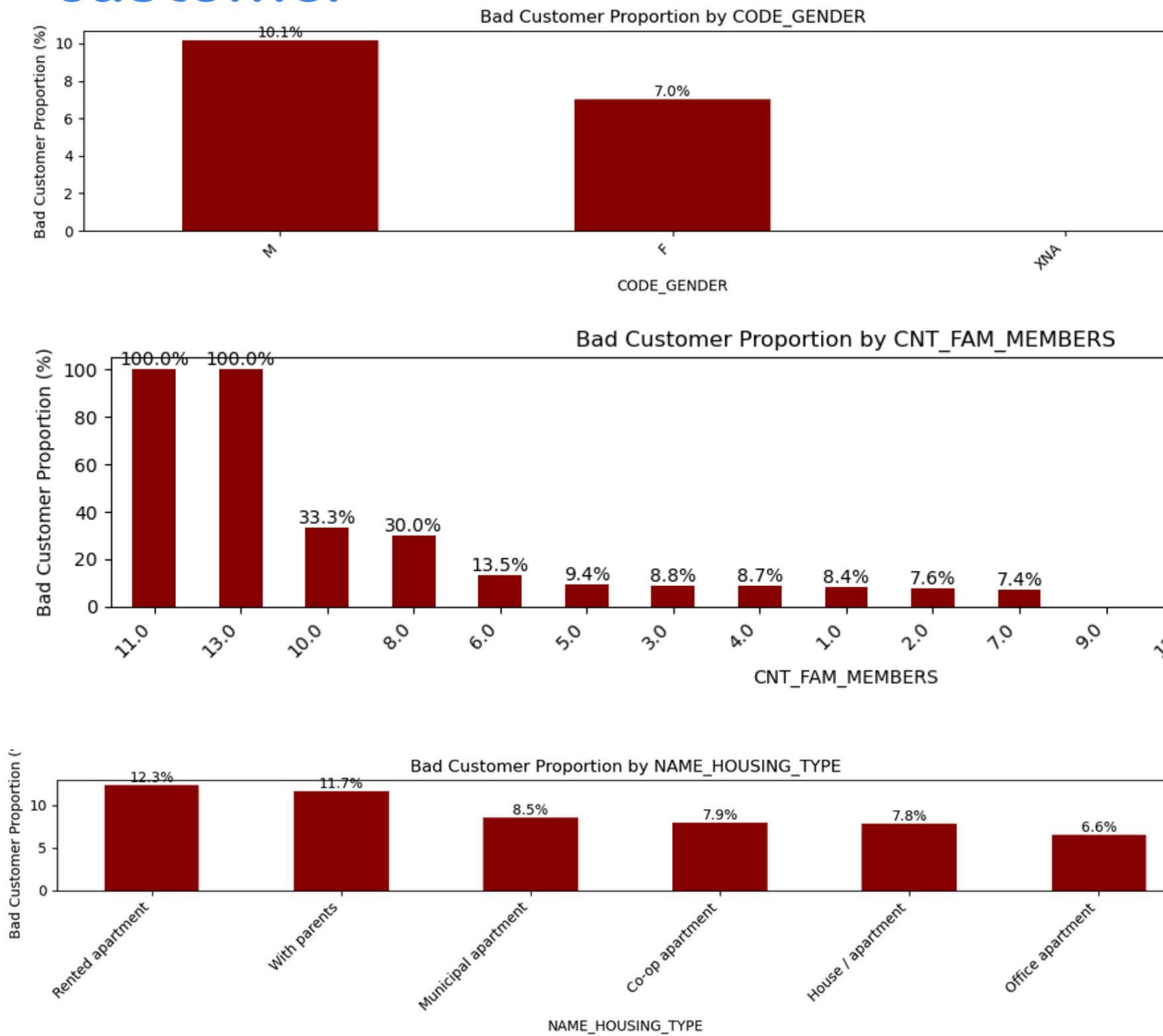


# Home Credit Default Risk Analysis

Customer Profiles and  
Implementation Strategies



# Demographic of high-risk customer



## Gender: Male

Males show 3% higher default rate despite fewer borrowers

## Family size: >5 members or >3 children

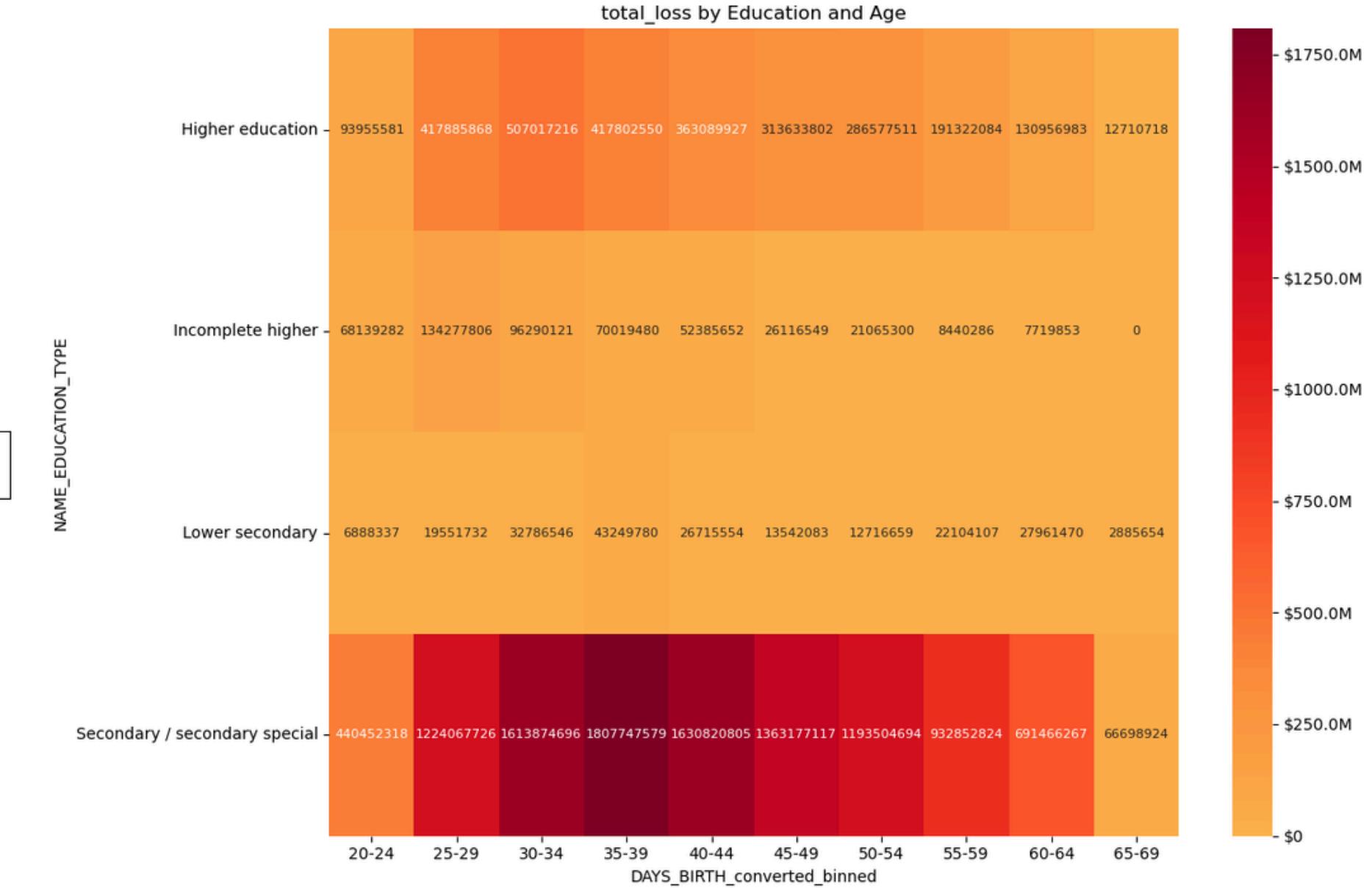
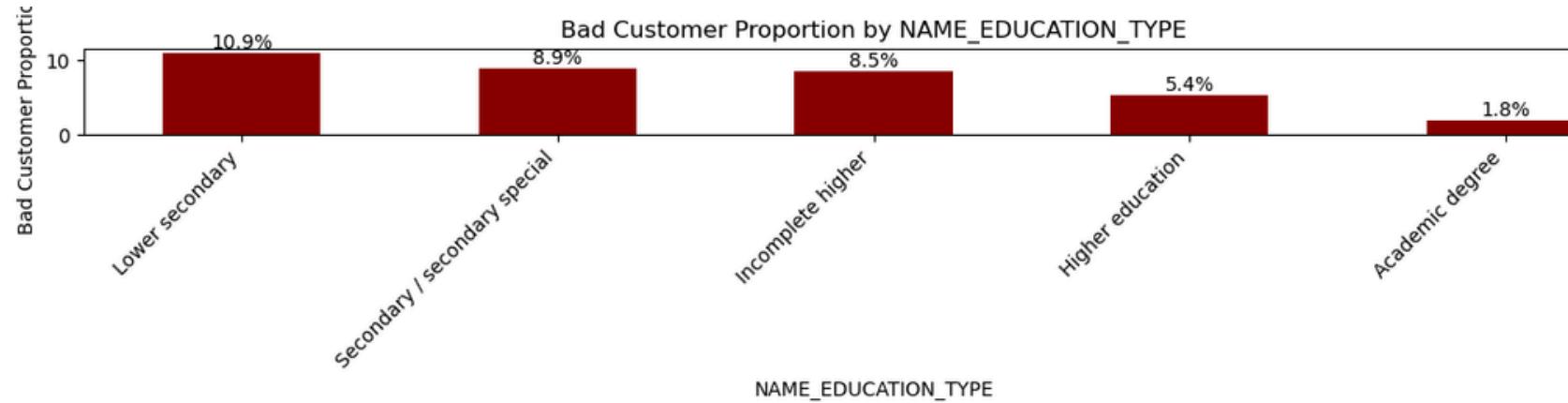
- Households with >5 members show increased default rates (8.65% (4 mem) to 9.4% (5 mem))
- Default risk rises sharply with family size
- Most defaults: 0-1 child households
- Significant risk increase with 3+ children
- Higher probability of repayment failure in larger families

