2024

Regional Needs Assessment

REGION VII: BRAZOS VALLEY COUNCIL ON ALCOHOL AND SUBSTANCE ABUSE (BVCASA)

PREVENTION RESOURCE CENTER 7

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Executive Summary

What is the Regional Needs Assessment (RNA)?

The Prevention Resource Center's (PRC) RNA is a document created by Kevin Cunagin in PRC region 7 along with Data Coordinators from PRCs across the State of Texas and supported by Texas Health and Human Services Commission (HHSC). The PRC serves 30 counties in central-to-east Texas.

A needs assessment is the process of determining and addressing the gaps that exist between the current conditions and desired conditions in a set environment or demographic.[1] This assessment was designed to aid PRCs, HHSC, and community stakeholders in long-term strategic prevention planning based on the most current information about the unique needs of Texas' diverse communities. This document will present summary statistics of risk and protective factors associated with substance use, consumption patterns, and public health consequences. In addition, this report will offer insight on gaps in behavioral health promotion and substance use prevention services and data in Texas.

Who creates the RNA?

A team of Data Coordinators from all eleven PRCs has gathered national, state, regional, and local data through collaborative partnerships with diverse agencies from the CDC's twelve sectors for community change:

- Youth and young adults
- Parents
- Business communities
- Media
- Schools
- Organizations serving youth and young adults
- Law enforcement agencies
- Religious or fraternal organizations
- Civic or volunteer groups
- Healthcare professionals and organizations
- State, local, and tribal government agencies
- Other local organizations involved in promoting behavioral health and reducing substance use and non-medical use of prescription drugs, such as recovery communities, Education Services Centers, and Local Mental Health Authorities[2]

PRC Seven recognizes those collaborators who contributed to the creation of this RNA.

How is the RNA informed?

Qualitative data has been collected in the form of focus groups and interviews with key informants. Quantitative data has been collected from federal and state agencies to ensure reliability and accuracy.

[1] Watkins, R., et al. (2012).
[2] Centers for Disease Control and Prevention. (2021).

Main key findings from this assessment includes:

Demographics

With a growing and diverse population region 7 will have increasing challenges to face. A growing population, particularly in the urban areas will likely bring increase availability of substances. The diversity of the region's ethnicity also indicates a need for diverse outreach programs both in English and in Spanish as the Spanish speaking population grows. Additionally, the diversity of the rurality of the area will require variations in outreach for treatment and prevention.

Substance Use Behaviors

Alcohol, marijuana, and nicotine remain the main substances used in region 7 among youth, college, and adult populations. However, other substances remain constant with an increase of fentanyl deaths in the last few years indicating an underlying problem with opioids and fentanyl poisoned substances. Finally, age of first use for high school students who use has been consistent across the last few years, while actual use has been decreasing for high school students.

Underlying Risk Factors

The presence of numerous colleges suggests that a substantial portion of this use is exploratory rather than disordered. However, perception of risk remains a risk factor for youth use, particularly for the main 3 substances (alcohol, tobacco/vape, and marijuana). Unfortunately, youth that feel hopeless has been increasing in Texas which can lead to substance abuse if not treated. Finally, another risk factor is a low graduation rate which has been seen in several counties in region 7, most notably Mills.

Behavioral Health Disparities

Health disparities, particularly in terms of mental health providers, are most notable in the more rural counties which have far fewer services for mental health issues. Additionally, economic disparities can be readily seen from the median income maps.

Protective Factors and Community Strengths

There are numerous coalitions and services available in region 7, mostly around the major population centers in region 7. Certain counties in region 7 also have good social association rates which can be a major benefit to mental health. Due to the numerous colleges in this region there is also a high rate of graduate degrees in certain counties.

Introduction

The information presented in this RNA aims to contribute to program planning, evidence-based decision making, and community education. The RNA strives to increase knowledge of factors related to substance use and behavioral health. There are several guiding key concepts throughout the RNA, including a focus on the youth and young adult population and the use of an empirical, public health framework. All key concepts are outlined within their own respective sections later in this report.

