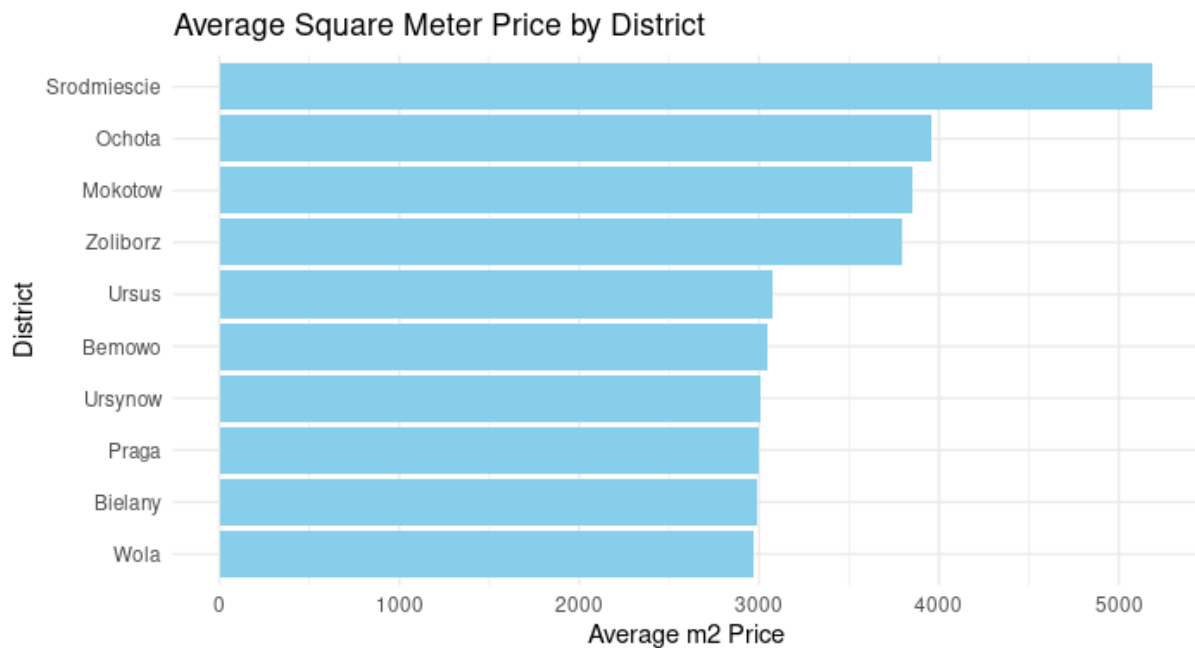
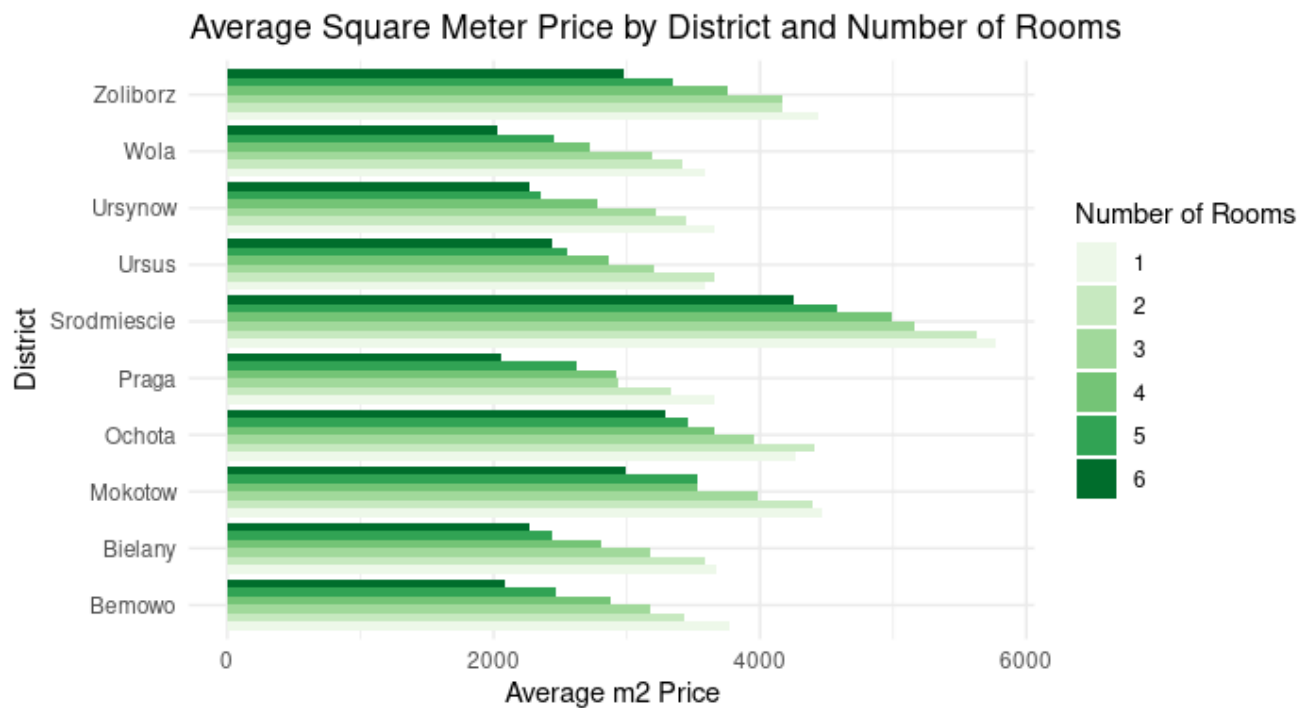


