
ISSUE BRIEF

Generating Drug Savings Through Competition Estimating the potential savings from competition to Humira and Enbrel

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Introduction and Executive Summary

Neither Humira (adalimumab), the top selling drug in the U.S., nor Enbrel (etanercept) face competition from biosimilars. Given the extraordinarily large revenues generated by these drugs, and the typical biosimilar discount between 40 percent and 60 percent relative to the originator biologic's pre-competition price, biosimilar medicines for Humira and Enbrel have the potential to generate significant system-wide savings.

“ To provide perspective on the potential savings from vibrant biosimilar competition, this Issue Brief estimates the potential savings that could have been created for the calendar year 2021 if competitors to Humira and Enbrel selling at the average biosimilar discount were available.

To provide perspective on the potential savings from vibrant biosimilar competition, this Issue Brief estimates the potential savings that could have been created for the calendar year 2021 if competitors to Humira and Enbrel selling at the average biosimilar discount were available. Whether through one dominant biosimilar or several market competitors, if the biosimilar products for Humira and Enbrel commanded 75 percent of the market, then total systemic savings could be up to \$4.7 billion and \$1.1 billion, respectively. Even if the competitor products only obtained a 25 percent share, the U.S. marketplace would amass more than \$1 billion in total savings between the two drugs.

These significant potential savings emphasize the importance of fostering a competitive environment that supports the uptake of lower cost biosimilars.

Benchmarking Current Net Expenditures on Humira and Enbrel

The estimated savings are grounded in two key pieces of market data that are known with certainty: (1) the current wholesale acquisition costs (or WAC, also referred to as list prices); and (2) the total reported gross revenues for Humira and Enbrel, which are based on WAC.

The current 2021 effective WAC prices for Humira and Enbrel are \$2,984 and \$1,389 for an average dose, respectively.¹ The gross revenues in the U.S. marketplace reported by Abbvie (for Humira) and Amgen (for Enbrel) are documented in Table 1.² Table 1 shows that full-year revenues in the calendar year (CY) 2020 were \$16.11 billion for Humira and \$4.86 billion for Enbrel. Since the full year 2021 revenues are not yet available, estimates for these values are necessary. We used the average year-over-year percent change in the quarterly revenues for the first two quarters of 2021 to estimate the total CY2021 revenues for Humira and Enbrel at \$17.24 billion and \$4.18 billion, respectively.

Dividing the gross revenues for CY 2020 and CY2021 by the WAC pricing for each calendar year, respectively, provides an estimate for the number of annual doses sold in 2020 and the expected number of annual doses that will be sold in the calendar year 2021. These estimates are listed in Table 2.

The gross revenues reported in Table 1 are not reflective of the actual systemic costs for Humira and Enbrel, however, because they do not include the large number of rebates, fees, and discounts that the manufacturers pay. The net prices for Humira and Enbrel account for all the concessions listed above and better reflect the current system-wide costs of these medicines, which are significantly less than the gross revenues would indicate. Consequently, multiplying the estimated number of doses in Table 2 by the net prices for Humira and Enbrel provides a better estimate for these medicines' current systemic costs.

Table 1
Gross Revenues from Enbrel and Humira
Calendar Year 2020 and 2021 est.

	in billions	
	CY2020	CY2021 EST.
Humira	\$16.11	\$17.24*
Enbrel	\$4.86	\$4.18 [#]

*Full year Humira earnings assumed to grow at average of growth rates in 2021 Q1 (6.9%) and Q2 (7.1%)

[#]Full year Enbrel earnings assumed to grow at average of growth rates in 2021 Q1 (-20.0%) and Q2 (-8.0%)

Source: Amgen and Abbvie investor relations

Table 2
Estimated Doses of Enbrel and Humira
Based on Reported Gross Revenues
and WAC Pricing
Calendar Year 2020 and 2021 est.

	in millions	
	CY2020	CY2021 EST.
Humira	5.799	5.777
Enbrel	3.683	3.005

Source: Author calculations

However, the amount of all concessions is difficult to measure due to market opacity. Several studies have attempted to measure the value of concessions. This analysis uses the Humira net-to-gross price gap estimated by *Consumer Reports* as of 2019 to approximate the net prices for Humira and Enbrel.³ According to *Consumer Reports*, the WAC price for Humira in 2019 was \$5,174. The discounts negotiated by Pharmacy Benefit Managers (PBMs) were equal to \$2,070, indicating that the actual net cost of Humira was \$3,104 or 60 percent of the WAC price. Applying this discount to the WAC price yields an estimate of the net prices for Humira and Enbrel, see Table 3.

Table 3
Estimated Net Prices of Enbrel and Humira
Calendar Year 2020 and 2021 est.

	CY2020	CY2021 EST.
Humira		
Gross Price	\$2,778	\$2,984
Discounts	* 60%	* 60%
Net Price	\$1,667	\$1,790
Enbrel		
Gross Price	\$1,318	\$1,389
Discounts	* 60%	* 60%
Net Price	\$791	\$833

Source: Author calculations

Applying the net prices estimated in Table 3 to the estimated number of doses estimated in Table 2 provides an estimate of the actual systemic costs of Humira and Enbrel, see Table 4.

Table 4
Estimated Systemic Costs of Enbrel and Humira
Calendar Year 2020 and 2021 est.

	CY2020	CY2021 EST.
Humira		
Net Price	\$1,667	\$1,790
Doses (millions)	* 5.799	* 5.777
Total Costs (billions)	\$9.666	\$10.343
Enbrel		
Net Price	\$791	\$833
Doses (millions)	* 3.683	* 3.005
Total Costs (billions)	\$2.913	\$2.505

Source: Author calculations

Estimating the National Systemic Savings from Biosimilar Competitors

With an estimate of the actual net costs for Humira and Enbrel, the relevant question becomes: How much will the introduction of biosimilars reduce these costs? Since there are currently no biosimilars competing against Humira or Enbrel, the analysis evaluates the potential systemic savings based on a scenario of three price discounts relative to Humira’s and Enbrel’s 2021 net price – a 40 percent discount, a 50 percent discount, and a 60 percent discount, see Table 5. These price discounts reflect the range of discounts for biosimilars that are currently available.⁴ To the extent that the net prices of Humira and Enbrel increase before the introduction of competition, then the potential savings enabled by biosimilar competition would increase (assuming the same percentage discounts would apply).

Table 5
Estimated Net Price of Biosimilar Competitors to Humira and Enbrel
Calendar Year 2020 and 2021 est.

	Discount from Originator Based on Net Price					
	CY 2020			CY 2021		
	40%	50%	60%	40%	50%	60%
Humira	\$1,000	\$833	\$667	\$1,074	\$895	\$716
Enbrel	\$474	\$395	\$316	\$500	\$417	\$333

Source: Author calculations

In addition to an assumption regarding the price discount, the systemic savings created by biosimilars also depend on the biosimilars’ share of the Humira and Enbrel market. For purposes of these calculations, the potential savings are estimated based on the assumption that biosimilars obtain a 25 percent, 50 percent, and 75 percent share of the market. The savings will be larger/smaller should the biosimilar competitors obtain a higher/lesser share of the market.

Table 6 presents the potential systemic cost savings that biosimilar competition can generate based on these assumptions. Table 6 demonstrates that biosimilar competitors for Humira and Enbrel could generate up to \$4.7 billion and \$1.1 billion in potential savings, respectively, if they existed in the calendar year 2021 and commanded a 75 percent share of the market.

Table 6
Estimated Savings from Biosimilar Competition: Humira and Enbrel
Calendar Year 2020 and 2021 est.
(in millions)

	DISCOUNTS FROM ESTIMATED NET PRICES					
	CY 2020			CY 2021		
	40%	50%	60%	40%	50%	60%
Humira						
25% Share	-\$966.6	-\$1,208.2	-\$1,449.9	-\$1,034.3	-\$1,292.8	-\$1,551.4
50% Share	-\$1,933.2	-\$2,416.5	-\$2,899.8	-\$2,068.5	-\$2,585.6	-\$3,102.8
75% Share	-\$2,899.8	-\$3,624.7	-\$4,349.7	-\$3,102.8	-\$3,878.5	-\$4,654.2
Enbrel						
25% Share	-\$291.3	-\$364.1	-\$436.9	-\$250.5	-\$313.1	-\$375.7
50% Share	-\$582.5	-\$728.2	-\$873.8	-\$501.0	-\$626.2	-\$751.5
75% Share	-\$873.8	-\$1,092.2	-\$1,310.7	-\$751.5	-\$939.3	-\$1,127.2

Source: Author calculations

While these aggregate systemic savings provide an important perspective, it is also useful to distribute these savings across the states and different payers (e.g., commercial, Medicare, and Medicaid). For brevity purposes, the detailed tables and calculations are presented in the Appendix and only for CY 2021.

The savings in each state are based on its share of total units shipped as reported by IQVIA data and the same price and expenditure calculations described above. It is salient to recognize that since a small share of the units are shipped to U.S. territories (i.e., Puerto Rico, the Virgin Islands, and Guam) or are earmarked for federal use, the sum of the state volumes does not equal the total national volumes. From an overall perspective, the values in the Appendix demonstrate that payers in all 50 states would benefit, with the size of the state and the share of the elderly population driving the precise estimate as expected.

Breaking down by payer, commercial payers could save up to \$2.9 billion for Humira and \$707 million for Enbrel should biosimilar competitors price their products at a 60 percent discount to the current net prices and these competitive products reach 75 percent of the market. Under these conditions, state Medicaid programs could save up to \$875 million and \$214 million, respectively, and federal expenditures on Medicare and military insurance could save up to \$726 million and \$175 million, respectively.