## Housing: Rented apartments/living with parents (11.7-12.3% default)

- Highest default volume: House/apartment owners
- Highest default rate: Rented apartments and living with parents (11.7% - 12.3%)
- Owned housing shows lower default rate (7.8%)

# Demographic Characteristics

- Education: Secondary/lower secondary



## Lower Secondary Education (20-34)

- Extremely high default rates (16.22-16.99%)
- Represents significant risk especially in younger age groups
- Total losses concentrated in 30-34 age bracket (32.7M)

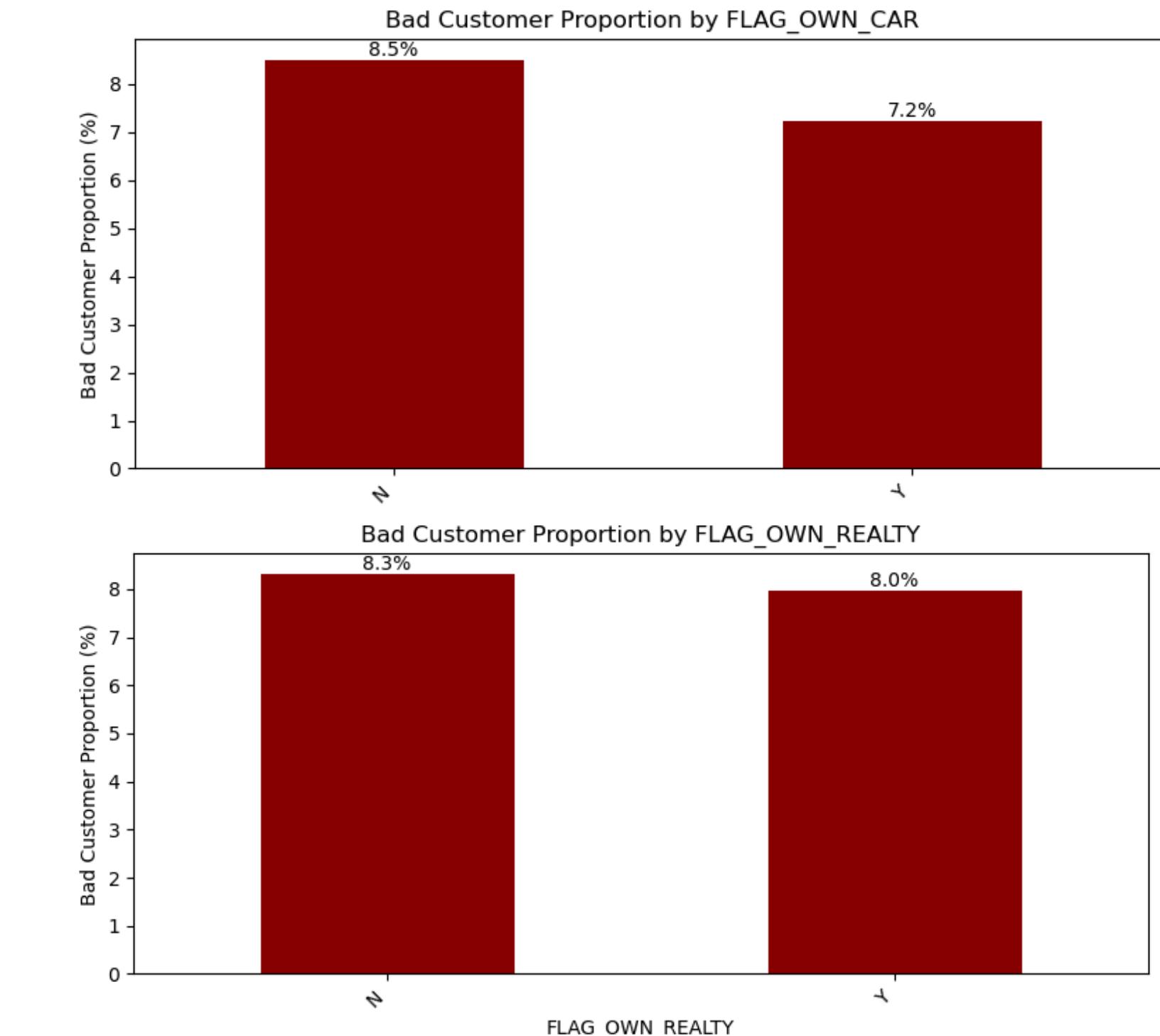
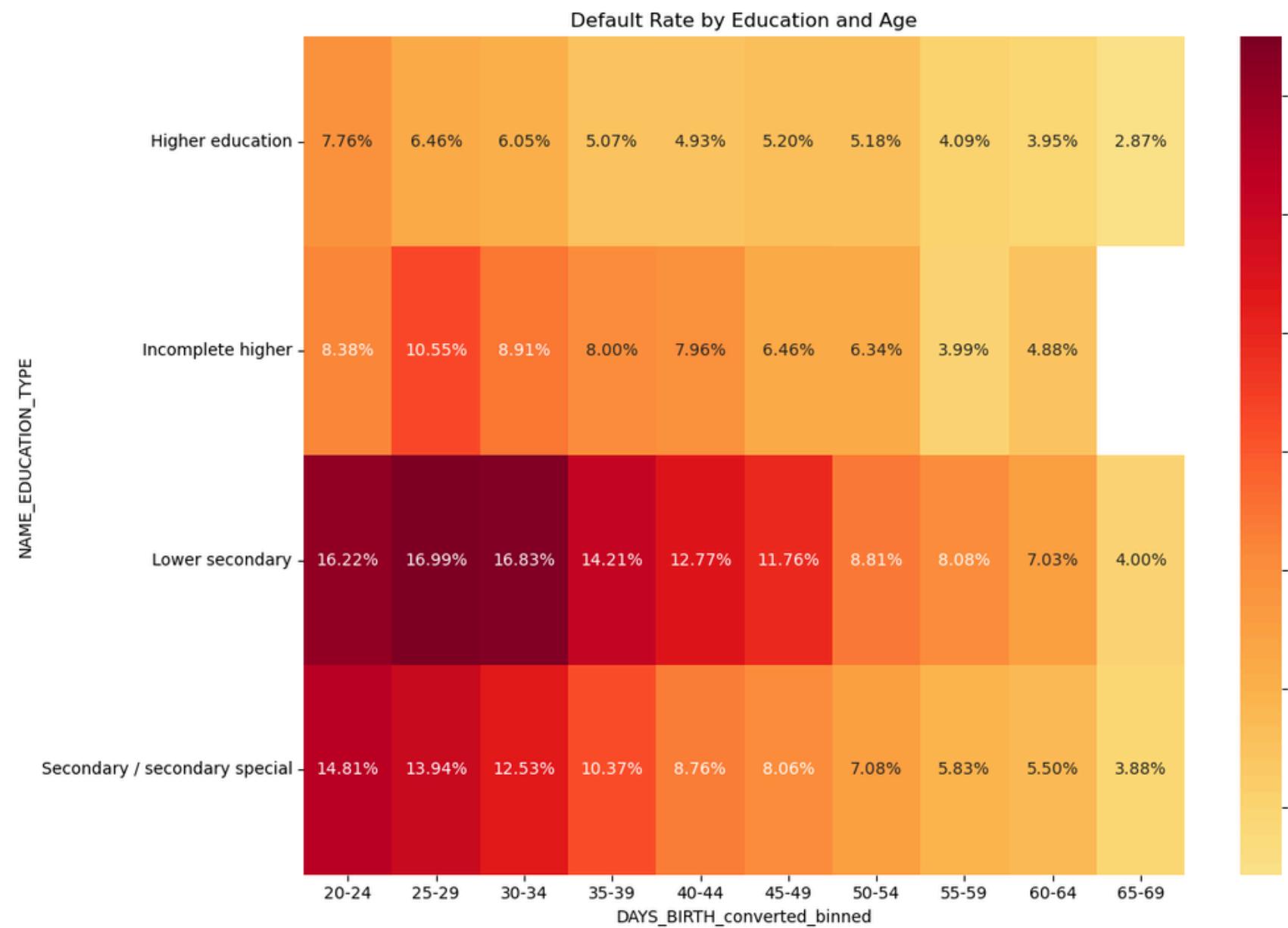
## Secondary /Secondary Special

