

**OBAMACARE**

# HEALTH INSURANCE DATA - A Brief Insight

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Capstone Project by Jamila Madda  
DDA17 Fulltime DataAnalytics BootCamp  
Nashville Software School ( Jan 2026)

I AM ALWAYS  
DOING THAT WHICH  
I CANNOT DO, IN  
ORDER THAT I MAY  
LEARN HOW TO DO  
IT.

Pablo Picasso

*Capricorn*  
Dental Office Teacher  
Administrator Simple Happy-Go-Lucky  
Curious Dentist Baker  
*Hard Working*  
*Learner For Life*  
*For Life Free-Spirited*

## Data Source



Official HealthCare.gov website operated by the federal government through the Centers for Medicare & Medicaid Services (CMS) as part of the Affordable Care Act (ACA).

## Additional Datasets



TN counties Per Capita Income



State of Tennessee Downloadable GIS Data

Geospatial Analysis



Annual Average Occupational wages in TN  
from 2008-2025



County Health data for Tennessee (2025)

# CAPSTONE Focus



My Home state



30-year-old couple with two children



Present year of **2026**

3 Tiers

Bronze

Silver

Gold

To deepen the analysis, the project narrows its focus to

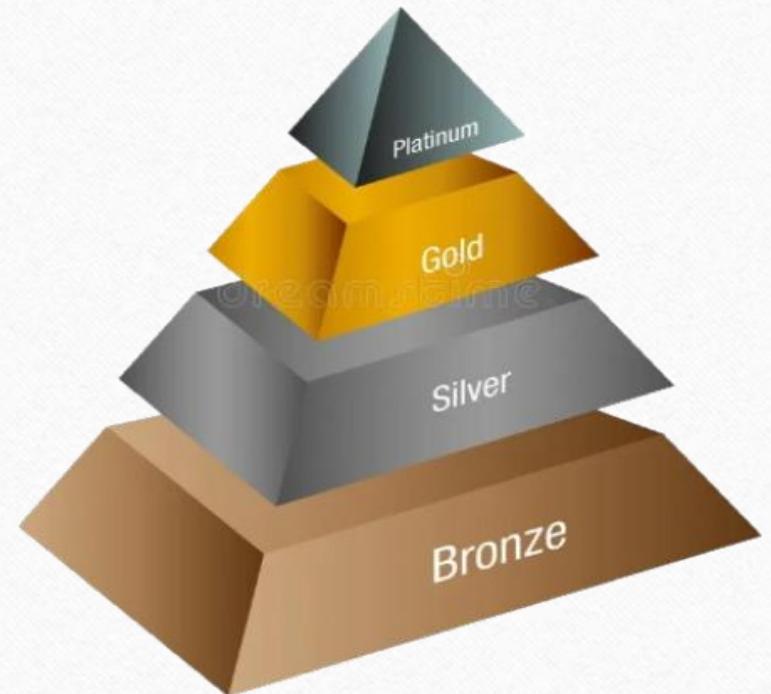


# My Data Questions

- Why Silver Plans cost more than Gold
- Percentage of premium increase between Bronze, Silver and Gold tiers.
- Geographical Location Vs Premium
- Factors affecting premium rates
- Relationship between Income and Insurance Premiums across Tennessee counties
- Plan comparison across multiple insurers.
- Year-on-Year Percentage Premium change Analysis
- Wage Increase Vs Premium Increase

# Understanding Health Insurance Plans

Tier	Plan Pays	Customer Pays
Bronze	60%	40%
Silver	70%	30%
Gold	80%	20%
Platinum	90%	10%