Conclusion

While the above calculations rely on a range of pricing and share assumptions, these assumptions reflect the current market and pricing environment for biosimilars. These calculations demonstrate that an environment that successfully fosters biosimilar competition in just these two biologic drug classes will generate significant systemic savings that will meaningfully improve the current drug affordability landscape. From a policy perspective, these calculations emphasize the importance of promoting an environment that empowers competition once the originator's exclusivity period has expired. These reforms include eliminating barriers such as rebate walls and promoting positive reforms such as favorable formulary tiers for biosimilars.

Appendix: Breaking Down the Systemic Savings by State

Tables 7 and 8 illustrates that savings from biosimilar competitors in the Humira and Enbrel drug classes occur in every state.

Table 7
Estimated Savings from Biosimilar Competition: Humira
by State, Calendar Year 2021 est.
(in millions)

		40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
Humira Share by State		25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
AK	0.2%	\$1.6	\$3.3	\$4.9	\$2.1	\$4.1	\$6.2	\$2.5	\$4.9	\$7.4
AL	1.3%	\$13.5	\$27.0	\$40.5	\$16.9	\$33.8	\$50.6	\$20.3	\$40.5	\$60.8
AR	1.5%	\$15.6	\$31.2	\$46.8	\$19.5	\$39.0	\$58.5	\$23.4	\$46.8	\$70.3
AZ	2.8%	\$29.1	\$58.1	\$87.2	\$36.3	\$72.7	\$109.0	\$43.6	\$87.2	\$130.8
CA	5.7%	\$58.6	\$117.2	\$175.9	\$73.3	\$146.5	\$219.8	\$87.9	\$175.9	\$263.8
CO	1.9%	\$19.9	\$39.7	\$59.6	\$24.8	\$49.7	\$74.5	\$29.8	\$59.6	\$89.4
CT	1.1%	\$11.9	\$23.7	\$35.6	\$14.8	\$29.7	\$44.5	\$17.8	\$35.6	\$53.4
DC	0.1%	\$0.5	\$1.1	\$1.6	\$0.7	\$1.3	\$2.0	\$0.8	\$1.6	\$2.4
DE	0.1%	\$0.9	\$1.8	\$2.7	\$1.1	\$2.3	\$3.4	\$1.4	\$2.7	\$4.1
FL	7.4%	\$77.0	\$154.0	\$231.0	\$96.2	\$192.5	\$288.7	\$115.5	\$231.0	\$346.5
GA	2.9%	\$29.9	\$59.7	\$89.6	\$37.3	\$74.6	\$111.9	\$44.8	\$89.6	\$134.3
HI	0.4%	\$4.6	\$9.1	\$13.7	\$5.7	\$11.4	\$17.2	\$6.9	\$13.7	\$20.6
IA	1.0%	\$10.6	\$21.2	\$31.7	\$13.2	\$26.4	\$39.7	\$15.9	\$31.7	\$47.6
ID	0.4%	\$4.5	\$9.0	\$13.5	\$5.6	\$11.2	\$16.9	\$6.7	\$13.5	\$20.2
IL	2.2%	\$23.0	\$45.9	\$68.9	\$28.7	\$57.4	\$86.1	\$34.4	\$68.9	\$103.3
IN	1.3%	\$13.5	\$27.0	\$40.6	\$16.9	\$33.8	\$50.7	\$20.3	\$40.6	\$60.8
KS	0.6%	\$6.2	\$12.3	\$18.5	\$7.7	\$15.4	\$23.1	\$9.2	\$18.5	\$27.7
KY	1.4%	\$14.2	\$28.4	\$42.6	\$17.8	\$35.5	\$53.3	\$21.3	\$42.6	\$63.9
LA	1.9%	\$19.1	\$38.3	\$57.4	\$23.9	\$47.9	\$71.8	\$28.7	\$57.4	\$86.2
MA	3.5%	\$35.7	\$71.4	\$107.1	\$44.6	\$89.3	\$133.9	\$53.6	\$107.1	\$160.7
MD	1.9%	\$19.5	\$39.0	\$58.5	\$24.4	\$48.8	\$73.2	\$29.3	\$58.5	\$87.8
ME	0.7%	\$7.0	\$14.0	\$21.0	\$8.7	\$17.5	\$26.2	\$10.5	\$21.0	\$31.5
MI	1.4%	\$14.2	\$28.4	\$42.6	\$17.7	\$35.5	\$53.2	\$21.3	\$42.6	\$63.9
MN	0.5%	\$5.5	\$11.0	\$16.5	\$6.9	\$13.8	\$20.6	\$8.3	\$16.5	\$24.8
MO	1.7%	\$17.1	\$34.2	\$51.3	\$21.4	\$42.8	\$64.1	\$25.7	\$51.3	\$77.0
MS	0.5%	\$5.4	\$10.8	\$16.2	\$6.7	\$13.5	\$20.2	\$8.1	\$16.2	\$24.3
MT	0.3%	\$3.6	\$7.1	\$10.7	\$4.4	\$8.9	\$13.3	\$5.3	\$10.7	\$16.0
NC	3.9%	\$40.1	\$80.3	\$120.4	\$50.2	\$100.4	\$150.5	\$60.2	\$120.4	\$180.6
ND	0.8%	\$7.8	\$15.6	\$23.4	\$9.8	\$19.5	\$29.3	\$11.7	\$23.4	\$35.1

		40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
Humira Share by State		25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
NE	0.7%	\$7.6	\$15.1	\$22.7	\$9.4	\$18.9	\$28.3	\$11.3	\$22.7	\$34.0
NH	0.2%	\$2.2	\$4.4	\$6.6	\$2.8	\$5.5	\$8.3	\$3.3	\$6.6	\$9.9
NJ	0.4%	\$4.4	\$8.8	\$13.2	\$5.5	\$11.0	\$16.5	\$6.6	\$13.2	\$19.8
NM	0.9%	\$9.2	\$18.3	\$27.5	\$11.4	\$22.9	\$34.3	\$13.7	\$27.5	\$41.2
NV	0.2%	\$2.2	\$4.4	\$6.6	\$2.8	\$5.5	\$8.3	\$3.3	\$6.6	\$9.9
NY	4.3%	\$44.3	\$88.7	\$133.0	\$55.4	\$110.8	\$166.3	\$66.5	\$133.0	\$199.5
OH	3.6%	\$37.5	\$74.9	\$112.4	\$46.8	\$93.6	\$140.4	\$56.2	\$112.4	\$168.5
OK	0.7%	\$6.8	\$13.6	\$20.5	\$8.5	\$17.0	\$25.6	\$10.2	\$20.5	\$30.7
OR	4.3%	\$44.2	\$88.4	\$132.5	\$55.2	\$110.4	\$165.7	\$66.3	\$132.5	\$198.8
PA	7.5%	\$77.5	\$155.1	\$232.6	\$96.9	\$193.9	\$290.8	\$116.3	\$232.6	\$349.0
RI	0.1%	\$0.7	\$1.4	\$2.1	\$0.9	\$1.7	\$2.6	\$1.0	\$2.1	\$3.1
SC	1.1%	\$11.7	\$23.4	\$35.0	\$14.6	\$29.2	\$43.8	\$17.5	\$35.0	\$52.6
SD	0.9%	\$8.9	\$17.9	\$26.8	\$11.2	\$22.4	\$33.5	\$13.4	\$26.8	\$40.2
TN	3.4%	\$35.5	\$71.0	\$106.5	\$44.4	\$88.7	\$133.1	\$53.2	\$106.5	\$159.7
TX	4.7%	\$48.5	\$97.0	\$145.6	\$60.6	\$121.3	\$181.9	\$72.8	\$145.6	\$218.3
UT	2.6%	\$26.7	\$53.4	\$80.1	\$33.4	\$66.7	\$100.1	\$40.0	\$80.1	\$120.1
VA	2.3%	\$24.1	\$48.1	\$72.2	\$30.1	\$60.2	\$90.2	\$36.1	\$72.2	\$108.3
VT	0.5%	\$5.0	\$10.0	\$15.0	\$6.2	\$12.5	\$18.7	\$7.5	\$15.0	\$22.5
WA	1.3%	\$13.4	\$26.8	\$40.2	\$16.8	\$33.5	\$50.3	\$20.1	\$40.2	\$60.3
WI	7.0%	\$72.3	\$144.6	\$216.9	\$90.4	\$180.7	\$271.1	\$108.4	\$216.9	\$325.3
WV	0.8%	\$8.0	\$16.0	\$24.0	\$10.0	\$20.0	\$30.1	\$12.0	\$24.0	\$36.1
WY	0.0%	\$0.4	\$0.7	\$1.1	\$0.4	\$0.9	\$1.3	\$0.5	\$1.1	\$1.6
Total State	96.8%	\$1,001	\$2,002	\$3,003	\$1,251	\$2,503	\$3,754	\$1,502	\$3,003	\$4,505

Source: Author calculations

Table 8
Estimated Savings from Biosimilar Competition: Enbrel
by State, Calendar Year 2021 est.
(in millions)

