

U.S. Health Insurance



Introduction

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Data Analyst

Program Manager / Analyst

Hobbies | Theology, travel, gardening, FOOTBALL, auto-racing, scrap booking



Data Methodology

Centers for Medicare and Medicaid Services (CMS)

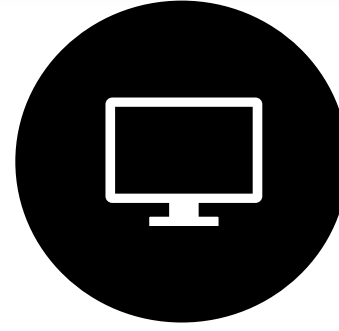


Dataset Source:
Kaggle

Alias “Devastator”



SEVEN Comma
Separated Value



Web Scraped from
Data Society
CMS Public Use Files



Data Cleaning:
Excel, SQL, Python
Tableau

Objective

Centers for Medicare and Medicaid Services



The **Patient Protection and Affordable Care Act (ACA)** or Obamacare, was signed into law on 23 March 2010. The intent was to reduce the number of individuals and families in uncompensated care and required ALL Americans to have health insurance.

The law has **THREE** primary goals:

- Affordable health insurance to more people;
- Expand Medicaid program to cover all adults below 138% of the federal poverty level; and
- In general, support innovative medical care delivery methods designed to lower the costs of health care

How do plan rates and benefits vary -

- States
- Metal levels
- Coverage

Objective

Centers for Medicare and Medicaid Services



The **Patient Protection and Affordable Care Act (ACA)** or Obamacare, was signed into law on 23 March 2010. The intent was to reduce the number of individuals and families in uncompensated care and required ALL Americans to have health insurance.

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US Health Insurance Overview



Medicare 65.4 M

Medicaid 85.2 M

27 Million Uninsured



\$4.3 Trillion

\$900B

Medicare

8.4%

\$734B

Medicaid

9.2%

18% GDP



U.S.

