Income Prediction

By Group 2

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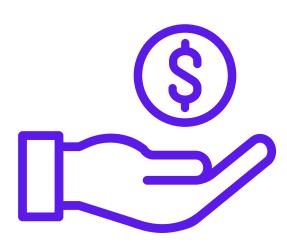


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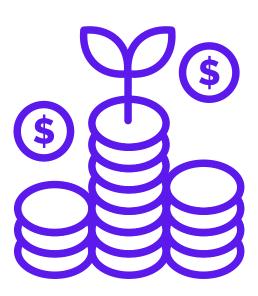
BACKGROUND

WHY INCOME?



Primary Indicator

Income is a primary indicator of well-being in our daily lives, helping to meet our essential needs.



Various Factors

Income levels are shaped by various factors that influence their distribution among individuals.



Impact

Researching incomeinfluencing factors deepens our understanding of their impact and effectiveness.

OUR PURPOSE

The importance of understanding the factors influencing income distribution and how this knowledge can address disparities, create opportunities, and promote economic equity.



Identify Key Factors

Identify the key factors that influence income levels across different individuals and groups.



Examine Demographic Factors

Examine the role of demographic factors, such as age, education, gender housetype, and etc in shaping income disparities.



Offer Perspectives

Offer insightful and well-informed perspectives to enhance understanding and guide future research or policy decisions.

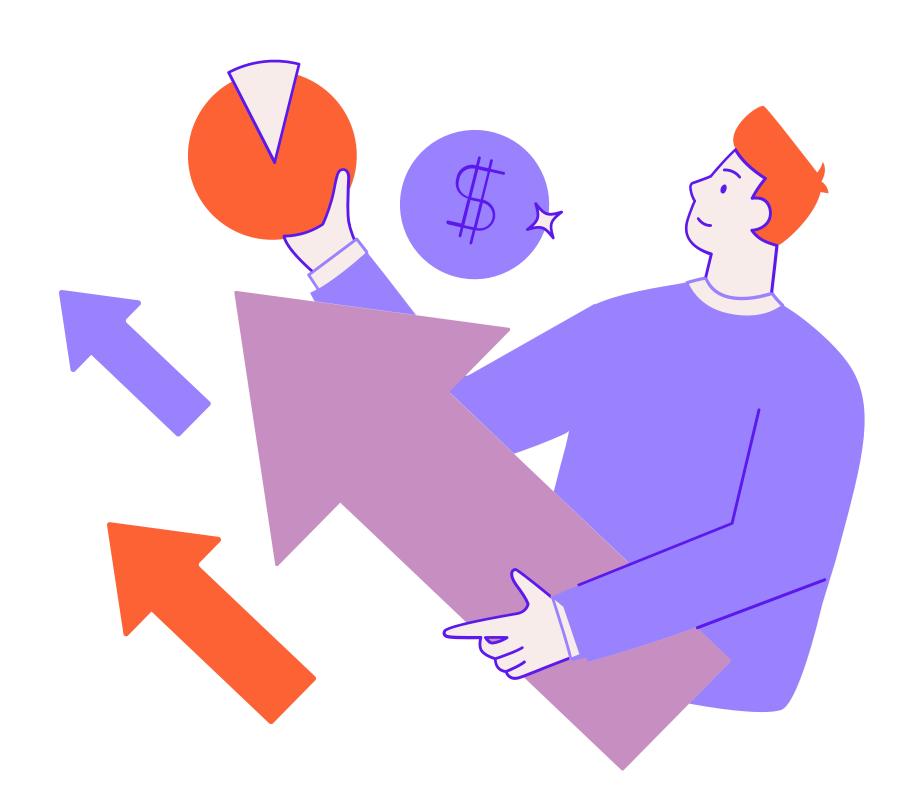
FOCUS OF OUR ANALYSIS

Descriptive

Examining how various factors have influenced income distribution among individuals in the past, helping to reveal key insights into income levels and disparities.

Predictive

Identify which factors are likely to have the most significant impact on income levels in the future, providing valuable insights into potential income changes and inequalities.



OUR DATASET

Source

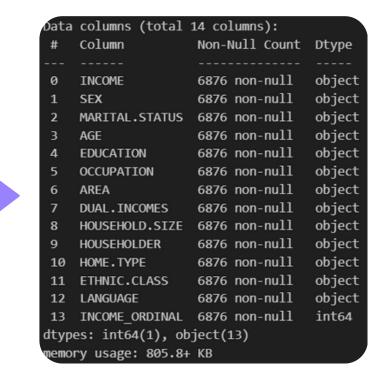
https://github.com/se lva86/datasets/blob/ master/income.csv

•	AGE	EDUCATION	OCCUPATION	AREA	DUAL.INCOMES	HOUSEHOLD.SIZE	HOUSEHOLDER
ı	45- 54	College graduate	Homemaker	10+ years	No	Five	Own
ı	25- 34	College graduate	Professional/Managerial	10+ years	Yes	Three	Rent
	14- 17	Grades 9 to 11	Student, HS or College	10+ years	Not Married	Four	Family
<u> </u>	14- 17	Grades 9 to 11	Student, HS or College	4-6 years	Not Married	Four	Family
ı	55- 64	1 to 3 years of college	Retired	10+ years	No	Two	Own
è	14- 17	Grade 8 or less	Sales Worker	10+ years	Not Married	Three	Family
è	18- 24	1 to 3 years of college	Professional/Managerial	10+ years	Not Married	Four	Family
è	14- 17	Grades 9 to 11	Professional/Managerial	10+ years	Not Married	Three	Family
ł	55- 64	1 to 3 years of college	Factory Worker/Laborer/Driver	10+ years	Yes	Three	Rent
è	25- 34	1 to 3 years of college	Professional/Managerial	10+ years	Not Married	One	Rent

Reason for Using the Dataset:

- The complexity of data relevant to the research topic.
- The completeness of the data and its easy accessibility online.
- The diverse variables, making it flexible for analysis.

Oata	columns (total :	14 columns):	
#	Column	Non-Null Count	Dtype
0	INCOME	8993 non-null	object
1	SEX	8993 non-null	object
2	MARITAL.STATUS	8833 non-null	object
3	AGE	8993 non-null	object
4	EDUCATION	8907 non-null	object
5	OCCUPATION	8857 non-null	object
6	AREA	8080 non-null	object
7	DUAL.INCOMES	8993 non-null	object
8	HOUSEHOLD.SIZE	8618 non-null	object
9	UNDER18	3269 non-null	object
10	HOUSEHOLDER	8753 non-null	object
11	HOME.TYPE	8636 non-null	object
12	ETHNIC.CLASS	8925 non-null	object
13	LANGUAGE	8634 non-null	object
dtype	es: object(14)		
memor	ry usage: 983.7+	KB	



Dropping Rows

We drop rows where any of the following critical columns have missing values:
'MARITAL.STATUS', 'EDUCATION',
'OCCUPATION', 'AREA',
'HOUSEHOLD.SIZE',
'HOUSEHOLDER', 'HOME.TYPE',
'ETHNIC.CLASS', 'LANGUAGE'.

