

## County-Level Projections of Medicaid Expansion's Impact in Texas

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### Executive Summary:

Texas is one of twelve states nationwide that has not expanded Medicaid, despite the largest number of uninsured residents in the country. One commonly cited reason is the budgetary implications of a large increase in entitlement spending. In this brief, we summarize the research on fiscal impacts of Medicaid expansion and provide estimates of the number of currently uninsured Texans who would be eligible for Medicaid expansion, by county, as well as how much new federal annual Medicaid spending would be expected if those Texans enrolled in Medicaid. We estimate that 954,000 newly eligible adults would enroll in an expansion, bringing approximately \$5.41 billion in federal dollars annually to the state. With a required state matching share of 1 for every 9 federal dollars, and numerous potential offsets for the state portion, the fiscal implications appear to be favorable from the state and local government perspective. In the context of uncertainty around future direct funding for hospitals and the pandemic that continues to damage local economies and health systems, Medicaid expansion may be able to provide some fiscal relief.

### Introduction

Texas has so far chosen not to expand Medicaid under the Affordable Care Act (ACA) financing incentives and rules. In Texas, adults without dependents or disabilities are not eligible for Medicaid at all regardless of income, and parents of dependent children are eligible only up to about 14% of the poverty level (currently \$251 in income per month for a family of 3 with two parents).<sup>1</sup> That means Texas currently has a large gap between Medicaid eligibility and eligibility for federally subsidized Marketplace plans, which begin at 100% FPL (\$21,720 annually in 2020 for a family of 3, equivalent to \$1,810 per month), so many adults in poor working families make too much money to qualify for Medicaid, but not enough to qualify for a federal subsidy much less purchase unsubsidized private insurance. Partly as a result of this policy choice, 5 million Texans representing 17.7% of the population were uninsured as of 2018.<sup>2</sup> This is more than twice the national average uninsured rate and means that Texans are roughly 1 of every 5 uninsured US residents. Uninsured Texans largely come from low-income working families whose demographics vary depending on locality.<sup>3</sup>

Popularity of the Affordable Care Act's main tenets has continued to grow, and many states that were initially not eager to participate in the Medicaid expansion have changed their minds. For example, voters in five states have approved ballot initiatives to expand Medicaid (Missouri, Oklahoma, Nebraska, Utah, and Idaho). Voters in Texas reflect these trends. State level survey data from 2019 indicate that

59% of Texans believe the legislature is not doing enough to help low-income adults access health care. A majority (57%) support expanding access to health insurance as a top priority of the legislature, presumably through expanding Medicaid which stands at 64% support.<sup>4</sup>

In this brief, we focus on the fiscal impacts of Medicaid expansion at the county level. Considering the local fiscal perspective is important. State legislators are accountable to stakeholders in their local districts. Many health-related programs are administered and financed at the county level and supported through local funds, such as indigent healthcare programs mandated by the state through counties, hospital districts, and public hospitals (many of which are in small and/or rural counties), so specific data on expansion impacts by county may be useful for policy decisions. Recent work suggests that a significant portion of Medicaid benefits operate as transfers to support providers, which can benefit local economies.<sup>5</sup> Others have previously estimated the potential impacts of expansion in Texas; we now have sufficient accumulated evidence from other states on the fiscal impacts to revisit the issue. Particularly in this time of significantly reduced state and local tax revenue and increased population need due to the pandemic-induced recession, estimates of the federal dollars that can be brought to local economies through the expansion of an existing heavily subsidized program like Medicaid may be valuable.

### **Fiscal Implications of Medicaid Expansion**

Since it began in 1965, Medicaid has been jointly financed between the federal and state governments. States receive a matching grant from the federal government to finance their individual state programs that depends on their per capita income. Texas's current baseline match rate (called the Federal Medical Assistance Percentage or FMAP) is 61.81%.<sup>6</sup> This rate applies to existing eligibility groups, such as children, people with disabilities, and pregnant women. As of 2020, ACA Medicaid expansions are financed at a rate of 90%, so the state share is just 10%; by putting up just ten cents the state can bring down 90 cents in federal dollars.<sup>7</sup> This matching rate can be thought of as the "sticker price" for anyone newly eligible under the expansion. One can estimate the total state share and the federal match under different assumptions, as we do below, by estimating the number of new Medicaid enrollees under a given scenario, multiplying by the average expected cost of a new enrollee, and dividing into federal and state shares based on the matching rate.

The total fiscal impact is more than just the sticker price, however, since there may be additional offsets or expenses that result from the expansion.<sup>8,9</sup> First, there may be offsets and new expenses within Medicaid itself. For example, some previously eligible under other Medicaid programs for special circumstances (like pregnant women or people who would otherwise need a disability determination) might enroll under the ACA expansion instead; this saves the state the difference between the traditional FMAP and the ACA enhanced rate.<sup>10,11</sup> Some children or adults who were previously eligible, but not enrolled, may take up the program (sometimes called welcome mat or woodwork effects), which could add to costs.<sup>12</sup> Second, the state and local governments will require less spending on health care they previously self-funded that is now covered by Medicaid for enrollees, such as services for mental health and substance use treatment, certain corrections-related health care (in particular, hospital stays outside the correctional system), and provider subsidies for uncompensated care. Finally, the increased federal spending may have additional revenue impacts as typically associated with increased economic activity (sometimes called stimulus or fiscal multiplier effects) and tax collections.<sup>13</sup>

Prior estimates have taken into account potential offsets and multiplier effects for Texas, finding that the state match could be funded through just offsets on state-funded health programs.<sup>14,15</sup>

Reports from states that have expanded Medicaid, as well as new research, suggest that expansion under the ACA's financing terms can occur with marginal state budget impact, even during the years after 2016 when the match rate decreased below 100%.<sup>16</sup> Despite a 24% increase in average Medicaid spending among expansion states, there was less than a 1% increase in total state spending, and this was not due to reductions in other budget areas like education or transportation.<sup>17,18</sup> State legislative agency projections were generally within 2% of actuals, with the majority of errors in a conservative direction (overestimating), suggesting that accurate projections are feasible by following the methods commonly used by state forecasters even though enrollment has sometimes exceeded expectations. The Medicaid expansion in California almost completely replaced existing county-level safety net spending, and that the average public hospital received a 20% increase in revenue per bed, partly because Medicaid reimbursed hospitals more generously than the county programs.<sup>19</sup>

Several states have provided detailed analyses of how their finances were affected and the source of any required state share not account for by offsets; among the most common options is a provider tax, since providers benefit directly from the revenues brought in.<sup>20</sup> For example, Arizona funds the vast majority of their state share through a hospital assessment, and Indiana, Colorado, and New Hampshire fund 100% out of non-general fund sources. Levy et al. (2020) provide a detailed case study of the Healthy Michigan Plan, including dynamic scoring, which could be useful to those interested in more specific projections than we provide here.