The information in this needs assessment is based on three main data categories:

- Exploration of related risk and protective factors as defined by The Center for Substance Abuse Prevention (CSAP);
- Exploration of drug consumption trends of adolescents with a primary focus on the state-delineated prevention priorities of alcohol (underage drinking), tobacco/nicotine, marijuana, and non-medical use of prescription drugs; and
- Broader public health and public safety consequences that result from substance use and behavioral health challenges.

The report concludes with a collection of prevention resources in the region, an overview of the region's capacity to address substance use and other behavioral health challenges, and overall takeaways from the RNA.

Prevention Resource Centers (PRCs)

PRCs are funded by the Texas Health and Human Services Commission (HHSC) to provide data and information related to substance use and to support prevention collaboration efforts in the community. There is one PRC located in each of the eleven Texas Public Health Service Regions (see Figure 1) to provide support to prevention providers located in their region with data, trainings, media activities, and regional workgroups.

PRCs focus on the state's overall behavioral health and the four prevention priorities:

- Underage alcohol use;
- Underage tobacco and nicotine products use;
- Marijuana and other cannabinoids use; and
- Non-medical use of prescription drugs.

PRCs have four fundamental objectives:

- Collect data relevant to the state's prevention priorities, share findings with community partners, and ensure sustainability of a Regional Epidemiological Workgroup (REW) focused on identifying strategies related to data collection, gaps in data, and prevention needs;
- Coordinate regional behavioral health promotion and substance use prevention trainings;
- Promote substance use prevention and behavioral health promotion with media awareness activities; and
- Conduct voluntary compliance checks on tobacco and e-cigarette retailers and provide education on state tobacco laws to these retailers.

Regions

Figure 1. Map of Texas HHSC Public Health Regions serviced by a Prevention Resource Center:

Region 1	Panhandle and South Plains
Region 2	Northwest Texas
Region 3	Dallas/Fort Worth Metroplex
Region 4	Upper East Texas
Region 5	Southeast Texas
Region 6	Gulf Coast
Region 7	Central Texas
Region 8	Upper South Texas
Region 9	West Texas
Region 10	Upper Rio Grande
Region 11	Rio Grande Valley/Lower South Texas

Image courtesy of HHSC.

How PRCs Help the Community

PRCs provide information and education to other HHSC-funded providers, community groups, and other stakeholders through four core areas based around the four fundamental objectives: Data, Training, Media, and Tobacco. All the core areas work together to position the PRC as a regional hub of information and resources related to prevention, substance use, and behavioral health in general. PRCs work to educate the community on substance use and associated consequences through various data products, such as the RNA, media awareness activities, training, and retailer education. Through these actions, PRCs provide stakeholders with knowledge and understanding of the local populations they serve, help guide programmatic decision making, and provide community awareness and education related to substance use.

Data

The PRC Data Coordinators serve as a primary resource for substance use and behavioral health data for their region. They lead an REW, compile and synthesize data, and disseminate findings to the community. The PRC Data Coordinators also engage in building collaborative partnerships with key community members who aid in securing access to information. To accomplish this, Data Coordinators:

- Develop and maintain the REW;
- Conduct Key Informant Interviews (KII);
- Develop and facilitate at least one regionwide event based on RNA data findings;
- Conduct and attend meetings with community stakeholders to raise awareness and generate support to enhance data collection efforts of substance use and behavioral health data;
- Compile and synthesize data to develop an RNA to provide community organizations and stakeholders with region-specific substance use, behavioral health, and Social Determinants of Health (SDOH) information;
- Direct stakeholders to resources regarding data collection strategies and evaluation activities; and
- Disseminate findings to the community.

Training

The PRC Public Relations Coordinators are tasked with building the prevention workforce capacity through technical support and coordination of prevention trainings. To accomplish this, Public Relations Coordinators:

- Work directly with the HHSC-funded training entity to identify training and learning needs;
- Host and coordinate trainings for virtual and in-person trainings; and
- Provide monthly updates to HHSC-funded prevention providers within the region about the availability of substance use prevention trainings and related trainings offered by the HHSC-funded training entity and other community-based organizations.

