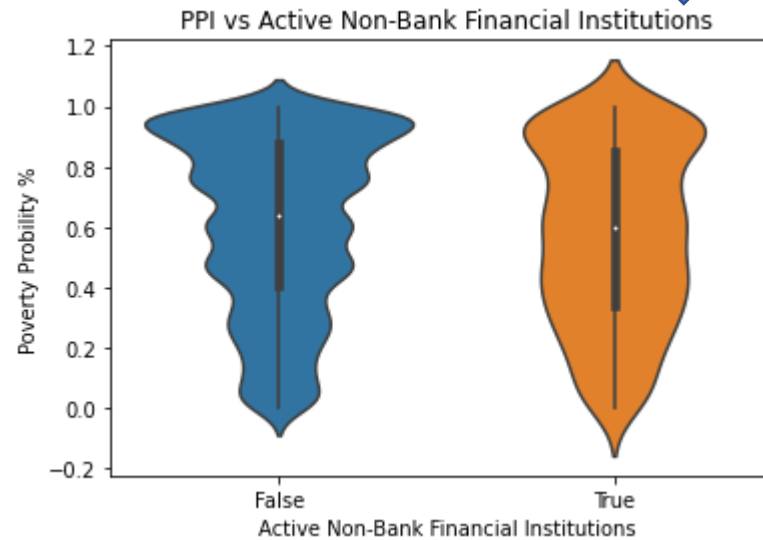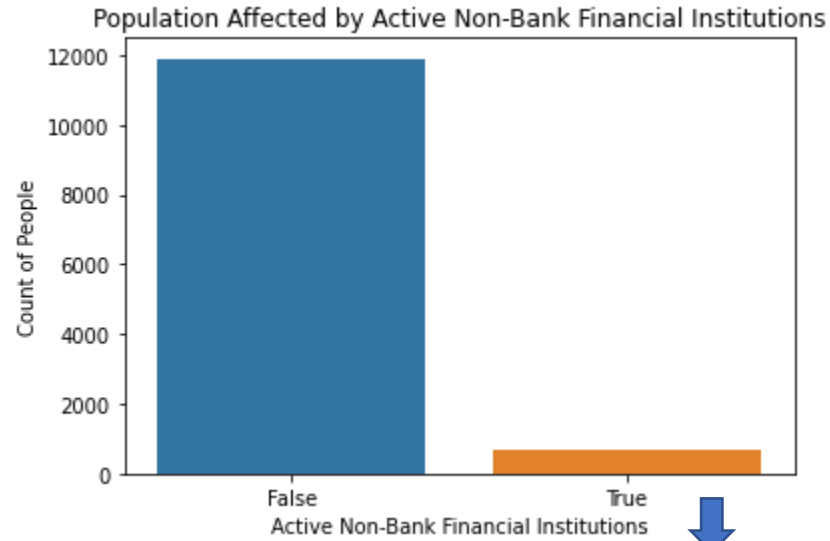
- Lower PPI with NBFI Account
- No change with Active Use

*NBFI= brokers/dealers, investment advisers, mutual funds, hedge funds, or commodity traders, casinos, clubs etc.

Financial Activities

Population Affected by Big Financial Activities
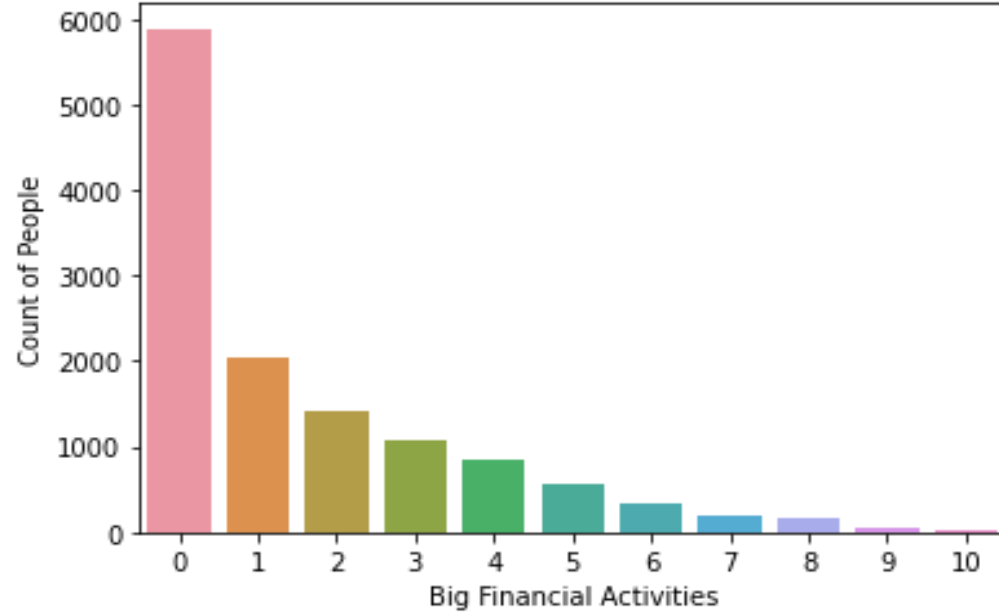
PPI vs Big Financial Activities