## Silver (no CSR) ≈ Gold



### Standard Silver (no CSR)

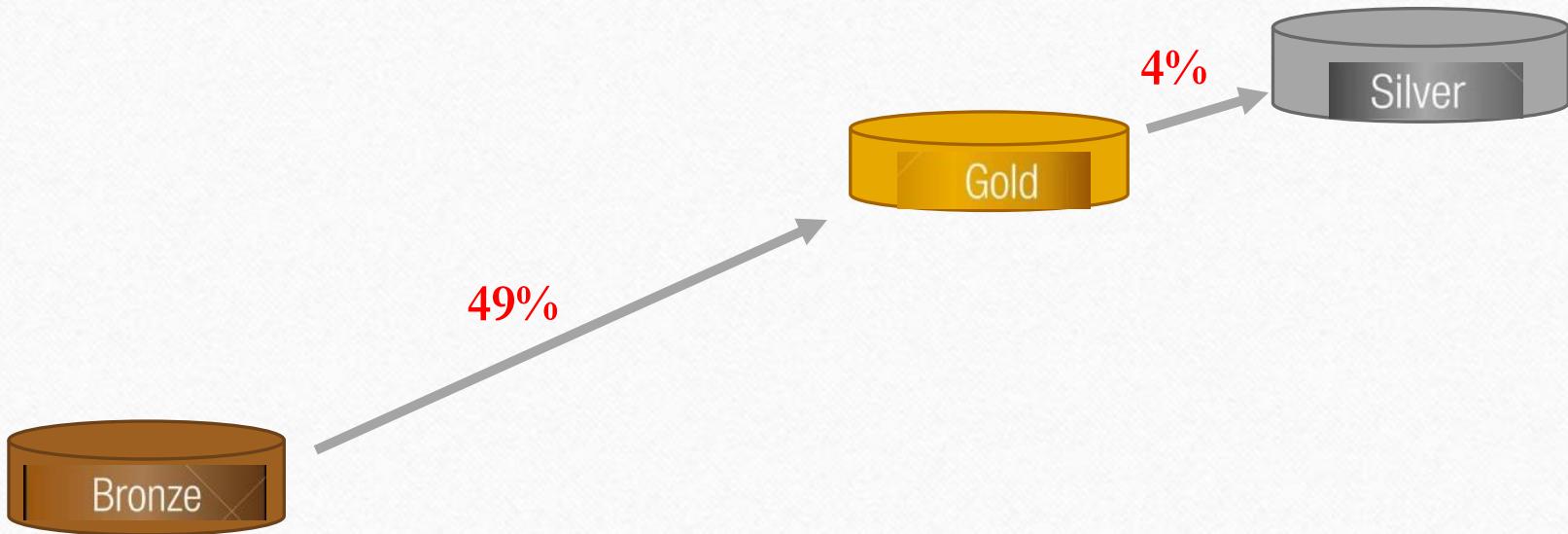
Moderate premium,  
similar coverage value