## Case 1) Apartments Dataset



The visualization of average square meter prices by district reveals substantial variation across different districts. Higher average prices in certain districts likely indicate areas with increased demand or limited housing supply, possibly due to proximity to city centers or desirable amenities.

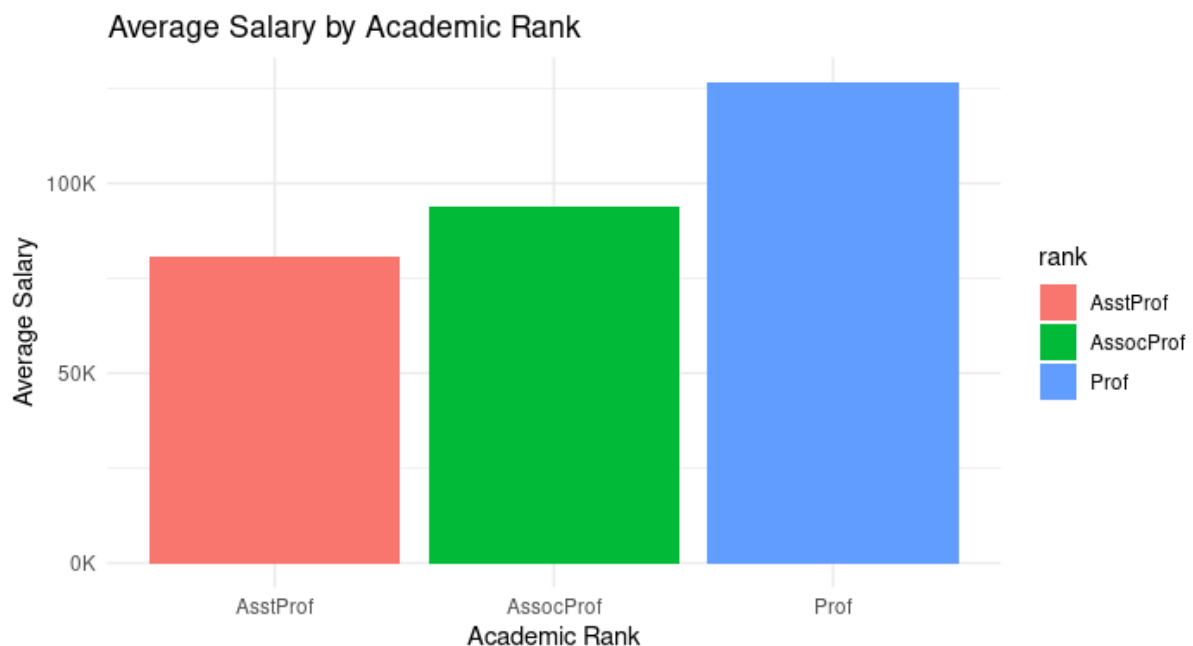
Conversely, districts with lower average prices may reflect areas with lower demand or a greater supply of housing options. This variance highlights how location is a significant factor in determining property values, as each district's unique characteristics, infrastructure, and proximity to services contribute to differences in the per-square-meter price.