0   47%
1   16%
2   11%
3   9%
4   7%
5   4%
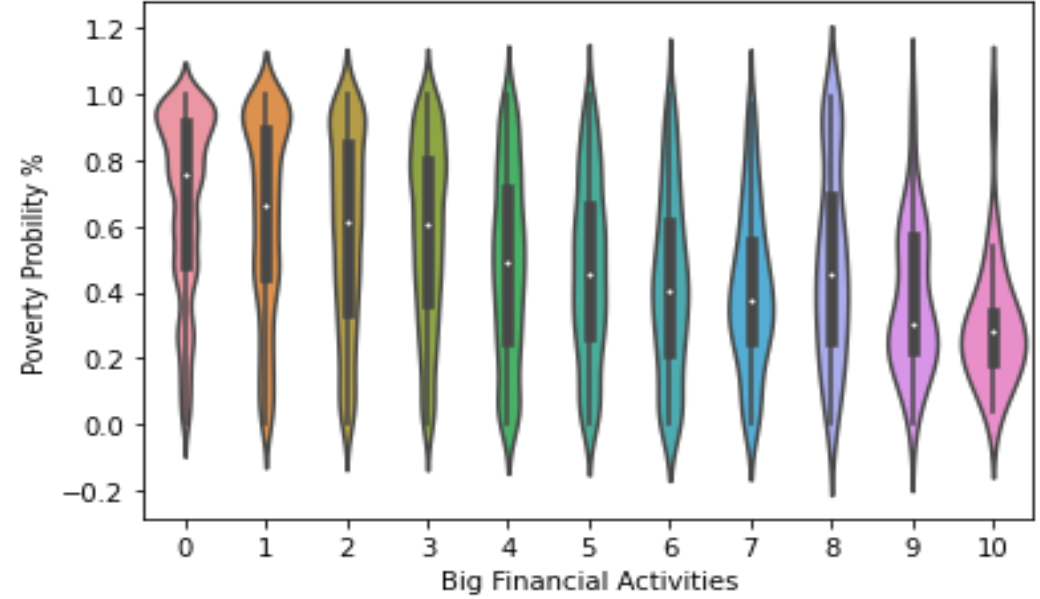
-Higher the PPI, less big financial activities a person can be involved in