### **Estimates of Expansion's Impact on Counties**

Our estimates of eligibility and enrollment are based on the Census Bureau's American Community Survey (ACS), an annual survey representative of the U.S. population and states.<sup>21</sup> Because only large counties are identifiable in the public data, we combine the ACS with estimated county populations from the Census Bureau's Small Area Health Insurance Estimates (SAHIE) to come up with estimates for smaller counties. The most recent available data are from 2018, so we project the calculations to 2020 using the statewide population estimate from the Texas Demographic Center. We provide a detailed explanation of our methods in the appendix. Our goals with these methods were to be transparent, straightforward, and to use publicly available data, so that interested parties who might want to make different assumptions could easily implement their own calculations.<sup>22</sup>

We estimate that about 1.5 million Texans ages 19-64 with incomes <138% poverty were uninsured in 2018, 45% of the population in that age and income group. Not all will be eligible for a Medicaid expansion, and some who previously had other forms of insurance may enroll. We first estimate the number of people likely to be eligible for Medicaid under an expansion to 138% of poverty, assuming they come from two possible sources: the uninsured population currently ineligible for benefits, and those who are currently enrolled in a Marketplace subsidized plan for which they would lose eligibility if Medicaid becomes available to them. Prior work has found very little crowd-out of other private insurance among the expansion-eligible group, so we assume there is none here.<sup>23</sup> A complication in estimating eligibility is accounting for immigration status, since undocumented immigrants as well as those with insufficient years of residence in the United States are not generally eligible for benefits. Texas represents a considerable share of the nation's immigrant population, including 1.6 million of the country's estimated 11.3 million undocumented immigrants. We adjust eligibility for the foreign-born

non-citizen population in the ACS by benchmarking to statewide estimates of the number of undocumented immigrants and do not count those with fewer than six years of U.S. residency as eligible.

We estimate that there are roughly 1.4 million uninsured Texans ages 19-64 whose income and family status are in the range for a Medicaid expansion, and an additional 103,000 Marketplace enrollees with incomes 100-138% FPL, based on the 2018 ACS. After adjusting for immigration-related eligibility restrictions, we estimate that approximately 1,274,000 people are likely to be newly eligible for Medicaid benefits under an expansion in 2020.

We next estimate the number of people who may actually enroll in benefits. Not everyone who is eligible for a program generally uses it; the fraction of the eligible population who enrolls is called the “take-up rate”. Reasons from stigma about use of public benefits to difficulty completing paperwork to concerns about immigration enforcement can cause an otherwise eligible person to not take up a benefit they are entitled to by law. We calculate the fraction likely to enroll by applying take-up rates to the eligible population. The take-up scenario assumes a rate of 73% based on the Urban Institute’s simulation models and that almost all Marketplace enrollees in the Medicaid income range would enroll in Medicaid.<sup>24</sup> The Appendix Table summarizes expected eligibility and enrollment by county. Under the estimated enrollment scenario, 954,000 new adults would enroll in Medicaid.

To come up with a dollar amount for federal funding, and state share, we use the level implied by the Legislative Budget Board’s most recent available projection, \$6,300 per enrollee.<sup>25</sup> We estimate approximately \$5.41 billion in federal dollars with a \$601 million state share associated with the projected new enrollment. Again, these numbers are before any offsets and do not take into account any stimulus impacts. We provide these calculations by county in the Appendix Table. To the extent that those who are already entitled to benefits but not using them newly enroll (such as children and very poor parents), the total amount of federal dollars would be higher, at a marginally greater state share overall.

The issues faced by rural and urban counties in Texas can be quite different. For example, hospitals in rural areas tend to be more dependent on public payers as a source of revenue, and the local hospital can be a large share of jobs.<sup>26 27</sup> Rural hospitals have been closing at a high rate nationally, including in Texas; research has shown that hospitals in states with Medicaid expansions have had stronger financial performance particularly in rural markets where a large fraction of the population was uninsured.<sup>28 29</sup> About 11% of uninsured Texans with incomes <138% FPL live in rural counties.<sup>30</sup> Our estimates show that both urban and rural counties will benefit from Medicaid expansion. We estimate that 162,700 residents of rural counties would be eligible, and project 121,600 would enroll, bringing \$689,650,000 to their local economies (approximately 13% of the total).

These statewide case numbers are lower than other recent estimates although similar to prior, older state-specific projections.<sup>31,32,33</sup> The Kaiser Family Foundation recently published an estimate implying roughly 1.45 million adults newly eligible for Medicaid; they do not calculate estimated enrollment.<sup>34</sup> Differences from our estimates are likely due to definitions of household income and assumptions about immigration eligibility status.

We are currently in the grips of a major economic downturn associated with the COVID-19 pandemic. This downturn, if prolonged, and particularly if it lasts longer than unemployment benefits do, will likely

mean higher Medicaid enrollment in the short-run in an expansion than these projections suggest.<sup>35</sup> We have based our analysis on pre-COVID data, which likely best represent the long-term enrollment scenario.

## **Discussion**

In this brief we provide county-level estimates of the number of adults likely to be eligible for and enroll in a Medicaid expansion in Texas, and how much associated federal dollars that might bring down. Despite forgoing years of more generous federal matching dollars for Medicaid expansion and even with the lower 90% matching rate going forward, the state could benefit from nearly \$5.4 billion in federal spending with a \$601 million state share, before calculating potential offsets and without incorporating the multiplier effects of those federal dollars. This calculation ignores well-established benefits to individuals and to public health which have been demonstrated in other states.<sup>36,37</sup>

CMS is currently allowing the state to send \$5-6 billion per year in combined federal and state Medicaid funds directly to hospitals in the form of uncompensated care (UC) and Delivery System Reform Incentive Payment (DSRIP) payments under a waiver program, and an additional several billion dollars through Medicaid Disproportionate Share Hospital (DSH) payments. However, the future of each of these programs is in question, and a large part of the waiver funding ends in 2021, bringing considerable uncertainty to hospitals and hence local governments.<sup>38</sup> Under the current 1115 waiver, which was originally intended to be a bridge to Medicaid expansion, counties and local hospital districts provide the matching funds to get the federal dollars themselves. If a similar mechanism can be used to fund a Medicaid expansion, localities may find themselves better positioned to support the needs of their population without the continued uncertainty and likely ongoing cuts to directed hospital funding. Without a solution, the continued deterioration of hospital systems that serve rural and low-income patients is likely.