### Gold Plan

Higher premium,  
comparable coverage

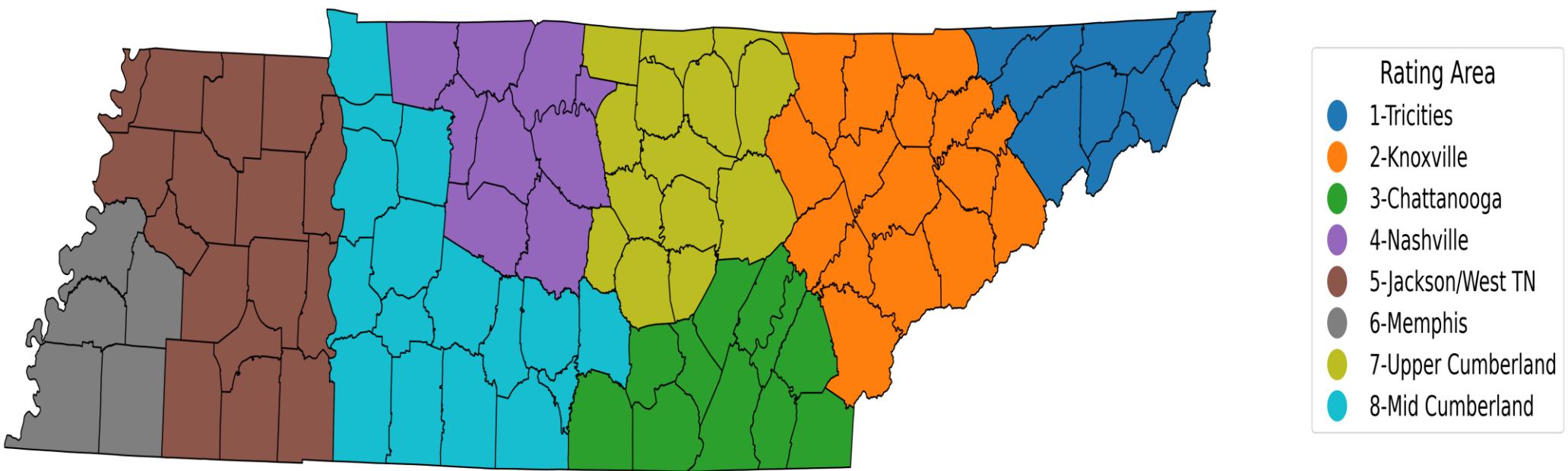
\* CSR - Cost Sharing Reductions

# Tier Analysis



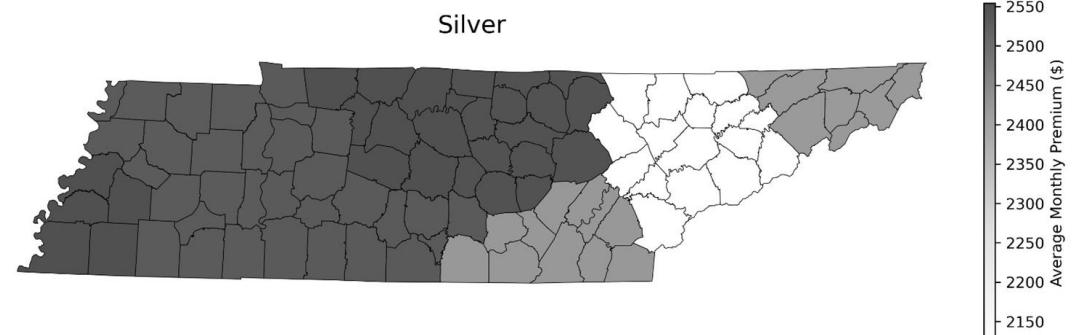
This pricing structure suggests that Bronze plans are positioned as low-entry options, but the cost of moving to Silver is substantial and may act as a financial barrier.

## Tennessee Insurance Rating Areas by County



# Geographical Location v/s Premium

Average Plan cost for a Young Family with Two Children

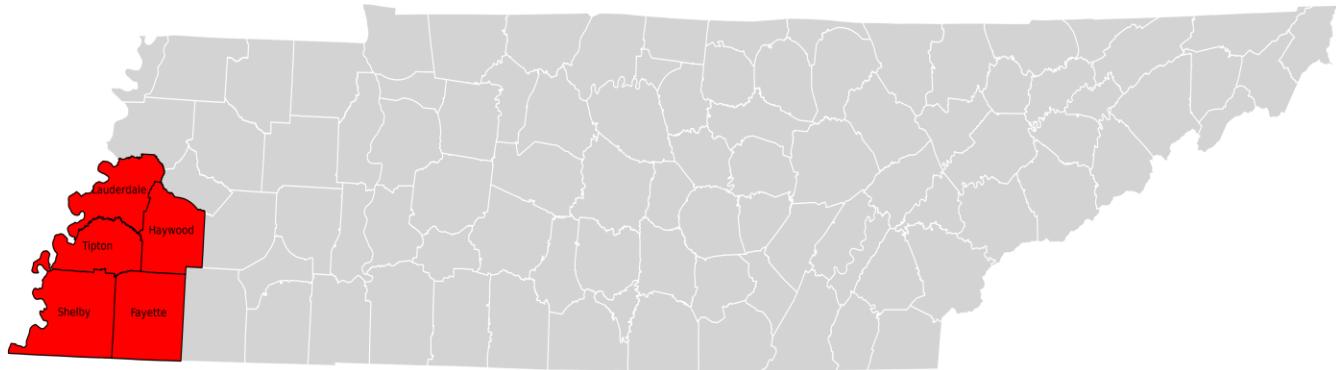


Geography plays a larger role than plan choice.

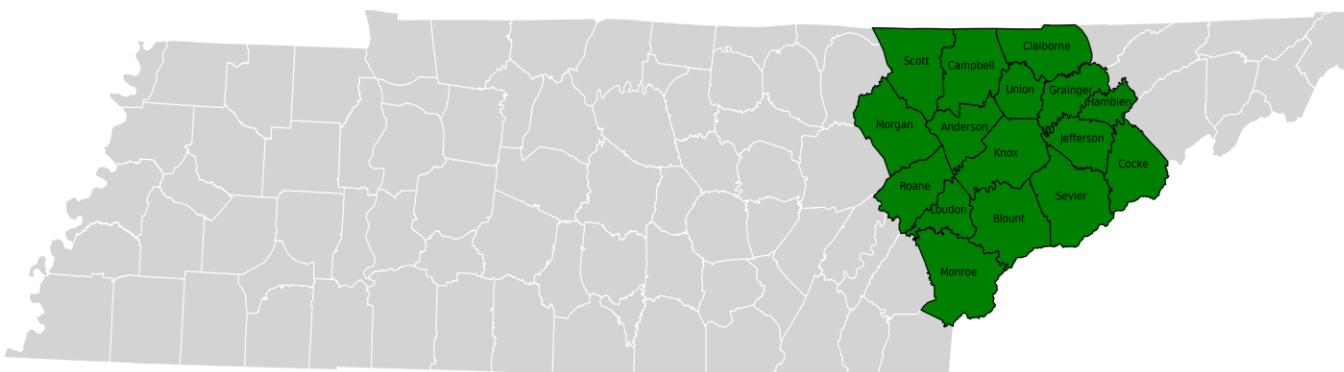
**COMPARE**



Top 5 Most Expensive Counties in Tennessee  
(Average Plan Cost Across Metal Tiers)