- High default rates in younger groups (14.81% for 20-24)
- Largest total losses across all education levels (1.6B-1.8B in 30-44 age range)
- Default rates decrease with age (from 14.81% at 20-24 to 3.88% at 65-69)

## Higher Education

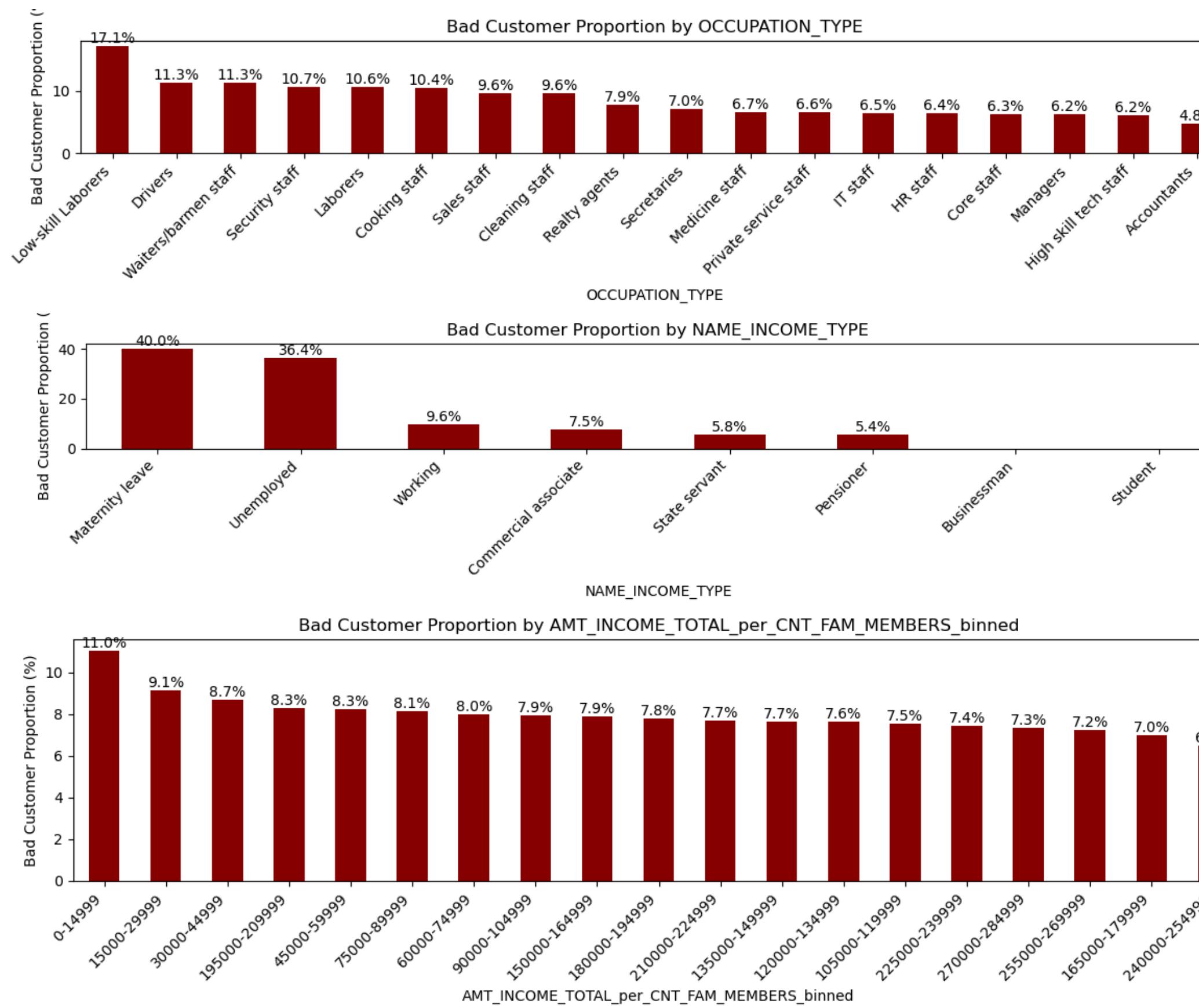
- Lower overall default rates (2.87-7.76%)
- Still significant total losses due to large loan volumes
- Default risk peaks in younger age groups (7.76% at 20-24)

# Demographic Characteristics



- Assets: No car ownership (1.2% higher default rate)
- Car ownership reduces default probability by 1.2%
- Property ownership shows minimal impact on default rates

# Financial & Employment Characteristics



## Employment Status

- Maternity leave/unemployment (36-40% default)
- Low-skilled positions (high default probability)
- Working class with unstable income

## Income Structure

- Low income per family member (IFM)
- High debt-to-income ratio (DTI)
- Limited emergency savings