		40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
Enbrel Share by State		25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
AK	0.1%	\$0.2	\$0.4	\$0.6	\$0.2	\$0.5	\$0.7	\$0.3	\$0.6	\$0.9
AL	1.4%	\$3.5	\$6.9	\$10.4	\$4.3	\$8.7	\$13.0	\$5.2	\$10.4	\$15.6
AR	1.0%	\$2.5	\$5.0	\$7.5	\$3.1	\$6.2	\$9.3	\$3.7	\$7.5	\$11.2
AZ	4.1%	\$10.4	\$20.7	\$31.1	\$13.0	\$25.9	\$38.9	\$15.5	\$31.1	\$46.6
CA	6.9%	\$17.3	\$34.6	\$51.9	\$21.6	\$43.2	\$64.9	\$25.9	\$51.9	\$77.8
CO	1.7%	\$4.2	\$8.4	\$12.6	\$5.3	\$10.5	\$15.8	\$6.3	\$12.6	\$18.9
CT	1.3%	\$3.1	\$6.3	\$9.4	\$3.9	\$7.9	\$11.8	\$4.7	\$9.4	\$14.1
DC	0.0%	\$0.1	\$0.1	\$0.2	\$0.1	\$0.2	\$0.2	\$0.1	\$0.2	\$0.3
DE	0.1%	\$0.2	\$0.4	\$0.6	\$0.3	\$0.5	\$0.8	\$0.3	\$0.6	\$0.9
FL	7.5%	\$18.7	\$37.5	\$56.2	\$23.4	\$46.8	\$70.2	\$28.1	\$56.2	\$84.3
GA	1.9%	\$4.7	\$9.3	\$14.0	\$5.8	\$11.6	\$17.5	\$7.0	\$14.0	\$20.9
HI	0.5%	\$1.2	\$2.4	\$3.6	\$1.5	\$3.0	\$4.5	\$1.8	\$3.6	\$5.4
IA	1.0%	\$2.5	\$5.0	\$7.5	\$3.1	\$6.2	\$9.3	\$3.7	\$7.5	\$11.2
ID	0.5%	\$1.4	\$2.7	\$4.1	\$1.7	\$3.4	\$5.1	\$2.0	\$4.1	\$6.1
IL	2.1%	\$5.2	\$10.4	\$15.5	\$6.5	\$12.9	\$19.4	\$7.8	\$15.5	\$23.3
IN	1.5%	\$3.6	\$7.3	\$10.9	\$4.5	\$9.1	\$13.6	\$5.5	\$10.9	\$16.4
KS	0.5%	\$1.2	\$2.4	\$3.6	\$1.5	\$3.0	\$4.5	\$1.8	\$3.6	\$5.4
KY	1.5%	\$3.7	\$7.5	\$11.2	\$4.7	\$9.3	\$14.0	\$5.6	\$11.2	\$16.8
LA	1.3%	\$3.2	\$6.5	\$9.7	\$4.1	\$8.1	\$12.2	\$4.9	\$9.7	\$14.6
MA	3.6%	\$9.1	\$18.3	\$27.4	\$11.4	\$22.8	\$34.3	\$13.7	\$27.4	\$41.1
MD	1.5%	\$3.8	\$7.5	\$11.3	\$4.7	\$9.4	\$14.1	\$5.6	\$11.3	\$16.9
ME	0.7%	\$1.7	\$3.4	\$5.1	\$2.1	\$4.3	\$6.4	\$2.6	\$5.1	\$7.7
MI	1.9%	\$4.8	\$9.6	\$14.4	\$6.0	\$12.0	\$18.0	\$7.2	\$14.4	\$21.6
MN	0.6%	\$1.5	\$3.0	\$4.4	\$1.8	\$3.7	\$5.5	\$2.2	\$4.4	\$6.6
MO	1.3%	\$3.2	\$6.4	\$9.5	\$4.0	\$7.9	\$11.9	\$4.8	\$9.5	\$14.3
MS	0.5%	\$1.2	\$2.3	\$3.5	\$1.5	\$2.9	\$4.4	\$1.8	\$3.5	\$5.3
MT	0.4%	\$0.9	\$1.8	\$2.7	\$1.1	\$2.3	\$3.4	\$1.4	\$2.7	\$4.1
NC	2.5%	\$6.2	\$12.4	\$18.7	\$7.8	\$15.6	\$23.3	\$9.3	\$18.7	\$28.0
ND	0.5%	\$1.1	\$2.3	\$3.4	\$1.4	\$2.8	\$4.3	\$1.7	\$3.4	\$5.1
NE	0.8%	\$2.1	\$4.2	\$6.3	\$2.6	\$5.3	\$7.9	\$3.2	\$6.3	\$9.5
NH	0.2%	\$0.4	\$0.8	\$1.1	\$0.5	\$1.0	\$1.4	\$0.6	\$1.1	\$1.7

		40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
Enbrel Share by State		25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
NJ	0.7%	\$1.8	\$3.7	\$5.5	\$2.3	\$4.6	\$6.9	\$2.8	\$5.5	\$8.3
NM	0.9%	\$2.2	\$4.3	\$6.5	\$2.7	\$5.4	\$8.1	\$3.2	\$6.5	\$9.7
NV	0.1%	\$0.3	\$0.6	\$0.9	\$0.4	\$0.7	\$1.1	\$0.4	\$0.9	\$1.3
NY	5.2%	\$12.9	\$25.9	\$38.8	\$16.2	\$32.4	\$48.5	\$19.4	\$38.8	\$58.2
OH	2.9%	\$7.2	\$14.5	\$21.7	\$9.0	\$18.1	\$27.1	\$10.8	\$21.7	\$32.5
OK	0.5%	\$1.4	\$2.7	\$4.1	\$1.7	\$3.4	\$5.1	\$2.0	\$4.1	\$6.1
OR	5.7%	\$14.4	\$28.7	\$43.1	\$18.0	\$35.9	\$53.9	\$21.6	\$43.1	\$64.7
PA	6.6%	\$16.5	\$33.1	\$49.6	\$20.7	\$41.4	\$62.0	\$24.8	\$49.6	\$74.4
RI	0.1%	\$0.2	\$0.4	\$0.6	\$0.2	\$0.5	\$0.7	\$0.3	\$0.6	\$0.8
SC	0.5%	\$1.4	\$2.7	\$4.1	\$1.7	\$3.4	\$5.1	\$2.0	\$4.1	\$6.1
SD	0.7%	\$1.7	\$3.5	\$5.2	\$2.2	\$4.3	\$6.5	\$2.6	\$5.2	\$7.8
TN	4.2%	\$10.5	\$21.0	\$31.5	\$13.1	\$26.3	\$39.4	\$15.8	\$31.5	\$47.3
TX	3.9%	\$9.7	\$19.5	\$29.2	\$12.2	\$24.3	\$36.5	\$14.6	\$29.2	\$43.8
UT	3.9%	\$9.8	\$19.5	\$29.3	\$12.2	\$24.4	\$36.6	\$14.7	\$29.3	\$44.0
VA	1.4%	\$3.5	\$7.0	\$10.5	\$4.4	\$8.7	\$13.1	\$5.2	\$10.5	\$15.7
VT	0.5%	\$1.2	\$2.4	\$3.6	\$1.5	\$3.0	\$4.5	\$1.8	\$3.6	\$5.4
WA	1.2%	\$3.0	\$5.9	\$8.9	\$3.7	\$7.4	\$11.2	\$4.5	\$8.9	\$13.4
WI	7.4%	\$18.6	\$37.3	\$55.9	\$23.3	\$46.6	\$69.9	\$27.9	\$55.9	\$83.8
WV	0.9%	\$2.1	\$4.3	\$6.4	\$2.7	\$5.4	\$8.1	\$3.2	\$6.4	\$9.7
WY	0.9%	\$2.1	\$4.3	\$6.4	\$2.7	\$5.4	\$8.1	\$3.2	\$6.4	\$9.7
Total State	97.2%	\$243	\$487	\$730	\$304	\$609	\$913	\$365	\$730	\$1,096

Source: Author calculations

Allocating the State Savings by Payer

Whether the state savings accrue to commercial payers, the joint federal-state Medicaid programs, or the federal Medicare program matters. To account for these differences, the savings from greater biosimilar use within each state is distributed based on each state's distribution of health insurance coverage as reported by the Kaiser Family Foundation.⁵ Table 9 presents this data.

Table 9
Health Insurance Coverage by State
2019

	COMMERCIAL*	MEDICARE & MILITARY	MEDICAID
AK	63%	15%	21%
AL	62%	18%	20%
AR	57%	17%	26%
AZ	61%	18%	21%
CA	62%	12%	25%
CO	68%	15%	17%
CT	64%	15%	22%
DC	65%	10%	26%
DE	60%	19%	20%
FL	63%	20%	17%
GA	68%	15%	17%
HI	63%	20%	18%
IA	64%	17%	20%
ID	68%	16%	16%
IL	67%	15%	18%
IN	67%	16%	18%
KS	69%	17%	14%
KY	57%	17%	26%
LA	56%	15%	29%
MA	64%	14%	22%
MD	66%	15%	19%
ME	60%	20%	20%
MI	62%	17%	22%
MN	68%	15%	17%
MO	68%	18%	14%
MS	60%	16%	24%
MT	59%	20%	21%
NC	64%	18%	18%
ND	72%	16%	12%
NE	72%	16%	13%
NH	68%	19%	13%
NJ	69%	14%	17%
NM	50%	17%	33%
NV	67%	16%	18%
NY	61%	13%	26%
OH	63%	17%	20%
OK	66%	17%	17%
OR	62%	17%	21%
PA	63%	17%	20%
RI	64%	15%	21%
SC	62%	19%	19%
SD	69%	18%	13%
TN	64%	17%	20%
TX	72%	13%	16%
UT	79%	11%	9%
VA	67%	19%	14%
VT	58%	19%	24%
WA	65%	16%	20%
WI	68%	16%	16%
WV	53%	20%	27%
WY	71%	18%	12%

*Commercial market is defined as coverage of Employer, Non-Group, and Uninsured

Source: Author calculations based on Kaiser Family Foundation Data

Tables 10 through 15 apply the percentages in Table 9 to the total state estimated savings for the Humira drug class (see Table 7) and the Enbrel drug class (see Table 8) to estimate the savings for commercial payers (Tables 10 and 11), Medicare and the military (Tables 12 and 13), and state Medicaid programs (Tables 14 and 15). It is important to note that while the savings for Medicare and military programs are distributed by state, it is the federal government that will reap these dollar savings.