Technology Communication

Phone

Population Affected by Phone Avalibility
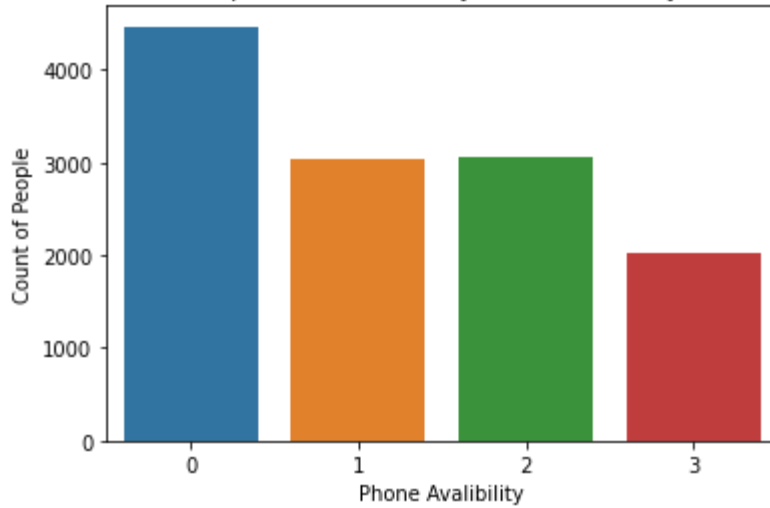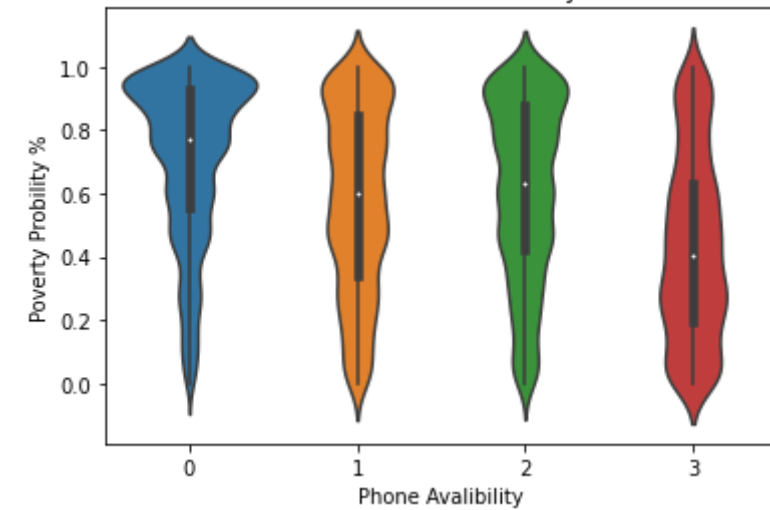
Population Affected by Phone Ownership

PPI vs Phone Avalibility
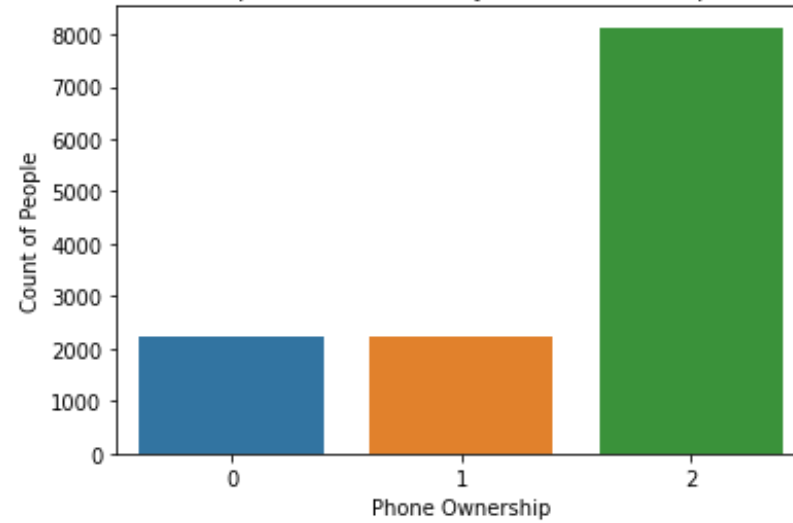
PPI vs Phone Ownership

0 35%
2 24%
1 24%
3 16%
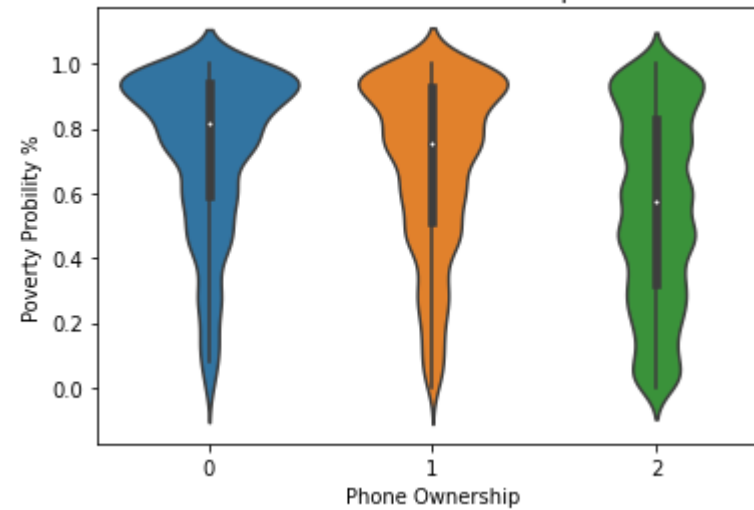
2 65%
1 18%
0 18%

- People with less phone availability, had a higher PPI score.