Dropping Columns

The column 'UNDER18' is removed because it is not relevant to the current analysis.

DATA CLEANSING & MAPPING

Mapping Ordinal Values

The INCOME column is an ordinal categorical variable, representing income ranges with the following mappings:

1: Less than \$10,000

2: \$10,000 - \$15,000

3: \$15,000 - \$20,000

4: \$20,000 - \$25,000

5: \$25,000 - \$30,000

6: \$30,000 - \$40,000

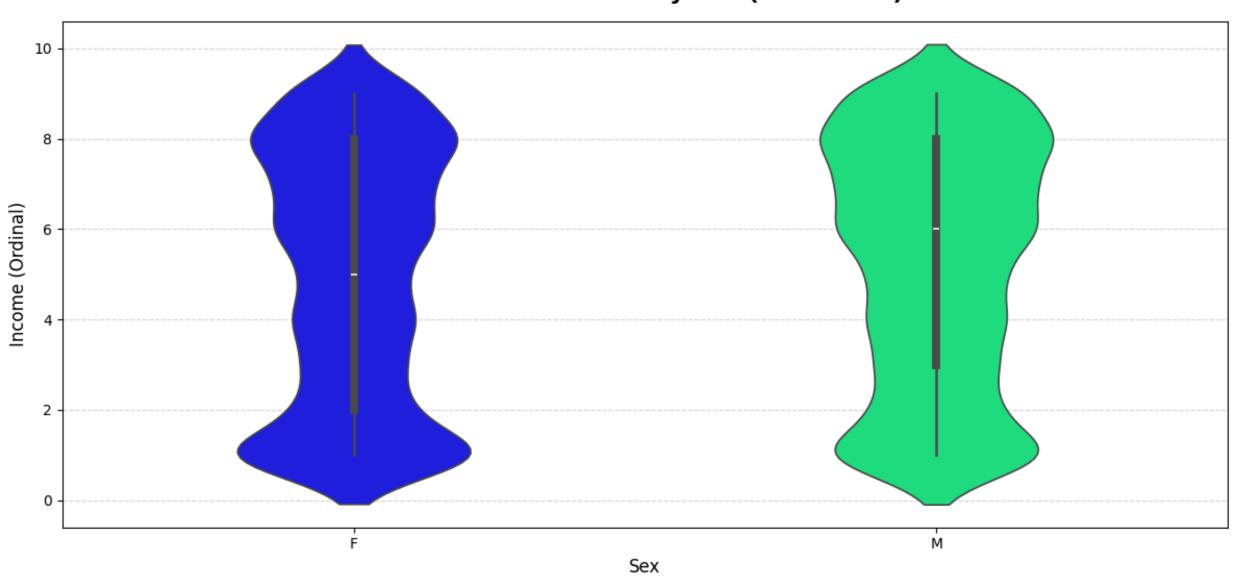
7: \$40,000 - \$50,000

8: \$50,000 - \$75,000

9: More than \$75,000

INCOME DISTRIBUTION BY BY SEX

Income Distribution by Sex (Violin Plot)



Point 01

The graph shows similar income densities for men and women, but men earn slightly more, possibly due to differences in job roles, hours worked, or industry representation.

INCOME DISTRIBUTION BY MARITAL STATUS & DUAL INCOMES



Marital Status

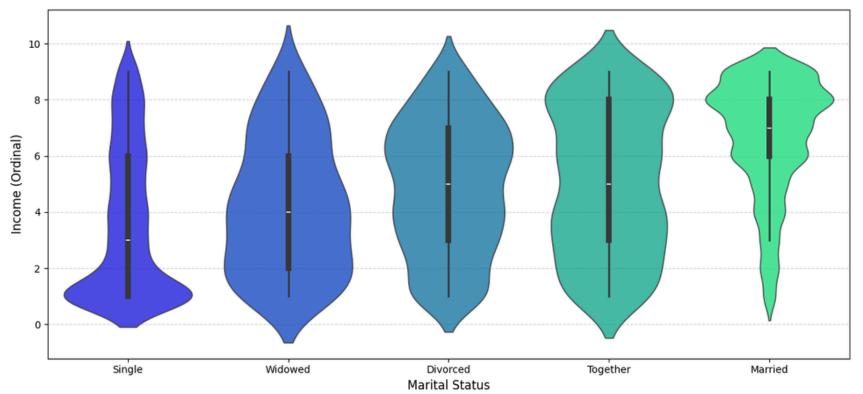
First graph varies by marital status, married or cohabiting individuals tend to have higher, more consistent incomes, while singles and widows have lower or more limited distributions.



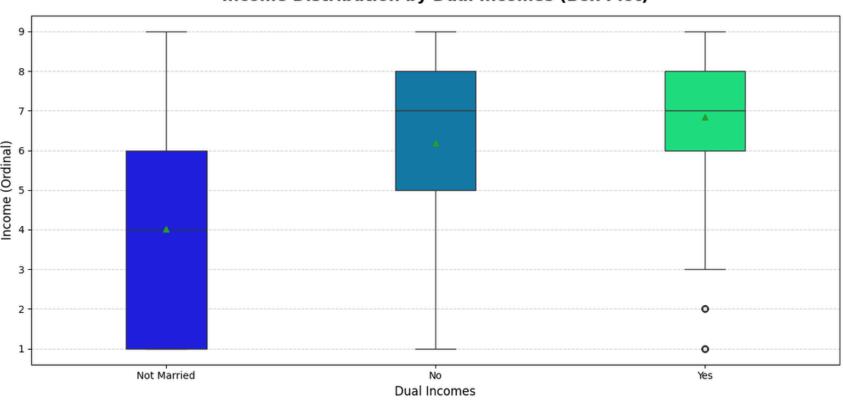
Dual Incomes

Second graph shows that among married individuals, households with dual incomes tend to have higher and more consistent average earnings.

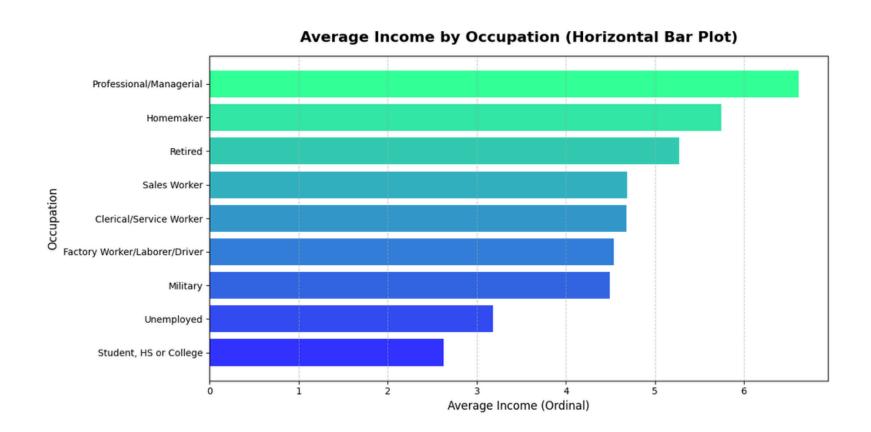
Income Distribution by Marital Status (Violin Plot)