As a result of the pandemic, state and local governments are struggling with their budgets, which in Texas rely heavily on sales, property, and oil and gas taxes. The idea of spending more state dollars on such a program in a recession may seem counterintuitive. However, Medicaid can serve as an automatic stabilizer bringing federal dollars to states during times of downturns – as state needs increase because of higher enrollment or spending, federal spending automatically increases proportionately, if the state can fund its additional share.<sup>39</sup> This is particularly important for the health care sector, as financial pressure on local health systems is high after mandated delays of non-emergent procedures and lower demand for services as fear of the virus led people to stay home. The pandemic may be an opportunity for the state to better position itself to weather this and future crises because the federal government can cover a large portion of the costs automatically through Medicaid.<sup>40</sup>

## **Conclusion**

Medicaid expansion could bring \$5.4 billion federal dollars to Texas, and more than 954,000 low-income Texans could gain the financial security that comes with health insurance. The experience of other states shows that it is feasible to implement an expansion with required state funding sourced in large part from budget offsets and provider taxes and very little general revenue. The potential fiscal benefits relative to their costs should be carefully considered.

## About the Authors

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## Acknowledgements

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<sup>1</sup> "Medicaid for Parents & Caretakers | Texas Health and Human Services," accessed August 28, 2020, <https://hhs.texas.gov/services/health/medicaid-chip/programs-services/children-families/medicaid-parents-caretakers>.

<sup>2</sup> Edward R Berchick, Jessica C Barnett, and Rachel D Upton, "Health Insurance Coverage in the United States: 2018," n.d., 44. <https://www.census.gov/content/dam/Census/library/publications/2019/demo/p60-267.pdf>

<sup>3</sup> Matthew Buettgens, Linda J. Blumberg, and Clare Pan. "The Uninsured in Texas: Statewide and Local Area Views," November 2019. [https://www.episcopalhealth.org/wp-content/uploads/2020/01/201812.10\\_Uninsured\\_in\\_Texas\\_FINAL.pdf](https://www.episcopalhealth.org/wp-content/uploads/2020/01/201812.10_Uninsured_in_Texas_FINAL.pdf)

<sup>4</sup> "New EHF Texas Health Policy Poll: Texans Show Sweeping Support for Protections for Pre-Existing Conditions," *Episcopal Health Foundation*, accessed August 14, 2020, <https://www.episcopalhealth.org/enews/new-ehf-health-policy-poll-texans-show-sweeping-support-protections-pre-existing-conditions/>.

<sup>5</sup> Amy Finkelstein, Neale Mahoney, and Matthew J. Notowidigdo, "What Does (Formal) Health Insurance Do, and for Whom?," *Annual Review of Economics* 10, no. 1 (2018): 261–86, <https://doi.org/10.1146/annurev-economics-080217-053608>.

<sup>6</sup> There are sometimes other match rates for certain special circumstances. For example, the rate has been temporarily increased because of the public health emergency associated with the pandemic. Most administrative costs are only matched at 50%; the state's data suggest that in 2018-2019, 58% of total Medicaid spending was federal.

<sup>7</sup> The state has missed out on the prior, even more generous funding: 100% federal funding from 2014 through 2016, 95% in 2017, 94% in 2018, 93% in 2019, and 90% going forward.

<sup>8</sup> Bryce Ward, "The Impact of Medicaid Expansion on States' Budgets," 2020, 16. <https://www.commonwealthfund.org/publications/issue-briefs/2020/may/impact-medicaid-expansion-states-budgets>

<sup>9</sup> Stan Dorn et al., "The Effects of the Medicaid Expansion on State Budgets: An Early Look in Select States," *KFF* (blog), March 11, 2015, <https://www.kff.org/medicaid/issue-brief/the-effects-of-the-medicaid-expansion-on-state-budgets-an-early-look-in-select-states/>.

<sup>10</sup> Deborah Bachrach et al., "Assessment Tool: State Budget Impact of Medicaid Expansion," n.d., 7.

<sup>11</sup> Marguerite Burns and Laura Dague, "The Effect of Expanding Medicaid Eligibility on Supplemental Security Income Program Participation," *Journal of Public Economics* 149 (2017): 20–34.

<sup>12</sup> Adam Sacarny, Katherine Baicker, and Amy Finkelstein, "Out of the Woodwork: Enrollment Spillovers in the Oregon Health Insurance Experiment," Working Paper, Working Paper Series (National Bureau of Economic Research, March 2020), <https://doi.org/10.3386/w26871>.

<sup>13</sup> It should be noted that there is significant uncertainty involved in estimating the amount and timeline of fiscal multipliers, and because Texas has no state income tax, the impact of such a fiscal multiplier on state tax revenues is likely to be more limited than in other states regardless.