Media

The PRC Public Relations Coordinators also use social and traditional media to increase the community's understanding of substance use prevention and behavioral health promotion. To accomplish this, Public Relations Coordinators:

- Promote consistent statewide messaging by participating in HHSC's statewide media campaign;
- Maintain organizational social media platforms required by HHSC to post original content, share other organizations' posts, and HHSC media; and
- Publicize prevention messages through media outlets including radio or television PSAs, media interviews, billboards, bus boards, editorials, or social media.

Tobacco

The PRC Tobacco Coordinators provide education and conduct activities that address retailer compliance with state law. The goal of these tobacco-related activities is to reduce minors' access to tobacco, e-cigarette, and other nicotine products. To accomplish this, Tobacco Coordinators:

- Conduct on-site, voluntary checks with tobacco and e-cigarette retailers in the region to verify compliance with state and federal regulations regarding proper signage and placement of tobacco and e-cigarette products;
- Provide education to tobacco and e-cigarette retailers in the region that require additional information on the most current tobacco and e-cigarette laws as they pertain to minor access;
- Conduct follow-up voluntary compliance visits with all tobacco and e-cigarette retailers who have been cited for violations of tobacco and e-cigarette regulations.

Regional Epidemiological Workgroups

Each Data Coordinator develops and maintains a Regional Epidemiological Workgroup (REW) to identify substance use patterns focused on the State's four prevention priorities at the regional, county, and local level. Members of the REW are stakeholders that represent all twelve of the community sectors (see *Stakeholders/Audience* section below for these) and different geographic locations within that region. The REW also works to identify regional data sources, data partners, and relevant risk and protective factors. Information relevant to identification of data gaps, analysis of community resources and readiness, and collaboration on region-wide efforts comes directly from those participating in the REWs. A minimum of

four REW meetings are conducted each year to provide recommendations and develop strong prevention infrastructure support at the regional level.

The Regional Needs Assessment (RNA)

Purpose/Relevance of the RNA

A needs assessment broadly is a systematic process for determining and addressing the gaps that exist between current conditions and desired conditions.[3] This RNA is a specific needs assessment that provides community organizations and stakeholders with region-specific substance use and related behavioral health information. At the broadest level, the RNA can show patterns of substance use among adolescents and adults, monitor changes in substance use trends over time, and identify substance use and behavioral health issues that are unique to specific communities. It provides data to local providers to support grant-writing activities and provide justification for funding requests and to assist policymakers in program planning and policy decisions regarding substance use prevention, intervention, and treatment. The RNA can also highlight gaps in data where critical substance use and behavioral health information is missing. It is a comprehensive tool for local providers to design relevant, data-driven prevention and intervention programs tailored to specific needs through the monitoring of county-level differences and disparities. Figure 2 below shows a visual representation of the overall steps and process of creating the RNA.

