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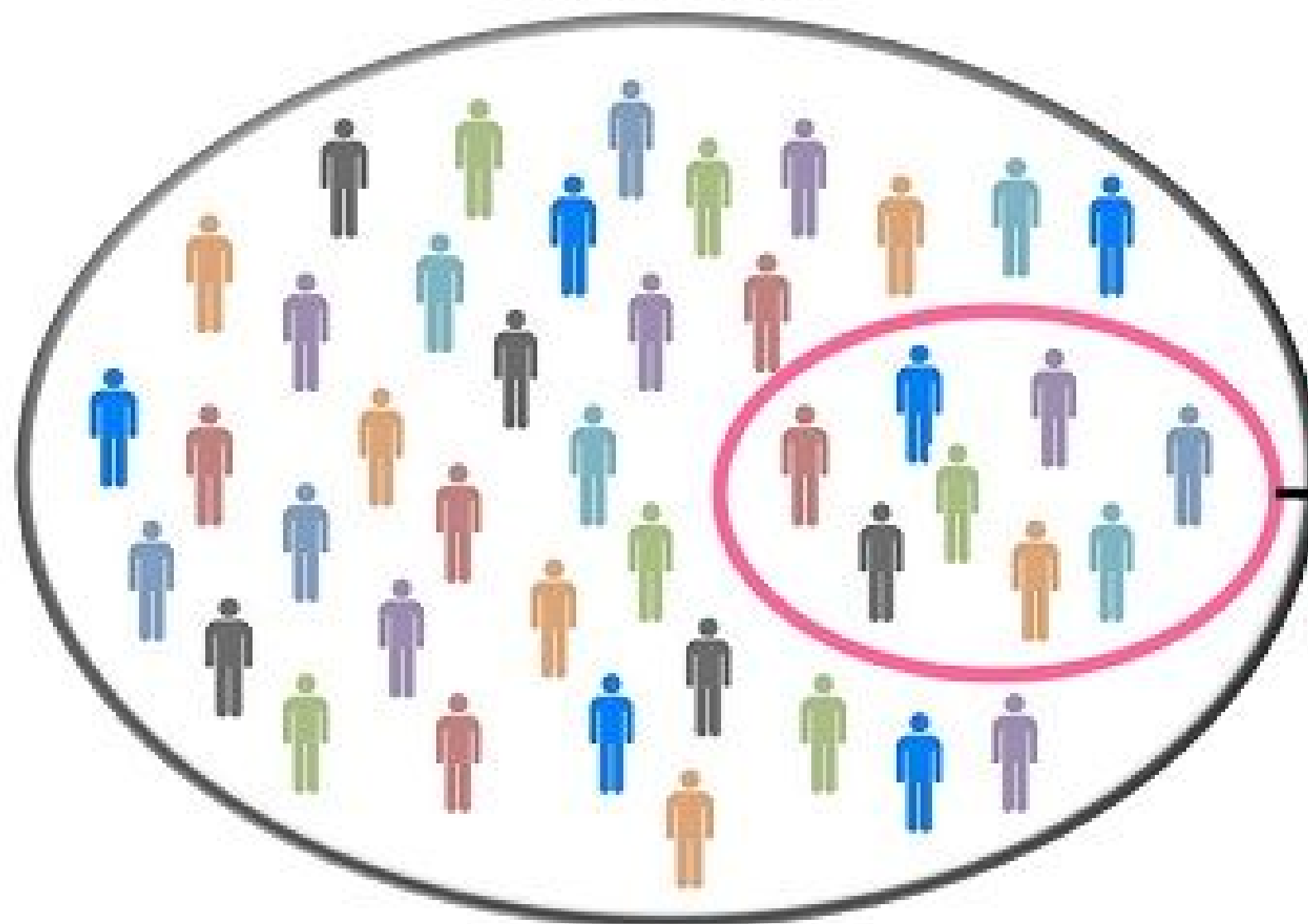
# ADULT CENSUS INCOME

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*CPE22S3*

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***WHAT IS THE IMPORTANCE OF CENSUS?***