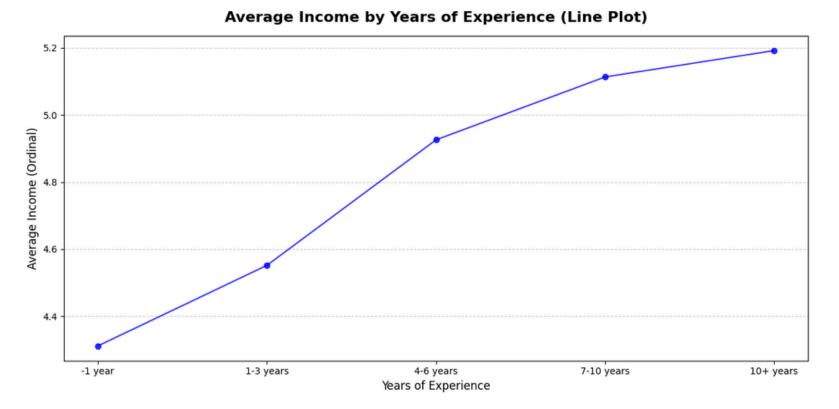


Income Distribution by Dual Incomes (Box Plot)



AVERAGE INCOME BY OCCUPATION & YEARS OF EXPERIENCE





Occupation

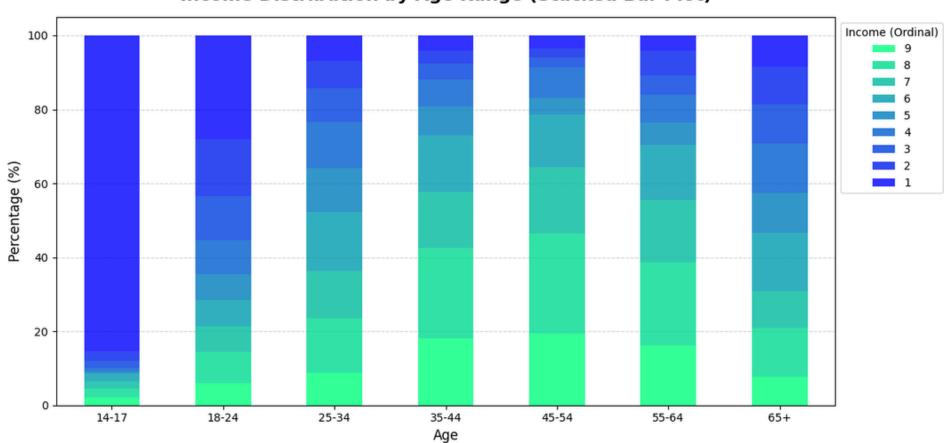
The graph shows that individuals in professional roles have the highest income levels. Retirees also fall into a high-income category, likely due to accumulated savings or pensions. This indicates a correlation between one's occupation.

Years of Experience

The graph illustrates a steady increase in income with years of experience. As individuals gain experience and develop advanced skills, they become more capable of handling complex and challenging tasks. This progression explains why greater experience often leads to higher earning potential.

INCOME DISTRIBUTION BY AGE

Income Distribution by Age Range (Stacked Bar Plot)



Point 01

The 14-17 age group has the lowest income, with about 90% earning similarly (1), likely due to limited experience as they are often studying or job hunting.

Point 02

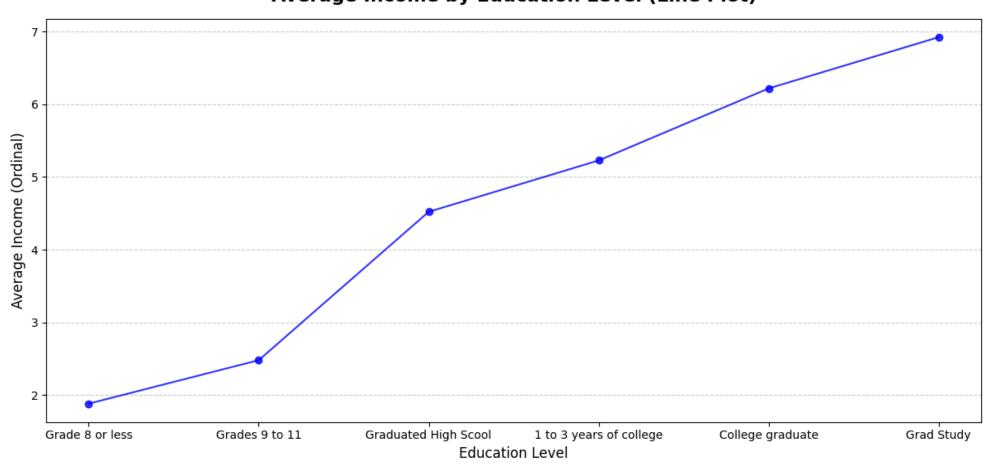
The 45-54 age group has the highest income, likely due to experience and seniority.

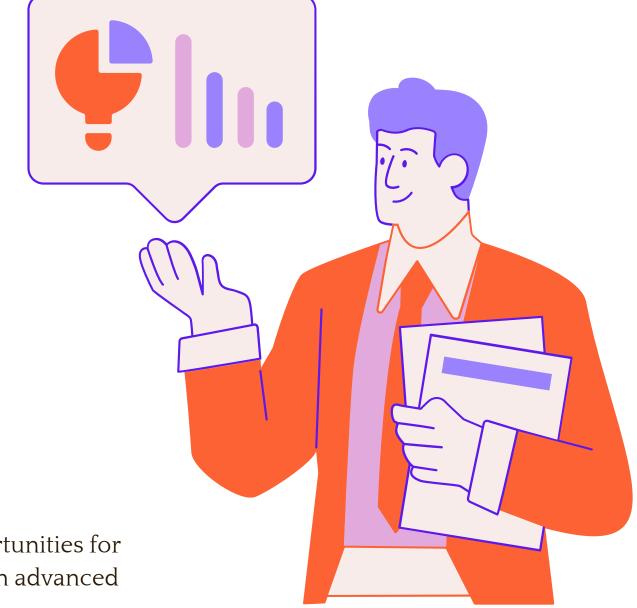
Point 03

Older age groups (55-65 & 65+) tend to earn less due to declining productivity with age.