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- <sup>14</sup> Billy Hamilton Consulting, “Expanding Medicaid in Texas; Smart, Affordable, and Fair, January 2013. <https://legacy.texasimpact.org/resources/publications/smart-affordable-and-fair-why-texas-should-extend-medicaid-coverage-low>
- <sup>15</sup> A recent report estimates net economic benefits including multiplier effects: “Economic Benefits of Expanding Health Insurance Coverage in Texas | The Perryman Group,” accessed August 14, 2020, <https://www.perrymangroup.com/publications/report/economic-benefits-of-expanding-health-insurance-coverage-in-texas/>.
- <sup>16</sup> These analyses generally ignore any long-run changes in federal tax rates that may be necessary due to increased federal outlays (as we do here), since they are not relevant to short-term state budget projections and would not be state-specific. As it stands, federal tax dollars from Texas taxpayers are currently being used to fund health care for the poor in other states.
- <sup>17</sup> Benjamin D. Sommers and Jonathan Gruber, “Federal Funding Insulated State Budgets From Increased Spending Related To Medicaid Expansion,” *Health Affairs* 36, no. 5 (May 1, 2017): 938–44, <https://doi.org/10.1377/hlthaff.2016.1666>.
- <sup>18</sup> Jonathan Gruber and Benjamin Sommers, “Fiscal Federalism and the Budget Impacts of the Affordable Care Act’s Medicaid Expansion” NBER Working Paper 26862, March 2020, <https://doi.org/10.3386/w26862>.
- <sup>19</sup> Mark Duggan, Atul Gupta, and Emilie Jackson, “The Impact of the Affordable Care Act: Evidence from California’s Hospital Sector,” NBER Working Paper 25488, January 2019, <https://doi.org/10.3386/w25488>.
- <sup>20</sup> Dee Mahan and Eliot Fishman, “Options to Generate the State Share of Medicaid Expansion Costs,” January 2019. [https://familiesusa.org/wp-content/uploads/2019/09/MCD\\_States-Share-10-Percent\\_Fact-Sheet.pdf](https://familiesusa.org/wp-content/uploads/2019/09/MCD_States-Share-10-Percent_Fact-Sheet.pdf)
- <sup>21</sup> We use the ACS microdata harmonized and made available by IPUMS USA, University of Minnesota, [www.ipums.org](http://www.ipums.org). More information about the ACS is available at <https://www.census.gov/programs-surveys/acs/about.html>
- <sup>22</sup> The authors welcome inquiries from those interested in using or improving on these numbers. A calculation of net revenue flows, including offsets, was beyond our scope and available data, although those with such numbers readily available one could add to the analysis here.
- <sup>23</sup> Molly Freen, Jonathan Gruber, and Benjamin D. Sommers, “Premium Subsidies, the Mandate, and Medicaid Expansion: Coverage Effects of the Affordable Care Act,” *Journal of Health Economics* 53 (May 1, 2017): 72–86, <https://doi.org/10.1016/j.jhealeco.2017.02.004>.
- <sup>24</sup> Matthew Buettgens, “The Implications of Medicaid Expansion in the Remaining States: 2018 Update,” n.d., 10.
- <sup>25</sup> Legislative Budget Board, “Fiscal note, 83<sup>rd</sup> Legislative Regular Session, HB 3376,” accessed August 28, 2020, <https://www.capitol.state.tx.us/tlodocs/83R/fiscalnotes/pdf/HB033761.pdf#navpanes=0>. Dollar figure calculated as sum of federal and state funds in 2018 divided by expected enrollment at the end of the 5 year period.
- <sup>26</sup> George M Holmes et al., “The Effect of Rural Hospital Closures on Community Economic Health,” *Health Services Research* 41, no. 2 (April 2006): 467–85, <https://doi.org/10.1111/j.1475-6773.2005.00497.x>.
- <sup>27</sup> Austin B. Frakt, “The Rural Hospital Problem,” *JAMA* 321, no. 23 (June 18, 2019): 2271–72, <https://doi.org/10.1001/jama.2019.7377>.
- <sup>28</sup> Bree Watzak, Jane Bolin, and Nancy Dickey, “Rural Hospital Closings Reach Crisis Stage, Leaving Millions without Nearby Health Care,” *The Conversation*, accessed August 13, 2020, <http://theconversation.com/rural-hospital-closings-reach-crisis-stage-leaving-millions-without-nearby-health-care-124072>.
- <sup>29</sup> Richard C. Lindrooth et al., “Understanding The Relationship Between Medicaid Expansions And Hospital Closures,” *Health Affairs* 37, no. 1 (January 1, 2018): 111–20, <https://doi.org/10.1377/hlthaff.2017.0976>.
- <sup>30</sup> Defined as “Non-Metro” according to <http://www.dshs.texas.gov/chs/info/TxCoPhrMsa.xls> Any county that is part of an MSA is classified as a metro area regardless of its own size. Some low population counties are classified as metro areas because they are adjacent to larger population cores and share social and economic integration with the core.
- <sup>31</sup> The 2013 Billy Hamilton Consulting report’s Moderate scenario projects 935,000 newly insured adults 18-64 and <138% FPL under an expansion, relying on earlier estimates from Cline and Murdock.
- <sup>32</sup> Legislative Budget Board Staff Estimate, “AFFORDABLE CARE ACT (ACA) OPTIONAL MEDICAID EXPANSION: FISCAL IMPACT ESTIMATE FOR TEXAS, STATE FISCAL YEARS (SFYs) 2014 – 2023,” accessed August 14, 2020, [http://www.lbb.state.tx.us/Documents/Appropriations\\_Bills/83/Decision\\_Docs/Expansion%20Estimate%20March%2004%202013.pdf](http://www.lbb.state.tx.us/Documents/Appropriations_Bills/83/Decision_Docs/Expansion%20Estimate%20March%2004%202013.pdf).

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<sup>33</sup> Matthew Buettgens, “The Implications of Medicaid Expansion in the Remaining States: 2018 Update,” May 2018. [https://www.urban.org/sites/default/files/publication/98467/the\\_implications\\_of\\_medicaid\\_expansion\\_2001838\\_2.pdf](https://www.urban.org/sites/default/files/publication/98467/the_implications_of_medicaid_expansion_2001838_2.pdf)

<sup>34</sup> Kendal Orgera, Anthony Damico Published: Jan 14, and 2020, “The Coverage Gap: Uninsured Poor Adults in States That Do Not Expand Medicaid,” *KFF* (blog), January 14, 2020, <https://www.kff.org/medicaid/issue-brief/the-coverage-gap-uninsured-poor-adults-in-states-that-do-not-expand-medicaid/>.

<sup>35</sup> Shao-Chee Sim and Elena Marks, “ELIGIBILITY FOR AFFORDABLE HEALTH INSURANCE OPTIONS FOR TEXANS FOLLOWING JOB LOSS DUE TO COVID-19,” n.d., 4. <https://www.episcopalhealth.org/wp-content/uploads/2020/05/EHF-COVID-19-Health-Coverage-for-Texans-Issue-Brief-05.18.20-FINAL.pdf>

<sup>36</sup> Sherry A. Glied, Sara R. Collins, and Saunders Lin, “Did The ACA Lower Americans’ Financial Barriers To Health Care?,” *Health Affairs* 39, no. 3 (March 1, 2020): 379–86, <https://doi.org/10.1377/hlthaff.2019.01448>.

