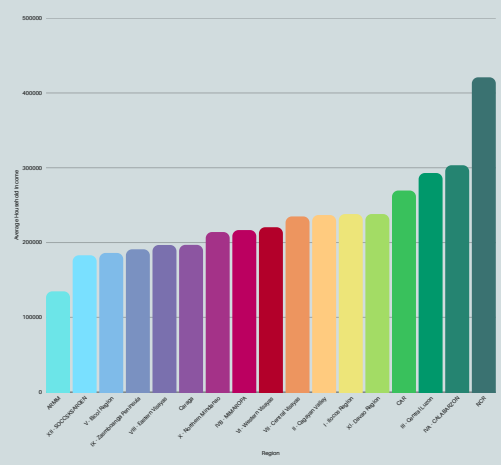
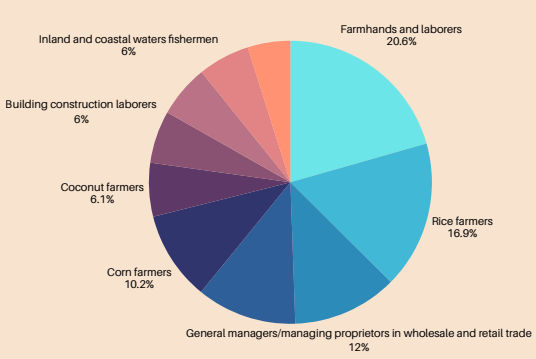
ITELEC303-Data Analytics

Analyst:
Caalam, Rafael V.
Batocabe, Mark Geoffry



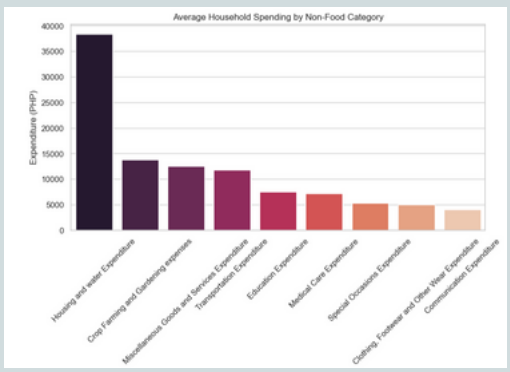
Average household Income by Region

The National Capital Region (NCR) records the highest average household income at 10.59%, reflecting its role as the country's capital with greater economic opportunities, while CALABARZON follows at 7.63%, supported by its status as the most populous region driving strong economic activity.



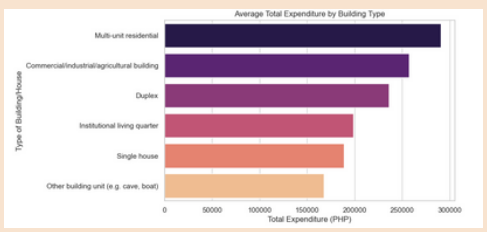
Top Household Head Occupations

Farmhands and laborers are the most common household head occupation, reflecting the dominance of manual and agricultural work. In contrast, car, taxi, and van drivers are the least common, showing their smaller role in household economic activity.



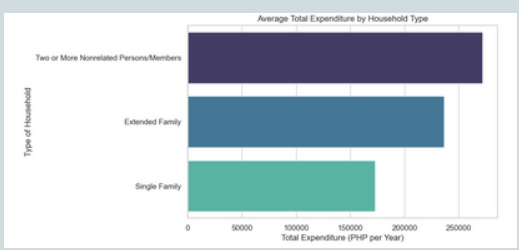
Household Spending by Non-food Category

Housing and water take the largest share of non-food household expenses at 36.39%, reflecting rental and utility costs, while crop farming and gardening follow at 13.10%, showing the continued importance of agriculture in Filipino livelihoods.



Total Expenditure by Building Type

Households in multi-unit residential buildings spend more due to higher urban costs like rent and utilities, while those in single houses have lower expenses, reflecting rural home ownership and greater self-sufficiency

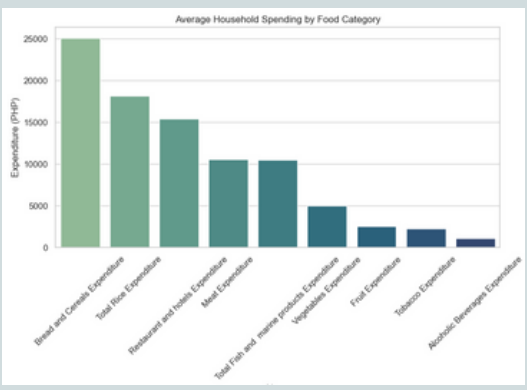


Average Total Expenditure by Household Type

Households of two or more nonrelated persons spend the most at 40.74%, followed by extended families at 35.59%, while single-family households spend the least at 23.67%, showing how household composition shapes overall spending behavior.

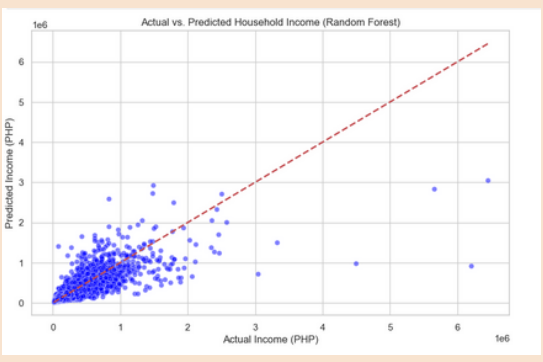
ITELEC303-Data Analytics

Analyst:
Caalam, Rafael V.
Batocabe, Mark Geoffry



Household Spending by Food Category

Bread and cereals take the largest share of household food spending at 27.69%, surpassing rice at 20.05%, showing how the broader category of cereals captures more costs even though rice remains a central staple in Filipino diets.



Actual vs. Predicted Household income(Random)

1. The model performs best for low-to-middle income households (0–500k), making it highly effective for targeting social welfare programs like 4Ps.

Actual vs. Predicted Household income(Random)

2. Predictions flatline for the wealthy (3M+), indicating that high income is driven by invisible factors (investments/profits) rather than the physical assets tracked by the model.

3. The 37% unexplained variance (0.63) likely stems from informal "sidelines" and OFW remittances, where cash flow exceeds visible assets.

Actual vs Predicted Food Budget (r^2)

1. Income and family size explain ~70% of food demand (:0.69), confirming that for most Filipinos, food spending is a fixed mathematical function of survival.

Actual vs Predicted Food Budget (r^2)

2. The tight clustering in the bottom-left shows high model accuracy for low-income families. Since their spending is survival-driven and non-negotiable, this model is ideal for calculating minimum subsidies.

3. The scatter "fans out" at higher values, indicating that wealthy spending is volatile. Once basic needs are met, food budgets are driven by lifestyle choices (e.g., dining out) rather than predictable demographics.