# Census

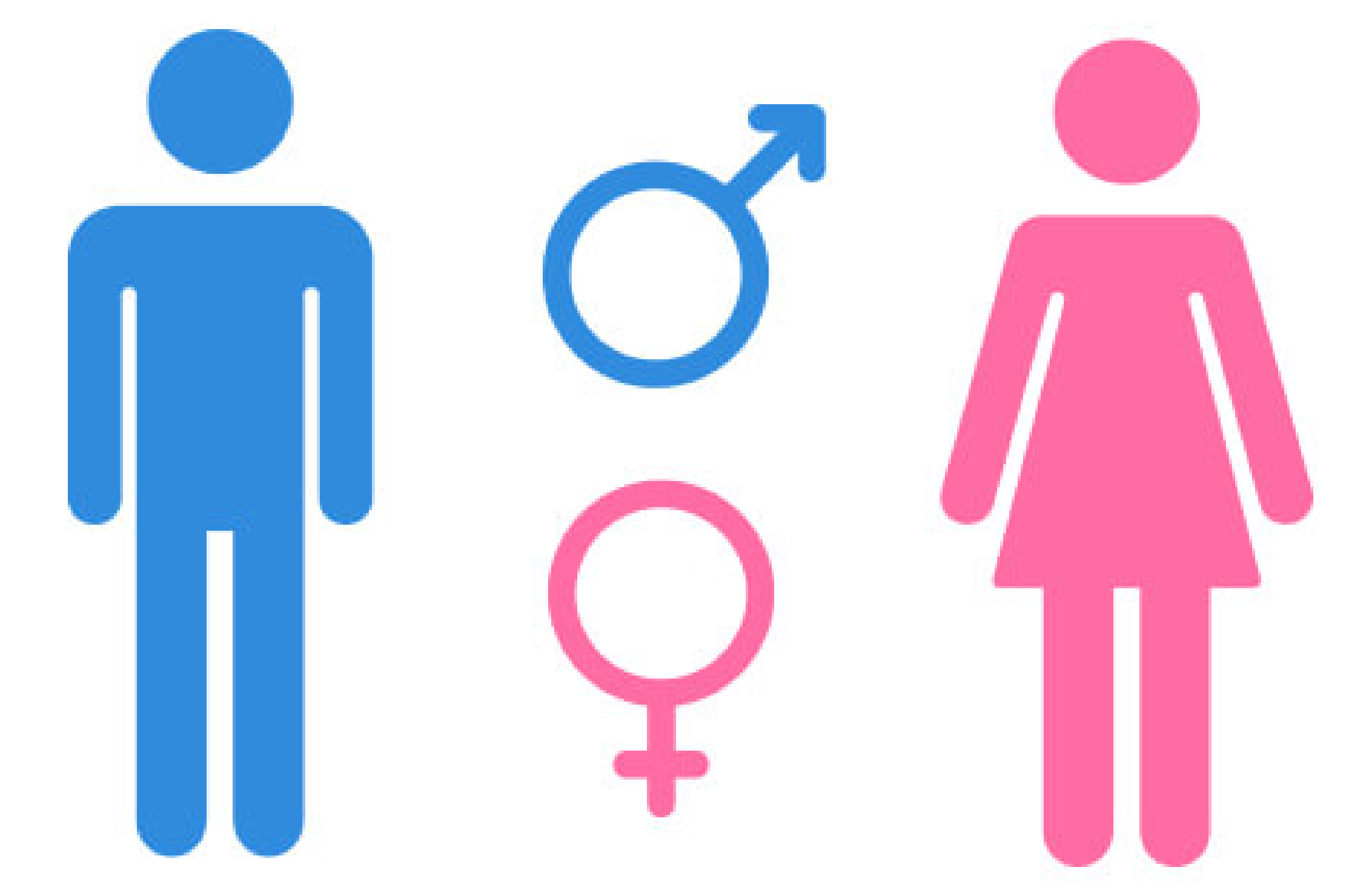


# Sample



***SAMPLING THE DATASET...***

***WHY?***



CODE:

```
sex_agg = category_df.groupby('sex').agg({'fnlwgt': 'mean',
'education-num': 'max',
'capital-gain': 'max',
'capital-loss': 'max',
'hours-per-week': 'mean',
'income': 'count'})
sex_agg
```

EXTRACTED DATA

| sex    | fnlwgt        | education-num | capital-gain | capital-loss | hours-per-week | income |
|--------|---------------|---------------|--------------|--------------|----------------|--------|
| Female | 185491.732172 | 16            | 99999        | 4356         | 36.403720      | 16182  |
| Male   | 191738.905795 | 16            | 99999        | 3770         | 42.419264      | 32631  |