\$3.3 B

Southeast

\$811 M

Mideast

\$ 613 M

West

\$ 570 M

Great Lakes

\$ 478 M

California \$405 M
Wyoming \$6.4 M

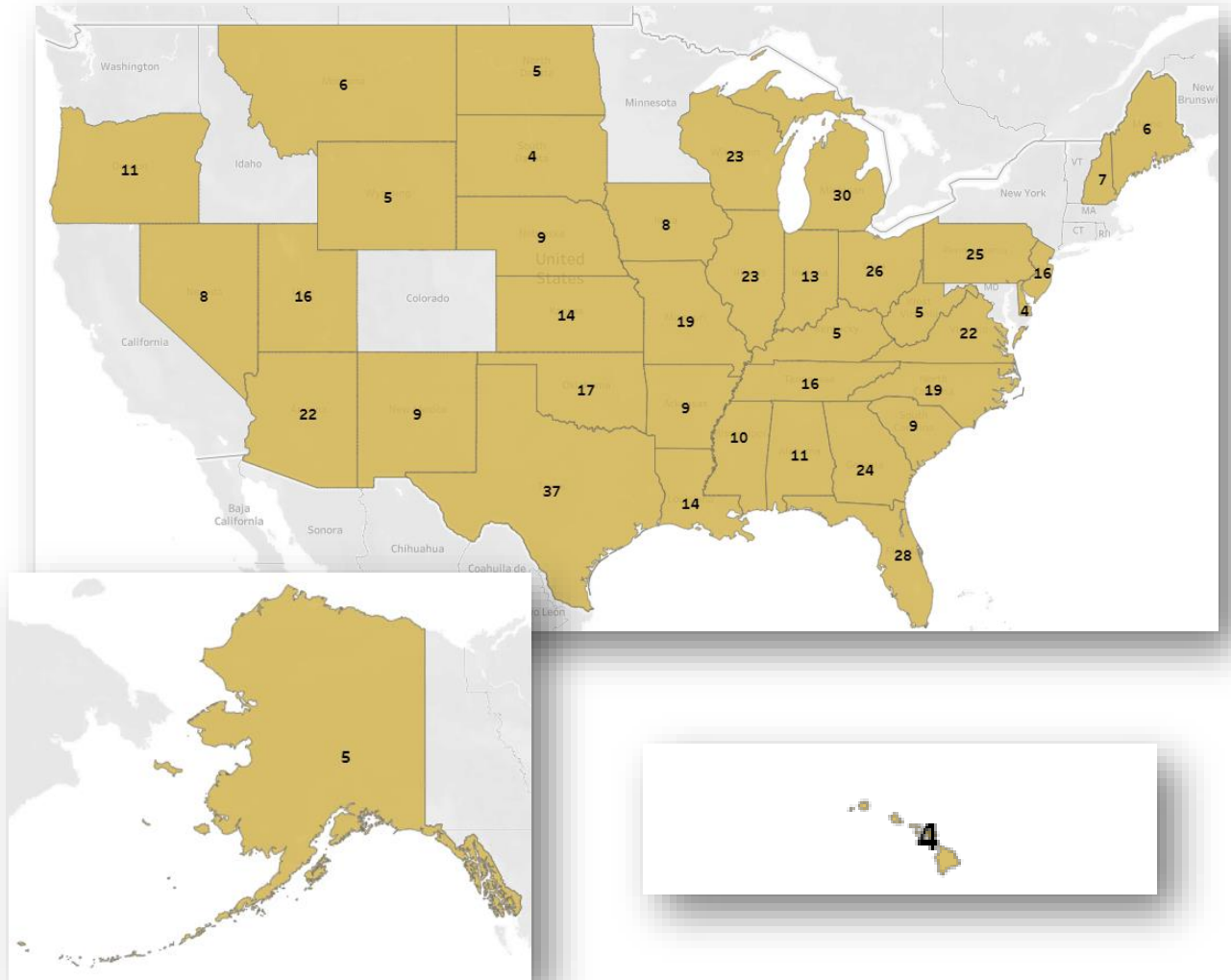
Health Insurance Marketplace

2020-2022

In 2014, the Health Insurance Marketplaces is a service provided by the federal government to allow individuals to compare insurance plan coverage and affordability. Marketplace consists of:

- 33 states use HealthCare.gov
- 17 State-Based Marketplace(SBM)

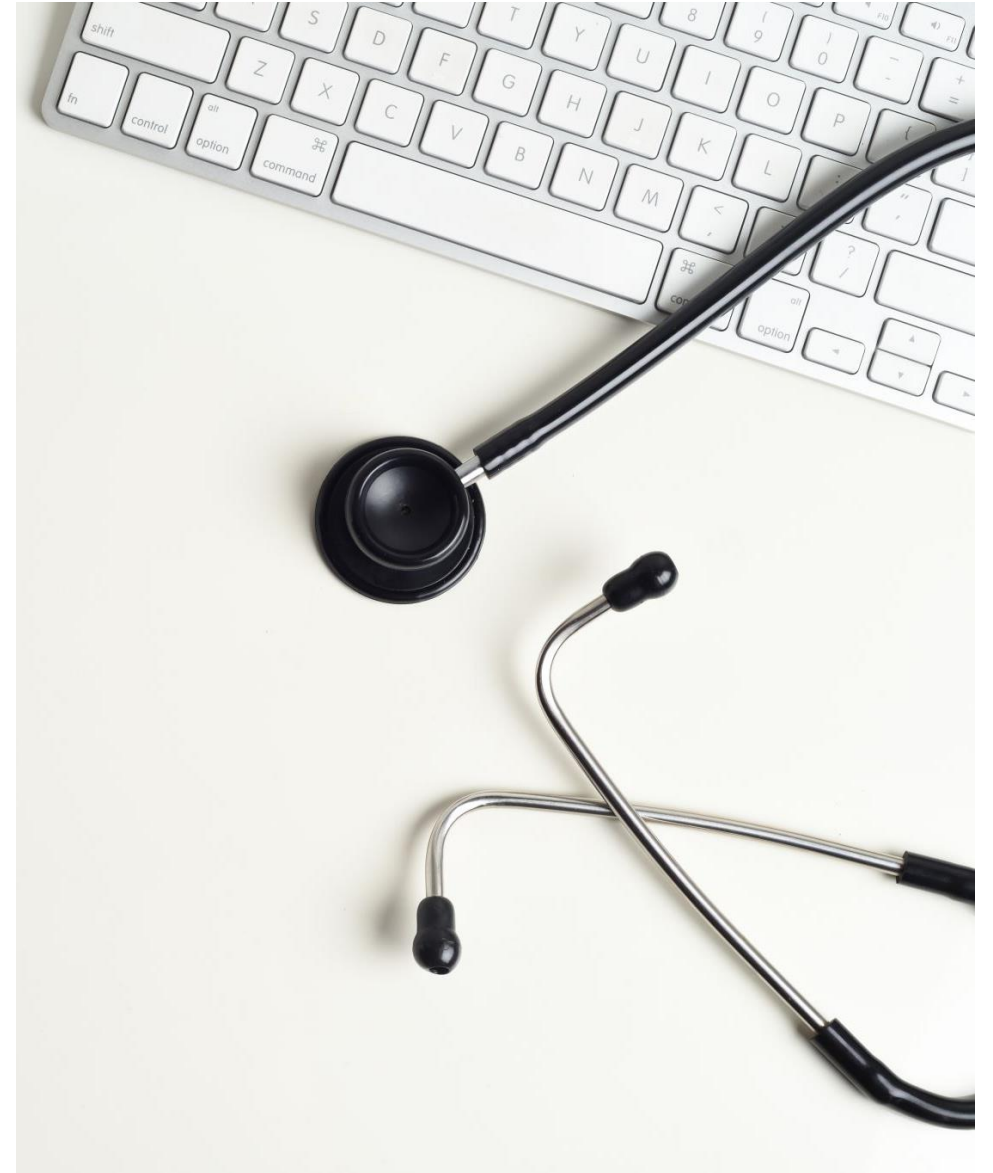
Annually, Public Use Files (PUFs) are prepared to summarizing plan selection activity during the OEP that include insurance applications, Qualified Health Plans (QHP), and Stand-Alone Dental Plans (SADP) selections.