Table 10
Estimated Savings from Biosimilar Competition in Commercial Market: Humira
by State, Calendar Year 2021 est.
(in millions)

	40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
AK	\$1.0	\$2.1	\$3.1	\$1.3	\$2.6	\$3.9	\$1.6	\$3.1	\$4.7
AL	\$8.4	\$16.8	\$25.3	\$10.5	\$21.1	\$31.6	\$12.6	\$25.3	\$37.9
AR	\$8.8	\$17.6	\$26.5	\$11.0	\$22.1	\$33.1	\$13.2	\$26.5	\$39.7
AZ	\$17.8	\$35.7	\$53.5	\$22.3	\$44.6	\$66.9	\$26.8	\$53.5	\$80.3
CA	\$36.6	\$73.2	\$109.7	\$45.7	\$91.4	\$137.2	\$54.9	\$109.7	\$164.6
CO	\$13.5	\$27.1	\$40.6	\$16.9	\$33.8	\$50.7	\$20.3	\$40.6	\$60.9
CT	\$7.6	\$15.1	\$22.7	\$9.4	\$18.9	\$28.3	\$11.3	\$22.7	\$34.0
DC	\$0.3	\$0.7	\$1.0	\$0.4	\$0.9	\$1.3	\$0.5	\$1.0	\$1.6
DE	\$0.6	\$1.1	\$1.7	\$0.7	\$1.4	\$2.1	\$0.8	\$1.7	\$2.5
FL	\$48.4	\$96.9	\$145.3	\$60.5	\$121.1	\$181.6	\$72.6	\$145.3	\$217.9
GA	\$20.3	\$40.5	\$60.8	\$25.3	\$50.7	\$76.0	\$30.4	\$60.8	\$91.2
HI	\$2.9	\$5.7	\$8.6	\$3.6	\$7.1	\$10.7	\$4.3	\$8.6	\$12.9
IA	\$6.8	\$13.5	\$20.3	\$8.5	\$16.9	\$25.4	\$10.2	\$20.3	\$30.5
ID	\$3.1	\$6.1	\$9.2	\$3.8	\$7.7	\$11.5	\$4.6	\$9.2	\$13.8
IL	\$15.4	\$30.8	\$46.2	\$19.3	\$38.5	\$57.8	\$23.1	\$46.2	\$69.3
IN	\$9.0	\$18.0	\$27.0	\$11.2	\$22.5	\$33.7	\$13.5	\$27.0	\$40.5
KS	\$4.3	\$8.5	\$12.8	\$5.3	\$10.6	\$15.9	\$6.4	\$12.8	\$19.1
KY	\$8.1	\$16.3	\$24.4	\$10.2	\$20.4	\$30.5	\$12.2	\$24.4	\$36.6
LA	\$10.6	\$21.3	\$31.9	\$13.3	\$26.6	\$39.9	\$16.0	\$31.9	\$47.9
MA	\$23.0	\$45.9	\$68.9	\$28.7	\$57.4	\$86.1	\$34.4	\$68.9	\$103.3
MD	\$12.9	\$25.8	\$38.6	\$16.1	\$32.2	\$48.3	\$19.3	\$38.6	\$58.0
ME	\$4.2	\$8.4	\$12.7	\$5.3	\$10.5	\$15.8	\$6.3	\$12.7	\$19.0
MI	\$8.8	\$17.6	\$26.4	\$11.0	\$22.0	\$33.0	\$13.2	\$26.4	\$39.5
MN	\$3.7	\$7.5	\$11.2	\$4.7	\$9.3	\$14.0	\$5.6	\$11.2	\$16.8
MO	\$11.6	\$23.2	\$34.8	\$14.5	\$29.0	\$43.5	\$17.4	\$34.8	\$52.2
MS	\$3.2	\$6.5	\$9.7	\$4.0	\$8.1	\$12.1	\$4.8	\$9.7	\$14.5
MT	\$2.1	\$4.2	\$6.3	\$2.6	\$5.3	\$7.9	\$3.2	\$6.3	\$9.5
NC	\$25.9	\$51.7	\$77.6	\$32.3	\$64.6	\$96.9	\$38.8	\$77.6	\$116.3

	40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
ND	\$5.6	\$11.3	\$16.9	\$7.0	\$14.1	\$21.1	\$8.4	\$16.9	\$25.3
NE	\$5.4	\$10.8	\$16.2	\$6.8	\$13.5	\$20.3	\$8.1	\$16.2	\$24.4
NH	\$1.5	\$3.0	\$4.5	\$1.9	\$3.7	\$5.6	\$2.2	\$4.5	\$6.7
NJ	\$3.0	\$6.1	\$9.1	\$3.8	\$7.6	\$11.4	\$4.5	\$9.1	\$13.6
NM	\$4.6	\$9.2	\$13.8	\$5.8	\$11.5	\$17.3	\$6.9	\$13.8	\$20.8
NV	\$1.5	\$2.9	\$4.4	\$1.8	\$3.7	\$5.5	\$2.2	\$4.4	\$6.6
NY	\$27.0	\$54.0	\$81.0	\$33.8	\$67.5	\$101.3	\$40.5	\$81.0	\$121.5
OH	\$23.7	\$47.4	\$71.1	\$29.6	\$59.3	\$88.9	\$35.6	\$71.1	\$106.7
OK	\$4.5	\$9.0	\$13.5	\$5.6	\$11.2	\$16.8	\$6.7	\$13.5	\$20.2
OR	\$27.4	\$54.9	\$82.3	\$34.3	\$68.6	\$102.9	\$41.1	\$82.3	\$123.4
PA	\$48.5	\$97.1	\$145.6	\$60.7	\$121.4	\$182.0	\$72.8	\$145.6	\$218.5
RI	\$0.4	\$0.9	\$1.3	\$0.6	\$1.1	\$1.7	\$0.7	\$1.3	\$2.0
SC	\$7.3	\$14.6	\$21.8	\$9.1	\$18.2	\$27.3	\$10.9	\$21.8	\$32.7
SD	\$6.2	\$12.4	\$18.6	\$7.8	\$15.5	\$23.3	\$9.3	\$18.6	\$27.9
TN	\$22.6	\$45.2	\$67.7	\$28.2	\$56.4	\$84.7	\$33.9	\$67.7	\$101.6
TX	\$34.8	\$69.6	\$104.4	\$43.5	\$87.0	\$130.5	\$52.2	\$104.4	\$156.5
UT	\$21.2	\$42.4	\$63.6	\$26.5	\$53.0	\$79.5	\$31.8	\$63.6	\$95.4
VA	\$16.2	\$32.4	\$48.6	\$20.2	\$40.5	\$60.7	\$24.3	\$48.6	\$72.9
VT	\$2.9	\$5.7	\$8.6	\$3.6	\$7.2	\$10.8	\$4.3	\$8.6	\$12.9
WA	\$8.6	\$17.3	\$25.9	\$10.8	\$21.6	\$32.4	\$13.0	\$25.9	\$38.9
WI	\$48.9	\$97.7	\$146.6	\$61.1	\$122.2	\$183.2	\$73.3	\$146.6	\$219.9
WV	\$4.3	\$8.5	\$12.8	\$5.3	\$10.6	\$16.0	\$6.4	\$12.8	\$19.1
WY	\$0.3	\$0.5	\$0.8	\$0.3	\$0.6	\$0.9	\$0.4	\$0.8	\$1.1
Total State	\$645	\$1,291	\$1,936	\$807	\$1,613	\$2,420	\$968	\$1,936	\$2,904

Source: Author calculations

Table 11
Estimated Savings from Biosimilar Competition in Commercial Market: Enbrel
by State, Calendar Year 2021 est.
(in millions)