- People who owned 2 phones had a lower PPI score

Call and Text Capability

Population Affected by Calling Capability

Population Affected by Texting Capability

PPI vs Calling Capability

PPI vs Texting Capability

True 77% False 23%
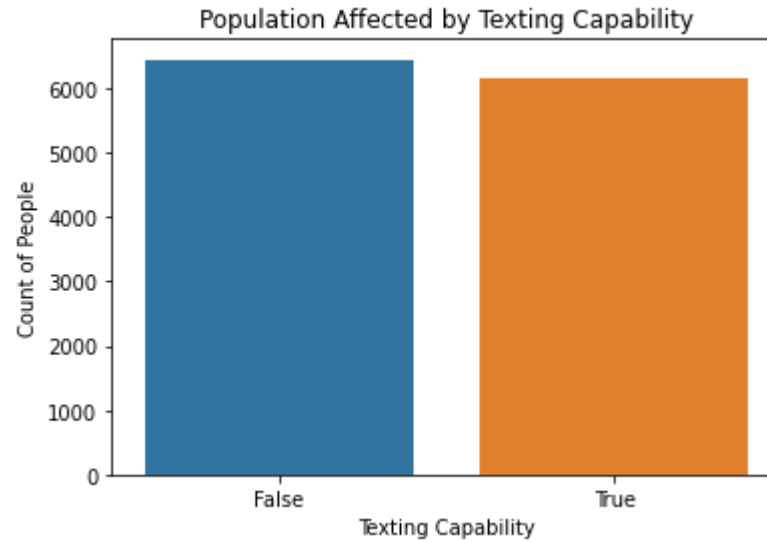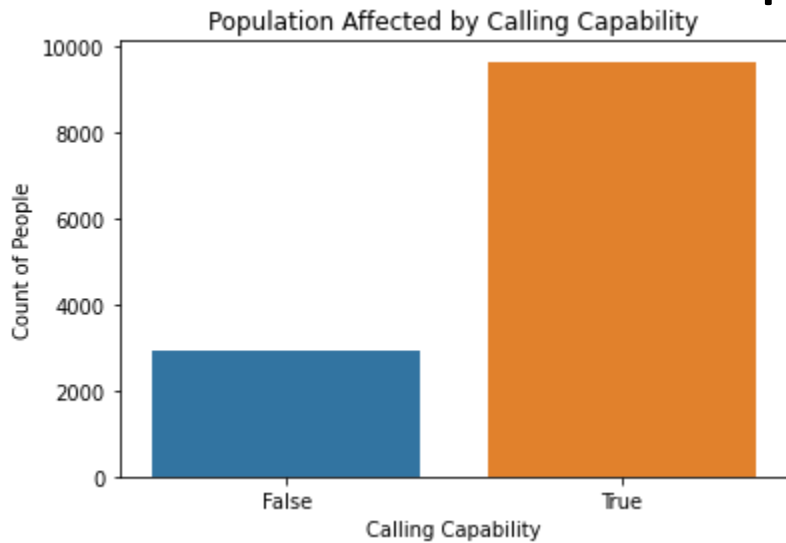
False 51% True 49%

- People with calling capability had a bit lower PPI score.

- People with texting capability had even lower PPI score.