Marketplace Insurance

Eligibility

- **Must live in the US**
- **US Citizen or national**
- **Coverage**
 - Individual (or Self-employed)
 - Family
 - Small Business Health Options Program (SHOP)
 - 1-50 full-time equivalent employees
 - 1-100 employees

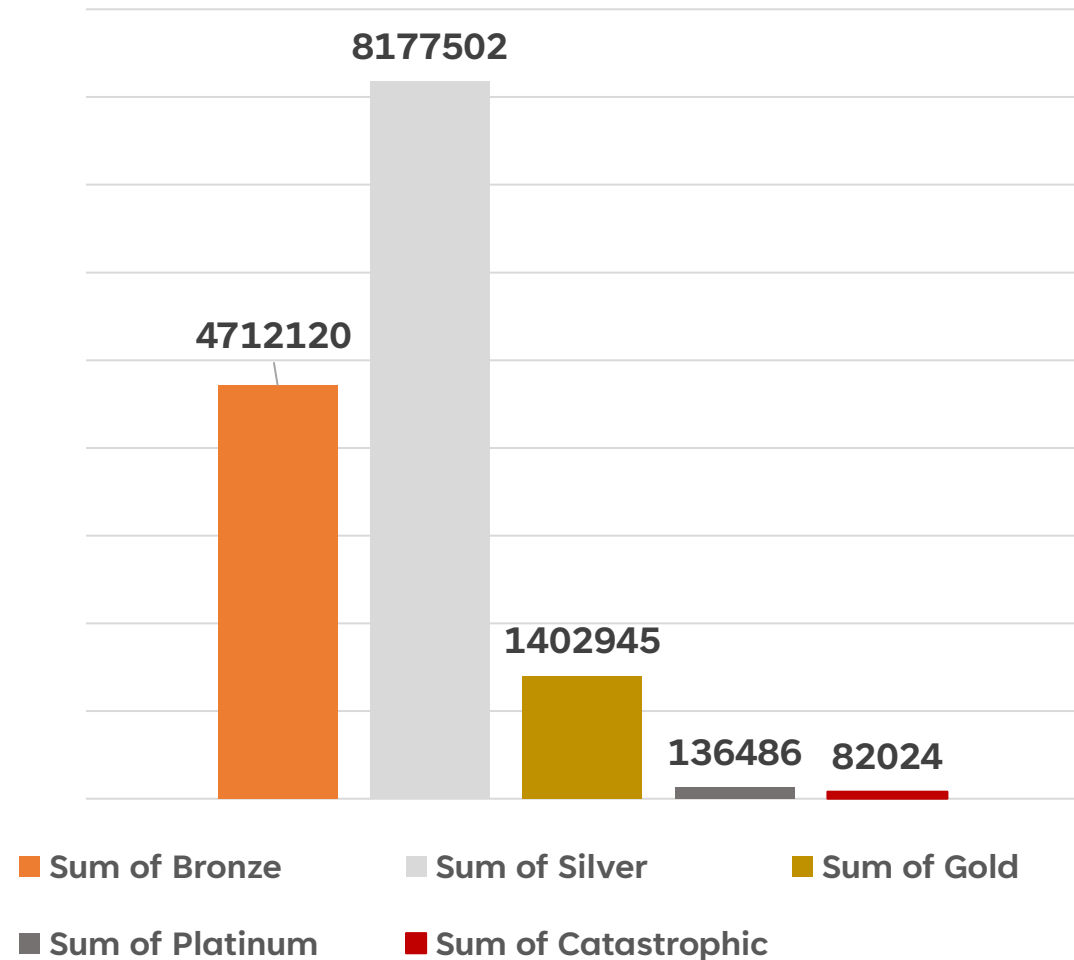


Metal Level Plans

Cost-sharing coverage and based on the actuarial value your insurer would pay.

