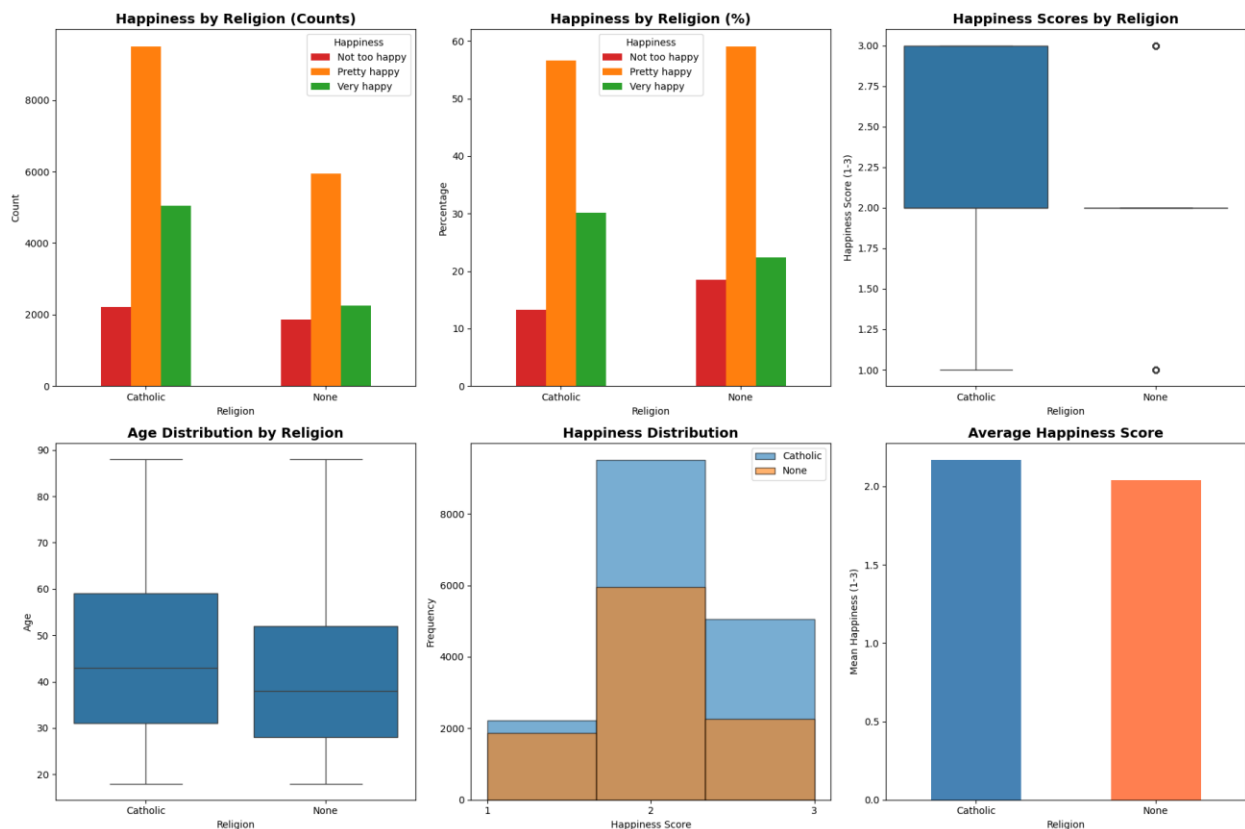


Q5)



## Visual Analysis

The charts show clear differences in happiness between Catholics and non-religious people. Catholics are more likely to be "Very happy" (30%) compared to non-religious people (22%), while non-religious individuals are more likely to be "Not too happy" (18% vs. 13%). Both groups have similar percentages for "Pretty happy" (around 56-59%), which is the most common response for both.

The boxplot confirms this pattern: Catholics have higher happiness scores overall, with their distribution leaning toward the happier end. Both groups show some outliers, meaning individual experiences vary a lot regardless of religious affiliation.

Age is an important factor here. Catholics are older on average (median age 43) compared to non-religious people (median age 38). This 5-year gap matters because older people tend to report higher life satisfaction. While both groups have people of all ages, Catholics clearly skew older, which could explain at least part of the happiness difference we're seeing.

## Numerical Summaries

Catholics are more likely to report being "Very happy" (30%) compared to non-religious people (22%), about an 8-percentage point difference. Non-religious people are slightly more likely to say they're "Not too happy" (18% vs. 13%). Most people in both groups fall into the middle "Pretty happy" category at around 56-59%.

The average happiness scores show the same pattern: Catholics score 2.17 out of 3, while non-religious people score 2.04. That's a 0.13 point difference, which is modest but consistent across over 26,000 people total. The large sample size (16,770 Catholics and 10,064 non-religious) makes this finding reliable.

However, age complicates the story. Catholics are older on average (46 years old) compared to non-religious people (41 years old). Since older people tend to be happier, we can't be sure if the happiness difference is due to religion or just age. Both groups range from 18 to 88 years old, but Catholics skew older overall.

While there's a happiness difference between groups on average, there's tons of variation within each group. Plenty of non-religious people are very happy, and plenty of Catholics aren't. Religion seems to nudge people toward being a bit happier, but individual life circumstances matter way more than religious affiliation alone.

### **Overall Interpretation**

According to the data, Catholics report being happier than non-religious people, but the difference is modest, not dramatic. The gap shows up most clearly at the extremes: Catholics are more likely to be "Very happy" and less likely to be "Not too happy." But most people in both groups fall in the middle "Pretty happy" category, suggesting that religion isn't the main driver of happiness for most people.

Age is a big complicating factor. Catholics are older on average, and older people tend to be happier. So we can't tell if Catholics are happier because of their religion or simply because they're older. To really answer this question, we'd need to account for age and see if the happiness difference still holds. Other factors like income, relationships, education, and social connections probably matter too and could explain some or all of the difference we're seeing.