<sup>37</sup> Aparna Soni, Laura R. Wherry, and Kosali I. Simon, “How Have ACA Insurance Expansions Affected Health Outcomes? Findings From The Literature,” *Health Affairs* 39, no. 3 (March 1, 2020): 371–78, <https://doi.org/10.1377/hlthaff.2019.01436>.

<sup>38</sup> Texas Comptroller of Public Accounts, “Texas and the 1115 Medicaid Waiver,” accessed August 14, 2020, <https://comptroller.texas.gov/economy/fiscal-notes/2019/aug/healthcare.php>.

<sup>39</sup> Moira Forbes and Chris Park, “Considerations for Countercyclical Financing Adjustments in Medicaid,” n.d., 24. <https://www.macpac.gov/publication/considerations-for-countercyclical-financing-adjustments-in-medicaid/>

<sup>40</sup> Jonathan Gruber and Benjamin D. Sommers, “Paying for Medicaid — State Budgets and the Case for Expansion in the Time of Coronavirus,” *New England Journal of Medicine* 382, no. 24 (June 11, 2020): 2280–82, <https://doi.org/10.1056/NEJMp2007124>.



## Data & Methodology Appendix

Here, we provide the specific details on our calculations as well as some additional commentary on the assumptions involved.

For counties included in the ACS, the calculation of the estimated newly eligible population adds up weighted population counts from the microdata as follows:

$$\text{EligiblePopulation} = [TC + \beta NC + M] * \theta$$

With the following definitions, where all are within the noninstitutionalized uninsured population ages 19-64 and either (1) parents of dependent children with family incomes between 14-138% of the poverty level or (2) adults without dependent children with family incomes below 138% of the poverty level:

- TC is the total number of U.S. citizens ages 19-64
- NC is the total number of non-citizens with 6 or more years of residence in the U.S.
- $\beta$  is a multiplicative factor representing the fraction of non-citizens with 6 or more years of residence likely eligible due to immigration status, based on estimates of the number of undocumented Texans from the Migration Policy Institute. Specifically, MPI estimates 1,597,000 undocumented Texans, and we see 3,018,000 all ages non-citizen foreign born Texans in the ACS, so we use an adjustment factor of .47.
- M is the total number of Marketplace enrollees with family income 100-138% of poverty
- $\theta$  is a multiplicative factor inflating the population to the 2020 level, equal to 1.06, from the Texas Demographic Center's projection for 2020 relative to the ACS population count for the ages 19-64.

The main area of uncertainty in estimating eligibility is immigration status. Roughly one in six Texans is an immigrant. Those who have naturalized to U.S. citizenship are eligible for Medicaid benefits. In Texas, adult legal permanent residents who are not veterans, active duty armed services members and their immediate family members, or refugees are generally subject to a five year waiting period plus 40 quarters of Social Security-qualifying work in order to be eligible for Medicaid. Others, including undocumented immigrants, are not eligible (although they may qualify for Emergency Medicaid payment of provider bills for qualifying emergencies if all other eligibility requirements that would apply to citizens are met). There is no perfect way to capture these complexities. The ACS does not include sufficient information on immigration status to identify whether a respondent would be eligible for Medicaid, but does provide the number of years the respondent has lived in the United States. We assume that any noncitizen adult immigrant with fewer than six years of residence in the U.S. is ineligible for Medicaid. We then apply an immigration status adjustment factor to non-citizen immigrants that incorporates the statewide fraction of noncitizen immigrants likely to be undocumented and hence ineligible, and assume that the fraction is uniform across population age and the state. This adjustment factor is uniform statewide because of the small sample sizes available to estimate it in even the larger counties identified in the ACS. Additional uncertainty arises in that the ACS counts income differently than the Medicaid program (which uses monthly current income) and from the federal Marketplace. We use the Census Bureau's poverty measure included in the data as the

income measure. We do not provide margins of error, but they will certainly be larger for smaller counties.

This calculation makes some important assumptions, some of which we note to be explicit about. First, it assumes that any new Medicaid eligibility will come either from the uninsured population or from those currently enrolled in privately purchased plans (which, if they are Marketplace plans, will be ineligible for federal subsidies if they become eligible for Medicaid). This means we assume zero crowdout from employer-sponsored plans, which are relatively rare for individuals at these income levels, and nearly complete crowdout from privately purchased plans. In addition, it assumes that all non-citizens with 5 or fewer years of residence are ineligible, which is not completely true since refugees (not directly identifiable in the ACS) are typically eligible for time-limited benefits.

For smaller counties not specifically identified in the ACS (indicated by \* in the table), we calculate the county distribution of the uninsured population ages 18-64 with income 138% of the poverty level and under from the 2018 Small Area Health Insurance Estimates. We create weights for each county to determine what fraction of Texas residents with unidentified county are represented and apply the weights to the population count representing the aggregate of these counties from the ACS to get an individual estimate. This assumes there are no differences between these counties in anything relevant to the calculation, which is a limitation. No publicly available data identify individual-level health insurance coverage and demographic characteristics along with county of residence for smaller counties for privacy reasons.

For the enrollment calculation, we adjust the fraction of both citizen and non-citizen eligibles by a take-up rate, as well as the potential Marketplace enrollees. Our calculation takes the following form:

$$NewEnrollment = [\gamma TC + \delta NC + \mu M] * \theta$$

With the following definitions:

- $\gamma$  is a multiplicative factor representing the fraction of uninsured citizens likely to enroll in Medicaid. We assume this to be 73% based on Urban Institute simulations.<sup>33</sup>
- $\delta$  is a multiplicative factor representing the fraction of uninsured non-citizens with 6 or more years of residence likely to enroll in Medicaid. This is equal to the take-up rate  $\gamma$  times the eligibility factor  $\beta$ .
- $\mu$  is a multiplicative factor representing the fraction of Marketplace enrollees likely to enroll in Medicaid. We assume this to be 95%, since most but not all will be newly eligible for Medicaid and have shown a demonstrated demand for health insurance. We could not identify any literature to base this take-up rate on.