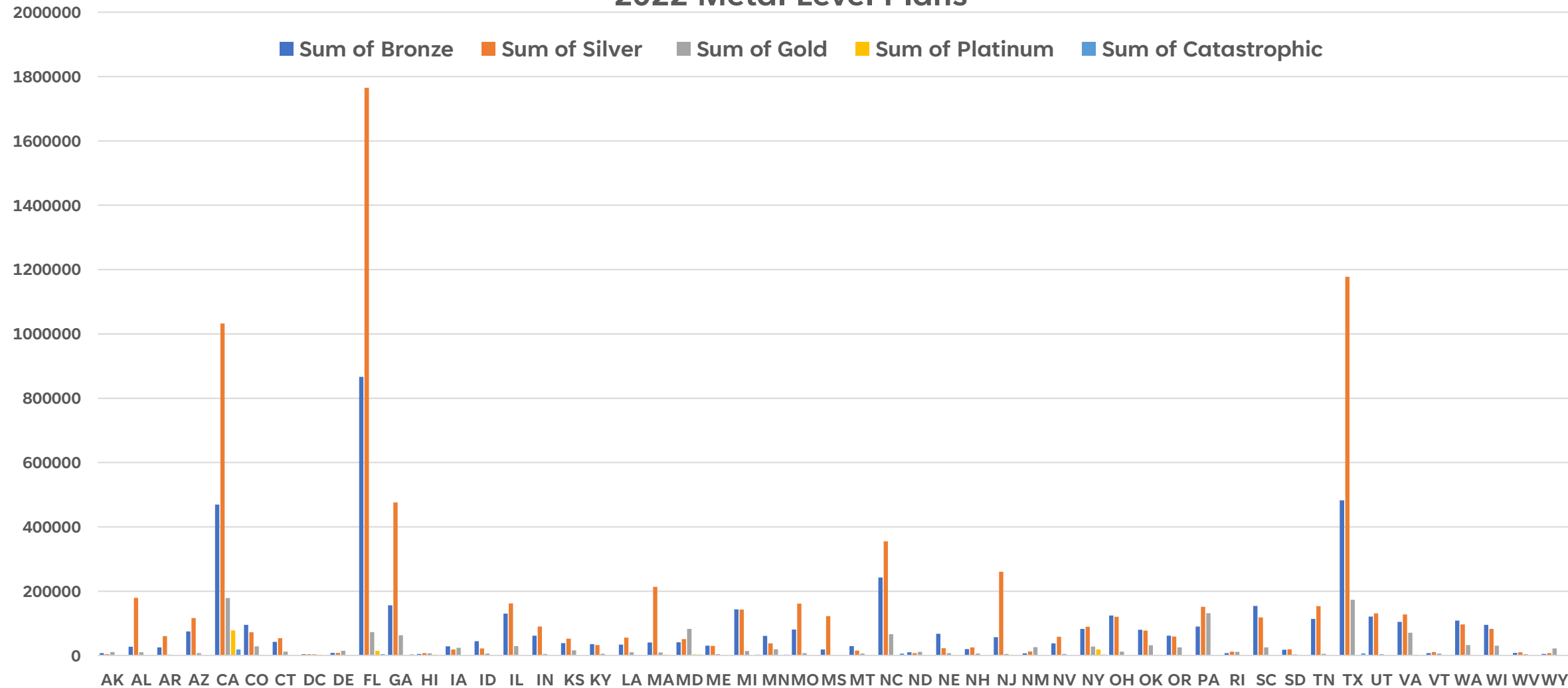
	INSURANCE PAYS	YOU PAY
Bronze	60%	40%
Silver	70%	30%
Gold	80%	20%
Platinum	90%	10%