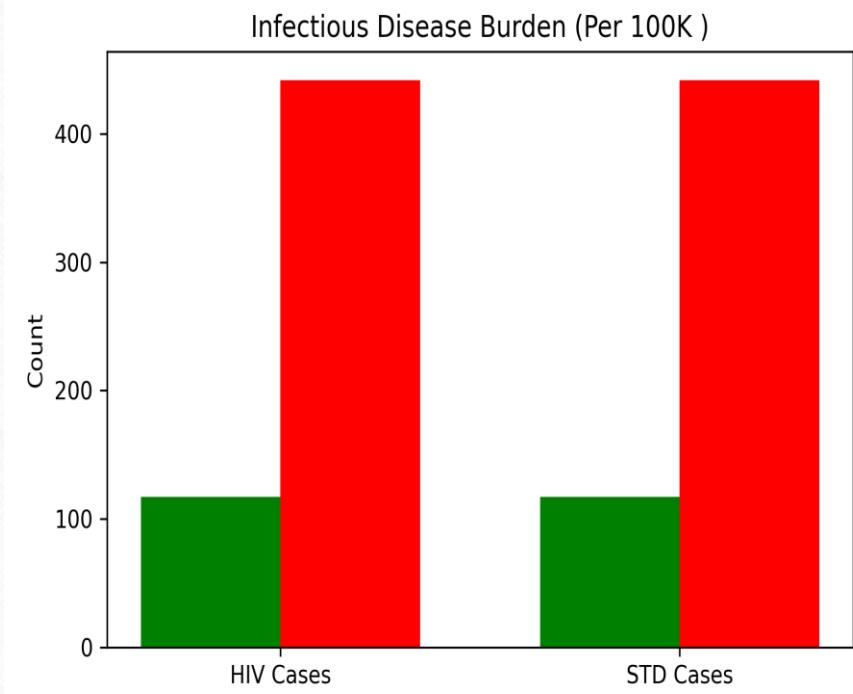
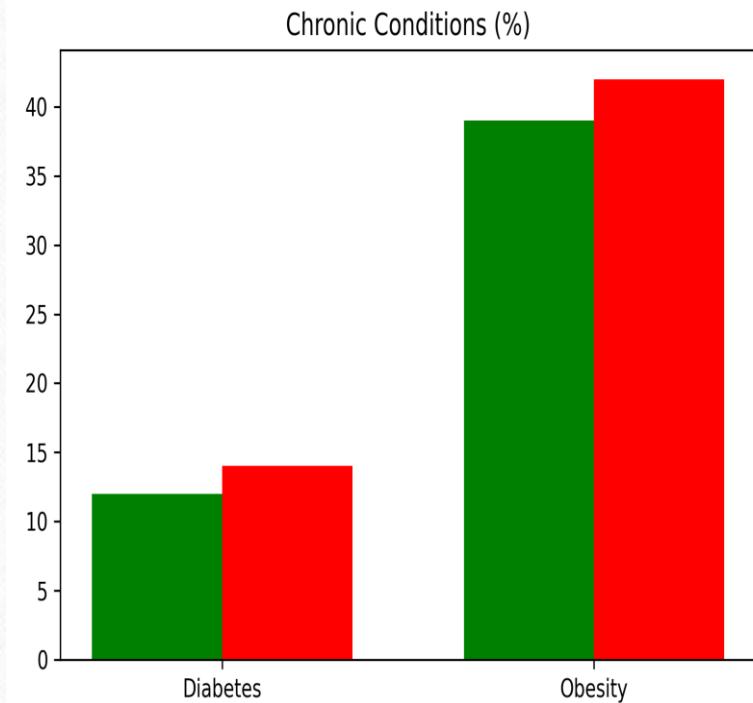
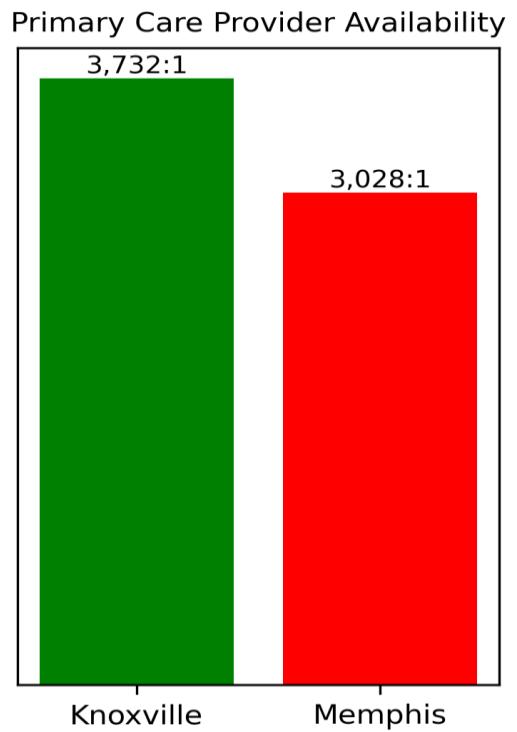