We assume zero take-up among the already income-eligible (sometimes referred to as “woodwork” or “welcome mat” effects); without significant outreach and enrollment assistance efforts, those who have not already chosen to enroll in benefits after the major federal coverage expansions and mandate implementation in 2014 are unlikely to suddenly choose to do so. In other words, the state has likely already absorbed any such impacts. However, we note that there may be additional enrollment from already income-eligible children (not included in the calculations, as we focus only on adults here), which generally occurs when eligibility is expanded to parents.<sup>12</sup> Our calculations show that current

take-up rates for Texas children in Medicaid and CHIP are very similar to national averages. Take-up rates will naturally depend on the level of effort the state extends in outreach. The data are from 2018, prior to the elimination of the individual mandate penalty which may depress take-up further.

We note that considerable uncertainty exists in these numbers from both the data they are based on and the assumptions we have made. We discourage interpretations that impose false precision. To help avoid this, we have rounded all dollar estimates to the nearest \$1,000 and all individual estimates to the nearest 100 people, and so if categories do not add up to the state totals it may be due to rounding. Zeros should be interpreted as <50 people or <\$1000.

# County Level Estimates of Impact of Medicaid Expansion

County	Eligibility	Enrollment	Federal	State
Anderson County	2,400	1,800	\$10,373,000	\$1,153,000
Andrews County	600	400	\$2,505,000	\$278,000
Angelina County	5,000	3,700	\$21,103,000	\$2,345,000
Aransas County	1,200	900	\$5,081,000	\$565,000
Archer County	300	200	\$1,248,000	\$139,000
Armstrong County	100	0	\$271,000	\$30,000
Atascosa County	2,400	1,800	\$10,088,000	\$1,121,000
Austin County	1,100	800	\$4,756,000	\$529,000
Bailey County	400	300	\$1,822,000	\$202,000
Bandera County	1,000	700	\$4,116,000	\$457,000
Bastrop County	3,800	2,800	\$15,914,000	\$1,768,000
Baylor County	200	200	\$853,000	\$95,000
Bee County	1,500	1,100	\$6,396,000	\$711,000
Bell County*	15,200	11,200	\$63,392,000	\$7,044,000
Bexar County*	101,100	76,000	\$430,751,000	\$47,861,000
Blanco County	400	300	\$1,827,000	\$203,000
Borden County	0	0	\$79,000	\$9,000
Bosque County	900	700	\$3,923,000	\$436,000
Bowie County	5,100	3,800	\$21,480,000	\$2,387,000
Brazoria County*	13,100	9,800	\$55,659,000	\$6,184,000
Brazos County*	11,600	8,800	\$50,005,000	\$5,556,000
Brewster County	500	400	\$2,060,000	\$229,000
Briscoe County	100	100	\$325,000	\$36,000
Brooks County	600	400	\$2,417,000	\$269,000
Brown County	2,000	1,500	\$8,367,000	\$930,000
Burleson County	800	600	\$3,333,000	\$370,000
Burnet County	1,900	1,400	\$8,050,000	\$894,000
Caldwell County	2,600	2,000	\$11,062,000	\$1,229,000
Calhoun County	1,000	800	\$4,304,000	\$478,000

Counties marked with "\*" are ACS counties.

Source: Authors' calculations using 2018 American Community Survey data projected to 2020 population growth. Details in text.

# County Level Estimates of Impact of Medicaid Expansion

County	Eligibility	Enrollment	Federal	State
Callahan County	700	600	\$3,120,000	\$347,000
Cameron County*	35,600	26,300	\$148,964,000	\$16,552,000
Camp County	800	600	\$3,422,000	\$380,000
Carson County	200	100	\$723,000	\$80,000
Cass County	1,600	1,200	\$6,986,000	\$776,000
Castro County	500	300	\$1,943,000	\$216,000
Chambers County	1,200	900	\$5,265,000	\$585,000
Cherokee County	2,900	2,200	\$12,399,000	\$1,378,000
Childress County	300	200	\$1,297,000	\$144,000
Clay County	400	300	\$1,728,000	\$192,000
Cochran County	200	100	\$723,000	\$80,000
Coke County	100	100	\$584,000	\$65,000
Coleman County	500	400	\$2,128,000	\$237,000
Collin County*	19,800	15,100	\$85,466,000	\$9,496,000
Collingsworth County	200	100	\$664,000	\$74,000
Colorado County	900	600	\$3,665,000	\$407,000
Comal County*	3,100	2,300	\$12,823,000	\$1,425,000
Comanche County	700	500	\$2,900,000	\$322,000
Concho County	100	100	\$557,000	\$62,000
Cooke County	1,800	1,300	\$7,651,000	\$850,000
Coryell County	3,900	2,900	\$16,682,000	\$1,854,000
Cottle County	100	100	\$393,000	\$44,000
Crane County	200	100	\$657,000	\$73,000
Crockett County	200	100	\$657,000	\$73,000
Crosby County	400	300	\$1,623,000	\$180,000
Culberson County	100	100	\$568,000	\$63,000
Dallam County	400	300	\$1,760,000	\$196,000
Dallas County*	110,400	83,100	\$471,009,000	\$52,334,000
Dawson County	700	500	\$2,834,000	\$315,000

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# County Level Estimates of Impact of Medicaid Expansion

County	Eligibility	Enrollment	Federal	State
Deaf Smith County	1,000	800	\$4,392,000	\$488,000
Delta County	300	200	\$1,273,000	\$142,000
Denton County*	20,400	15,600	\$88,340,000	\$9,816,000
DeWitt County	800	600	\$3,521,000	\$391,000
Dickens County	100	100	\$440,000	\$49,000
Dimmit County	700	500	\$2,906,000	\$323,000
Donley County	200	100	\$804,000	\$89,000
Duval County	700	500	\$3,043,000	\$338,000
Eastland County	1,100	800	\$4,538,000	\$504,000
Ector County*	5,800	4,400	\$24,857,000	\$2,762,000
Edwards County	100	100	\$381,000	\$42,000
El Paso County*	58,800	43,800	\$248,339,000	\$27,593,000
Ellis County*	3,700	2,700	\$15,466,000	\$1,718,000
Erath County	2,600	2,000	\$11,188,000	\$1,243,000
Falls County	1,000	800	\$4,313,000	\$479,000
Fannin County	1,600	1,200	\$6,852,000	\$761,000
Fayette County	800	600	\$3,602,000	\$400,000
Fisher County	200	100	\$689,000	\$77,000
Floyd County	300	200	\$1,360,000	\$151,000
Foard County	100	100	\$287,000	\$32,000
Fort Bend County*	17,000	13,000	\$73,479,000	\$8,164,000
Franklin County	500	400	\$2,271,000	\$252,000
Freestone County	900	700	\$3,882,000	\$431,000
Frio County	1,100	800	\$4,749,000	\$528,000
Gaines County	1,000	700	\$4,145,000	\$461,000
Galveston County*	13,200	9,700	\$55,265,000	\$6,141,000
Garza County	200	200	\$988,000	\$110,000
Gillespie County	900	700	\$3,721,000	\$413,000
Glasscock County	0	0	\$146,000	\$16,000