	40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
AK	\$0.1	\$0.3	\$0.4	\$0.2	\$0.3	\$0.5	\$0.2	\$0.4	\$0.6
AL	\$2.2	\$4.3	\$6.5	\$2.7	\$5.4	\$8.1	\$3.2	\$6.5	\$9.7
AR	\$1.4	\$2.8	\$4.2	\$1.8	\$3.5	\$5.3	\$2.1	\$4.2	\$6.3
AZ	\$6.4	\$12.7	\$19.1	\$8.0	\$15.9	\$23.9	\$9.5	\$19.1	\$28.6
CA	\$10.8	\$21.6	\$32.4	\$13.5	\$27.0	\$40.5	\$16.2	\$32.4	\$48.6
CO	\$2.9	\$5.7	\$8.6	\$3.6	\$7.2	\$10.8	\$4.3	\$8.6	\$12.9
CT	\$2.0	\$4.0	\$6.0	\$2.5	\$5.0	\$7.5	\$3.0	\$6.0	\$9.0
DC	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	\$0.1	\$0.1	\$0.2
DE	\$0.1	\$0.2	\$0.4	\$0.2	\$0.3	\$0.5	\$0.2	\$0.4	\$0.6
FL	\$11.8	\$23.6	\$35.3	\$14.7	\$29.4	\$44.2	\$17.7	\$35.3	\$53.0
GA	\$3.2	\$6.3	\$9.5	\$3.9	\$7.9	\$11.8	\$4.7	\$9.5	\$14.2
HI	\$0.8	\$1.5	\$2.3	\$0.9	\$1.9	\$2.8	\$1.1	\$2.3	\$3.4
IA	\$1.6	\$3.2	\$4.8	\$2.0	\$4.0	\$6.0	\$2.4	\$4.8	\$7.2
ID	\$0.9	\$1.8	\$2.8	\$1.2	\$2.3	\$3.5	\$1.4	\$2.8	\$4.1
IL	\$3.5	\$6.9	\$10.4	\$4.3	\$8.7	\$13.0	\$5.2	\$10.4	\$15.6
IN	\$2.4	\$4.8	\$7.3	\$3.0	\$6.1	\$9.1	\$3.6	\$7.3	\$10.9
KS	\$0.8	\$1.7	\$2.5	\$1.0	\$2.1	\$3.1	\$1.2	\$2.5	\$3.7
KY	\$2.1	\$4.3	\$6.4	\$2.7	\$5.3	\$8.0	\$3.2	\$6.4	\$9.6
LA	\$1.8	\$3.6	\$5.4	\$2.3	\$4.5	\$6.8	\$2.7	\$5.4	\$8.1
MA	\$5.9	\$11.8	\$17.6	\$7.3	\$14.7	\$22.0	\$8.8	\$17.6	\$26.4
MD	\$2.5	\$5.0	\$7.4	\$3.1	\$6.2	\$9.3	\$3.7	\$7.4	\$11.2
ME	\$1.0	\$2.1	\$3.1	\$1.3	\$2.6	\$3.9	\$1.5	\$3.1	\$4.6
MI	\$3.0	\$5.9	\$8.9	\$3.7	\$7.4	\$11.1	\$4.5	\$8.9	\$13.4
MN	\$1.0	\$2.0	\$3.0	\$1.3	\$2.5	\$3.8	\$1.5	\$3.0	\$4.5
MO	\$2.2	\$4.3	\$6.5	\$2.7	\$5.4	\$8.1	\$3.2	\$6.5	\$9.7
MS	\$0.7	\$1.4	\$2.1	\$0.9	\$1.7	\$2.6	\$1.0	\$2.1	\$3.1
MT	\$0.5	\$1.1	\$1.6	\$0.7	\$1.4	\$2.0	\$0.8	\$1.6	\$2.4
NC	\$4.0	\$8.0	\$12.0	\$5.0	\$10.0	\$15.0	\$6.0	\$12.0	\$18.0
ND	\$0.8	\$1.6	\$2.5	\$1.0	\$2.1	\$3.1	\$1.2	\$2.5	\$3.7
NE	\$1.5	\$3.0	\$4.5	\$1.9	\$3.8	\$5.6	\$2.3	\$4.5	\$6.8
NH	\$0.3	\$0.5	\$0.8	\$0.3	\$0.6	\$1.0	\$0.4	\$0.8	\$1.2
NJ	\$1.3	\$2.5	\$3.8	\$1.6	\$3.2	\$4.8	\$1.9	\$3.8	\$5.7
NM	\$1.1	\$2.2	\$3.3	\$1.4	\$2.7	\$4.1	\$1.6	\$3.3	\$4.9
NV	\$0.2	\$0.4	\$0.6	\$0.2	\$0.5	\$0.7	\$0.3	\$0.6	\$0.9
NY	\$7.9	\$15.8	\$23.6	\$9.9	\$19.7	\$29.6	\$11.8	\$23.6	\$35.5

	40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
OH	\$4.6	\$9.2	\$13.7	\$5.7	\$11.4	\$17.2	\$6.9	\$13.7	\$20.6
OK	\$0.9	\$1.8	\$2.7	\$1.1	\$2.2	\$3.4	\$1.3	\$2.7	\$4.0
OR	\$8.9	\$17.8	\$26.8	\$11.2	\$22.3	\$33.5	\$13.4	\$26.8	\$40.1
PA	\$10.4	\$20.7	\$31.1	\$12.9	\$25.9	\$38.8	\$15.5	\$31.1	\$46.6
RI	\$0.1	\$0.2	\$0.4	\$0.1	\$0.3	\$0.4	\$0.2	\$0.4	\$0.5
SC	\$0.8	\$1.7	\$2.5	\$1.1	\$2.1	\$3.2	\$1.3	\$2.5	\$3.8
SD	\$1.2	\$2.4	\$3.6	\$1.5	\$3.0	\$4.5	\$1.8	\$3.6	\$5.4
TN	\$6.7	\$13.4	\$20.1	\$8.4	\$16.7	\$25.1	\$10.0	\$20.1	\$30.1
TX	\$7.0	\$14.0	\$20.9	\$8.7	\$17.4	\$26.2	\$10.5	\$20.9	\$31.4
UT	\$7.8	\$15.5	\$23.3	\$9.7	\$19.4	\$29.1	\$11.6	\$23.3	\$34.9
VA	\$2.4	\$4.7	\$7.1	\$2.9	\$5.9	\$8.8	\$3.5	\$7.1	\$10.6
VT	\$0.7	\$1.4	\$2.1	\$0.9	\$1.7	\$2.6	\$1.0	\$2.1	\$3.1
WA	\$1.9	\$3.8	\$5.8	\$2.4	\$4.8	\$7.2	\$2.9	\$5.8	\$8.6
WI	\$12.6	\$25.2	\$37.8	\$15.7	\$31.5	\$47.2	\$18.9	\$37.8	\$56.7
WV	\$1.1	\$2.3	\$3.4	\$1.4	\$2.9	\$4.3	\$1.7	\$3.4	\$5.1
WY	\$1.5	\$3.0	\$4.5	\$1.9	\$3.8	\$5.7	\$2.3	\$4.5	\$6.8
Total State	\$157	\$314	\$471	\$196	\$393	\$589	\$236	\$471	\$707

Source: Author calculations

Table 12
Estimated Savings from Biosimilar Competition in Medicare: Humira
by State, Calendar Year 2021 est.
(in millions)

	40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
AK	\$0.3	\$0.5	\$0.8	\$0.3	\$0.6	\$0.9	\$0.4	\$0.8	\$1.1
AL	\$2.4	\$4.9	\$7.3	\$3.1	\$6.1	\$9.2	\$3.7	\$7.3	\$11.0
AR	\$2.7	\$5.4	\$8.1	\$3.4	\$6.8	\$10.1	\$4.1	\$8.1	\$12.2
AZ	\$5.1	\$10.2	\$15.3	\$6.4	\$12.8	\$19.2	\$7.7	\$15.3	\$23.0
CA	\$7.2	\$14.4	\$21.6	\$9.0	\$18.0	\$27.0	\$10.8	\$21.6	\$32.4
CO	\$3.0	\$6.0	\$9.0	\$3.8	\$7.5	\$11.3	\$4.5	\$9.0	\$13.5
CT	\$1.8	\$3.5	\$5.3	\$2.2	\$4.4	\$6.6	\$2.6	\$5.3	\$7.9
DC	\$0.1	\$0.1	\$0.2	\$0.1	\$0.1	\$0.2	\$0.1	\$0.2	\$0.2
DE	\$0.2	\$0.3	\$0.5	\$0.2	\$0.4	\$0.7	\$0.3	\$0.5	\$0.8
FL	\$15.2	\$30.3	\$45.5	\$19.0	\$37.9	\$56.9	\$22.8	\$45.5	\$68.3
GA	\$4.4	\$8.8	\$13.3	\$5.5	\$11.0	\$16.6	\$6.6	\$13.3	\$19.9
HI	\$0.9	\$1.8	\$2.7	\$1.1	\$2.3	\$3.4	\$1.4	\$2.7	\$4.1
IA	\$1.7	\$3.5	\$5.2	\$2.2	\$4.4	\$6.5	\$2.6	\$5.2	\$7.9