AVERAGE INCOME BY EDUCATION LEVEL

Average Income by Education Level (Line Plot)





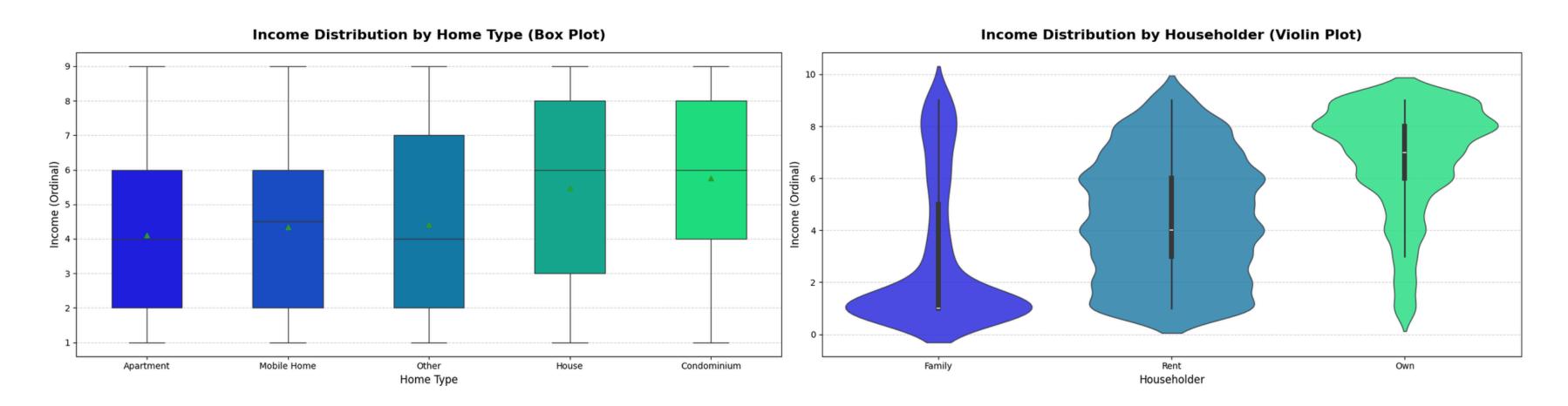
Point 01

The graph illustrates a clear trend where individuals with higher education levels tend to have higher incomes.

Point 02

As education level increases, it opens up more opportunities for better-paying jobs, reflecting the correlation between advanced qualifications and increased earning potential.

INCOME DISTRIBUTION BY HOME TYPE AND HOUSEHOLDER



Home Type

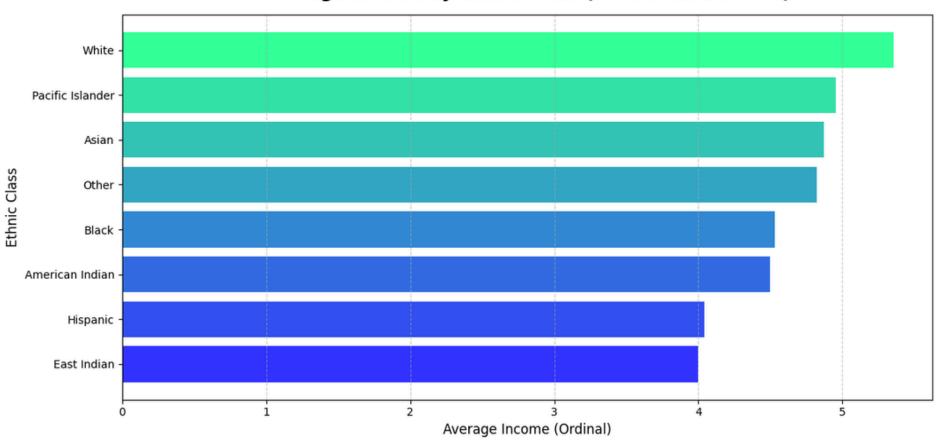
The graph shows similar median incomes for apartments and mobile homes, with mobile homes slightly higher. Condominium and house owners have higher average incomes, linking income to housing type.

Householder

The graph shows those living with family have lower average incomes, renters have a wide income range, and homeowners typically have higher, stable incomes.

AVERAGE INCOME BY ETHNICITY

Average Income by Ethnic Class (Horizontal Bar Plot)



Point 01

The data reveals that White individuals form the majority, followed by Pacific Islanders and Asians.

Point 02

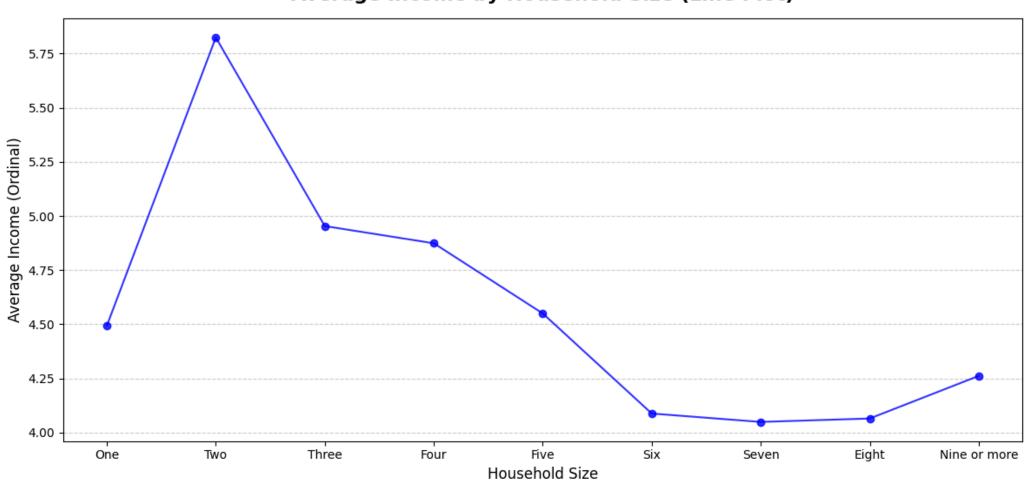
Hispanic, American Indian, and Black individuals have lower representation, with West Indians being the least represented.

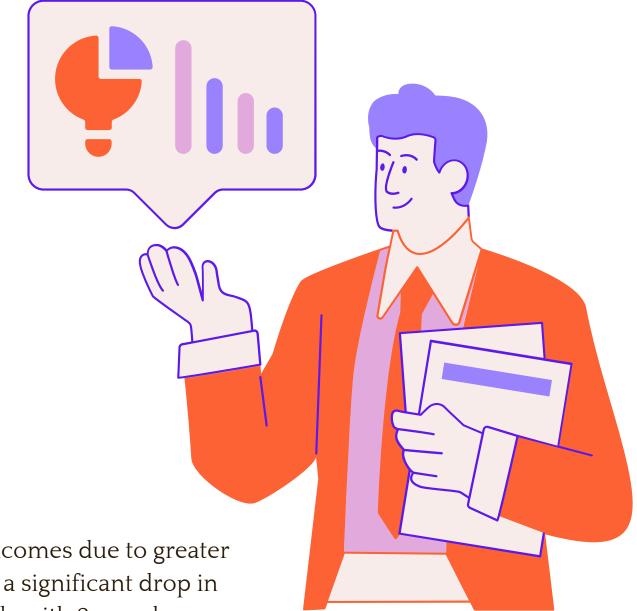
Point 03

This disparity may stem from socioeconomic factors like economic background and education.