2022 Metal Level Plans



State Comparison

2022 Metal Level Plans

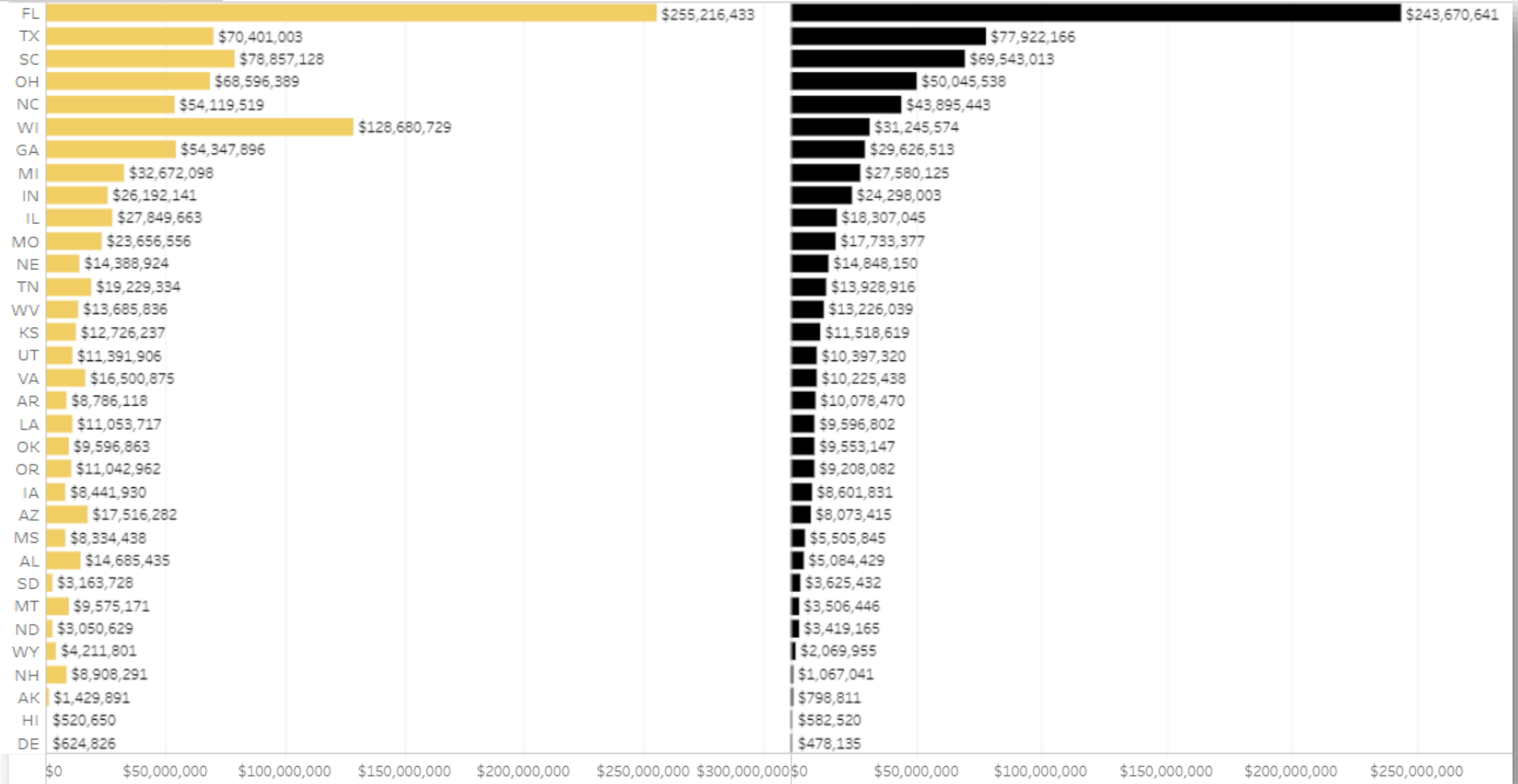


State Comparison

Individual vs Individual + Tobacco

Individual Rate

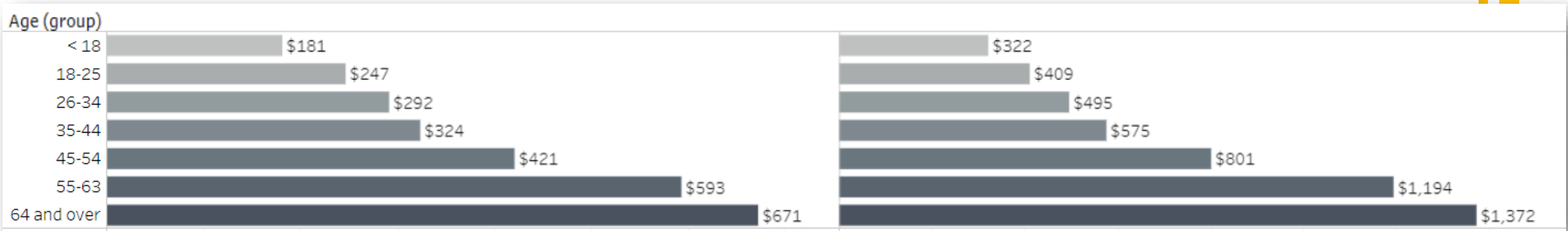
Individual + Tobacco Rates



Rate Comparison

AVG Individual Plans

By Age Group



Tobacco NOT Preferred

Tobacco Preferred

Rates

State Comparison

Individual

State	Age (group)						
	< 18	18-25	26-34	35-44	45-54	55-63	64 and over
AK	\$350	\$406	\$467	\$530	\$713	\$1,065	\$1,223
AL	\$134	\$215	\$253	\$279	\$355	\$491	\$554
AR	\$196	\$228	\$262	\$297	\$404	\$595	\$683
AZ	\$175	\$329	\$435	\$466	\$559	\$724	\$800
DE	\$144	\$287	\$330	\$355	\$431	\$563	\$624
FL	\$211	\$297	\$366	\$403	\$517	\$721	\$814
GA	\$182	\$236	\$271	\$303	\$401	\$575	\$655
HI	\$183	\$208	\$238	\$269	\$364	\$534	\$612
IA	\$196	\$244	\$280	\$314	\$418	\$603	\$689
IL	\$219	\$396	\$455	\$494	\$614	\$828	\$926
IN	\$102	\$146	\$165	\$181	\$229	\$314	\$353
KS	\$211	\$308	\$354	\$392	\$507	\$711	\$805
KY	\$189	\$219	\$251	\$285	\$388	\$571	\$656
LA	\$187	\$255	\$310	\$343	\$441	\$616	\$696
ME	\$246	\$320	\$367	\$412	\$548	\$790	\$901
MI	\$78	\$95	\$107	\$119	\$153	\$212	\$240
MO	\$175	\$319	\$364	\$395	\$487	\$651	\$726
MS	\$154	\$202	\$260	\$294	\$400	\$587	\$674
MT	\$219	\$252	\$290	\$330	\$450	\$664	\$762
NC	\$146	\$282	\$332	\$356	\$428	\$555	\$614
ND	\$179	\$206	\$237	\$268	\$364	\$534	\$613
NE	\$262	\$362	\$417	\$465	\$610	\$868	\$987
NH	\$263	\$320	\$369	\$418	\$566	\$830	\$952
NJ	\$197	\$278	\$325	\$350	\$425	\$589	\$661
NM	\$173	\$200	\$229	\$260	\$355	\$522	\$600
NV	\$114	\$131	\$149	\$167	\$223	\$322	\$369
OH	\$158	\$184	\$211	\$237	\$318	\$463	\$529
OK	\$185	\$268	\$307	\$340	\$438	\$612	\$692
OR	\$163	\$216	\$281	\$319	\$435	\$640	\$734
PA	\$144	\$185	\$212	\$237	\$313	\$447	\$509
SC	\$211	\$286	\$348	\$386	\$502	\$707	\$801
SD	\$257	\$299	\$345	\$392	\$535	\$789	\$907
TN	\$168	\$293	\$375	\$404	\$492	\$649	\$722
TX	\$156	\$177	\$202	\$228	\$310	\$454	\$520
UT	\$177	\$224	\$308	\$331	\$463	\$635	\$660
VA	\$149	\$241	\$276	\$301	\$379	\$517	\$579
WI	\$292	\$352	\$411	\$465	\$629	\$921	\$1,055
WV	\$323	\$503	\$580	\$640	\$875	\$1,147	\$1,285
WY	\$248	\$286	\$328	\$372	\$505	\$742	\$852