	40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
ID	\$0.7	\$1.5	\$2.2	\$0.9	\$1.8	\$2.8	\$1.1	\$2.2	\$3.3
IL	\$3.4	\$6.8	\$10.2	\$4.2	\$8.5	\$12.7	\$5.1	\$10.2	\$15.3
IN	\$2.1	\$4.3	\$6.4	\$2.7	\$5.3	\$8.0	\$3.2	\$6.4	\$9.6
KS	\$1.0	\$2.1	\$3.1	\$1.3	\$2.6	\$3.9	\$1.6	\$3.1	\$4.7
KY	\$2.4	\$4.9	\$7.3	\$3.1	\$6.1	\$9.2	\$3.7	\$7.3	\$11.0
LA	\$2.9	\$5.8	\$8.7	\$3.6	\$7.2	\$10.8	\$4.3	\$8.7	\$13.0
MA	\$4.9	\$9.7	\$14.6	\$6.1	\$12.1	\$18.2	\$7.3	\$14.6	\$21.9
MD	\$3.0	\$5.9	\$8.9	\$3.7	\$7.4	\$11.1	\$4.4	\$8.9	\$13.3
ME	\$1.4	\$2.8	\$4.2	\$1.7	\$3.5	\$5.2	\$2.1	\$4.2	\$6.2
MI	\$2.3	\$4.7	\$7.0	\$2.9	\$5.9	\$8.8	\$3.5	\$7.0	\$10.5
MN	\$0.8	\$1.7	\$2.5	\$1.1	\$2.1	\$3.2	\$1.3	\$2.5	\$3.8
MO	\$3.0	\$6.1	\$9.1	\$3.8	\$7.6	\$11.4	\$4.5	\$9.1	\$13.6
MS	\$0.9	\$1.7	\$2.6	\$1.1	\$2.2	\$3.2	\$1.3	\$2.6	\$3.9
MT	\$0.7	\$1.4	\$2.1	\$0.9	\$1.8	\$2.7	\$1.1	\$2.1	\$3.2
NC	\$7.1	\$14.2	\$21.3	\$8.9	\$17.8	\$26.6	\$10.7	\$21.3	\$32.0
ND	\$1.2	\$2.5	\$3.7	\$1.6	\$3.1	\$4.7	\$1.9	\$3.7	\$5.6
NE	\$1.2	\$2.4	\$3.6	\$1.5	\$3.0	\$4.5	\$1.8	\$3.6	\$5.4
NH	\$0.4	\$0.8	\$1.2	\$0.5	\$1.0	\$1.6	\$0.6	\$1.2	\$1.9
NJ	\$0.6	\$1.3	\$1.9	\$0.8	\$1.6	\$2.4	\$0.9	\$1.9	\$2.8
NM	\$1.5	\$3.1	\$4.6	\$1.9	\$3.8	\$5.8	\$2.3	\$4.6	\$6.9
NV	\$0.3	\$0.7	\$1.0	\$0.4	\$0.9	\$1.3	\$0.5	\$1.0	\$1.6
NY	\$5.9	\$11.9	\$17.8	\$7.4	\$14.9	\$22.3	\$8.9	\$17.8	\$26.7
OH	\$6.3	\$12.5	\$18.8	\$7.8	\$15.6	\$23.5	\$9.4	\$18.8	\$28.1
OK	\$1.2	\$2.3	\$3.5	\$1.5	\$2.9	\$4.4	\$1.7	\$3.5	\$5.2
OR	\$7.6	\$15.1	\$22.7	\$9.4	\$18.9	\$28.3	\$11.3	\$22.7	\$34.0
PA	\$13.3	\$26.5	\$39.8	\$16.6	\$33.2	\$49.7	\$19.9	\$39.8	\$59.7
RI	\$0.1	\$0.2	\$0.3	\$0.1	\$0.3	\$0.4	\$0.2	\$0.3	\$0.5
SC	\$2.2	\$4.4	\$6.7	\$2.8	\$5.5	\$8.3	\$3.3	\$6.7	\$10.0
SD	\$1.6	\$3.2	\$4.8	\$2.0	\$4.0	\$6.0	\$2.4	\$4.8	\$7.2
TN	\$6.0	\$11.9	\$17.9	\$7.5	\$14.9	\$22.4	\$8.9	\$17.9	\$26.8
TX	\$6.1	\$12.1	\$18.2	\$7.6	\$15.2	\$22.7	\$9.1	\$18.2	\$27.3
UT	\$3.0	\$6.0	\$9.0	\$3.7	\$7.5	\$11.2	\$4.5	\$9.0	\$13.5
VA	\$4.6	\$9.2	\$13.9	\$5.8	\$11.6	\$17.3	\$6.9	\$13.9	\$20.8
VT	\$0.9	\$1.8	\$2.8	\$1.2	\$2.3	\$3.5	\$1.4	\$2.8	\$4.2
WA	\$2.1	\$4.2	\$6.3	\$2.6	\$5.3	\$7.9	\$3.2	\$6.3	\$9.5
WI	\$11.8	\$23.6	\$35.3	\$14.7	\$29.5	\$44.2	\$17.7	\$35.3	\$53.0
WV	\$1.6	\$3.3	\$4.9	\$2.0	\$4.1	\$6.1	\$2.4	\$4.9	\$7.3
WY	\$0.1	\$0.1	\$0.2	\$0.1	\$0.2	\$0.2	\$0.1	\$0.2	\$0.3
Total State	\$161	\$323	\$484	\$202	\$403	\$605	\$242	\$484	\$726

Source: Author calculations

Table 13
Estimated Savings from Biosimilar Competition in Medicare Market: Enbrel
by State, Calendar Year 2021 est.
(in millions)

	40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
AK	\$0.031	\$0.061	\$0.092	\$0.038	\$0.076	\$0.114	\$0.046	\$0.092	\$0.137
AL	\$0.628	\$1.256	\$1.884	\$0.785	\$1.570	\$2.355	\$0.942	\$1.884	\$2.826
AR	\$0.430	\$0.861	\$1.291	\$0.538	\$1.076	\$1.614	\$0.646	\$1.291	\$1.937
AZ	\$1.824	\$3.647	\$5.471	\$2.280	\$4.559	\$6.839	\$2.735	\$5.471	\$8.206
CA	\$2.127	\$4.255	\$6.382	\$2.659	\$5.318	\$7.978	\$3.191	\$6.382	\$9.573
CO	\$0.636	\$1.271	\$1.907	\$0.795	\$1.589	\$2.384	\$0.954	\$1.907	\$2.861
CT	\$0.465	\$0.930	\$1.396	\$0.581	\$1.163	\$1.744	\$0.698	\$1.396	\$2.093
DC	\$0.006	\$0.012	\$0.018	\$0.008	\$0.015	\$0.023	\$0.009	\$0.018	\$0.027
DE	\$0.039	\$0.079	\$0.118	\$0.049	\$0.098	\$0.148	\$0.059	\$0.118	\$0.177
FL	\$3.689	\$7.379	\$11.068	\$4.612	\$9.223	\$13.835	\$5.534	\$11.068	\$16.602
GA	\$0.689	\$1.378	\$2.066	\$0.861	\$1.722	\$2.583	\$1.033	\$2.066	\$3.099
HI	\$0.239	\$0.479	\$0.718	\$0.299	\$0.598	\$0.897	\$0.359	\$0.718	\$1.077
IA	\$0.411	\$0.822	\$1.233	\$0.514	\$1.027	\$1.541	\$0.616	\$1.233	\$1.849
ID	\$0.222	\$0.443	\$0.665	\$0.277	\$0.554	\$0.831	\$0.332	\$0.665	\$0.997
IL	\$0.766	\$1.532	\$2.298	\$0.957	\$1.915	\$2.872	\$1.149	\$2.298	\$3.447
IN	\$0.575	\$1.150	\$1.725	\$0.719	\$1.438	\$2.156	\$0.863	\$1.725	\$2.588
KS	\$0.204	\$0.408	\$0.612	\$0.255	\$0.510	\$0.765	\$0.306	\$0.612	\$0.918
KY	\$0.642	\$1.284	\$1.926	\$0.802	\$1.605	\$2.407	\$0.963	\$1.926	\$2.889
LA	\$0.490	\$0.980	\$1.469	\$0.612	\$1.225	\$1.837	\$0.735	\$1.469	\$2.204
MA	\$1.243	\$2.486	\$3.729	\$1.554	\$3.107	\$4.661	\$1.864	\$3.729	\$5.593
MD	\$0.572	\$1.144	\$1.716	\$0.715	\$1.430	\$2.145	\$0.858	\$1.716	\$2.574
ME	\$0.339	\$0.679	\$1.018	\$0.424	\$0.848	\$1.272	\$0.509	\$1.018	\$1.527
MI	\$0.792	\$1.583	\$2.375	\$0.990	\$1.979	\$2.969	\$1.187	\$2.375	\$3.562
MN	\$0.228	\$0.455	\$0.683	\$0.284	\$0.569	\$0.853	\$0.341	\$0.683	\$1.024
MO	\$0.563	\$1.126	\$1.689	\$0.704	\$1.407	\$2.111	\$0.844	\$1.689	\$2.533
MS	\$0.187	\$0.374	\$0.561	\$0.234	\$0.467	\$0.701	\$0.280	\$0.561	\$0.841
MT	\$0.182	\$0.364	\$0.546	\$0.228	\$0.455	\$0.683	\$0.273	\$0.546	\$0.819
NC	\$1.102	\$2.204	\$3.305	\$1.377	\$2.755	\$4.132	\$1.653	\$3.305	\$4.958
ND	\$0.181	\$0.362	\$0.543	\$0.226	\$0.452	\$0.679	\$0.271	\$0.543	\$0.814
NE	\$0.332	\$0.664	\$0.997	\$0.415	\$0.831	\$1.246	\$0.498	\$0.997	\$1.495
NH	\$0.072	\$0.144	\$0.216	\$0.090	\$0.180	\$0.270	\$0.108	\$0.216	\$0.324
NJ	\$0.264	\$0.528	\$0.792	\$0.330	\$0.660	\$0.989	\$0.396	\$0.792	\$1.187
NM	\$0.361	\$0.723	\$1.084	\$0.452	\$0.903	\$1.355	\$0.542	\$1.084	\$1.626
NV	\$0.046	\$0.092	\$0.138	\$0.058	\$0.115	\$0.173	\$0.069	\$0.138	\$0.208
NY	\$1.734	\$3.468	\$5.202	\$2.168	\$4.335	\$6.503	\$2.601	\$5.202	\$7.803

	40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
OH	\$1.207	\$2.415	\$3.622	\$1.509	\$3.019	\$4.528	\$1.811	\$3.622	\$5.434
OK	\$0.233	\$0.467	\$0.700	\$0.292	\$0.583	\$0.875	\$0.350	\$0.700	\$1.050
OR	\$2.457	\$4.913	\$7.370	\$3.071	\$6.142	\$9.213	\$3.685	\$7.370	\$11.055
PA	\$2.829	\$5.657	\$8.486	\$3.536	\$7.072	\$10.607	\$4.243	\$8.486	\$12.729
RI	\$0.029	\$0.057	\$0.086	\$0.036	\$0.072	\$0.108	\$0.043	\$0.086	\$0.129
SC	\$0.257	\$0.514	\$0.771	\$0.321	\$0.643	\$0.964	\$0.386	\$0.771	\$1.157
SD	\$0.309	\$0.618	\$0.927	\$0.386	\$0.773	\$1.159	\$0.464	\$0.927	\$1.391
TN	\$1.766	\$3.533	\$5.299	\$2.208	\$4.416	\$6.624	\$2.649	\$5.299	\$7.948
TX	\$1.216	\$2.433	\$3.649	\$1.521	\$3.041	\$4.562	\$1.825	\$3.649	\$5.474
UT	\$1.094	\$2.188	\$3.282	\$1.367	\$2.735	\$4.102	\$1.641	\$3.282	\$4.923
VA	\$0.672	\$1.344	\$2.015	\$0.840	\$1.680	\$2.519	\$1.008	\$2.015	\$3.023
VT	\$0.220	\$0.441	\$0.661	\$0.275	\$0.551	\$0.826	\$0.330	\$0.661	\$0.991
WA	\$0.467	\$0.934	\$1.401	\$0.584	\$1.168	\$1.752	\$0.701	\$1.401	\$2.102
WI	\$3.036	\$6.073	\$9.109	\$3.796	\$7.591	\$11.387	\$4.555	\$9.109	\$13.664
WV	\$0.436	\$0.873	\$1.309	\$0.546	\$1.091	\$1.637	\$0.655	\$1.309	\$1.964
WY	\$0.387	\$0.774	\$1.161	\$0.484	\$0.967	\$1.451	\$0.580	\$1.161	\$1.741
Total State	\$39	\$78	\$117	\$49	\$97	\$146	\$58	\$117	\$175