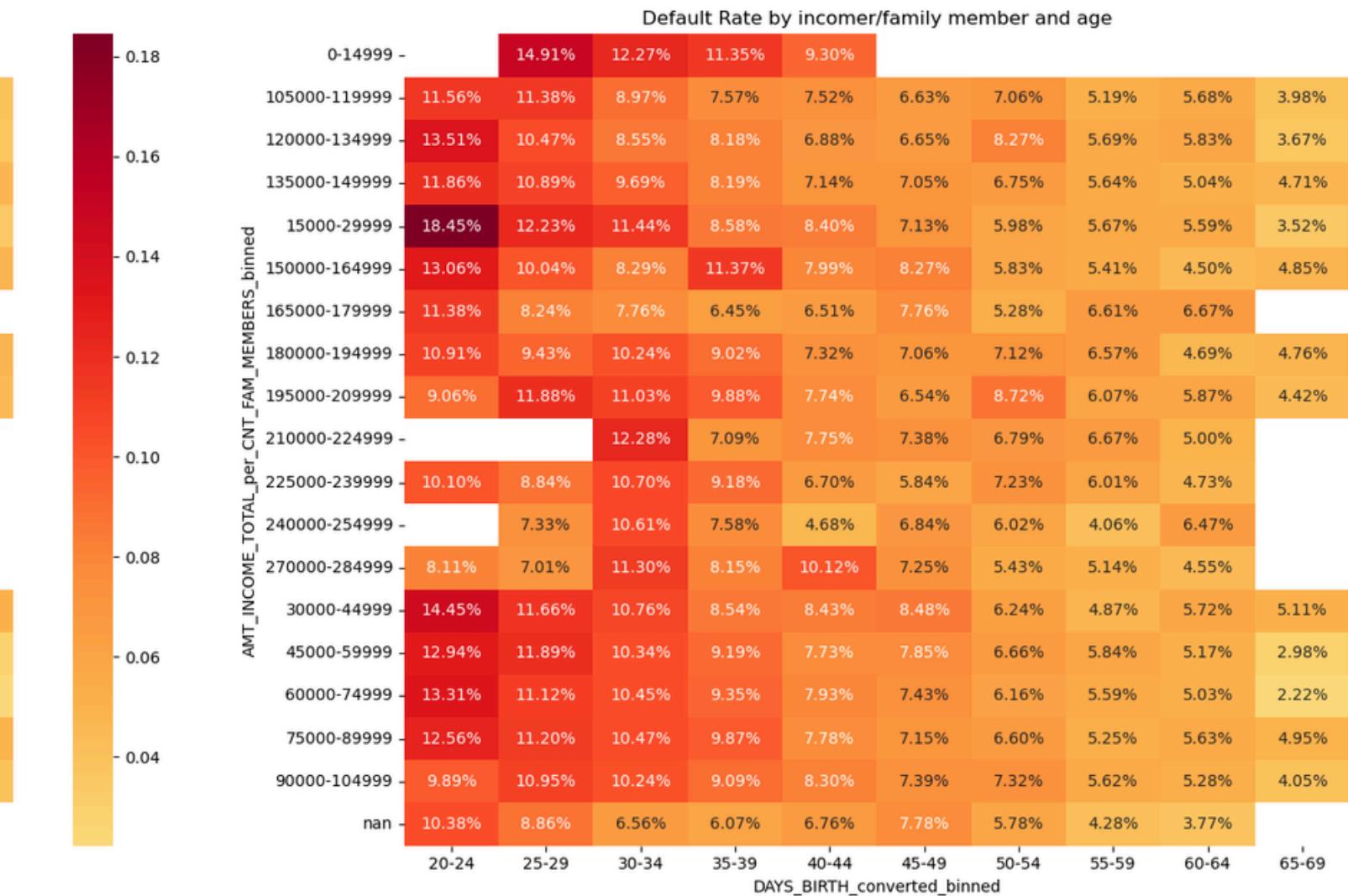
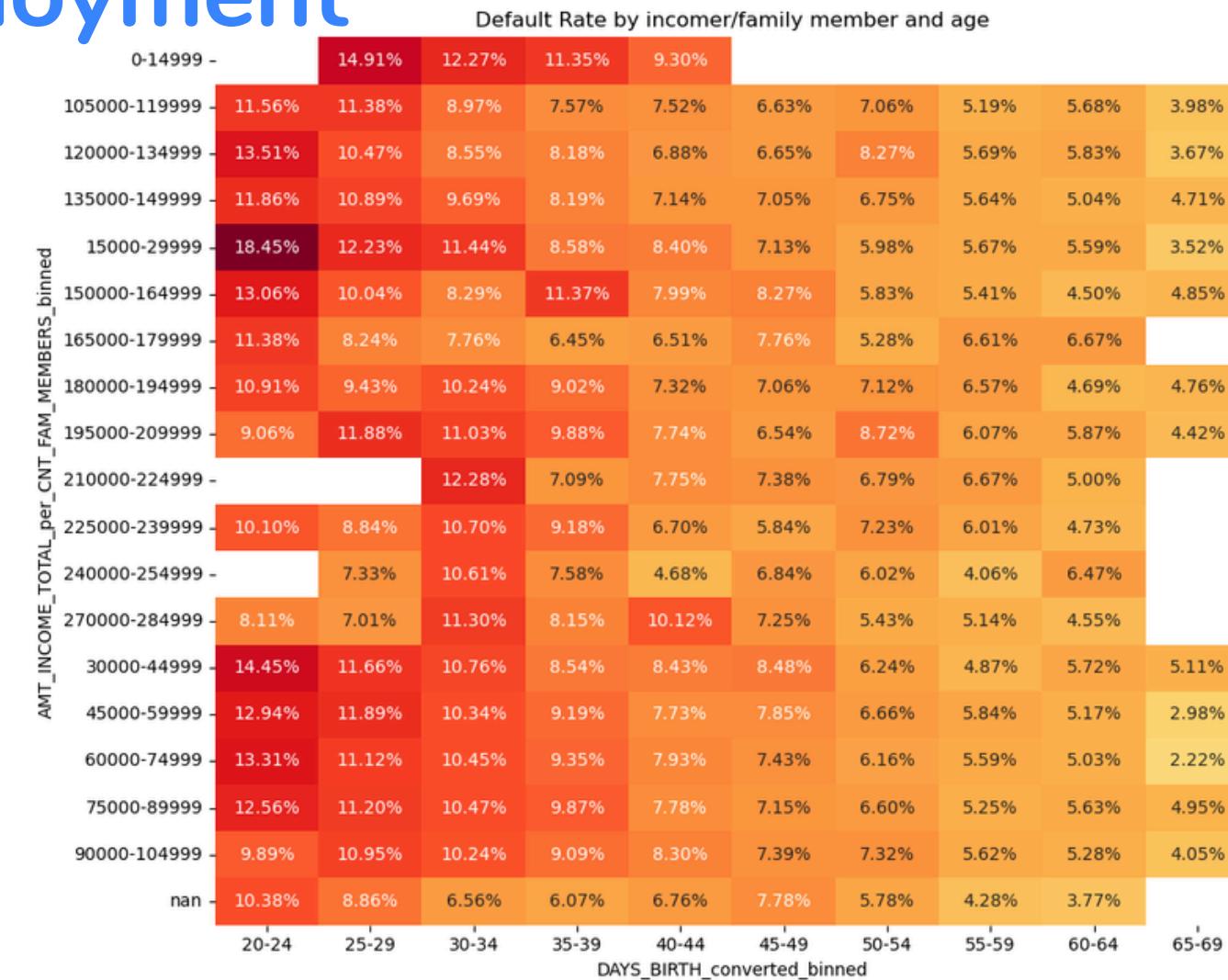
## Income Type

- Working Class:
  - Consistently higher default rates (9-12%)
  - Largest total losses across income bands
  - Particularly risky in lower income segments
- Pensioners:
  - Lowest default rates (4.5-6%)
  - Lower total losses despite large volume
  - Most stable performance across income bands
- Commercial Associates:
  - Moderate default rates (6-8%)
  - Higher risk in lower income segments

# Financial & Employment Characteristics

Income Per Family Member (IFM)

**IFM = Total Income / Number of family member**



**Low Income  
(0-14999)**

- Highest default rates (14.91% for 20-24 age group)
- Particularly risky in younger demographics
- Limited data in older age groups

**Middle Income  
(150000-299999)**

- High default concentration in younger groups (18.45% for 20-24)
- Significant total losses in 30-34 age bracket
- More stable performance in older age groups

**High Income  
(450000+)**

- Lower default rates overall
- Still shows age-related risk patterns
- Better performance in 55+ age groups

# Critical Risk Combinations and Implementation Strategies



# Age & Financial Analysis

Young Adults (20-24)

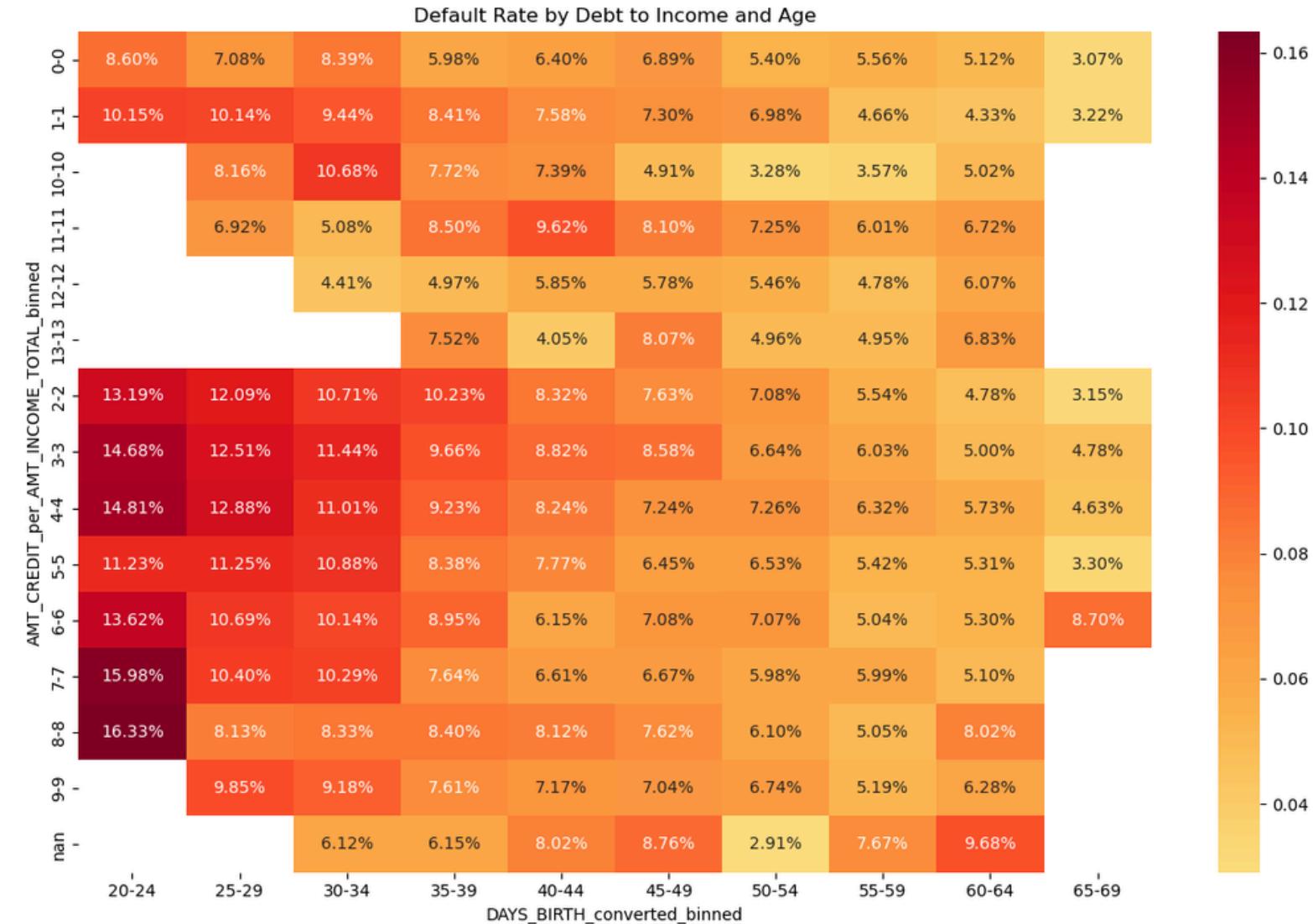
Risk Profile: DTI = Credit amount/ Total income