Rates State Comparison

Individual Tobacco

State	Age (group)						
	< 18	18-25	26-34	35-44	45-54	55-63	64 and over
AK	\$387	\$480	\$563	\$641	\$878	\$1,301	\$1,494
AL	\$255	\$380	\$509	\$581	\$799	\$1,187	\$1,364
AR	\$277	\$365	\$438	\$499	\$685	\$1,016	\$1,168
AZ	\$311	\$374	\$439	\$511	\$713	\$1,080	\$1,241
DE	\$344	\$410	\$477	\$567	\$875	\$1,318	\$1,514
FL	\$361	\$455	\$551	\$644	\$897	\$1,334	\$1,533
GA	\$304	\$379	\$455	\$526	\$723	\$1,073	\$1,233
HI	\$299	\$395	\$485	\$552	\$756	\$1,120	\$1,287
IA	\$332	\$403	\$475	\$544	\$746	\$1,111	\$1,276
IL	\$317	\$379	\$455	\$554	\$795	\$1,180	\$1,353
IN	\$281	\$361	\$435	\$499	\$688	\$1,020	\$1,172
KS	\$331	\$415	\$492	\$562	\$786	\$1,194	\$1,389
KY	\$300	\$362	\$439	\$510	\$714	\$1,068	\$1,227
LA	\$389	\$524	\$648	\$738	\$1,014	\$1,504	\$1,728
ME	\$319	\$384	\$460	\$575	\$868	\$1,201	\$1,404
MI	\$260	\$319	\$380	\$436	\$615	\$941	\$1,107
MO	\$340	\$431	\$514	\$586	\$803	\$1,192	\$1,370
MS	\$252	\$384	\$516	\$588	\$806	\$1,194	\$1,371
MT	\$272	\$343	\$418	\$488	\$680	\$1,004	\$1,152
NC	\$347	\$438	\$526	\$600	\$825	\$1,227	\$1,410
ND	\$256	\$337	\$399	\$455	\$623	\$923	\$1,061
NE	\$387	\$480	\$572	\$655	\$899	\$1,340	\$1,539
NH	\$231	\$295	\$357	\$422	\$612	\$917	\$1,054
NJ							
NM	\$258	\$320	\$390	\$494	\$700	\$1,024	\$1,169
NV	\$305	\$397	\$490	\$574	\$812	\$1,233	\$1,416
OH	\$297	\$366	\$441	\$525	\$755	\$1,138	\$1,309
OK	\$339	\$417	\$501	\$598	\$834	\$1,233	\$1,413
OR	\$219	\$335	\$455	\$518	\$710	\$1,052	\$1,209
PA	\$312	\$386	\$448	\$518	\$737	\$1,103	\$1,268
SC	\$315	\$422	\$503	\$572	\$784	\$1,162	\$1,335
SD	\$336	\$446	\$535	\$609	\$835	\$1,237	\$1,422
TN	\$322	\$404	\$483	\$553	\$761	\$1,136	\$1,305
TX	\$313	\$405	\$493	\$580	\$804	\$1,189	\$1,364
UT	\$246	\$324	\$460	\$506	\$743	\$1,069	\$1,111
VA	\$311	\$388	\$473	\$552	\$779	\$1,186	\$1,375
WI	\$310	\$393	\$464	\$542	\$754	\$1,127	\$1,301
WV	\$457	\$557	\$669	\$786	\$1,150	\$1,717	\$1,973
WY	\$429	\$584	\$705	\$808	\$1,115	\$1,651	\$1,898