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# County Level Estimates of Impact of Medicaid Expansion

County	Eligibility	Enrollment	Federal	State
Goliad County	300	200	\$1,286,000	\$143,000
Gonzales County	1,200	900	\$4,975,000	\$553,000
Gray County	1,000	800	\$4,385,000	\$487,000
Grayson County	6,400	4,800	\$26,969,000	\$2,997,000
Gregg County*	6,100	4,600	\$26,034,000	\$2,893,000
Grimes County	1,300	1,000	\$5,635,000	\$626,000
Guadalupe County*	3,500	2,600	\$14,478,000	\$1,609,000
Hale County	1,900	1,400	\$7,981,000	\$887,000
Hall County	200	200	\$945,000	\$105,000
Hamilton County	400	300	\$1,787,000	\$199,000
Hansford County	200	200	\$1,057,000	\$117,000
Hardeman County	200	200	\$979,000	\$109,000
Hardin County	2,200	1,700	\$9,424,000	\$1,047,000
Harris County*	223,700	167,500	\$949,924,000	\$105,547,000
Harrison County	3,300	2,500	\$14,051,000	\$1,561,000
Hartley County	100	100	\$628,000	\$70,000
Haskell County	300	200	\$1,382,000	\$154,000
Hays County*	10,900	8,300	\$47,334,000	\$5,259,000
Hemphill County	100	100	\$505,000	\$56,000
Henderson County	4,700	3,500	\$19,871,000	\$2,208,000
Hidalgo County*	76,600	56,900	\$322,697,000	\$35,855,000
Hill County	1,900	1,400	\$7,969,000	\$885,000
Hockley County	1,100	800	\$4,800,000	\$533,000
Hood County	2,000	1,500	\$8,577,000	\$953,000
Hopkins County	2,000	1,500	\$8,562,000	\$951,000
Houston County	1,400	1,100	\$5,968,000	\$663,000
Howard County	1,500	1,200	\$6,555,000	\$728,000
Hudspeth County	300	200	\$1,398,000	\$155,000
Hunt County	5,400	4,000	\$22,676,000	\$2,520,000

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Source: Authors' calculations using 2018 American Community Survey data projected to 2020 population growth. Details in text.

# County Level Estimates of Impact of Medicaid Expansion

County	Eligibility	Enrollment	Federal	State
Hutchinson County	900	700	\$3,838,000	\$427,000
Irion County	0	0	\$170,000	\$19,000
Jack County	400	300	\$1,616,000	\$180,000
Jackson County	600	500	\$2,671,000	\$297,000
Jasper County	1,900	1,400	\$8,172,000	\$908,000
Jeff Davis County	100	100	\$395,000	\$44,000
Jefferson County*	14,400	10,900	\$61,777,000	\$6,864,000
Jim Hogg County	300	200	\$1,328,000	\$148,000
Jim Wells County	2,500	1,900	\$10,561,000	\$1,173,000
Johnson County*	3,600	2,600	\$14,985,000	\$1,665,000
Jones County	800	600	\$3,182,000	\$354,000
Karnes County	600	400	\$2,491,000	\$277,000
Kaufman County*	5,200	3,800	\$21,781,000	\$2,420,000
Kendall County	1,000	800	\$4,295,000	\$477,000
Kenedy County	0	0	\$144,000	\$16,000
Kent County	0	0	\$123,000	\$14,000
Kerr County	2,300	1,700	\$9,695,000	\$1,077,000
Kimble County	200	200	\$954,000	\$106,000
King County	0	0	\$74,000	\$8,000
Kinney County	200	100	\$648,000	\$72,000
Kleberg County	2,300	1,700	\$9,596,000	\$1,066,000
Knox County	200	200	\$878,000	\$98,000
La Salle County	300	200	\$1,318,000	\$147,000
Lamar County	2,800	2,100	\$12,020,000	\$1,336,000
Lamb County	800	600	\$3,281,000	\$365,000
Lampasas County	900	700	\$3,979,000	\$442,000
Lavaca County	700	500	\$2,956,000	\$329,000
Lee County	700	500	\$3,055,000	\$340,000
Leon County	900	700	\$3,707,000	\$412,000

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Source: Authors' calculations using 2018 American Community Survey data projected to 2020 population growth. Details in text.



# County Level Estimates of Impact of Medicaid Expansion

County	Eligibility	Enrollment	Federal	State
Liberty County	4,400	3,300	\$18,841,000	\$2,094,000
Limestone County	1,400	1,000	\$5,921,000	\$658,000
Lipscomb County	100	100	\$599,000	\$67,000
Live Oak County	500	400	\$2,139,000	\$238,000
Llano County	800	600	\$3,351,000	\$372,000
Loving County	0	0	\$14,000	\$2,000
Lubbock County*	10,300	7,900	\$44,915,000	\$4,991,000
Lynn County	300	200	\$1,248,000	\$139,000
Madison County	700	500	\$2,790,000	\$310,000
Marion County	600	500	\$2,677,000	\$297,000
Martin County	200	200	\$902,000	\$100,000
Mason County	200	100	\$792,000	\$88,000
Matagorda County	1,900	1,500	\$8,245,000	\$916,000
Maverick County	4,000	3,000	\$16,929,000	\$1,881,000
McCulloch County	400	300	\$1,849,000	\$205,000
McLennan County*	14,000	10,600	\$59,957,000	\$6,662,000
McMullen County	0	0	\$67,000	\$7,000
Medina County	1,900	1,400	\$8,046,000	\$894,000
Menard County	100	100	\$539,000	\$60,000
Midland County*	3,800	2,800	\$15,968,000	\$1,774,000
Milam County	1,300	1,000	\$5,615,000	\$624,000
Mills County	200	200	\$905,000	\$101,000
Mitchell County	300	200	\$1,315,000	\$146,000
Montague County	1,000	700	\$4,156,000	\$462,000
Montgomery County*	17,800	13,200	\$74,824,000	\$8,314,000
Moore County	1,000	800	\$4,358,000	\$484,000
Morris County	700	500	\$3,061,000	\$340,000
Motley County	100	0	\$280,000	\$31,000
Nacogdoches County	4,600	3,500	\$19,685,000	\$2,187,000