- DTI 3-8: Extremely high default rate (14.68%-16.33%)
- DTI 1-2: High default rate (10.15%-13.19%)
- IFM <29,999: Extremely high risk segment
- IFM 30,000-89,999: High risk segment
- Higher concentration in secondary education with elevated default rates



For High DTI (3-8)

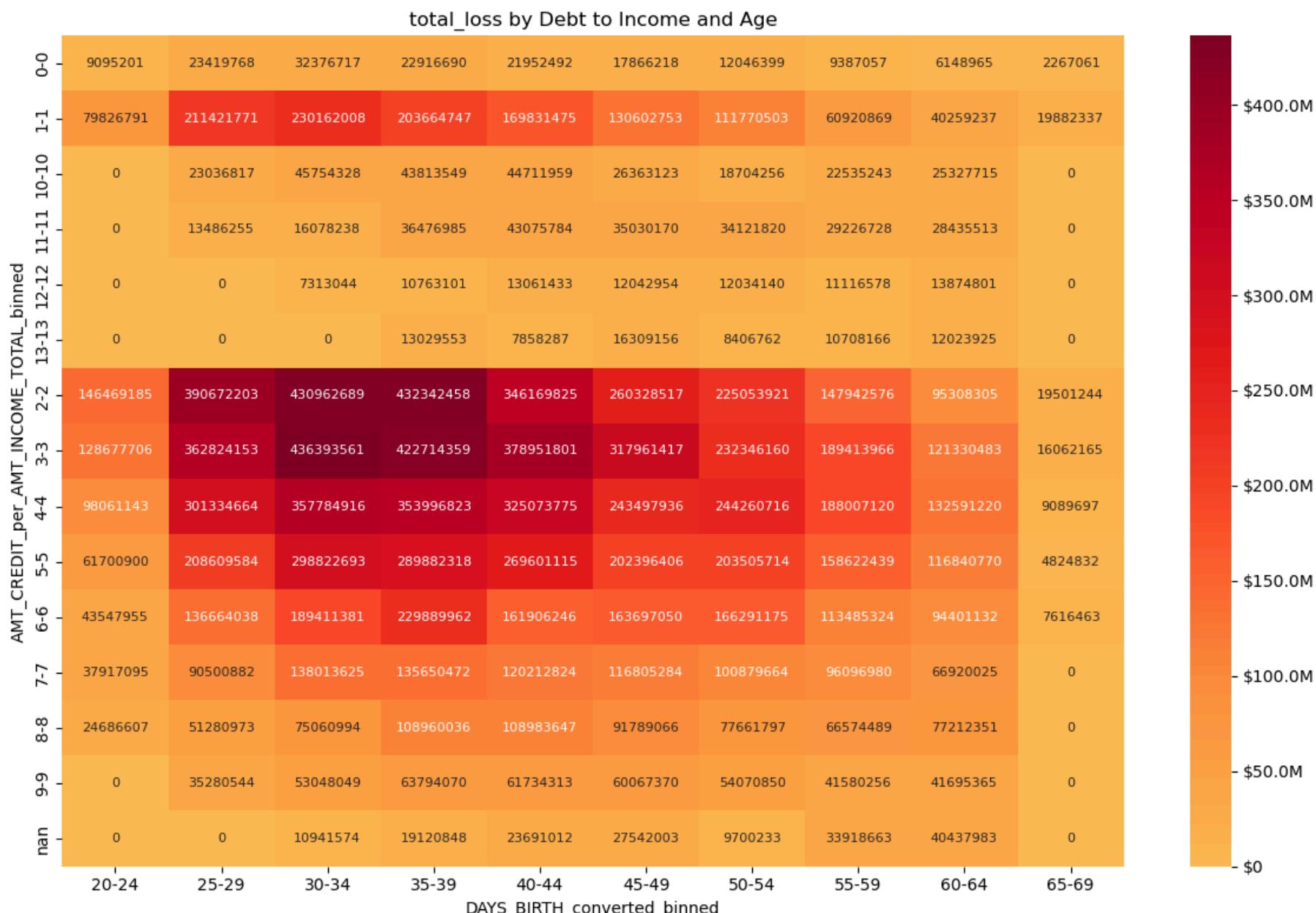
- Credit Limits:
  - Maximum 40% of requested amount
  - Absolute cap of \$100,000 regardless of income
  - Monthly payment cannot exceed 25% of verified income
- Requirements:
  - Stable employment history (minimum 2 years)
  - Co-signer with DTI <3 and age >30
  - Liquid collateral (cash deposits, bonds) covering 80% of loan
  - Automatic payment setup mandatory



For Lower DTI (1-2):

- Credit Limits:
  - Start at 50% of requested amount
  - Can increase to 70% after 12 months of perfect payment history
  - Cap at \$150,000
- Requirements:
  - Co-signer for loans above \$50,000
  - Collateral covering 60% of loan value
  - Proof of stable income source

# Age & Financial Analysis



## Young Professionals (25-29)

### Risk Profile:

- DTI 1-3: High default rate (10.15%-13.19%)
- IFM <30,000: Significant risk
- IFM <100,000: High risk
- Higher risk in lower secondary education segment

### Implementation Strategy:

- **Graduated Approach:**
  - Initial limit at 60% of requested amount
  - Increase to 80% after 12 months good history
  - Maximum exposure \$175,000
- **Risk Mitigation:**
  - Required emergency fund equal to 3 months of payments
- **Special Conditions for Low IFM (<30,000):**
  - Require collateral

## Partner with Essential companies

### Mid-Career (30-44)

#### Risk Profile:

- DTI 2-4: Medium risk but extremely high loss concentration
- IFM <284,999 (30-34): High risk
- IFM <164,999 (35-39): High risk
- Secondary/secondary special education:
  - Age 30-34 and 40-44: Medium risk (10-12% default rate)

### Implementation Strategy:

### Portfolio Management:

- Maximum 15% portfolio concentration
- Graduated credit limits:
  - First-time borrowers: 60% of requested amount
  - Good payment history: up to 80%

# Education-Based Risk Segments

01

## Lower Secondary Education

### Age 20-34:

- Extremely high risk
- Implementation:
  - Restrict lending
  - Enhanced application screening
  - Require co-signers for loans above 50% of standard limit
  - Graduated credit limits based on payment history
  - Monthly monitoring

02

## Lower Secondary Education

### Age 35-49:

- Medium risk
- Implementation:
  - Careful monitoring
  - Bi-monthly payment monitoring
  - Semi-annual reviews

03

## Secondary/Secondary Special Education

### Age 30-34 and 40-44:

#### Age 30-34 and 40-44:

- Medium risk (10-12% default rate)
- High total losses due to large volume
- Implementation:
  - 15% maximum portfolio concentration
  - Graduated credit limits
  - Enhanced monitoring system
  - Quarterly stress testing

04

## Higher Education

### Age >30:

- Low risk
- Implementation:
  - **Extend credit limits**
  - Decrease interest rates
  - Use as attractive segment for portfolio balance

# Financial & Employment Characteristics

01

## Large Families (>5 members)

- Higher default rates (8.65% to 9.4%)
- Implementation:
  - Income per family member threshold
  - Detailed expense analysis
  - Emergency fund requirement
  - Lower initial credit limits
  - Mandatory life insurance
  - Quarterly income verification

02

## Multiple Children

- No/1 child: Main source of bad customers but lower risk
- 3 children: Significant probability of default
- Implementation:
  - Scaled credit limits based on number of dependents
  - Enhanced income verification
  - Required emergency funds
  - Family expense analysis