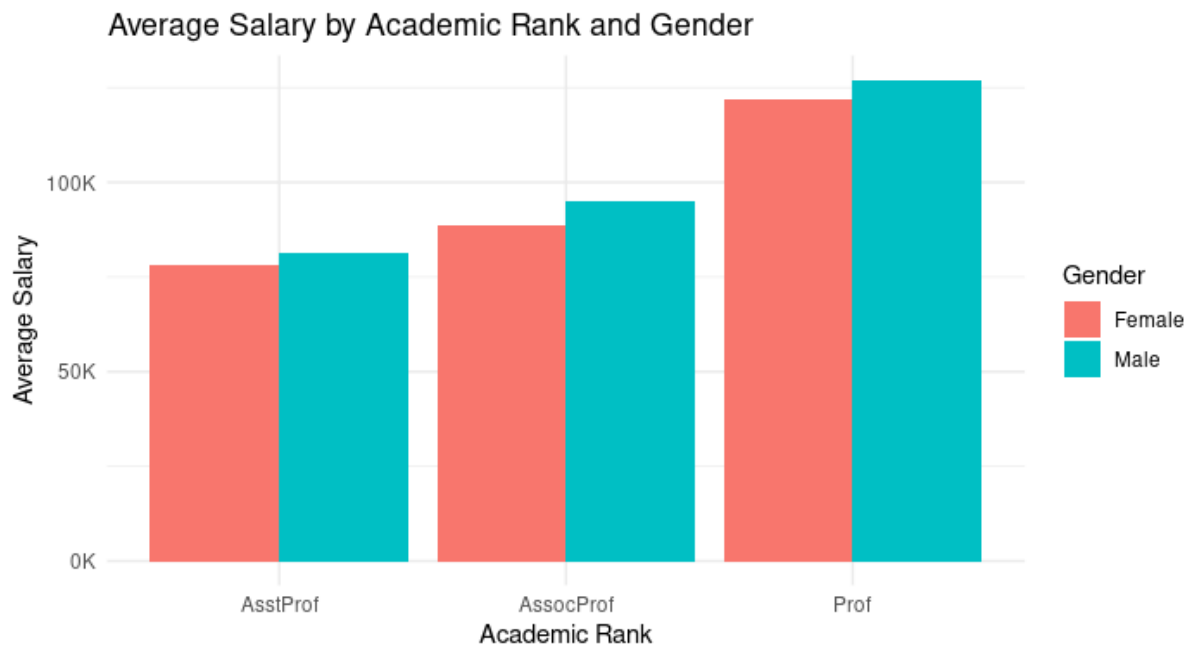
The visualization reveals a notable trend: the average square meter price tends to **decrease** as the **number of rooms** increases across most districts. This inverse relationship may suggest that larger properties, which typically have more rooms, offer a lower price per square meter compared to smaller properties.

This trend could be due to economies of scale, where larger properties have a relatively lower demand or lower per-unit pricing because they cater to a different market segment. Additionally, smaller apartments are often located in high-demand areas, where limited space drives up the per square meter cost.

## Case 2) Salaries Dataset



The bar chart displaying the "Average Salary by Academic Rank" shows a clear trend in average income levels associated with academic ranks. **Assistant Professors** (AsstProf) have the lowest average salary among the ranks, indicating that entry-level positions generally offer less compensation. **Associate Professors** (AssocProf) earn a moderate income, reflecting their intermediate level within academia. **Professors** (Prof) receive the highest average salary, which aligns with their seniority and experience. This progression in salaries by rank suggests that academic advancement is associated with higher income, likely due to increased responsibilities, expertise, and tenure within the institution.



The bar chart for "Average Salary by Academic Rank and Gender" reveals a consistent trend where **males earn slightly higher average salaries than females** across all academic ranks. For each rank—**Assistant Professor, Associate Professor, and Professor**—male faculty members have a modest income advantage over their female counterparts. This pattern suggests a gender-based salary disparity, though the differences are relatively small. The consistency of this trend across ranks indicates that gender-related salary differences persist at every level within the academic hierarchy.