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# County Level Estimates of Impact of Medicaid Expansion

County	Eligibility	Enrollment	Federal	State
Navarro County	3,000	2,300	\$12,842,000	\$1,427,000
Newton County	700	600	\$3,169,000	\$352,000
Nolan County	800	600	\$3,391,000	\$377,000
Nueces County*	17,500	13,000	\$73,519,000	\$8,169,000
Ochiltree County	400	300	\$1,894,000	\$210,000
Oldham County	100	100	\$417,000	\$46,000
Orange County	4,000	3,000	\$16,864,000	\$1,874,000
Palo Pinto County	1,700	1,300	\$7,240,000	\$804,000
Panola County	1,100	800	\$4,592,000	\$510,000
Parker County*	3,700	2,700	\$15,440,000	\$1,716,000
Parmer County	500	400	\$2,217,000	\$246,000
Pecos County	600	400	\$2,516,000	\$280,000
Polk County	2,600	1,900	\$10,885,000	\$1,210,000
Potter County*	7,100	5,200	\$29,529,000	\$3,281,000
Presidio County	400	300	\$1,816,000	\$202,000
Rains County	600	400	\$2,455,000	\$273,000
Randall County*	3,400	2,600	\$14,697,000	\$1,633,000
Reagan County	100	100	\$635,000	\$71,000
Real County	200	200	\$878,000	\$98,000
Red River County	800	600	\$3,272,000	\$364,000
Reeves County	600	400	\$2,332,000	\$259,000
Refugio County	300	300	\$1,421,000	\$158,000
Roberts County	0	0	\$128,000	\$14,000
Robertson County	900	700	\$3,896,000	\$433,000
Rockwall County	2,000	1,500	\$8,342,000	\$927,000
Runnels County	500	400	\$2,231,000	\$248,000
Rusk County	2,500	1,900	\$10,559,000	\$1,173,000
Sabine County	600	400	\$2,446,000	\$272,000
San Augustine County	500	400	\$2,219,000	\$247,000

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# County Level Estimates of Impact of Medicaid Expansion

County	Eligibility	Enrollment	Federal	State
San Jacinto County	1,700	1,300	\$7,105,000	\$789,000
San Patricio County	3,200	2,400	\$13,363,000	\$1,485,000
San Saba County	300	200	\$1,207,000	\$134,000
Schleicher County	100	100	\$566,000	\$63,000
Scurry County	700	500	\$2,769,000	\$308,000
Shackelford County	200	100	\$675,000	\$75,000
Shelby County	1,700	1,300	\$7,097,000	\$789,000
Sherman County	100	100	\$579,000	\$64,000
Smith County*	8,500	6,400	\$36,298,000	\$4,033,000
Somervell County	400	300	\$1,670,000	\$186,000
Starr County	5,500	4,100	\$23,197,000	\$2,578,000
Stephens County	500	400	\$2,130,000	\$237,000
Sterling County	0	0	\$202,000	\$22,000
Stonewall County	100	0	\$222,000	\$25,000
Sutton County	100	100	\$604,000	\$67,000
Swisher County	400	300	\$1,818,000	\$202,000
Tarrant County*	78,600	58,500	\$331,508,000	\$36,834,000
Taylor County*	8,300	6,200	\$34,968,000	\$3,885,000
Terrell County	0	0	\$159,000	\$18,000
Terry County	700	500	\$2,935,000	\$326,000
Throckmorton County	100	100	\$298,000	\$33,000
Titus County	1,900	1,400	\$8,158,000	\$907,000
Tom Green County*	3,600	2,600	\$14,874,000	\$1,653,000
Travis County*	39,800	30,400	\$172,377,000	\$19,153,000
Trinity County	900	700	\$3,869,000	\$430,000
Tyler County	1,000	700	\$4,204,000	\$467,000
Upshur County	2,000	1,500	\$8,439,000	\$938,000
Upton County	100	100	\$597,000	\$66,000
Uvalde County	1,600	1,200	\$6,892,000	\$766,000

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# County Level Estimates of Impact of Medicaid Expansion

County	Eligibility	Enrollment	Federal	State
Val Verde County	2,900	2,200	\$12,362,000	\$1,374,000
Van Zandt County	2,800	2,100	\$11,710,000	\$1,301,000
Victoria County	4,400	3,300	\$18,785,000	\$2,087,000
Walker County	4,700	3,500	\$19,954,000	\$2,217,000
Waller County	2,800	2,100	\$11,697,000	\$1,300,000
Ward County	500	300	\$1,950,000	\$217,000
Washington County	1,400	1,000	\$5,786,000	\$643,000
Webb County*	24,600	18,300	\$103,789,000	\$11,532,000
Wharton County	2,200	1,700	\$9,442,000	\$1,049,000
Wheeler County	300	200	\$1,071,000	\$119,000
Wichita County*	6,600	5,000	\$28,453,000	\$3,161,000
Wilbarger County	800	600	\$3,214,000	\$357,000
Willacy County	1,500	1,100	\$6,235,000	\$693,000
Williamson County*	11,300	8,700	\$49,134,000	\$5,459,000
Wilson County	1,600	1,200	\$6,854,000	\$762,000
Winkler County	300	200	\$1,232,000	\$137,000
Wise County	2,700	2,000	\$11,459,000	\$1,273,000
Wood County	1,900	1,400	\$8,172,000	\$908,000
Yoakum County	300	200	\$1,317,000	\$146,000
Young County	900	700	\$3,885,000	\$432,000
Zapata County	1,100	800	\$4,479,000	\$498,000
Zavala County	900	700	\$3,936,000	\$437,000

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