ANNUAL				Pri 1	Pri 2	Pri 3	AVG				Pri 1	Pri 2	Pri 3
	AK	\$28,780	\$28,780	\$28,780		\$138	\$138	\$138					
	AL	\$1,971	\$1,971	\$1,971		\$38	\$38	\$38					
	AR												
	AZ	\$4,644	\$5,816	\$6,988		\$54	\$68	\$81					
	DE												
	FL	\$927	\$927	\$927		\$51	\$51	\$51					
	GA	\$2,925	\$2,925	\$2,925		\$30	\$30	\$30					
	HI												
	IA												
	IL	\$4,750	\$4,750	\$4,750		\$48	\$48	\$48					
	IN	\$3,142	\$3,142	\$3,142		\$62	\$62	\$62					
	KS												
	KY												
	LA												
	ME	\$676	\$996	\$1,316		\$85	\$125	\$165					
	MI	\$66,081	\$98,910	\$108,139		\$78	\$116	\$127					
	MO	\$1,230	\$1,230	\$1,230		\$31	\$31	\$31					
	MS												
	MT												
	NC												
	ND												
	NE												
	NH	\$335	\$495	\$653		\$84	\$124	\$163					
	NM												
	OH	\$3,348	\$3,348	\$3,348		\$32	\$32	\$32					
	OK	\$3,306	\$4,697	\$5,737		\$55	\$78	\$96					
	OR												
	SC												
	SD	\$1,464	\$2,196	\$2,928		\$92	\$137	\$183					
	TN	\$1,858	\$1,858	\$1,858		\$39	\$39	\$39					
	TX	\$9,322	\$11,014	\$11,014		\$45	\$53	\$53					
	UT	\$4,503	\$4,503	\$4,503		\$63	\$63	\$63					
	VA	\$3,482	\$3,482	\$3,482		\$48	\$48	\$48					
	WI	\$540	\$540	\$540		\$27	\$27	\$27					
	WV												
	WY												

Rate Comparison

Primary Sponsor

Insurance rate applied to a primary subscriber and at least one dependent in a rating area, for a plan rates by family tier