Least Expensive Counties in Tennessee  
(Average Plan Cost Across Metal Tiers)

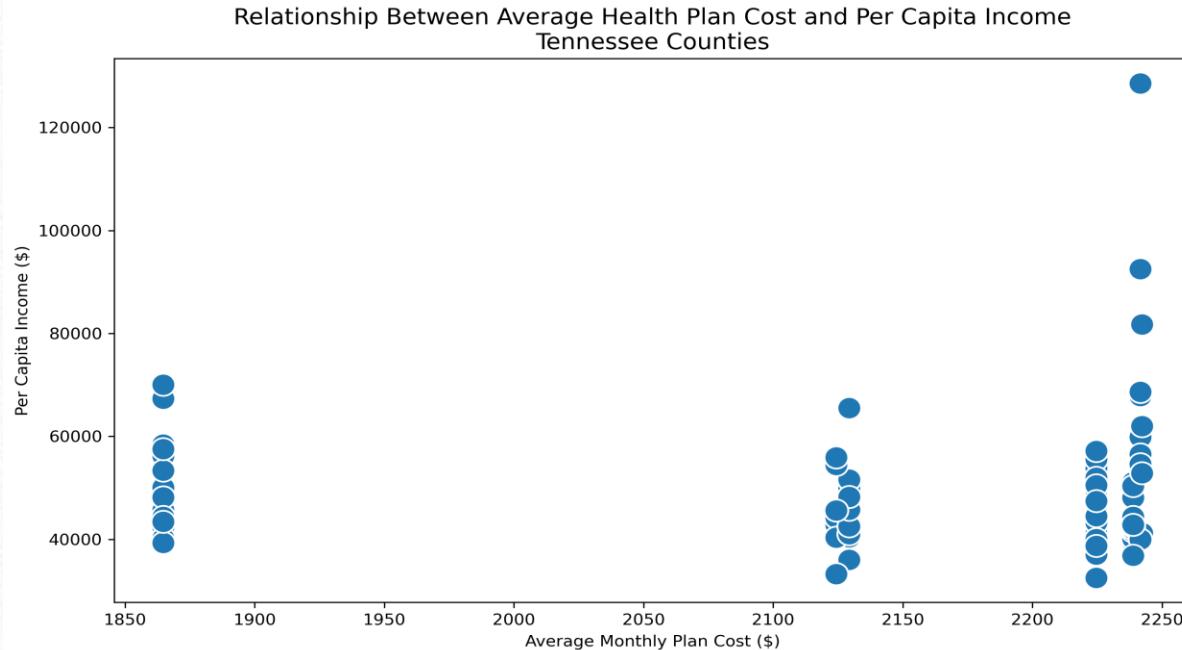


# Health Outcome Comparison Table Between Most Expensive & Least Expensive Rating Areas in TN (2025)

Knoxville  
Memphis



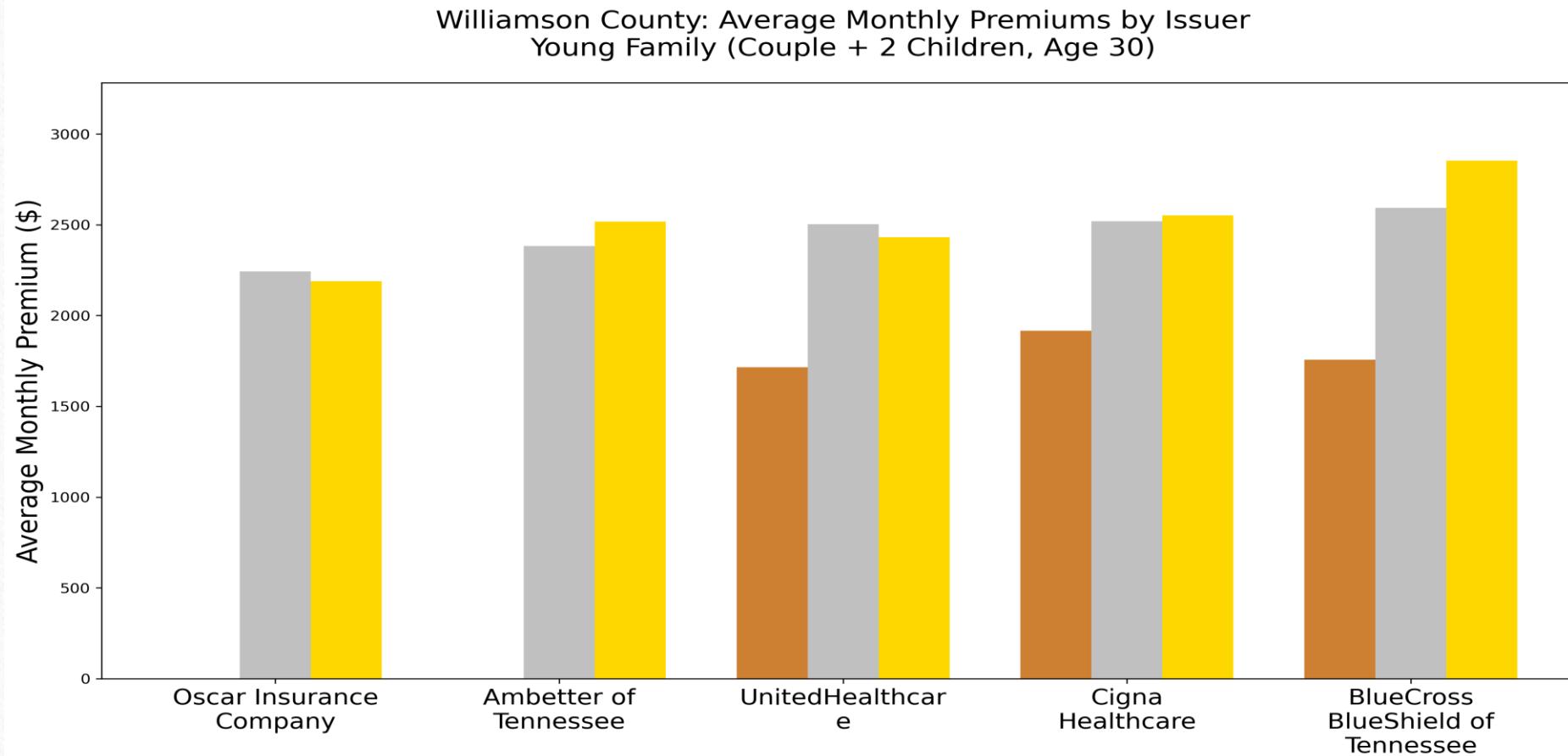