AVERAGE INCOME BY HOUSEHOLD SIZE

Average Income by Household Size (Line Plot)





Point 01

Households with 2 members have the highest average income, while income decreases as household size increases, reaching the lowest in 7-member households.

Point 02

Larger households may experience lower incomes due to greater economic burdens. The dataset also reveals a significant drop in data representation starting from households with 3 members.

0.0	0.0	0.0	1.0
0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0
0.0	0.0	1.0	0.0
0.0	0.0	0.0	0.0

ENCODING

Encoding in machine learning converts categorical data into numerical formats, making it usable for algorithms. Common methods include one-hot encoding, which creates binary columns for each category, and ordinal encoding, which assigns ordered numerical values.

Ordinal

The income, age, education, area (experience years), and household size columns were converted from object to integer types by assigning integers to each category, enabling sorting.

Onehot

The columns for gender, marital status, occupation, dual income, householder, house type, ethnic class, and language were converted from object to integer types, as their data cannot be sorted.

MEScale	AGEScale	EDUCATIONScale	AREAScale	HOUSEHOLD
9	5	5	5	
9	3	5	5	
1	1	2	5	
1	1	2	3	
8	6	4	5	
1	1	1	5	
2	2	4	5	
1	1	2	5	
4	6	4	5	
6	3	4	5	
5 columns				

ATUS_Divorced	MARITAL.STATUS_Married	MARITAL.STATUS_9
0.0	1.0	
0.0	1.0	
0.0	0.0	
0.0	0.0	
0.0	1.0	
0.0	0.0	
0.0	0.0	
0.0	0.0	
0.0	1.0	
0.0	0.0	

SEHOLDER	 ETHNIC.CLASS_	_Asian	Eī
Own		0.0	
Rent		0.0	
Family		0.0	
Family		0.0	
Own		0.0	
Family		0.0	
Family		0.0	
Family		0.0	
Rent		0.0	
Rent		0.0	

MERGE & SPLIT DATA

Merging

Combine the cleaned and encoded data, then remove columns with object data types, such as income, sex, marital status, age, education, occupation, experience, dual income, household size, householder, home type, ethnic class, and language.

Splitting

Divide the combined data into three parts, namely training data, validation data and testing data.

```
it(df_clean
val test, t
axis=1).co
s=1).copy()
```

K-FOLD VALIDATION

Grid search finds the best hyperparameter combination based on the highest evaluation score to optimize model performance. Results may vary depending on the dataset used.

Grid Search Result

{'min_samples_leaf': 6, 'min_samples_split': 2, 'n_estimators': 100}

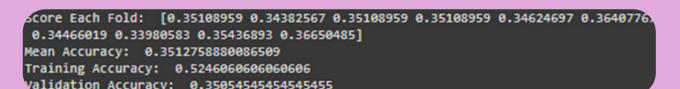
Before K-Fold

Validation Score

32%

After K-Fold

Validation Score



35%

In K-Fold Cross Validation, hyperparameters optimized through Grid Search are used. The score of each fold represents the accuracy of training data split into 10 folds, while average accuracy shows the mean accuracy across all folds. Training and validation accuracy indicate how well the model learns and performs, with the possibility of overfitting.

RECALL AND PRECISION

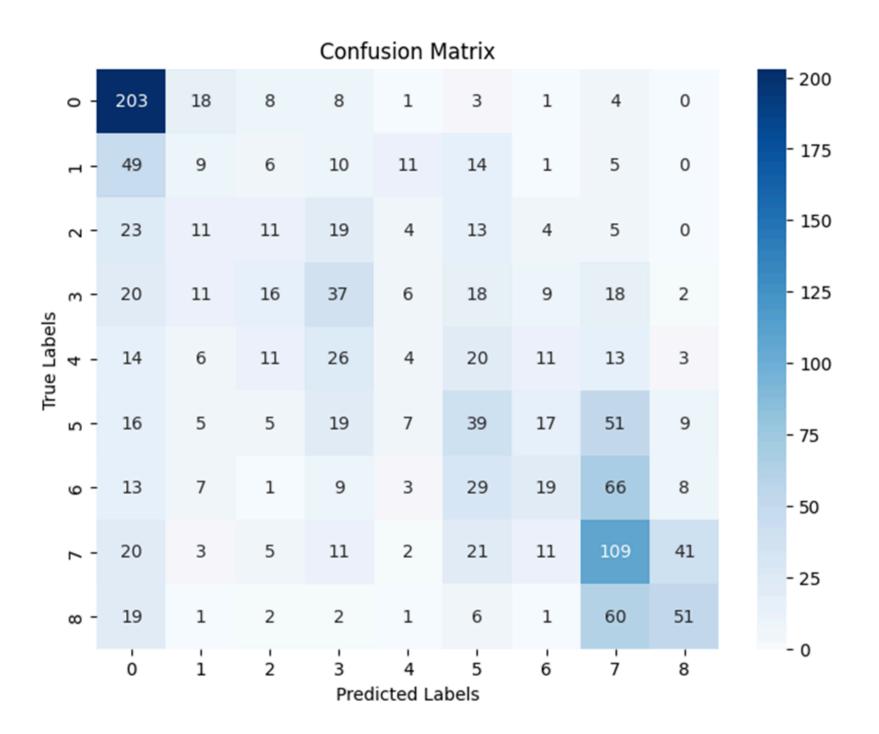
Recall and Average Calculation

Recall measures model
sensitivity, calculated as True
Positives / (True Positives + False
Negatives). When average =
'macro,' the average is computed
across all classes without
considering their proportions.

Recall: 6	3.2822	67320702495	666			
Precision: 0.2746802709551615						
Classific	cation	Report:				
		precision	recall	f1-score	support	
	1	0.54	0.83	0.65	246	
	2	0.13	0.09	0.10	105	
	3	0.17	0.12	0.14	90	
	4	0.26	0.27	0.27	137	
	5	0.10	0.04	0.05	108	
	6	0.24	0.23	0.24	168	
	7	0.26	0.12	0.17	155	
	8	0.33	0.49	0.39	223	
	9	0.45	0.36	0.40	143	
accur	racy			0.35	1375	
macro	avg	0.27	0.28	0.27	1375	
weighted	avg	0.31	0.35	0.32	1375	

F1 Score and Support

The F1 score is the harmonic mean of precision and recall, calculated as 2 * (precision * recall) / (precision + recall). Support represents the actual number of samples for each class.



CONFUSION MATRIX

Point 01

The main diagonal of the matrix (203, 9, 11, 37, 4, 39, 19, 109, 51) represents the model's accuracy for each class. For example, 203 in class 0 indicates strong performance, while 4 in class 4 shows difficulty in prediction.

Point 02

In class 7, the number 109 indicates relatively good performance, suggesting the model can predict this class with moderate accuracy.