03

## Employment Status Risk

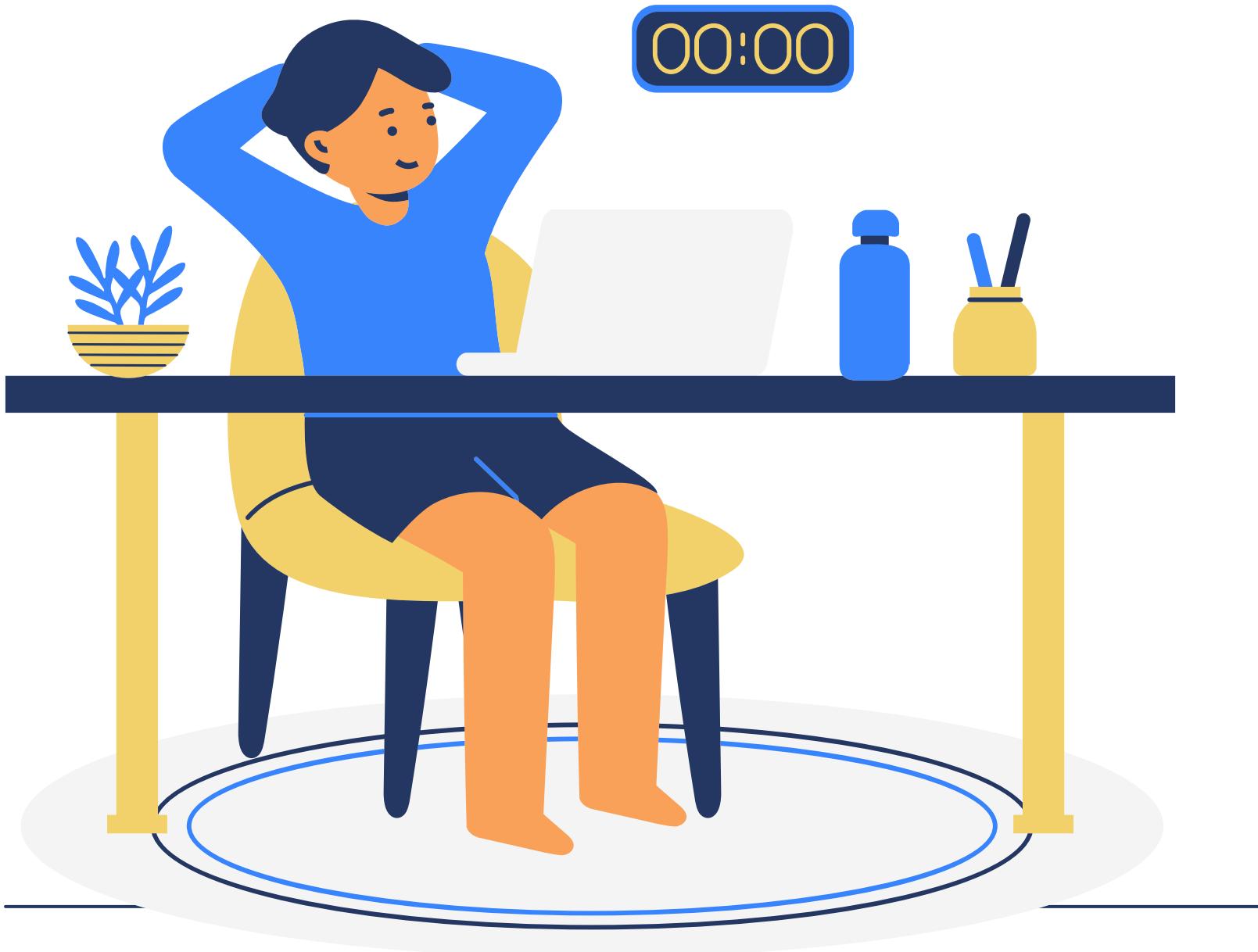
- Maternity leave/unemployment (36.36-40% default)
- Low-skilled positions:
  - Laborers
  - Drivers
  - Waiters/barmen staff
  - Security staff
  - Cooking staff
- Implementation:
  - Require co-signer
  - Maximum 30% of standard limits/ Graduated credit

04

## Realty ownership

- Slight positive impact on default rates
- High loss concentration in low IFM segments
- Implementation for Property Owners with IFM <104,999:
  - Limit maximum exposure to 40% of property value
  - Cap total loan amount at \$75,000
  - Required 6-month payment buffer
  - No second lien positions
  - Monthly debt obligation verification