Source: Author calculations

Table 14
Estimated Savings from Biosimilar Competition in Medicaid Market: Humira
by State, Calendar Year 2021 est.
(in millions)

	40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
AK	\$0.4	\$0.7	\$1.1	\$0.4	\$0.9	\$1.3	\$0.5	\$1.1	\$1.6
AL	\$2.6	\$5.3	\$7.9	\$3.3	\$6.6	\$9.9	\$3.9	\$7.9	\$11.8
AR	\$4.1	\$8.2	\$12.3	\$5.1	\$10.2	\$15.3	\$6.1	\$12.3	\$18.4
AZ	\$6.1	\$12.2	\$18.3	\$7.6	\$15.3	\$22.9	\$9.2	\$18.3	\$27.5
CA	\$14.8	\$29.7	\$44.5	\$18.5	\$37.1	\$55.6	\$22.2	\$44.5	\$66.7
CO	\$3.3	\$6.7	\$10.0	\$4.2	\$8.3	\$12.5	\$5.0	\$10.0	\$15.0
CT	\$2.6	\$5.1	\$7.7	\$3.2	\$6.4	\$9.6	\$3.8	\$7.7	\$11.5
DC	\$0.1	\$0.3	\$0.4	\$0.2	\$0.3	\$0.5	\$0.2	\$0.4	\$0.6
DE	\$0.2	\$0.4	\$0.6	\$0.2	\$0.5	\$0.7	\$0.3	\$0.6	\$0.8
FL	\$13.4	\$26.8	\$40.2	\$16.7	\$33.5	\$50.2	\$20.1	\$40.2	\$60.3
GA	\$5.2	\$10.3	\$15.5	\$6.5	\$12.9	\$19.4	\$7.7	\$15.5	\$23.2
HI	\$0.8	\$1.6	\$2.4	\$1.0	\$2.0	\$3.0	\$1.2	\$2.4	\$3.6

	40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
IA	\$2.1	\$4.1	\$6.2	\$2.6	\$5.2	\$7.7	\$3.1	\$6.2	\$9.3
ID	\$0.7	\$1.4	\$2.1	\$0.9	\$1.7	\$2.6	\$1.0	\$2.1	\$3.1
IL	\$4.2	\$8.3	\$12.5	\$5.2	\$10.4	\$15.6	\$6.2	\$12.5	\$18.7
IN	\$2.4	\$4.8	\$7.2	\$3.0	\$6.0	\$9.0	\$3.6	\$7.2	\$10.8
KS	\$0.9	\$1.7	\$2.6	\$1.1	\$2.1	\$3.2	\$1.3	\$2.6	\$3.8
KY	\$3.6	\$7.2	\$10.9	\$4.5	\$9.1	\$13.6	\$5.4	\$10.9	\$16.3
LA	\$5.6	\$11.2	\$16.8	\$7.0	\$14.0	\$21.0	\$8.4	\$16.8	\$25.2
MA	\$7.9	\$15.8	\$23.7	\$9.9	\$19.7	\$29.6	\$11.8	\$23.7	\$35.5
MD	\$3.7	\$7.3	\$11.0	\$4.6	\$9.2	\$13.8	\$5.5	\$11.0	\$16.5
ME	\$1.4	\$2.8	\$4.2	\$1.7	\$3.5	\$5.2	\$2.1	\$4.2	\$6.3
MI	\$3.1	\$6.1	\$9.2	\$3.8	\$7.7	\$11.5	\$4.6	\$9.2	\$13.8
MN	\$0.9	\$1.8	\$2.8	\$1.2	\$2.3	\$3.5	\$1.4	\$2.8	\$4.2
MO	\$2.5	\$5.0	\$7.4	\$3.1	\$6.2	\$9.3	\$3.7	\$7.4	\$11.2
MS	\$1.3	\$2.6	\$3.9	\$1.6	\$3.3	\$4.9	\$2.0	\$3.9	\$5.9
MT	\$0.7	\$1.5	\$2.2	\$0.9	\$1.8	\$2.8	\$1.1	\$2.2	\$3.3
NC	\$7.2	\$14.4	\$21.6	\$9.0	\$18.0	\$26.9	\$10.8	\$21.6	\$32.3
ND	\$0.9	\$1.9	\$2.8	\$1.2	\$2.3	\$3.5	\$1.4	\$2.8	\$4.2
NE	\$1.0	\$1.9	\$2.9	\$1.2	\$2.4	\$3.6	\$1.4	\$2.9	\$4.3
NH	\$0.3	\$0.6	\$0.9	\$0.4	\$0.7	\$1.1	\$0.4	\$0.9	\$1.3
NJ	\$0.7	\$1.5	\$2.2	\$0.9	\$1.8	\$2.8	\$1.1	\$2.2	\$3.3
NM	\$3.0	\$6.0	\$9.0	\$3.8	\$7.5	\$11.3	\$4.5	\$9.0	\$13.5
NV	\$0.4	\$0.8	\$1.2	\$0.5	\$1.0	\$1.5	\$0.6	\$1.2	\$1.8
NY	\$11.4	\$22.8	\$34.2	\$14.2	\$28.5	\$42.7	\$17.1	\$34.2	\$51.3
OH	\$7.5	\$15.0	\$22.5	\$9.4	\$18.7	\$28.1	\$11.2	\$22.5	\$33.7
OK	\$1.2	\$2.3	\$3.5	\$1.4	\$2.9	\$4.3	\$1.7	\$3.5	\$5.2
OR	\$9.2	\$18.4	\$27.6	\$11.5	\$23.0	\$34.5	\$13.8	\$27.6	\$41.3
PA	\$15.7	\$31.5	\$47.2	\$19.7	\$39.4	\$59.0	\$23.6	\$47.2	\$70.8
RI	\$0.1	\$0.3	\$0.4	\$0.2	\$0.4	\$0.5	\$0.2	\$0.4	\$0.6
SC	\$2.2	\$4.4	\$6.6	\$2.7	\$5.5	\$8.2	\$3.3	\$6.6	\$9.8
SD	\$1.1	\$2.3	\$3.4	\$1.4	\$2.8	\$4.3	\$1.7	\$3.4	\$5.1
TN	\$7.0	\$13.9	\$20.9	\$8.7	\$17.4	\$26.1	\$10.4	\$20.9	\$31.3
TX	\$7.7	\$15.3	\$23.0	\$9.6	\$19.2	\$28.7	\$11.5	\$23.0	\$34.5
UT	\$2.5	\$5.0	\$7.5	\$3.1	\$6.3	\$9.4	\$3.8	\$7.5	\$11.3
VA	\$3.2	\$6.5	\$9.7	\$4.1	\$8.1	\$12.2	\$4.9	\$9.7	\$14.6
VT	\$1.2	\$2.4	\$3.6	\$1.5	\$3.0	\$4.5	\$1.8	\$3.6	\$5.4
WA	\$2.7	\$5.3	\$8.0	\$3.3	\$6.6	\$10.0	\$4.0	\$8.0	\$11.9
WI	\$11.6	\$23.3	\$34.9	\$14.5	\$29.1	\$43.6	\$17.5	\$34.9	\$52.4
WV	\$2.1	\$4.3	\$6.4	\$2.7	\$5.3	\$8.0	\$3.2	\$6.4	\$9.6
WY	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	\$0.1	\$0.1	\$0.2
Total State	\$194	\$389	\$583	\$243	\$486	\$729	\$292	\$583	\$875

Source: Author calculations

Table 15
Estimated Savings from Biosimilar Competition in Medicaid Market: Enbrel
by State, Calendar Year 2021 est.
(in millions)