PREDICTION TEST



Dataset Information

- Income: Shows the income per person.
- Sex: Shows the gender of the person.
- Marital status: Shows the person's marital status.
- Age: Shows the age group of the person.
- Education: The person's highest level of education.
- Occupation: A person's job or profession.
- Area: Shows the duration of time lived in each person's area.
- Dual Income: Shows when people do more than one source of income.
- Household Size: Shows the number of people living in the household.
- Household: Indicates whether the individual lives in their family's, owns or rents a home.
- Home Type: Shows the person's home type.
- Ethnic Class: Shows each person's racial ethnicity.
- Language: Shows the person's daily-used language.

Test 01

Age: 25-34

Education: College

Graduate

Experience: 1-3 years

Household Size: Two

Gender: Male

Marital Status: Together

Occupation: Homemaker

Dual Income: No

Householder Category:

Renter

Home Type: Apartment

Ethnicity: White

Language: English

Predicted Income:

\$30,000 - \$40,000

Test 02

Age: 14-17

Education: Grade 9 to 11

Experience: Less than 1 year

Household Size: Four

Gender: Female

Marital Status: Single

Occupation: Student (High

School or College)

Dual Income: No

Householder Category:

Family

Home Type: House

Ethnicity: Asian

Language: Other

Predicted Income: Below

\$10,000

Test 03

Age: 55-64

Education: Graduate Studies

Experience: 10+ years

Household Size: Six

Gender: Male

Marital Status: Widowed

Occupation:

Professional/Managerial

Dual Income: No

Householder Category:

Homeowner

Home Type: Condominium

Ethnicity: Hispanic

Language: Spanish

Predicted Income: \$75,000+

TEST CASES

TEST 1

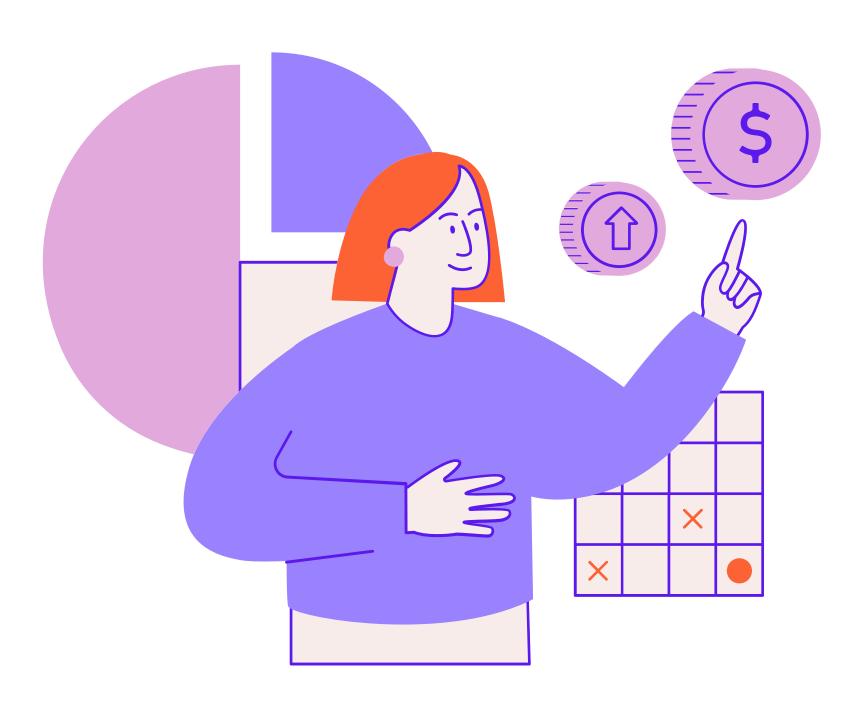
		=======================================
Prediction Test	Household Size Category:	Dual Income Category:
=======================================	1. One	1. No
Age Category:	2. Two	2. Not Married
1. 14-17	3. Three	YesInput the number of the dual income category: 2
2. 18-24	4. Four 5. Five	input the number of the dual income category. 2
3. 25-34	6. Six	=======================================
	7. Seven	Householder Category:
4. 35-44	8. Eight	1. Family
5. 45-54	9. Nine or more	2. Own
6. 55-64	Input the number of the household size category: 2	Rent Input the number of the householder category: 3
7. 65+		input the number of the householder category.
Input the number of the age category: 3		=======================================
	Gender Category: 1. Female	Home Type Category:
	2. Male	1. Apartment
	Input the number of the sex category: 2	 Condominium House
Education Category:		4. Mobile Home
1. Grade 8 or less	=======================================	5. Other
2. Grades 9 to 11	Marital Status Category:	Input the number of the home type category: 1
3. Graduated High Scool	1. Divorced	
4. 1 to 3 years of college	2. Married	Ethnic Category:
5. College graduate	3. Single 4. Together	1. American Indian
6. Grad Study	5. Widowed	2. Asian
•	Input the number of the marital status category: 4	3. Black
Input the number of the education category: 5		4. East Indian
	=======================================	5. Hispanic 6. Other
=======================================	Occupation Category:	7. Pacific Islander
Years of Experience Category:	1. Clerical/Service Worker	8. White
11 year	2. Factory Worker/Laborer/Driver	Input the number of the ethnic category: 8
2. 1-3 years	3. Homemaker	
3. 4-6 years	 Military Professional/Managerial 	Language Category:
4. 7-10 years	6. Retired	Language Category: 1. English
· ·	7. Sales Worker	2. Other
5. 10+ years	8. Student, HS or College	3. Spanish
Input the number of the years of experience category: 2	9. Unemployed	Input the number of the language category: 1
	Input the number of the occupation category: 3	Income prediction: [30.000-40.000)