Figure 2. Steps, Processes, and Stakeholders Involved for RNA Creation

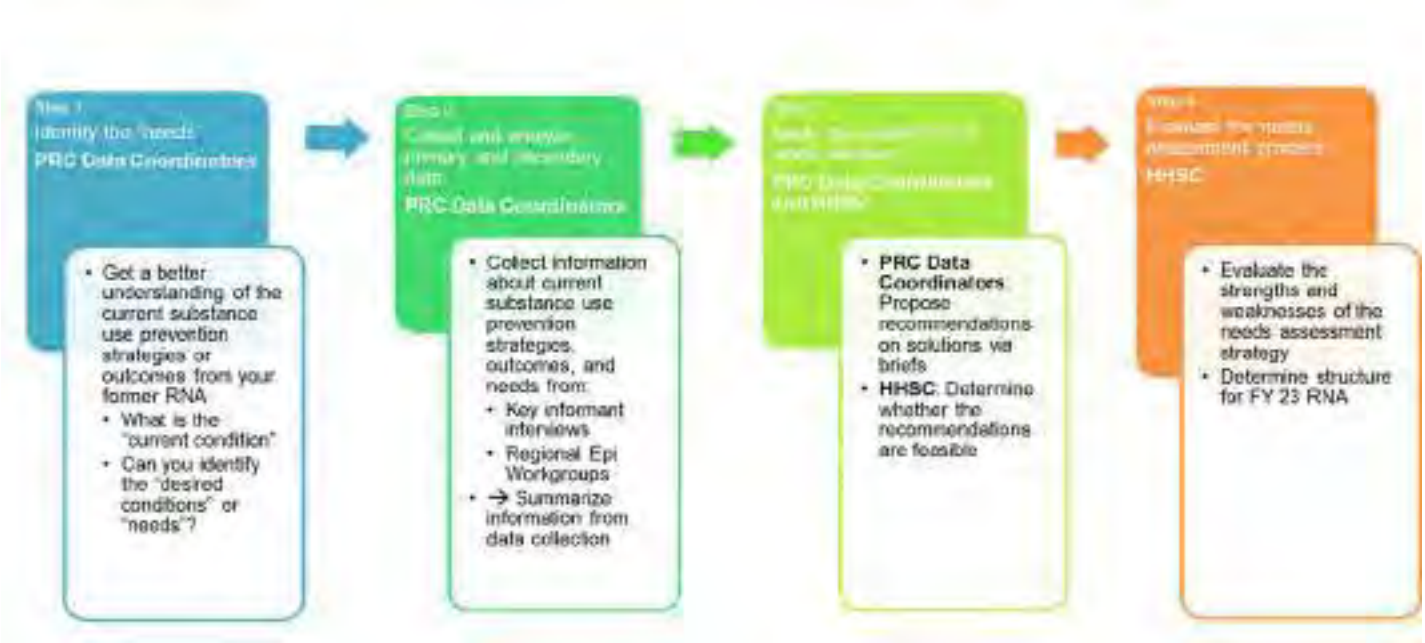


Image courtesy of HHSC.

Stakeholders/Audience

Stakeholders can use the information presented in this report to contribute to program planning, evidence-based decision making, and community education. The executive summary found at the

[3] Watkins, R., et al. (2012).

beginning of this report provides highlights of the report for those seeking a brief overview. Since readers of this report will come from a variety of backgrounds, a glossary of key concepts can be found at the end of this needs assessment. The core of the report focuses on risk factors and protective factors, consumption patterns, and public health and safety consequences.

Stakeholders within the twelve sectors both contribute to the RNA and benefit from the information within. These stakeholders participate in focus groups, qualitative interviews, Epi-Workgroup meetings, and collaborations with the PRC. Qualitative interviews were completed within all twelve community sectors in 2022 and 2023.[4] The information gathered in these interviews was compiled to create the 2022 RNA and will be utilized in the 2023 RNA. These twelve sectors are:

- youth and young adults
- parents
- business communities
- media
- schools
- organizations serving youth and young adults
- law enforcement agencies
- religious or fraternal organizations
- civic or volunteer groups
- healthcare professionals and organizations
- state, local, and tribal government agencies
- and other local organizations involved in promoting behavioral health and reducing substance use and non-medical use of prescription drugs such as recovery communities, Education Services Centers, and Local Mental Health Authorities

Each sector has a unique knowledge of substance use along with risk and protective factors in their communities.

Regionwide Event

The Region 7 PRC was tasked by HHSC to develop and facilitate at least one region-wide event based on RNA data findings to bring targeted communities and stakeholders together to educate and promote collaboration on substance use related issues. The Region 7 PRC was tasked by HHSC to develop and facilitate at least one region-wide event based on RNA data findings to bring targeted communities and stakeholders together to educate and promote collaboration on substance use related issues. Region 7 uses its region wide event to disseminate information to as many counties and coalitions as possible as well as to highlight the regional epidemiological workgroup. This year the epi workgroup has focused on smaller data deliverables as well as encouraging coalition collaborations within region 7.