# Thank you

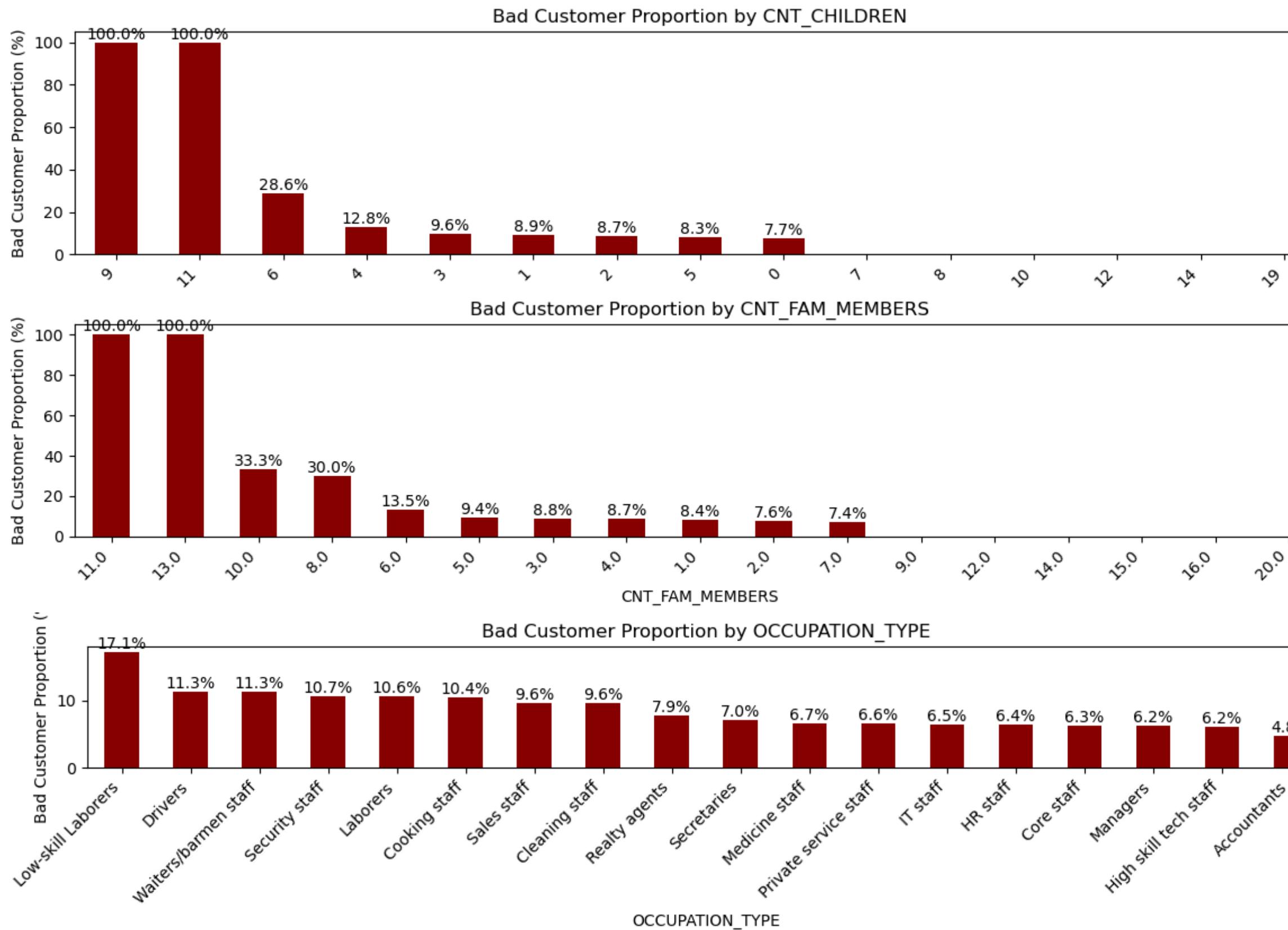


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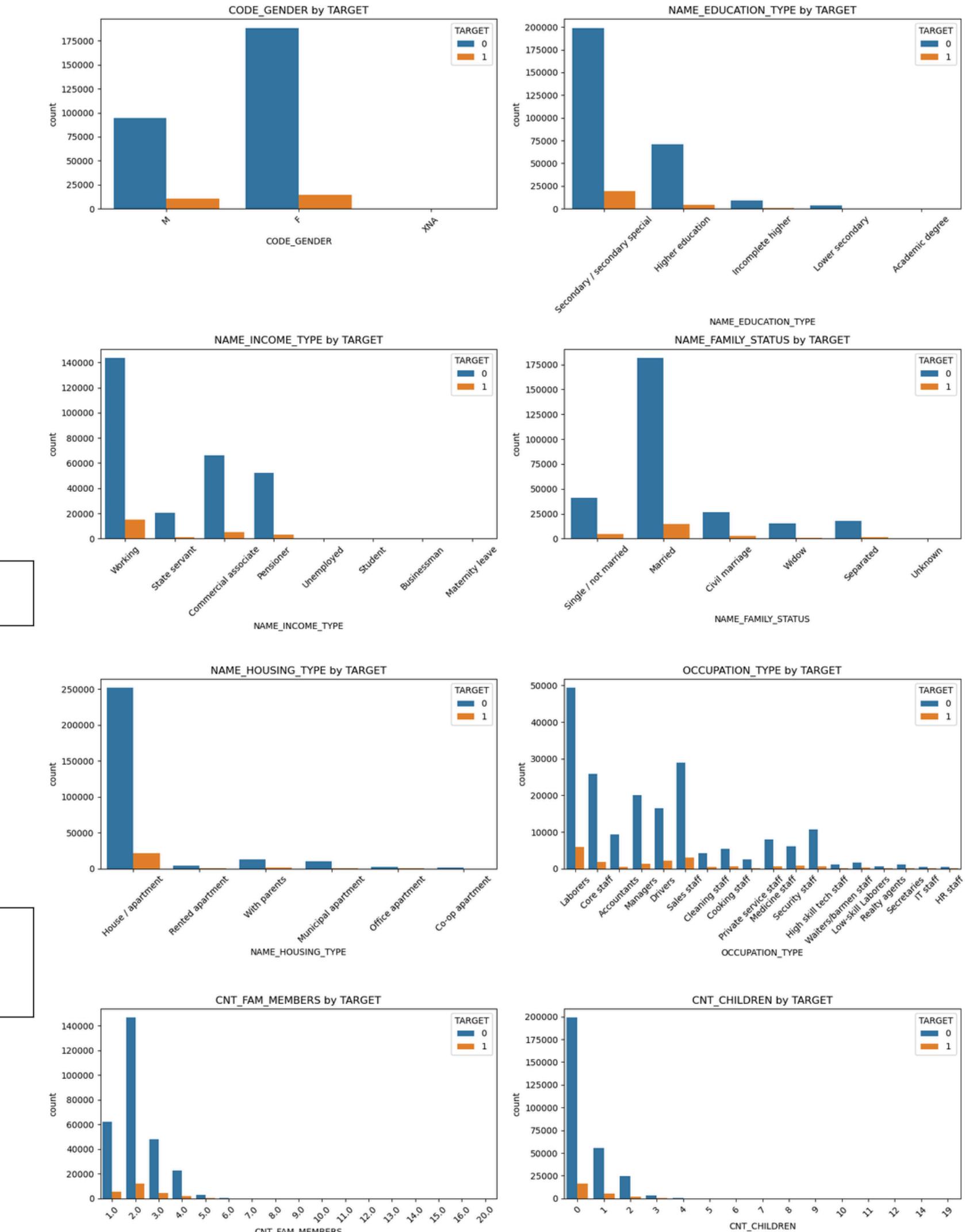
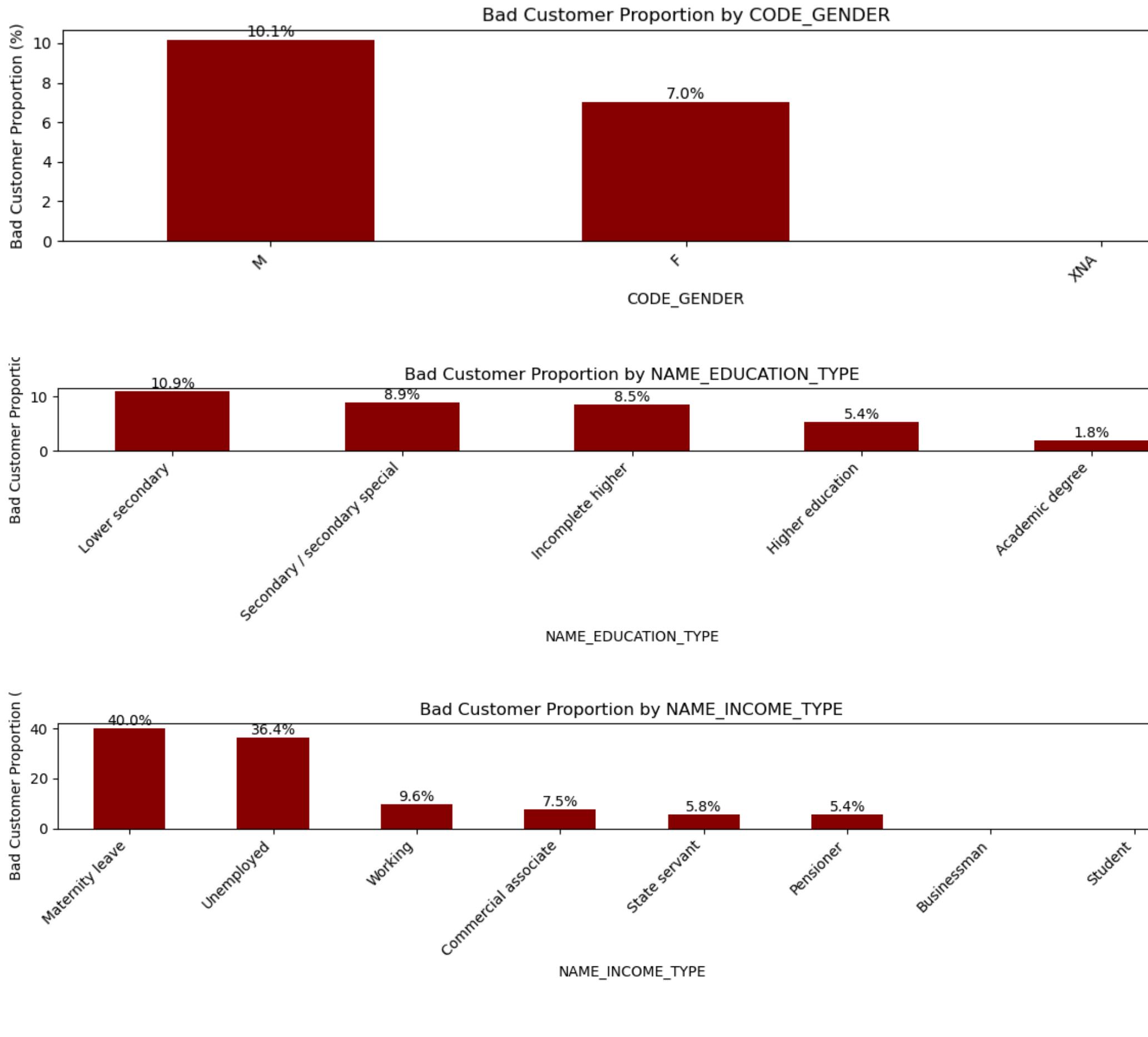