Internet and Transaction Capability

Population Affected by Access to Internet

PPI vs Access to Internet

Population Affected by Transaction Capability
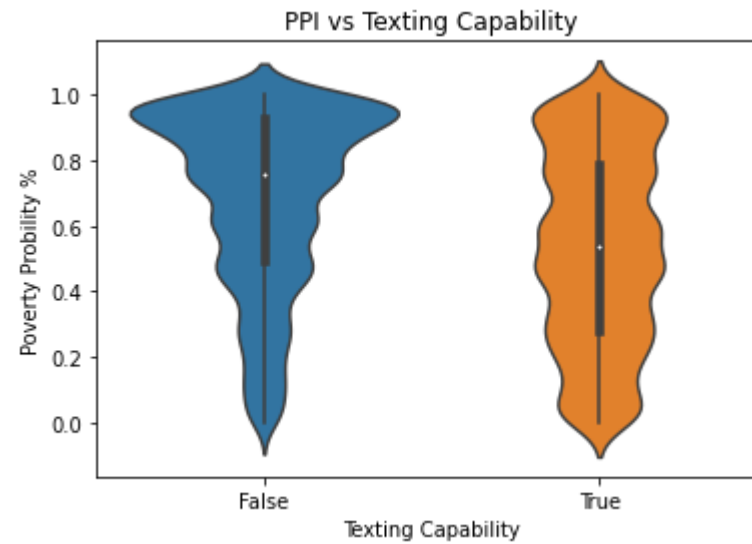
PPI vs Transaction Capability
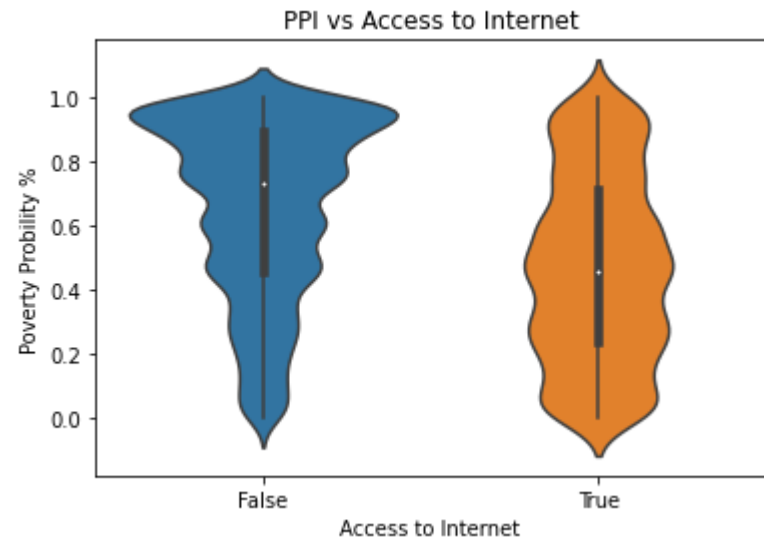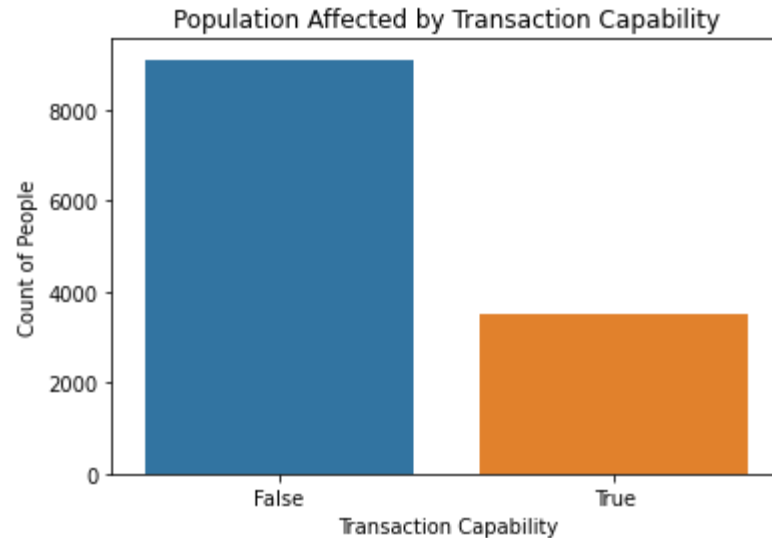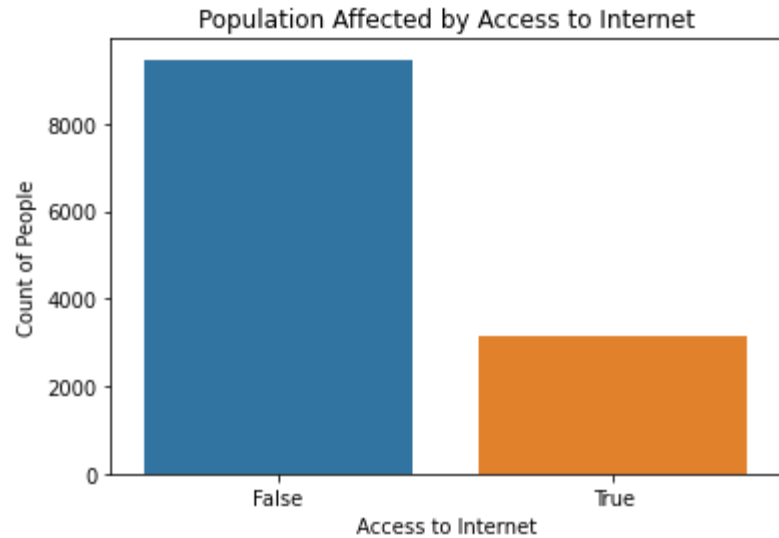
False 75% True 25%
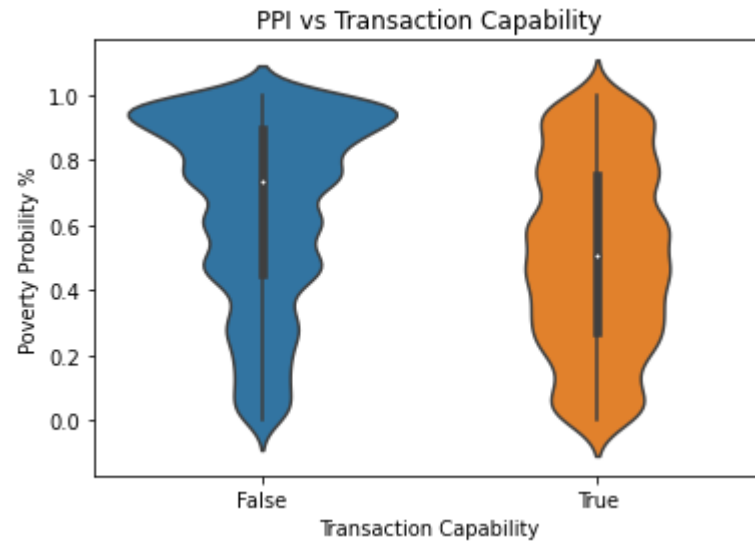
False 72% True 28%