Observations

- Majority of states were consistent
- Michigan increase in each category

Pri 1 | Primary plus ONE

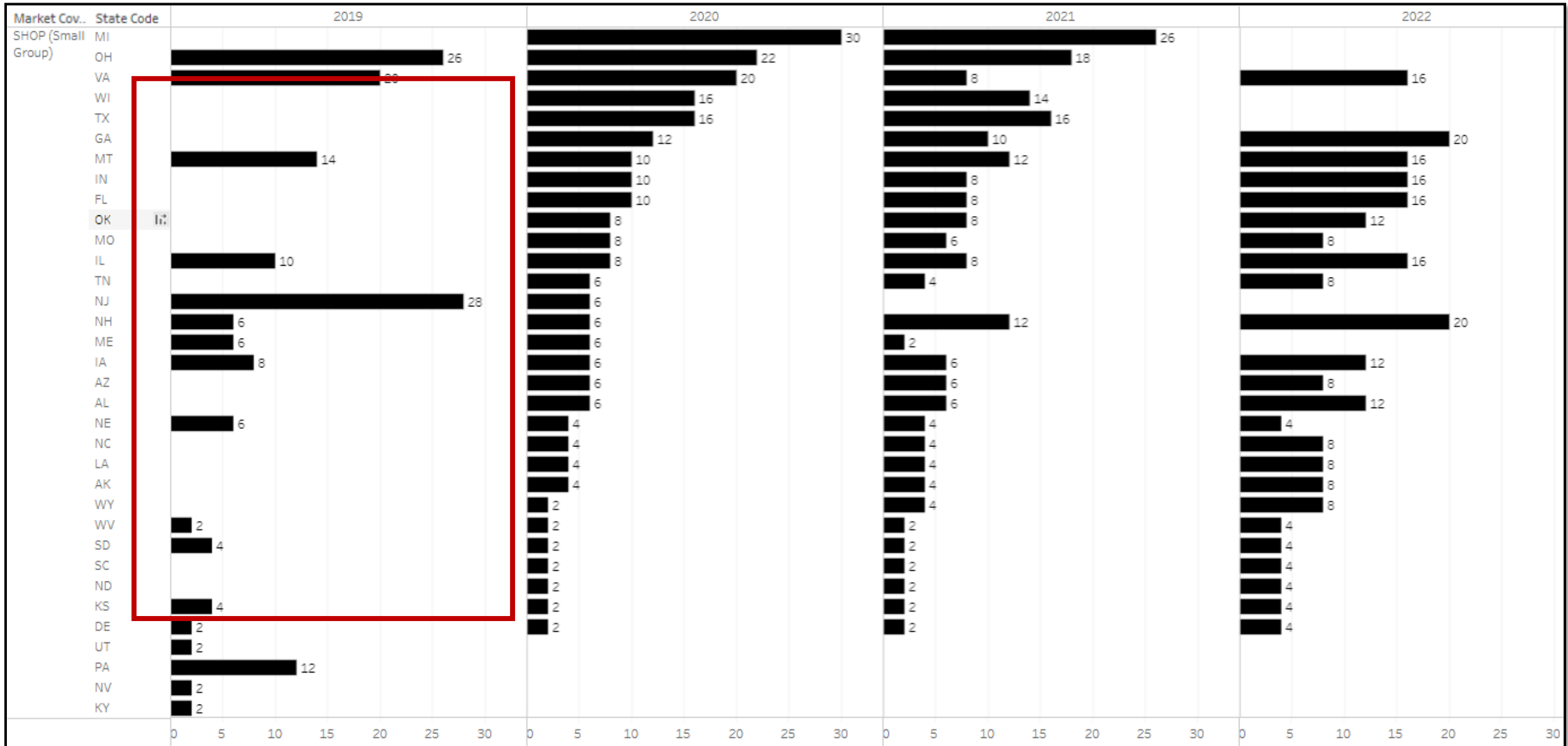
Pri 2 | Primary plus TWO

Pri 3 | Primary plus THREE

Family Tier

State	Couple	Couple 1	Couple 2	Couple 3	Avg. Couple	Avg. Couple 1	Avg. Couple 2	Avg. Couple 3
AK	\$24,182	\$42,612	\$42,612	\$42,612	\$116	\$205	\$205	\$205
AL	\$1,570	\$2,968	\$2,968	\$2,968	\$30	\$57	\$57	\$57
AR								
AZ	\$4,136	\$6,271	\$7,444	\$8,616	\$48	\$73	\$87	\$100
DE								
FL	\$720	\$1,287	\$1,287	\$1,287	\$40	\$71	\$71	\$71
GA	\$2,224	\$4,361	\$4,361	\$4,361	\$23	\$45	\$45	\$45
HI								
IA								
IL	\$3,617	\$7,095	\$7,095	\$7,095	\$37	\$72	\$72	\$72
IN	\$2,368	\$4,676	\$4,676	\$4,676	\$46	\$92	\$92	\$92
KS								
KY								
LA								
ME	\$656	\$938	\$1,220	\$1,504	\$82	\$117	\$153	\$188
MI	\$60,633	\$103,904	\$113,132	\$122,361	\$71	\$122	\$133	\$144
MO	\$969	\$1,848	\$1,848	\$1,848	\$24	\$46	\$46	\$46
MS								
MT								
NC								
ND								
NE								
NH	\$326	\$466	\$608	\$746	\$81	\$117	\$152	\$187
NM								
OH	\$2,525	\$4,983	\$4,983	\$4,983	\$24	\$47	\$47	\$47
OK	\$3,182	\$4,572	\$5,613	\$6,653	\$53	\$76	\$94	\$111
OR								
SC								
SD	\$1,464	\$2,196	\$2,928	\$3,660	\$92	\$137	\$183	\$229
TN	\$1,401	\$2,766	\$2,766	\$2,766	\$29	\$58	\$58	\$58
TX	\$7,141	\$13,792	\$13,792	\$13,792	\$34	\$66	\$66	\$66
UT	\$3,447	\$6,823	\$6,823	\$6,823	\$48	\$95	\$95	\$95
VA	\$2,643	\$5,190	\$5,190	\$5,190	\$37	\$72	\$72	\$72
WI	\$425	\$811	\$811	\$811	\$21	\$41	\$41	\$41
WV								
WY								

Small Business Health Option Program



Key Takeaways



KEEP THE PRESS

- Granular analysis of 12%+ states to reduce uninsured
- Increase preventive care programs
- Continue to inform and educate



POOR OUTCOMES

- Diabetes
- Obesity
- Infant Mortality Rate



INCREASE COSTS

- Innovation
- Hospital consolidations
- Supply Chain
- Administrative waste



Thank you



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www.linkedin.com/in/teegray757



github.com/teegray757



<https://public.tableau.com/app/profile/teegray757>



Backup Slides

The background of the slide is a blurred photograph of server racks. The racks are dark, and there are several glowing green indicator lights visible on the front panels. Some red indicator lights are also visible in the lower right portion of the image. The overall lighting is dim, with the primary light source being the indicator lights themselves.

References

US Health Insurance Dataset

- <https://www.kaggle.com/datasets/thedevastator/comprehensive-analysis-of-us-health-insurance-ma?select=Network.csv>

Centers for Medicare and Medicaid Services – Health Insurance Exchange Public Use Files (Exchange PUFs)

- <https://www.cms.gov/ccio/resources/data-resources/marketplace-puf>

HealthCare.gov | <https://www.healthcare.gov/choose-a-plan/plans-categories/>

Centers for Insurance Policy and Research | <https://content.naic.org/cipr-topics/insurtech>

<https://data.cms.gov/summary-statistics-on-beneficiary-enrollment/medicare-and-medicaid-reports/cms-program-statistics-medicare-advantage-other-health-plan-enrollment>

Peter G. Peterson Foundation | <https://www.pgpf.org/finding-solutions/healthcare>

[Additional Resources](#)

Research Data Assistance Center | <https://resdac.org/>

Medicare versus Medicaid



Federally funded

Establishes uniform rules at the national level.

Federally & State funded

Each state manages its own Medicaid assistance program.

Age 65 +

Anyone who meets age and eligibility requirements, regardless of income. Under < 65 for certain disabilities and conditions.

Low Income

Anyone who meets the state's income requirements, regardless of age.

Standardized Premiums

Set at the federal level for Original Medicare. Participants pay part of the costs through monthly premiums (*medical & drug coverage, deductibles, and co-insurance*).

Generally Free

Some states charge small fees for certain services. Some out-of-pocket (OOP) copayment costs for certain services.

Coverage

Medically necessary services, hospital care, hospice, home care, specific medical equipment, and prescription drug costs (Part D).

Coverage

Basic health care & some prescription costs, long-term care, medical equipment, prescription eyeglasses, dental care, and other health services; optional services