CODE:

```
> relationship_agg = category_df.groupby('relationship').agg({
    'fnlwgt': 'mean',
    'education-num': 'max',
    'capital-gain': 'max',
    'capital-loss': 'max',
    'hours-per-week': 'mean',
    'income': 'count'
})
relationship_agg
```

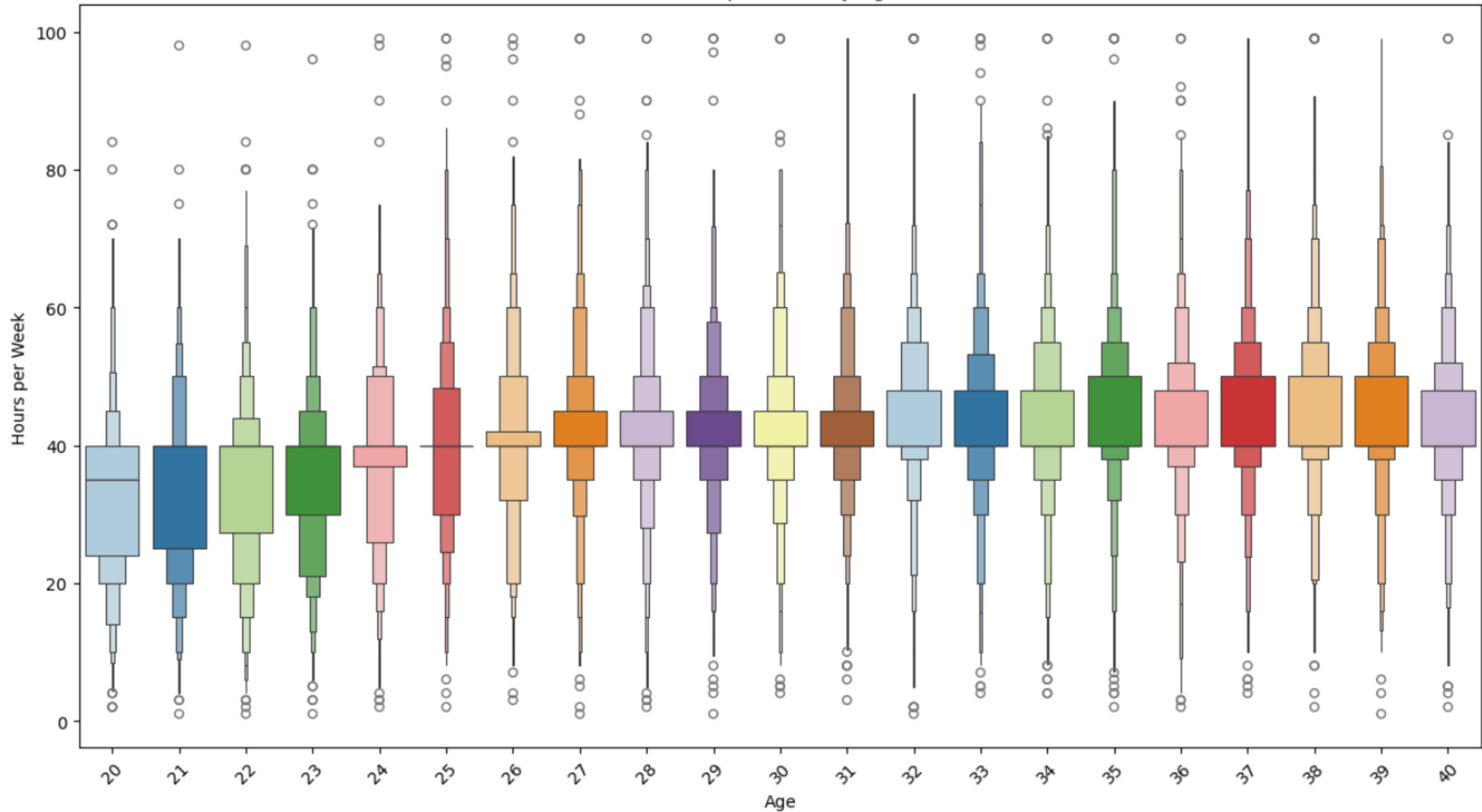
EXTRACTED DATA

| relationship   | fnlwgt        | education-num | capital-gain | capital-loss | hours-per-week | income |
|----------------|---------------|---------------|--------------|--------------|----------------|--------|
| Husband        | 187222.099853 | 16            | 99999        | 2603         | 44.167183      | 19709  |
| Not-in-family  | 190334.002387 | 16            | 99999        | 4356         | 40.530516      | 12567  |
| Other-relative | 203524.602258 | 16            | 41310        | 3683         | 37.128154      | 1506   |
| Own-child      | 193756.483105 | 16            | 99999        | 3900         | 33.154567      | 7576   |
| Unmarried      | 191381.556206 | 16            | 99999        | 4356         | 39.172326      | 5124   |
| Wife           | 180748.781639 | 16            | 99999        | 2457         | 36.729730      | 2331   |