[4] Centers for Disease Control and Prevention. (2021).

Methodology

This needs assessment reviews behavioral health data on substance use, substance use disorders, related risk and protective factors, and other negative public health and safety consequences that will aid in substance use prevention decision making at the county, regional, and state level.

Conceptual Framework

The overall conceptual framework for this report is the use of epidemiological data to show the overall distribution of certain indicators that are associated with substance use and behavioral health challenges. Broadly, these indicators consist of documented risk and protective factors, such as the Social Determinants of Health (SDOH), Adverse Childhood Experiences (ACEs), and Positive Childhood Experiences (PCEs); consumption patterns; and public health and safety consequences related to substance use and behavioral health challenges. The indicators are organized by the domains (or levels) of the Social Ecological Model (SEM). To aid in strategic prevention planning, the report attempts to identify behavioral health disparities and inequities present in the region. For more information on these various frameworks and concepts, please see the "Key Concepts" section later in this report.

Process

PRCs collaborate with HHSC's Data Specialist in the Prevention and Behavioral Health Promotion Unit, other PRC Data Coordinators, other HHSC staff, and regional stakeholders to develop a comprehensive data infrastructure for each PRC region.

HHSC staff met with the Data Coordinators via monthly conference calls to discuss the criteria for processing and collecting data. Primary data was collected from a variety of community stakeholders, and secondary data sources were identified as a part of the methodology behind this document. Readers can expect to find information from secondary data sources such as: the U.S. Census, American Community Survey, Texas Department of State Health Services, Texas Department of Public Safety, Texas School Survey of Drug and Alcohol Use, among others.

Quantitative Data Selection

Quantitative data refers to any information that can be quantified, counted, or measured, and given a numerical value. Quantitative data tells how many, how much, or how often and is gathered by measuring and counting then analyzing using statistical analysis. Quantitative indicators were selected after doing a literature review on causal factors and consequences that are most related to substance use and non-medical use of prescription drugs. Data sets were selected based on relevance, timeliness, methodological soundness, representativeness, and accuracy. Data used in this report was primarily gathered through established secondary sources including federal and state government agencies to ensure reliability and accuracy. Region-specific quantitative data collected through local law enforcement, community coalitions, school districts, and local-level governments is included to address the unique regional needs of the community.

While the data selection process was heavily informed by research and evidence on substance use, we caution readers against drawing any firm conclusions about the causes and consequences of substance use from the data reported here. The secondary data we have compiled does not necessarily show a direct causal relationship between these factors, substance use, and consequences for the community.

Longitudinal Data

To capture a richer depiction of possible trends in the data, multi-year data, referred to as longitudinal data, is reported where it is available from respective sources. Longitudinal data in this needs assessment consist of the most recently available data going back to 2018. For each indicator, there are a different number of data points due to differing frequencies of data collection. However, data from before 2018 will not be included in this needs assessment regardless of the number of data points available. Efforts are also made to present state-level data for comparison purposes with regional and county data. In some instances, there will be data gaps, and this is generally because the data was not available at the time of the data request.

COVID-19 and Data Quality

One of the many impacts of the COVID-19 pandemic was a direct negative effect on the data collection efforts of many organizations and agencies. This in turn has left a lasting mark on the validity and reliability of any data that was collected during this time. While this report will include data from the time of COVID-19, primarily the years of 2020 and 2021, it is important to keep in mind that these data points may not be truly accurate of what was going on during that time. As such, no firm conclusions should be drawn from data collected during those years and we caution again making direct comparisons of these years with the other years presented in this report, namely 2018 and 2022.

