

1. Median House Value by Income Category

- **Observations:**
 - There is a clear positive trend showing that higher income categories are associated with higher median house values.
 - The 'Very High' income category has the highest median house value, and also a wider range of values, indicating more variability in house prices within this category.
 - The 'Very Low' income category, on the other hand, has the lowest median house value and a more compact interquartile range, suggesting less variability in house prices within this group.
 - Outliers are present in all categories, indicating some districts with exceptionally high house values compared to the majority in their income category.
- **Interpretation:**
 - This trend confirms the strong relationship between income levels and housing prices, which is expected as higher income generally enables or corresponds with more expensive housing.
 - The presence of outliers, especially in lower income categories, might indicate unique situations where housing prices are high despite lower average incomes. These could be due to external factors like location desirability, historical value, etc.

2. Median House Value by Age Category

- **Observations:**
 - The 'New' and 'Very Old' categories show slightly higher median house values compared to 'Moderately Old' and 'Old' categories.
 - There's a considerable overlap in the interquartile ranges among the categories, suggesting that age alone might not be a strong determinant of house values.
 - Similar to income categories, there are outliers across all age categories, indicating some houses with values much higher than the median for their age group.
- **Interpretation:**
 - The higher values in the 'New' category could be due to newer construction generally commanding higher prices.

- Interestingly, 'Very Old' houses also show higher values, which might be attributed to historical value, location, or possibly renovations and preservation efforts.
- The significant overlap in values across age categories suggests that factors other than age (like location, size, and amenities) might play a more substantial role in determining house values.

Conclusion

These visualizations provide a nuanced understanding of how income and age categories relate to housing prices. While income level is a more pronounced indicator of house value, the age of housing shows a more complex relationship with value. These insights are crucial for any further modeling or policy-making related to housing markets.