-Access to internet and able to buy dramatically reduces PPI

Summary: Demographics

1. Sex- Females are more likely to be in poverty.

2. Age- No major discrepancies.

3. Country- Countries A, D and C are more likely to be in poverty.

4. Urban Settings- Non-urban people are more likely to be in poverty.

5. Religion- Religion N was more likely to be in poverty followed by P and Q

6. Marital Status-
Non married Females and married couples are more likely to be in poverty.

7. Family Member Status-
Every member besides sister/brother field were likely to be in poverty.

8. Financial Activity- Higher the PPI= less activities a person can do.

Summary: Large Reduction to Poverty

1. Income: Public Sector-
 Little given out but dramatically reduced chance of poverty.

2. Income: Private sector-
 Little given out but also helped a lot to reduce chance of poverty.

3. Formal Savings- Having savings dramatically reduced chance of poverty.

4. Bank Account and Active use- dramatically reduced chance of poverty.

5. Money Market Account and Active Use -
 dramatically reduces chance of poverty.

6. Internet and Transaction Capability-
 dramatically reduces chance of poverty.

Summary: Moderate Reduction to Poverty

1. Education-
 People with lower education level are more likely to be in poverty.

2. Literacy- Inability to read linked to likely more poverty.

3. Insurance- People with insurance reduces the chance of poverty.

4. Income: Family and Friends- Help reduces the chance of poverty

5. Phone- Access to/owning 2 phones reduces chances of poverty.

6. Call and Text Capability-
 Both reduces changes of poverty, esp being able to text.

Summary Very Little Reduction to No Change in Poverty

1. Income: Government-
 Help given by government was very sparce but did help a little.

2. NBFI- No change to very little reduction in chances of poverty.

3. Income: Own Business- Helped reduce chance of poverty a little.

4. Investments- Helped reduce chance of poverty a little.

5. Year Employment-
 Being employed reduces the chance of poverty but not a substantial a mount.

Summary: Increased Chance of Poverty

1. Income: Livestock-
 Livestock seems to increase the chance of poverty.

2. Money Borrowed-
 borrowing increased the chance of poverty unless it was for home or business reasons.