TEST 2

ge Category: 1. 14-17 2. 18-24 3. Yes 3. Yes 3. 18-24 3. 25-34 3.	Prediction Test	2. Two	1. No
## Category:			
1. 14-17 2. 18-24 3. 25-34 3. 25-34 3. 25-34 3. 35-44 3. 654 3. 55-64 5. 55-64 5. 55-64 5. 55-64 6. 664 6.			
1. 14-17 2. 18-24 3. 25-34 3. 25-34 3. 25-34 3. 55-64 3. 55-64 3. 55-64 3. 55-64 3. 55-64 3. 664 3. 7. Seven 3. 8. Eight 3. 664 3. 8. Eight 3. Eight 3. 8. Eight 3. Eight 3. 8. Eight 3. 8. Eight 3. 8. Eight 3. E			Input the number of the dual income category: 2
7. Seven Householder Category: 1. 35-44			
8. Eight 9. Nine or more 1. 2-5-34 1. 35-44 9. Nine or more 1. 1. Family 2. Own 1. Family 3. Family 4. Family 3. Family 4. F	2. 18-24		
1. 35-44 1. 45-54 1. 45-54 1. 55-64 1. 65+ 1. 65+ 1. 66+ 1. 66-1 1. 66	3. 25-34		
Input the number of the household size category: 4 input the number of the household size category: 4 input the number of the age category: 1 Gender Category: 1. Female 2. Male 2. Male 3. House 4. Mobile Home 4. Mobile Home 5. Other 5. Other 5. College graduate 6. Grad Study 6. Whowed 6. High Scool 7. Pacfic Islander 8. Widowed 8. Hispanic 8. Widowed 8. Hispanic 8. Hispani	4. 35-44	_	•
input the number of the age category: 1 Gender Category: 1. Female 2. Male 3. Mose 4. Mobile Nome 4. Mobile Nome 5. Grades 9 to 11 5. Grade 8 or less 6. Graduated High Scool 6. College graduate 6. Grad Study 7. College graduate 7. Midowed 7. Midowed 7. Together 7. Widowed 7. Together 7. Widowed 8. Froesson of Experience Category: 8. Grade Study 8. Grade Study 9. College graduate 9. Signle 9. A Together 9. A Together 9. Signle 9. College graduate 9. College graduate 9. College graduate 9. College graduate 9. Signle 9. College graduate 9. Signle 9. College graduate 9. Signle 9. S	5. 45-54		
### Category: 1 Gender Category: 1		input the number of the household size category.	Input the number of the householder category: 1
Gender Category: 1. Female 2. Male Input the number of the sex category: 1 1. Female 2. Male Input the number of the sex category: 1 3. House 4. Mobile Home 5. Other Input the number of the sex category: 1 3. House 4. Mobile Home 5. Other Input the number of the home type category: 3 3. Graduated High Scool 3. Graduated High Scool 4. 1 to 3 years of college 5. College graduate 6. College graduate 7. Married 7. Married 7. Married 7. Married 8. Mobile Home 8. A Together 8. Widowed 8. Widowed 8. Widowed 9. Widowed			
1. Female 2. Male 2. Condominium 3. House 4. Mobile Home 5. Other 1. Apartment 2. Condominium 3. House 4. Mobile Home 5. Other 1. Divorced 5. College graduate 6. College graduate 6. College graduate 6. College graduate 6. College graduate 7. Sales Worker 7. Pacific Islander 8. Military 8. Hillary 8. Hillary 9. Large Sales			
2. Male Input the number of the sex category: 1 3. House 4. Mobile Home 5. Other 1. Grade 8 or less 6. Graduated High Scool 7. Pacific Islander 8. Graduated High Scool 8. 1 to 3 years of college 8. College graduate 9. Married 9. Single 9. Married 9. Single 9. Married 9. Single 9. Married 9. Married 9. Single 9. Married 9. Single 9. Married 9. Single 9. Married 9. Married 9. Single 9. Married 9. Married 9. Single 9. Single 9. Single 9. Single 9. Single 9. Single 9. Married 9. Married 9. Single 9. Single 9. Single 9. Single 9. Single 9. Married 9. Single 9. Married 9. Single 9.	input the number of the age category: 1		21
Input the number of the sex category: 1 A Mobile Home A Other Input the number of the home type category: 3 A Graddated High Scool A Divorced A Nogether A Together A Home A Together A Together A Home A Together A Together A Home A East Indian B Home A Home A East Indian B Home A Host East Indian B Home A East Indian B Host East Indian B Home A East Indian B Home A East Indian B Home B Home A East Indian B Home B Home B Home B Home B Home B Home A East Indian B Home B			
ducation Category: Grade 8 or less Grades 9 to 11 Grades 9 to 11 Grades 9 to 11 Signal Status Category: Grades 9 to 11 Divorced 1 to 3 years of college College graduate Grad Study Grad Study Together Signal Study Signal Study Signal Study Signal Study Together Signal Study Sig			
Amrital Status Category: Amrital Status Category: Amrital Status Category: Divorced Lot of 3 years of college College graduate American Indian Single College graduate American Indian	Education Category:	The the number of the sex cutegory. I	
Marital Status Category: Marital Status Category: Divorced Logars of college Marital Status Category: Marital Status Category: Logars of college Marital Status Category: Marital Status Category: Logars of college Marital Status Category: Marital Marital Status Category: Marital Marital Status Category: Marital Marital Marital Status Category: Marital Marital Marital Marital Status Category: Marital Mar	1. Grade 8 or less		5. Other
1. Divorced 2. Married 3. Single 3. Single 4. Together 5. Grad Study 6. Grad Study 7. Put the number of the education category: 2 2. Married 3. Single 4. Together 5. Widowed 6. Input the number of the marital status category: 3 2. Asian 3. Black 4. East Indian 5. Hispanic 6. Other 7. Pacific Islander 8. White 8. L1 year 8. L1 year 9. Factory Worker/Laborer/Driver 9. 4-6 years 1. 7-10 years 9. Homemaker 1. Cherical/Service Worker 1. Cherical/Service Worker 2. Factory Worker/Laborer/Driver 3. Homemaker 4. Military 5. Professional/Managerial 6. Retired 7. Sales Worker 7. Sales Worker 8. Sales Worker 9. Sales Worker			Input the number of the home type category: 3
2. Married Ethnic Category: 3. Single 1. American Indian 2. Asian 3. Black 4. Together 3. Widowed 3. Black 4. East Indian 3. Black 4. East Indian 5. Hispanic 6. Other 6. Other 6. Other 6. Other 7. Pacific Islander 8. White reason of Experience Category: 1. Clerical/Service Worker 1. Clerical/Service Worker 1. Service Worker 1. American Indian 3. Black 4. East Indian 5. Hispanic 6. Other 7. Pacific Islander 8. White 7. Pacific Islander 9. White 7.			
3. Single 4. Together 5. Grad Study 6. Grad Study 6. Grad Study 7. Dut the number of the education category: 2 Figure 1: Together 7. Midowed 8. Fast Indian 8. Hispanic 8. Hi			
4. Together 5. Grad Study 6. Grad Study 6. Grad Study 6. Grad Study 7. Widowed 7. Widowed 8. Factory Worker (Laborer/Driver 8. 4-6 years 8. 4-6 years 8. 4-7-10 years 9. 10+ years 10. Gred Study 10. Together 10. Widowed 11. Together 12. Asian 13. Black 14. East Indian 15. Widowed 15. Widowed 16. Other 17. Pacific Islander 18. White 19. Input the number of the ethnic category: 2 19. Asian 19. Black 19. East Indian 19. Widowed 19. Clerical/Service Worker 20. Factory Worker/Laborer/Driver 21. Factory Worker/Laborer/Driver 22. Asian 23. Black 4. East Indian 5. Widowed 19. Clerical/Service Worker 19. Clerical/Service Worker 20. Factory Worker/Laborer/Driver 21. Factory Worker/Laborer/Driver 22. Asian 23. Black 4. East Indian 25. Widowed 26. Other 27. Pacific Islander 28. White 29. Input the number of the ethnic category: 2 20. The parameter of the language category: 2 20. The parameter of the language category: 2 21. Asian 25. Widowed 26. Other 27. Pacific Islander 28. White 29. Asian 29. Black 4. East Indian 29. Asian 29. Black 4. East Indian 29. Clerical/Service Worker 20. Other 20. The parameter of the ethnic category: 2 20. The parameter of the number of the ethnic category: 2 21. Asian 29. Black 4. East Indian 29. Asian 29. Black 4. East Indian 29. Clerical/Service Worker 20. Other 20.			
5. Widowed put the number of the education category: 2 5. Widowed Input the number of the marital status category: 3 6. Other 6. Other 7. Pacific Islander 8. White 11 year 9. 1. Clerical/Service Worker 9. 1-3 years 9. 4-6 years 9. 4-6 years 9. 7-10 years 9. 10-1 years 9. 10-1 years 9. 10-1 years 9. 10-1 years 1. Tenglish 9. Professional/Managerial 9. Professional/Managerial 9. Retired 9. Sales Worker	5. College graduate	-	
Input the number of the education category: 2 Input the number of the marital status category: 3 Input the number of the ethnic category: 2 Input the number of the ethnic category: 2 Input the number of the language category: 2 Input the number of the language category: 2 Input the number of the language category: 2	6. Grad Study	_	3. Black
So of Experience Category: 11 year 2. 1-3 years 3. White 1. Clerical/Service Worker 2. Factory Worker/Laborer/Driver 3. Homemaker 4. 7-10 years 4. 7-10 years 5. 10+ years 6. Retired 7. Pacific Islander 7. Pacific Islander 8. White 1. Clerical/Service Worker 1. Clerical/Service Worker 2. Factory Worker/Laborer/Driver 3. Homemaker 4. Military 5. Professional/Managerial 6. Retired 7. Sales Worker 7. Sales Worker 8. White 1. Input the number of the ethnic category: 2 1. English 2. Other 3. Spanish 7. Sales Worker 9. Sales Worker 9. Sales Worker 9. Input the number of the language category: 2	Input the number of the education category: 2		
### ars of Experience Category: Cocupation Category: Cocupation		input the number of the maritar status category.	
Cocupation Category: 11 year 2. 1-3 years 3. 4-6 years 4. 7-10 years 5. 10+ years 6. 10+ years 9. 1-3 years of experience category: 9. 1-3 years 1. Clerical/Service Worker 1. Clerical/Service Worker 2. Factory Worker/Laborer/Driver 3. Homemaker 4. Military 5. Professional/Managerial 6. Retired 7. Sales Worker 8. White Input the number of the ethnic category: 2 1. English 2. Other 3. Spanish 1. English 2. Other 3. Spanish 1. Thut the number of the language category: 2	=======================================		
11 year 2. 1-3 years 3. 4-6 years 4. 7-10 years 5. 10+ years 6. 10+ years 7. Sales Worker 7. Clerical/Service Worker 8. Clerical/Service Worker 9. Factory Worker/Laborer/Driver 9. Homemaker 9. Language Category: 9. Clerical/Service Worker 9. Factory Worker/Laborer/Driver 9. Clerical/Service Worker 9. Cler			
2. 1-3 years 2. 1-3 years 3. Homemaker 4. 7-10 years 5. 10+ years 6. Retired 7. Sales Worker			
3. Homemaker 4. Military 5. Professional/Managerial 6. Retired 6. Retired 7. Sales Worker 7. Sales Worker 8. Homemaker 8.			
4. Military 1. English 5. Professional/Managerial 6. Retired 7. Sales Worker 7. Sales Worker	-		=======================================
5. Professional/Managerial 2. Other 6. 10+ years put the number of the years of experience category: 1 7. Sales Worker	3. 4-6 years		
6. Retired 1. Spanish 2. Spanish 3. Spanish 3. Spanish 3. Spanish 3. Spanish 4. Spanish 5. Sales Worker 7. Sales Worker 7. Sales Worker	4. 7-10 years		
nput the number of the years of experience category: 1 7. Sales Worker Input the number of the language category: 2	5. 10+ years	_	
Tours and intime 40 000)			
x x11//pn	, , , , , , , , , , , , , , , , , , , ,	8. Student. HS or College	Income prediction: -10.000)