# Income v/s Premium



**Geography matters more!** - A county that is just \$100 more expensive per month adds up to about \$1,200 more per year for the same family and plan tier.

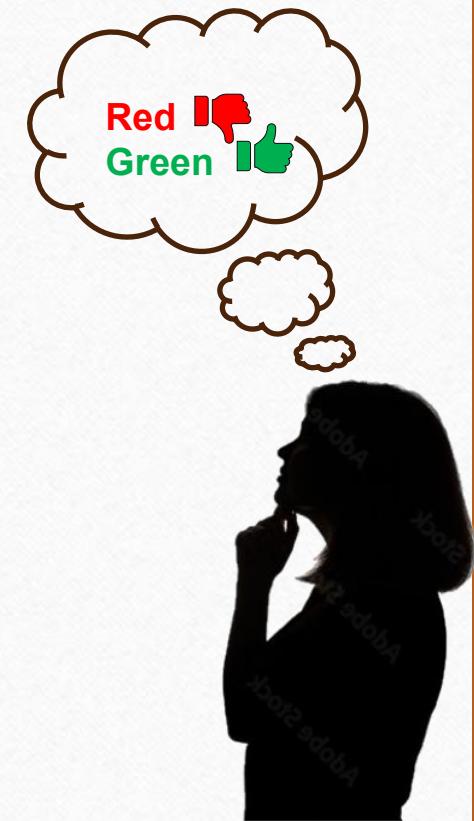
# Plan Comparison Across Different Insurance Companies

Williamson County: Average Monthly Premiums by Issuer  
Young Family (Couple + 2 Children, Age 30)