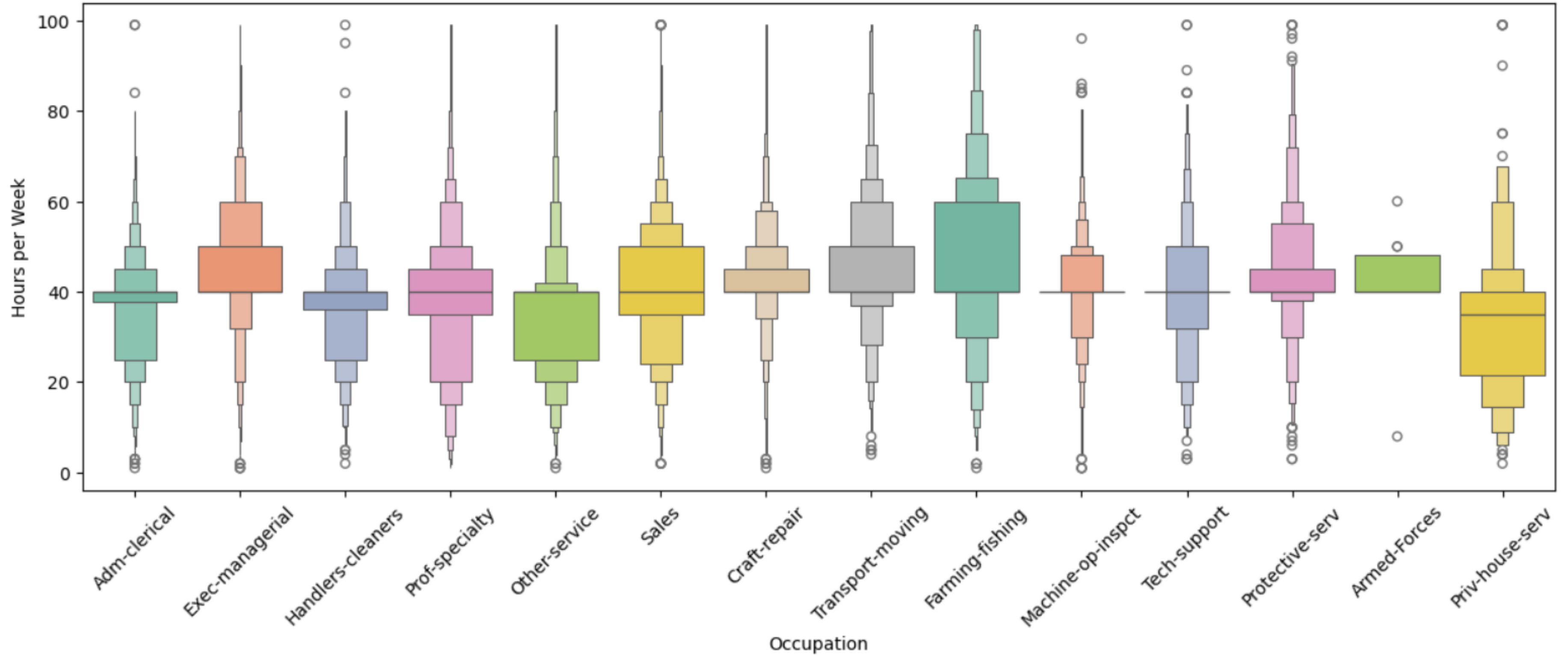


Hours per Week by Age





Hours per Week by Occupation



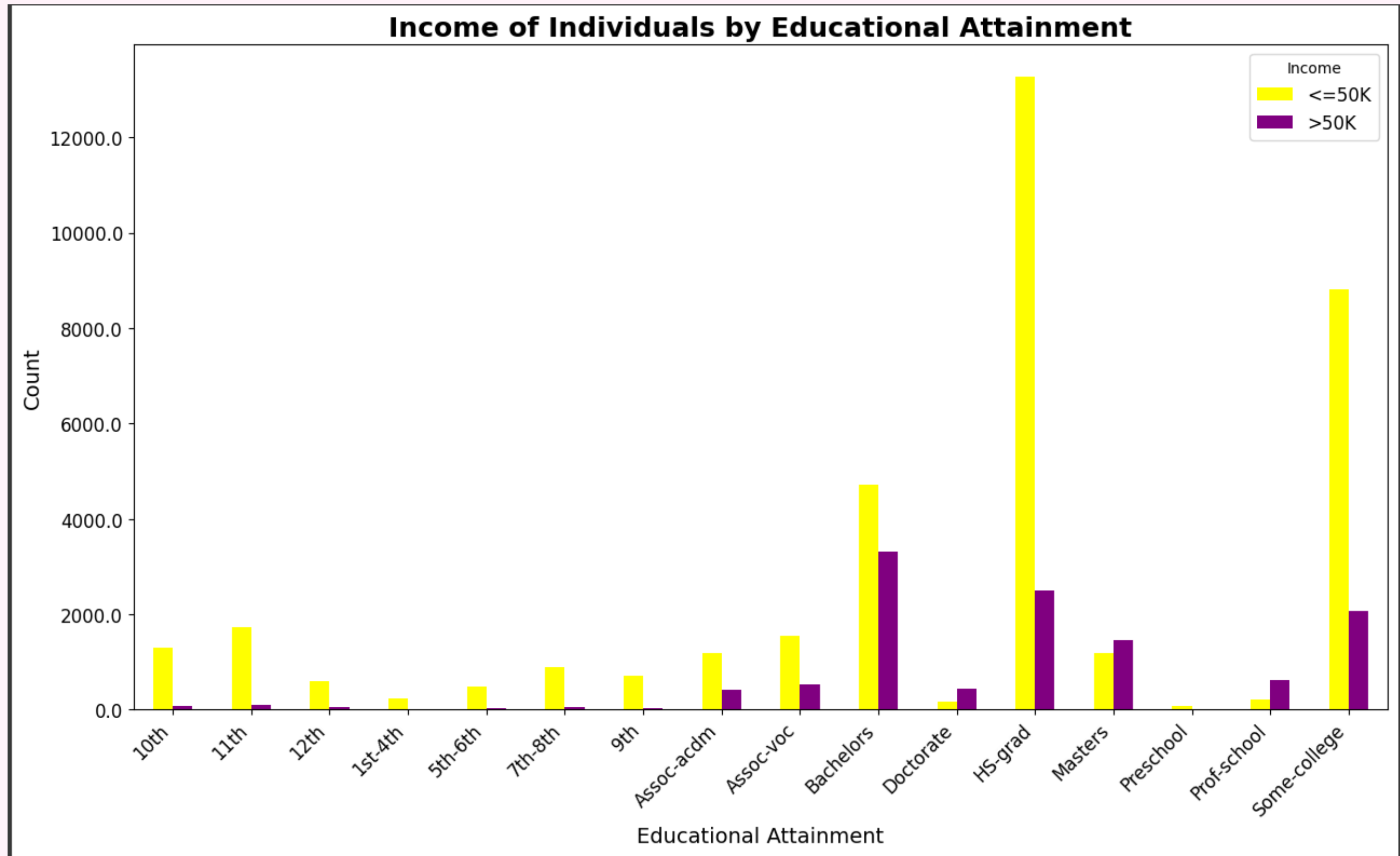


# CODE:

```
category_df.value_counts('education')
```

| education    |       |
|--------------|-------|
| HS-grad      | 15777 |
| Some-college | 10869 |
| Bachelors    | 8020  |
| Masters      | 2656  |
| Assoc-voc    | 2060  |
| 11th         | 1812  |
| Assoc-acdm   | 1601  |
| 10th         | 1389  |
| 7th-8th      | 954   |
| Prof-school  | 834   |
| 9th          | 756   |
| 12th         | 656   |
| Doctorate    | 594   |
| 5th-6th      | 508   |
| 1st-4th      | 245   |
| Preschool    | 82    |