TEST 3

Age Category: 1. 14-17 2. 18-24 3. 25-34 4. 35-44 5. 45-54 6. 55-64 7. 65+ Input the number of the age category: 6	3. Three 4. Four 5. Five 6. Six 7. Seven 8. Eight 9. Nine or more Input the number of the household size category: 6	Dual Income Category: 1. No 2. Not Married 3. Yes Input the number of the dual income category: 1
<pre>/ears of Experience Category: 11 year 2. 1-3 years 3. 4-6 years 4. 7-10 years 5. 10+ years Input the number of the years of experience category:</pre>	Occupation Category: 1. Clerical/Service Worker 2. Factory Worker/Laborer/Driver 3. Homemaker 4. Military 5. Professional/Managerial	8. White Input the number of the ethnic category: 5 ===================================



CONCLUSION

Point 01

Income levels are influenced by multiple factors, with age being a key determinant, as it reflects the accumulation of work experience.

Point 03

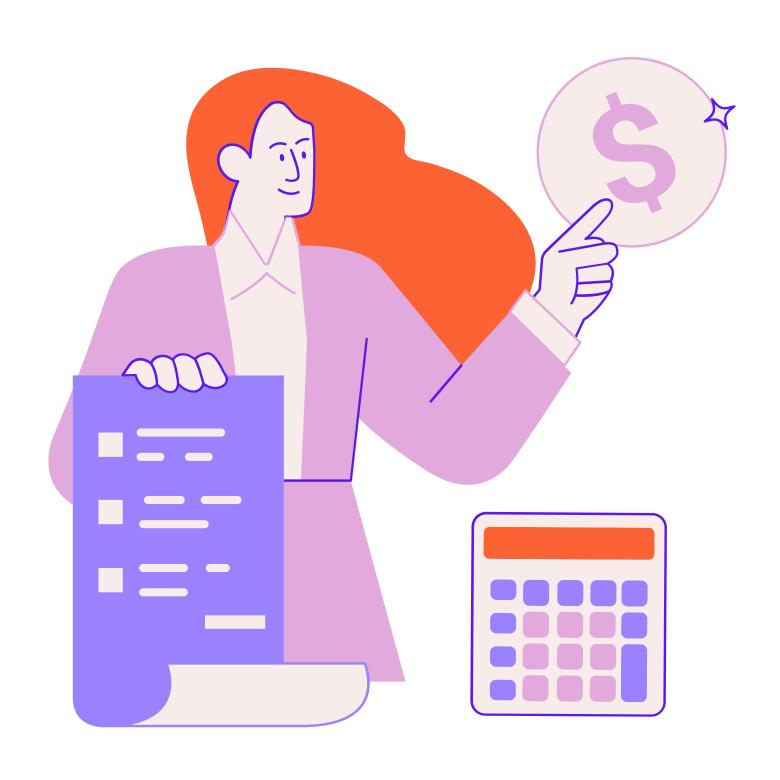
Married individuals tend to have higher incomes, likely due to the combined financial resources within the household.

Point 02

Education also plays a significant role, as higher education is often associated with greater job proficiency and the ability to take on professional roles.

Point 04

Mastering these factors, age, education, and marital status can greatly enhance one's economic prospects.



THANK YOU.