	40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
AK	\$0.042	\$0.085	\$0.127	\$0.053	\$0.106	\$0.159	\$0.064	\$0.127	\$0.191
AL	\$0.677	\$1.353	\$2.030	\$0.846	\$1.692	\$2.537	\$1.015	\$2.030	\$3.045
AR	\$0.652	\$1.304	\$1.955	\$0.815	\$1.629	\$2.444	\$0.978	\$1.955	\$2.933
AZ	\$2.176	\$4.352	\$6.528	\$2.720	\$5.440	\$8.160	\$3.264	\$6.528	\$9.792
CA	\$4.376	\$8.752	\$13.127	\$5.470	\$10.939	\$16.409	\$6.564	\$13.127	\$19.691
CO	\$0.707	\$1.415	\$2.122	\$0.884	\$1.768	\$2.652	\$1.061	\$2.122	\$3.183
CT	\$0.679	\$1.358	\$2.037	\$0.849	\$1.697	\$2.546	\$1.018	\$2.037	\$3.055
DC	\$0.016	\$0.032	\$0.049	\$0.020	\$0.041	\$0.061	\$0.024	\$0.049	\$0.073
DE	\$0.042	\$0.084	\$0.127	\$0.053	\$0.106	\$0.158	\$0.063	\$0.127	\$0.190
FL	\$3.259	\$6.517	\$9.776	\$4.073	\$8.147	\$12.220	\$4.888	\$9.776	\$14.664
GA	\$0.805	\$1.610	\$2.415	\$1.006	\$2.013	\$3.019	\$1.208	\$2.415	\$3.623
HI	\$0.212	\$0.423	\$0.635	\$0.265	\$0.529	\$0.794	\$0.317	\$0.635	\$0.952
IA	\$0.486	\$0.971	\$1.457	\$0.607	\$1.214	\$1.821	\$0.728	\$1.457	\$2.185
ID	\$0.209	\$0.419	\$0.628	\$0.262	\$0.524	\$0.785	\$0.314	\$0.628	\$0.942
IL	\$0.937	\$1.873	\$2.810	\$1.171	\$2.342	\$3.513	\$1.405	\$2.810	\$4.215
IN	\$0.644	\$1.288	\$1.933	\$0.805	\$1.610	\$2.416	\$0.966	\$1.933	\$2.899
KS	\$0.167	\$0.334	\$0.501	\$0.209	\$0.417	\$0.626	\$0.250	\$0.501	\$0.751
KY	\$0.952	\$1.903	\$2.855	\$1.190	\$2.379	\$3.569	\$1.428	\$2.855	\$4.283
LA	\$0.950	\$1.901	\$2.851	\$1.188	\$2.376	\$3.564	\$1.426	\$2.851	\$4.277
MA	\$2.020	\$4.039	\$6.059	\$2.525	\$5.049	\$7.574	\$3.029	\$6.059	\$9.088
MD	\$0.707	\$1.415	\$2.122	\$0.884	\$1.768	\$2.653	\$1.061	\$2.122	\$3.183
ME	\$0.341	\$0.682	\$1.023	\$0.426	\$0.853	\$1.279	\$0.512	\$1.023	\$1.535
MI	\$1.036	\$2.073	\$3.109	\$1.295	\$2.591	\$3.886	\$1.554	\$3.109	\$4.663
MN	\$0.248	\$0.497	\$0.745	\$0.310	\$0.621	\$0.931	\$0.372	\$0.745	\$1.117
MO	\$0.461	\$0.922	\$1.383	\$0.576	\$1.153	\$1.729	\$0.692	\$1.383	\$2.075
MS	\$0.283	\$0.566	\$0.848	\$0.353	\$0.707	\$1.060	\$0.424	\$0.848	\$1.273
MT	\$0.190	\$0.381	\$0.571	\$0.238	\$0.476	\$0.714	\$0.285	\$0.571	\$0.856
NC	\$1.114	\$2.229	\$3.343	\$1.393	\$2.786	\$4.178	\$1.671	\$3.343	\$5.014
ND	\$0.137	\$0.273	\$0.410	\$0.171	\$0.342	\$0.512	\$0.205	\$0.410	\$0.615
NE	\$0.265	\$0.530	\$0.795	\$0.331	\$0.662	\$0.994	\$0.397	\$0.795	\$1.192
NH	\$0.050	\$0.101	\$0.151	\$0.063	\$0.126	\$0.189	\$0.075	\$0.151	\$0.226
NJ	\$0.308	\$0.616	\$0.924	\$0.385	\$0.770	\$1.155	\$0.462	\$0.924	\$1.387
NM	\$0.706	\$1.411	\$2.117	\$0.882	\$1.764	\$2.646	\$1.058	\$2.117	\$3.175
NV	\$0.052	\$0.105	\$0.157	\$0.065	\$0.131	\$0.196	\$0.078	\$0.157	\$0.235
NY	\$3.326	\$6.651	\$9.977	\$4.157	\$8.314	\$12.471	\$4.989	\$9.977	\$14.966

	40% DISCOUNT			50% DISCOUNT			60% DISCOUNT		
	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share	25% Share	50% Share	75% Share
OH	\$1.446	\$2.892	\$4.338	\$1.808	\$3.615	\$5.423	\$2.169	\$4.338	\$6.507
OK	\$0.232	\$0.464	\$0.696	\$0.290	\$0.580	\$0.870	\$0.348	\$0.696	\$1.044
OR	\$2.988	\$5.977	\$8.965	\$3.735	\$7.471	\$11.206	\$4.482	\$8.965	\$13.447
PA	\$3.358	\$6.716	\$10.074	\$4.197	\$8.395	\$12.592	\$5.037	\$10.074	\$15.111
RI	\$0.038	\$0.076	\$0.114	\$0.048	\$0.095	\$0.143	\$0.057	\$0.114	\$0.171
SC	\$0.253	\$0.506	\$0.759	\$0.316	\$0.632	\$0.949	\$0.379	\$0.759	\$1.138
SD	\$0.219	\$0.439	\$0.658	\$0.274	\$0.548	\$0.823	\$0.329	\$0.658	\$0.987
TN	\$2.061	\$4.121	\$6.182	\$2.576	\$5.152	\$7.728	\$3.091	\$6.182	\$9.273
TX	\$1.538	\$3.075	\$4.613	\$1.922	\$3.844	\$5.766	\$2.306	\$4.613	\$6.919
UT	\$0.918	\$1.836	\$2.754	\$1.148	\$2.295	\$3.443	\$1.377	\$2.754	\$4.132
VA	\$0.472	\$0.945	\$1.417	\$0.590	\$1.181	\$1.771	\$0.709	\$1.417	\$2.126
VT	\$0.285	\$0.569	\$0.854	\$0.356	\$0.712	\$1.067	\$0.427	\$0.854	\$1.281
WA	\$0.589	\$1.178	\$1.767	\$0.736	\$1.473	\$2.209	\$0.884	\$1.767	\$2.651
WI	\$2.999	\$5.998	\$8.998	\$3.749	\$7.498	\$11.247	\$4.499	\$8.998	\$13.496
WV	\$0.572	\$1.144	\$1.716	\$0.715	\$1.430	\$2.145	\$0.858	\$1.716	\$2.573
WY	\$0.247	\$0.494	\$0.742	\$0.309	\$0.618	\$0.927	\$0.371	\$0.742	\$1.113
Total State	\$47	\$95	\$142	\$59	\$119	\$178	\$71	\$142	\$214

Source: Author calculations

Endnotes

- 1 The current WAC price for Humira is from: <https://www.humira.com/cost>, accessed August 26, 2021. According to the website, “The Wholesale Acquisition Cost (WAC), also known as the list price, for a 4-week supply of HUMIRA* is \$5,968.18 as of January 2021”. Since the typical maintenance dose is every other week, a 4-week supply is assumed to be 2 doses, which is why the WAC price used in the analysis is one-half of the reported WAC price.

The current WAC price for Enbrel is from: <https://www.enbrel.com/financial-support>, accessed August 26, 2021. According to the website, “The list price for ENBREL is \$1,389.24 per weekly 50 mg dose.” Since the typical maintenance dose is weekly, this weekly WAC price is used in the analysis.

- 2 Enbrel revenues are from: <https://www.prnewswire.com/news-releases/amgen-reports-fourth-quarter-and-full-year-2020-financial-results-301220622.html>. Humira revenues are from: <https://www.prnewswire.com/news-releases/abbvie-reports-full-year-and-fourth-quarter-2020-financial-results-301221231.html>. Abbvie refers its revenues as “net revenues” but these revenues appear to be the equivalent of what the industry typically refers to as gross revenues.
- 3 Gill LL “Shocking Rise of Prescription Drug Prices: Here’s why prices keep going up, plus how to combat the sticker shock—and still protect your health” *Consumer Reports*, November 26, 2019, <https://www.consumerreports.org/drug-prices/the-shocking-rise-of-prescription-drug-prices/>.
- 4 Based on the Average Sales Price (ASP) data maintained by the Centers for Medicare and Medicaid Services (CMS), the price discounts for the lowest cost biosimilar as of 2021 Q2 compared to the price of the originator biologic in the quarter just prior to biosimilar entry are as follows:

**Price Discount for
lowest cost biosimilar**

Remicade	-51.0%
Avastin	-34.9%
Epogen & Procrit	-29.3%
Herceptin	-43.1%
Neulasta	-49.9%
Neupogen	-62.1%
Rituxan	-31.9%

- 5 “Health Insurance Coverage of the Total Population” Kaiser Family Foundation, 2019, <https://www.kff.org/other/state-indicator/total-population/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>, accessed August 30, 2021.

About the Author

Wayne Winegarden, Ph.D., is a Sr. Fellow in Business & Economics, Pacific Research Institute, as well as the Director of PRI's Center for Medical Economics and Innovation.

Dr. Winegarden's policy research explores the connection between macroeconomic policies and economic outcomes, with a focus on fiscal policy, the health care industry, and the energy sector. As Director of the Center for Medical Economics and Innovation, Dr. Winegarden spearheads research and advances policies that support the continued viability and vitality of the U.S. biomedical and pharmaceutical industries to the benefit of patients and overall economic growth.

Dr. Winegarden's columns have been published in the *Wall Street Journal*, *Chicago Tribune*, *Investor's Business Daily*, *Forbes.com*, and *USA Today*. He was previously economics faculty at Marymount University, has testified before the U.S. Congress, has been interviewed and quoted in such media as CNN and Bloomberg Radio, and is asked to present his research findings at policy conferences and meetings.

Dr. Winegarden is also the Principal of an economic advisory firm that advises clients on the economic, business, and investment implications from changes in broader macroeconomic trends and government policies. Clients have included Fortune 500 companies, financial organizations, small businesses, and trade associations. Previously, Dr. Winegarden worked as a business economist in Hong Kong and New York City; and a policy economist for policy and trade associations in Washington D.C. Dr. Winegarden received his B.A., M.A., and Ph.D. in Economics from George Mason University.

About PRI

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