Name: count, dtype: int64



## STATUS

☐

Single

☒

Married

☐

Widowed

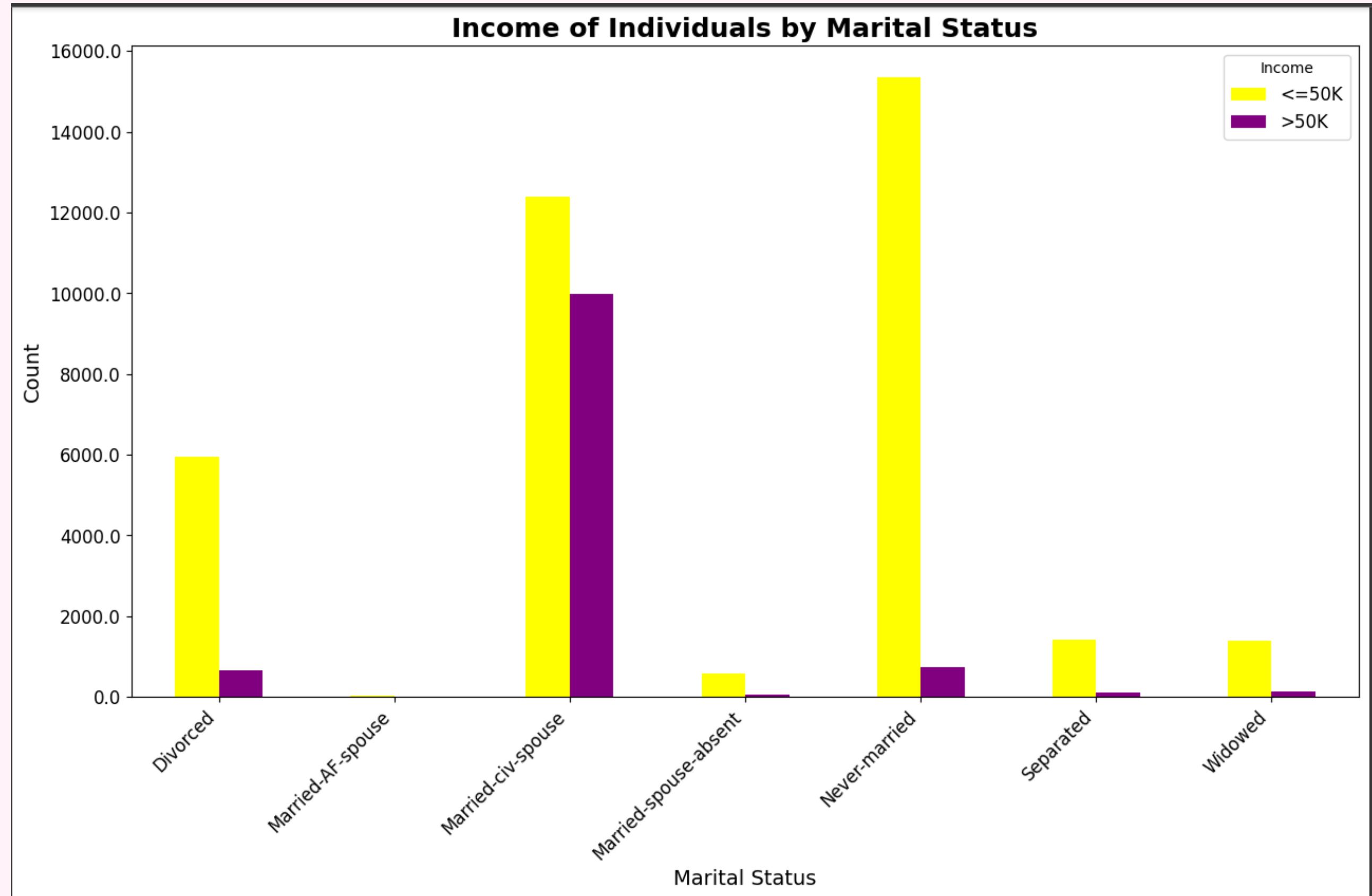
☐

Divorced

*CODE:*

```
category_df.value_counts('marital-status')
```

```
marital-status  
Married-civ-spouse    22372  
Never-married        16098  
Divorced              6630  
Separated            1530  
Widowed              1518  
Married-spouse-absent  628  
Married-AF-spouse      37  
Name: count, dtype: int64
```