# Scenario Analysis

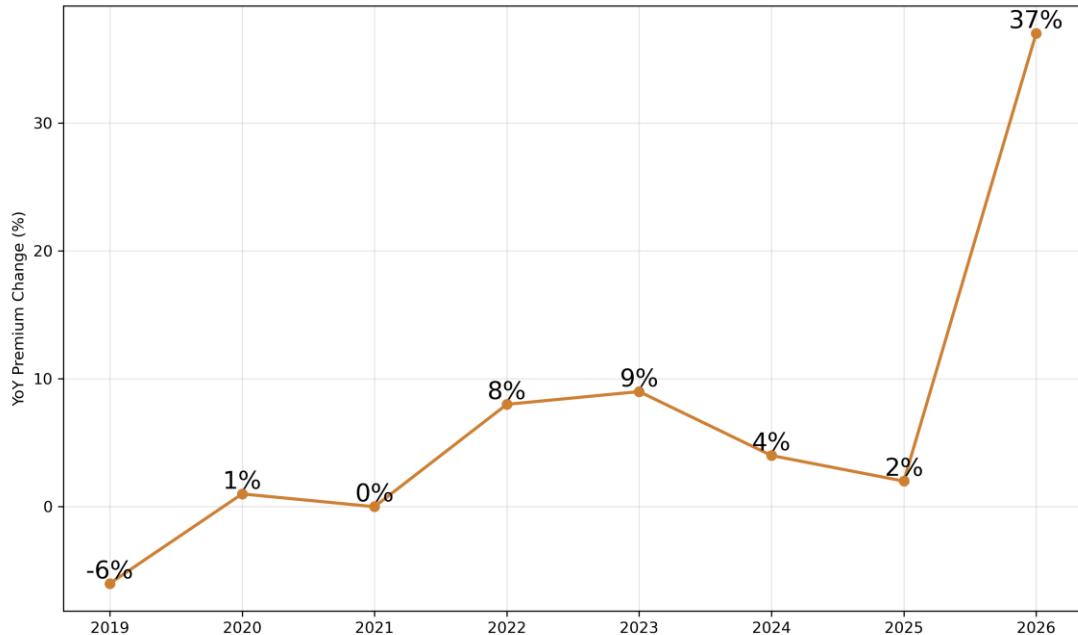
	 <b>oscar</b>	 United Healthcare	 BlueCross BlueShield of Tennessee
Premiums	\$2237	\$2455	\$2597
Added Coverage	None	Adult + Child	Only Child
Deductible - Ind	\$500	\$2000	\$2000
Deductible – Family	\$1000	\$4000	\$4000
OOP – Individual	\$7000	\$8500	\$8200
OOP – Family	\$14000	\$17000	\$16400
Copay – PCP	\$15	\$10	\$30
Copay – Specialist	\$75	\$60	\$60
Inpatient	30%	25%	25%
Emergency	30%	\$500	25%