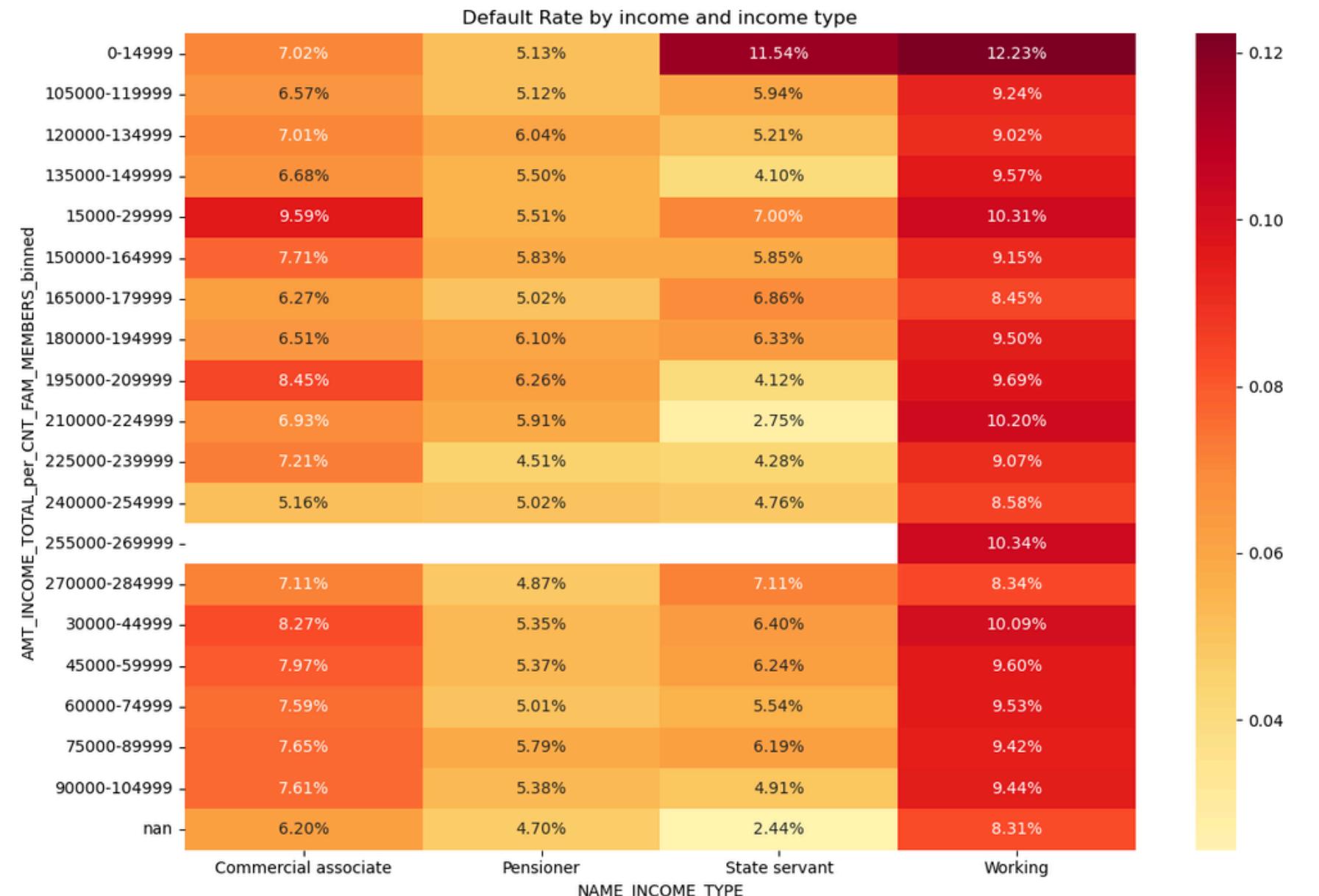
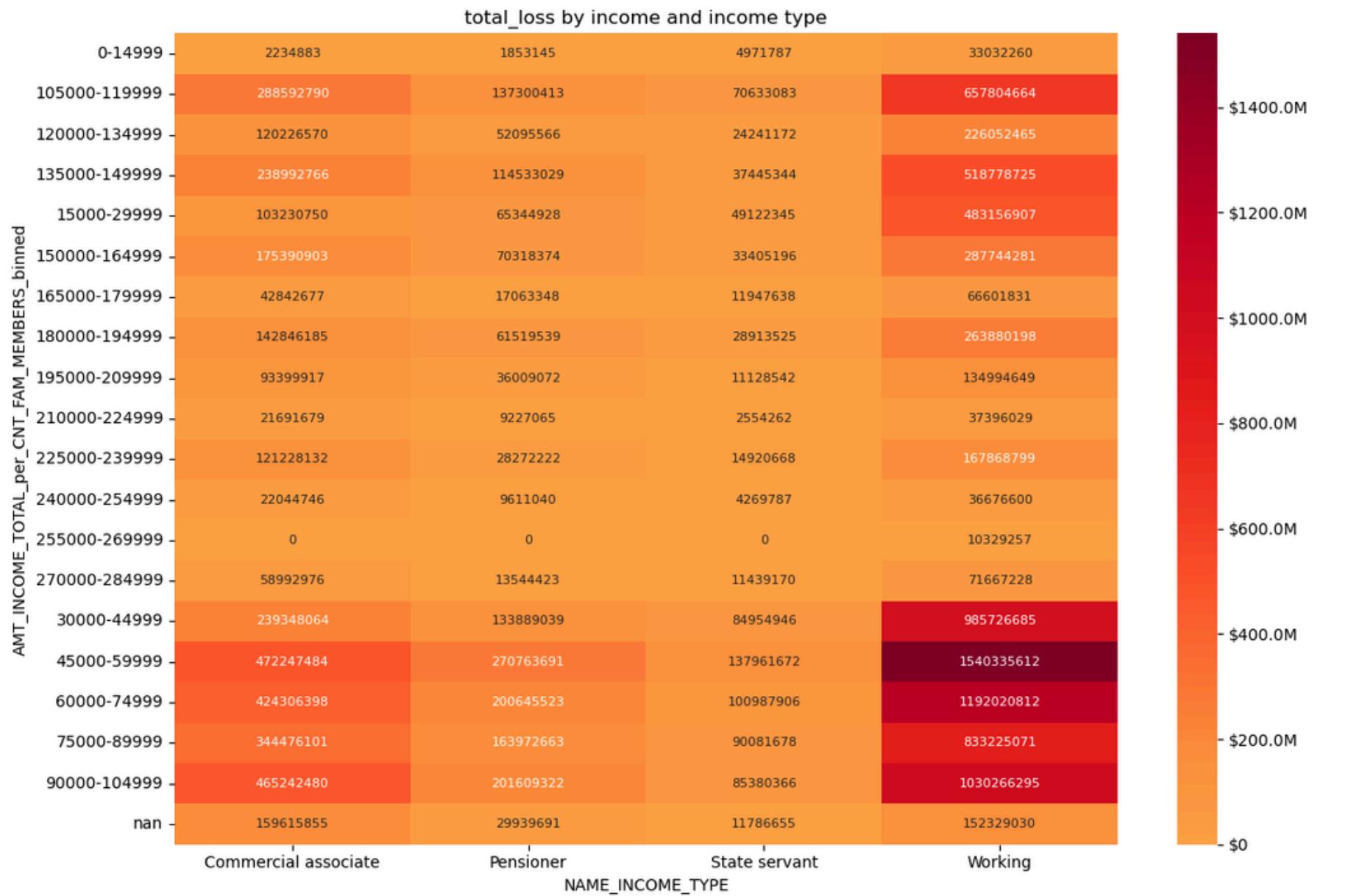
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# Appendix

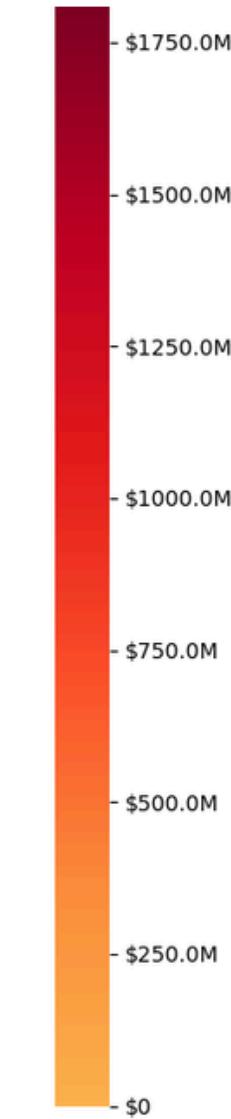
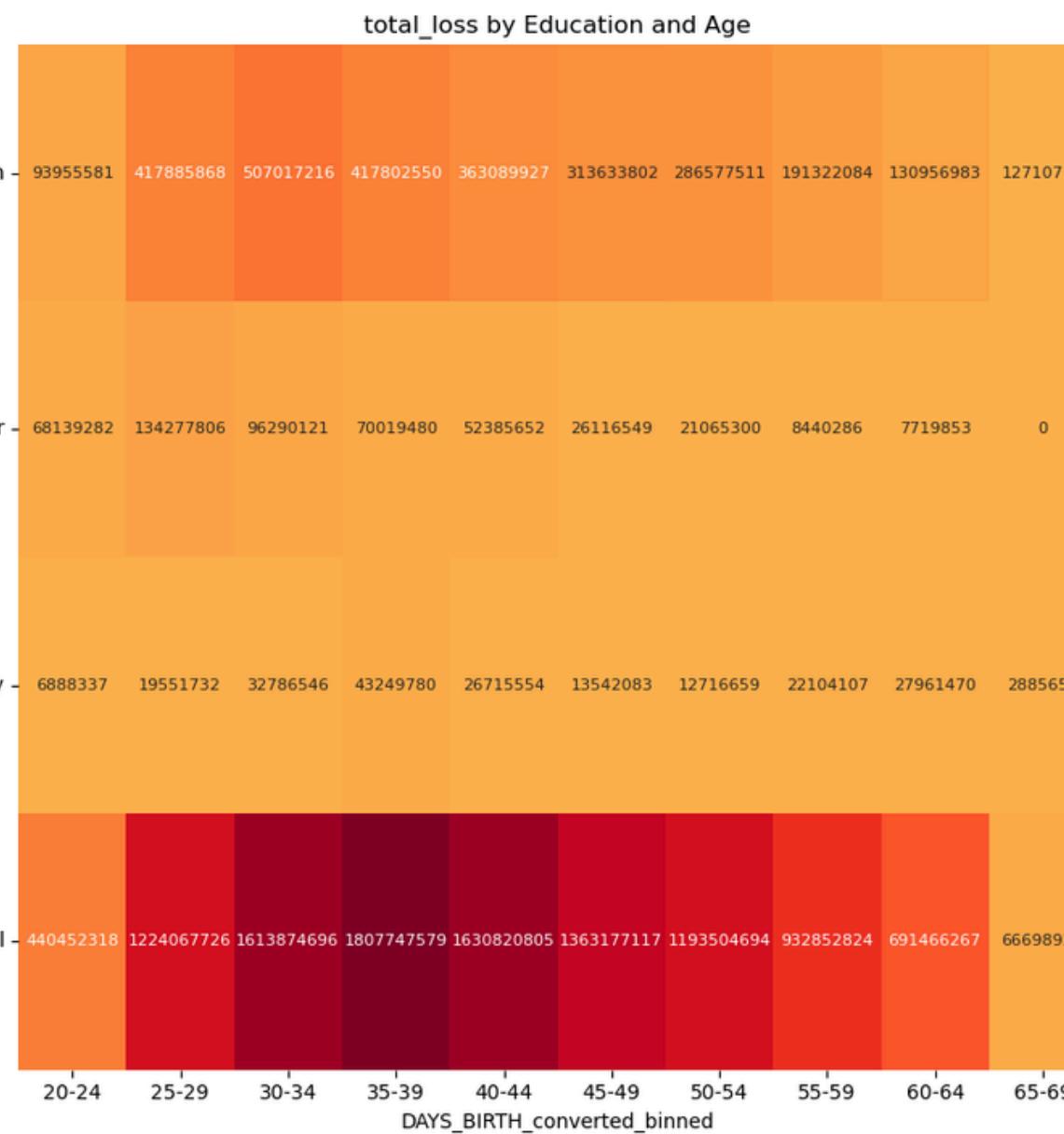


# Appendix





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NAME\_EDUCATION\_TYPE