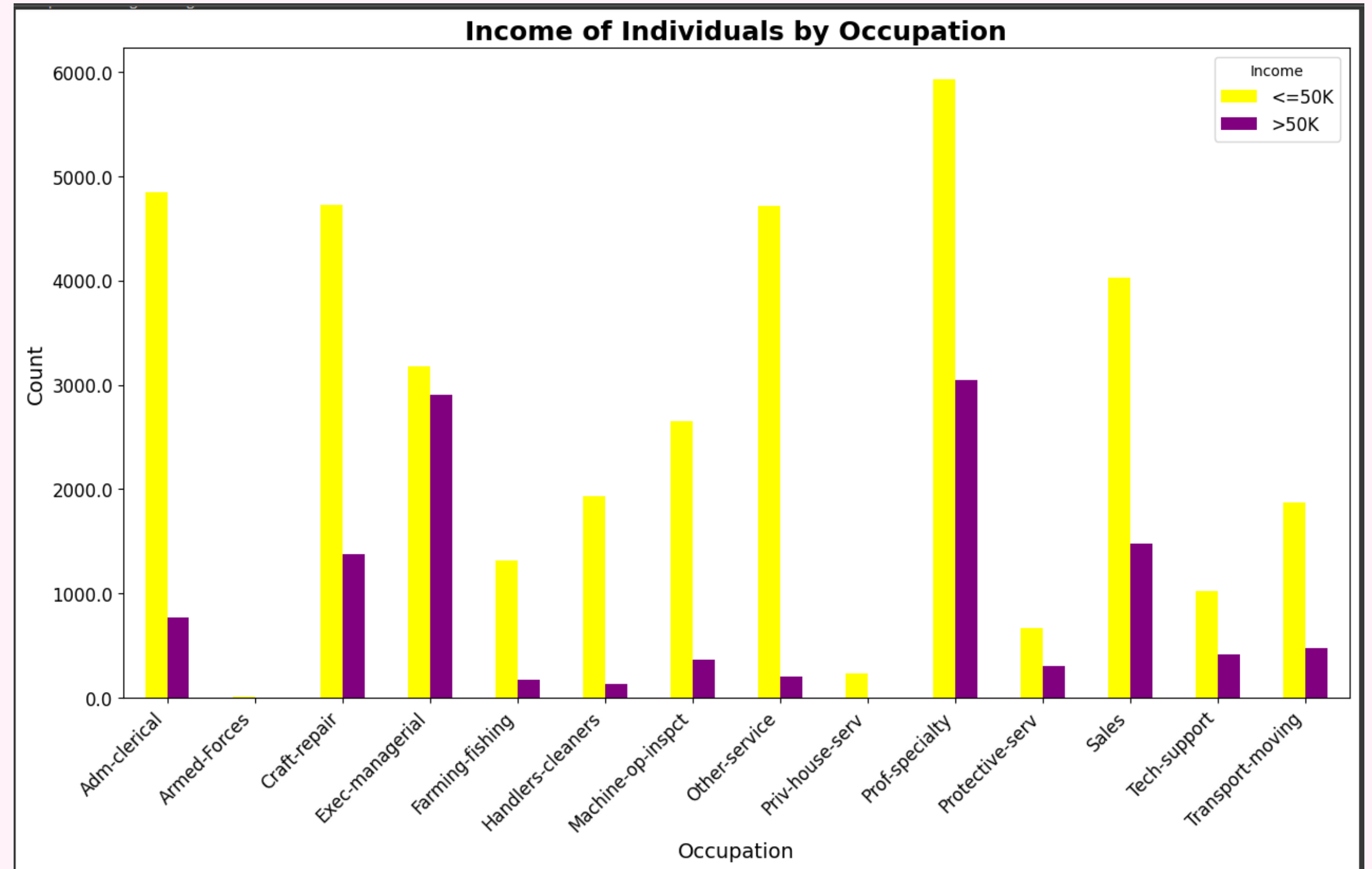




# CODE:

```
category_df.value_counts('occupation')
```

```
occupation
Prof-specialty      8976
Craft-repair        6107
Exec-managerial     6084
Adm-clerical        5608
Sales               5504
Other-service       4919
Machine-op-inspct   3019
Transport-moving    2355
Handlers-cleaners   2071
Farming-fishing     1487
Tech-support        1445
Protective-serv     983
Priv-house-serv     240
Armed-Forces        15
Name: count, dtype: int64
```



# REFERENCES:

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*Thank You*