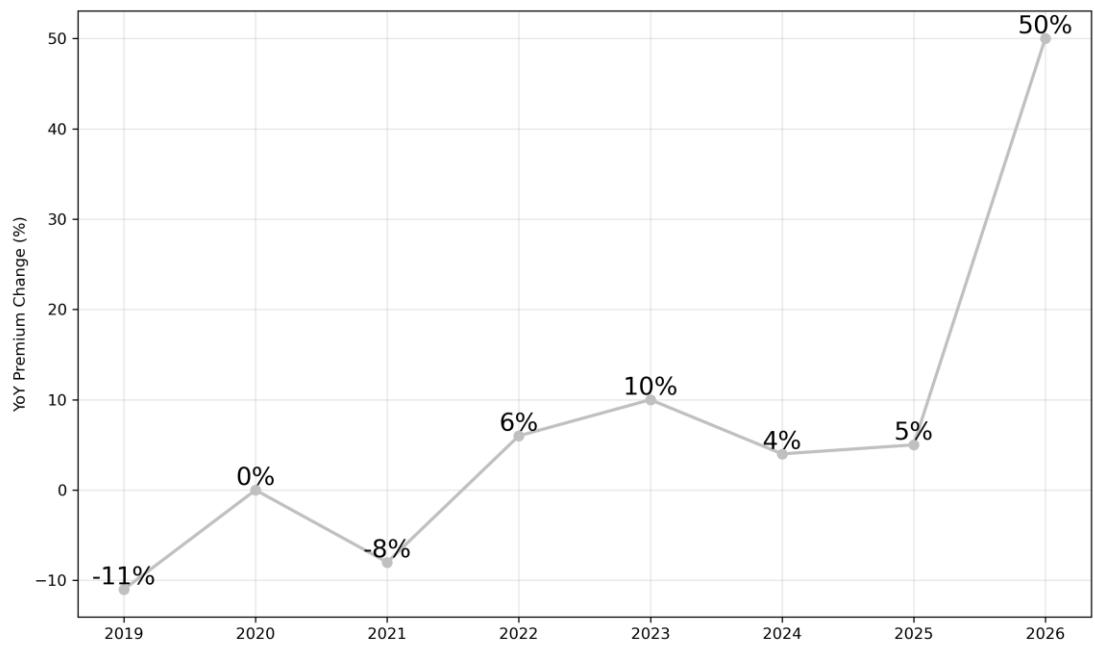


# Y-O-Y Percentage Analysis

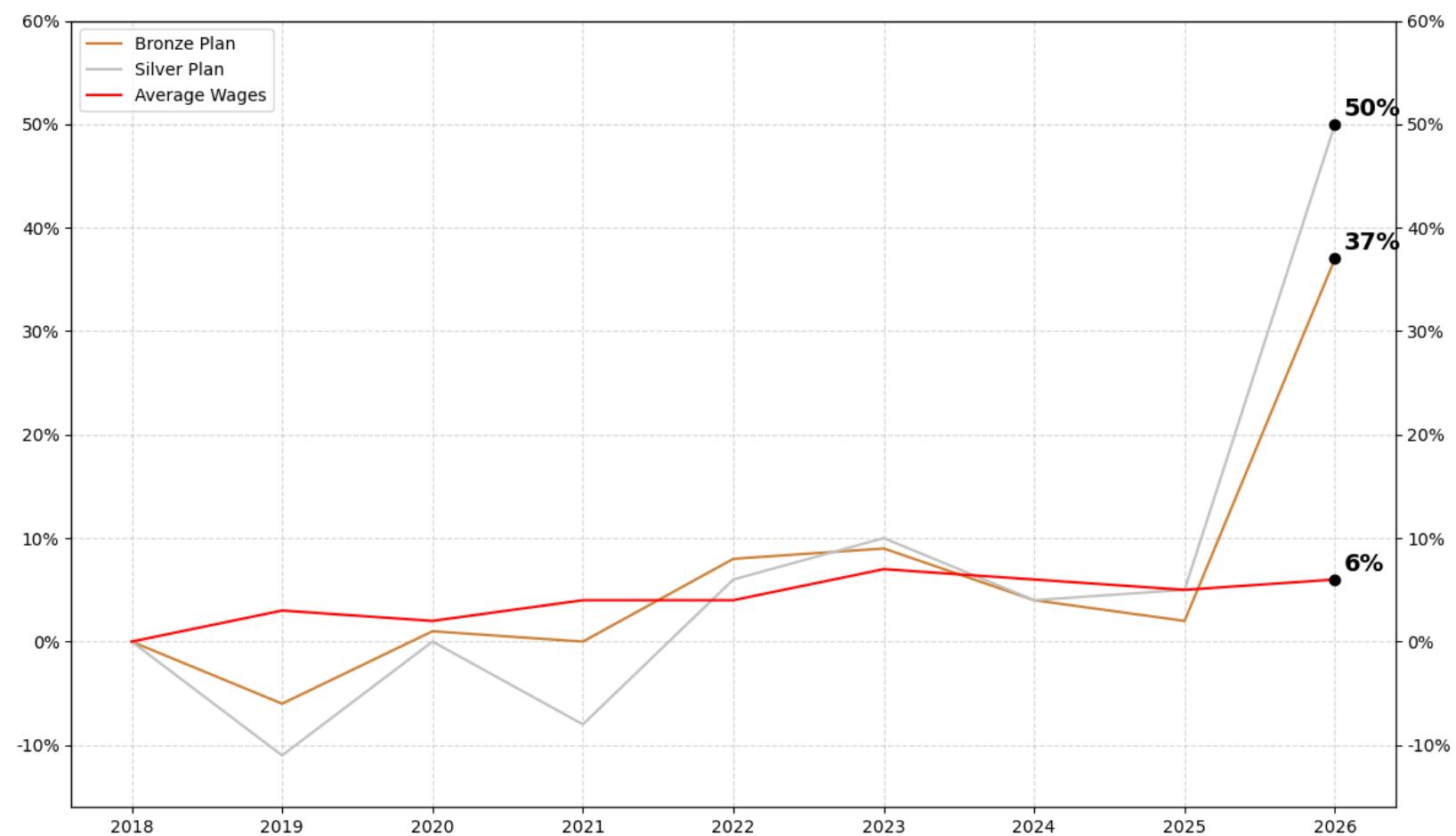
Bronze



Silver



## Wage Increase Vs Premium Increase



# Affordability Declining in the Affordable Care Act!

- Premiums Rising Faster Than Wages
- Location Strongly Impacts Costs
- Metal Tier Affordability Is Non-Linear
- Silver Helps Some, Bronze Traps Many
- National Cost Pressures Worsen Affordability



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**LinkedIn**



ANY  
QUESTIONS?