Texas School Survey (TSS) and Texas College Survey (TCS)

The primary sources of quantitative data for substance use behaviors for this report are the Texas School Survey of Drug and Alcohol Use (TSS) and the Texas College Survey of Substance Use. TSS collects self-reported substance use data among students in grades 7 through 12 in Texas public schools while TCS collects similar information from college students across Texas. This includes tobacco, alcohol, marijuana, non-medical use of prescription drugs, and use of other illicit drugs. The surveys are sponsored by HHSC and administered by staff from the Department of Public Service and Administration (PSAA) at Texas A&M University. For TSS, PSAA actively recruits approximately 20% of Texas public schools with grades 7 through 12 to participate in the statewide assessment during the spring of even-numbered years. For TCS, PSAA recruits from a variety of college institutions including both 2-year colleges and 4-year colleges. They administer the assessment every odd-numbered year.

It is important to note that during the 2019-2020 school year, schools across Texas were closed from early March through the end of the school year due to the COVID-19 pandemic. Due to this sudden and unexpected closure, many schools that had registered for the survey were unable to complete it. Please note that both the drop in participation along with the fact that those that did complete did so before March may have impacted the data. Figures 3 and 4 on the following page provide more detail on context on recruitment and the number of usable surveys from 2018 through 2022, showcasing how 2020 caused a sizable drop in both campuses that participated and in usable surveys.

Table 1. Number of Usable Surveys Included in State Sample for Texas School Survey 2018-2022

Number of Surveys Included in State Sample for TSS							
Report Year	**Original Campuses Selected**	**Campuses Signed Up to Participate**	**Actual Participating Campuses**	**Total Non-Blank Surveys**	**Usable Surveys**	**Number Rejected**	**Percent Rejected**
2022	711	232	164	43,010	42,199	811	1.89%
2020	700	224	107	28,901	27,965	936	3.2%
2018	710	228	191	62,620	60,776	1,884	2.9%

Information in these tables is from the Methodology Reports for the 2018, 2020, and 2022 Texas School Survey. These reports can be accessed here: https://www.texasschoolsurvey.org/Report.

Table 2. Texas School Survey Distribution Across Grades in 2020 and 2022

	Survey Distribution TSS 2022		Survey Distribution TSS 2020		Difference Between 2020* and 2022 TSS
Grade	**# of Usable Surveys**	**%**	**# of Usable Surveys**	**%**	**# of Usable Surveys**
Grade 7	10,759	25.5%	6,414	22.9%	4,345
Grade 8	11,056	26.2%	6,472	23.1%	4,584
Grade 9	5,345	12.7%	4,189	15.0%	1,156
Grade 10	5,268	12.5%	4,119	14.8%	1,149
Grade 11	4,948	11.8%	3,556	12.7%	1,392
Grade 12	4,823	11.4%	3,215	11.5%	1,608
Total	**42,199**	**100.0%**	**27,965**	**100.0%**	**14,234**

Information in these tables is from the Methodology Reports for the 2018, 2020, and 2022 Texas School Survey. These reports can be accessed here: https://www.texasschoolsurvey.org/Report.

Qualitative Data Selection

Qualitative data is descriptive in nature and expressed in terms of language, interpretation, and meaning rather than numerical values and categorized based on traits and characteristics. Qualitative data tells the why or how behind certain behaviors by describing certain attributes and is gathered through observation and interviews then analyzed by grouping data into meaningful themes or categories.

Data Coordinators conducted key informant interviews with community members about what they believe their greatest needs and resources are in the region. These qualitative data collection methods

provide additional context and nuance to the secondary data and often reveal additional potential key informants and secondary data sources.

Key Informant Interviews

Data Coordinators conducted Key Informant Interviews (KII) with stakeholders that represent the twelve community sectors (please see the prior Stakeholders/Audience section in the Introduction for a table of these sectors) across each region. Most of these interviews occurred between September of 2021 and August of 2022 and a few others up through August of 2023.

Key Informants are individuals with specific local knowledge about certain aspects of the community because of their professional background, leadership responsibilities, or personal experience. Compared to quantitative data, the format of interviewing allows the interviewer to ask more open-ended questions and allows the Key Informant to speak rather than filling in pre-selected options. This results in data with richer insights and more in-depth understanding and clarification. The interviews focused on the informant's perceptions of their communities' greatest resources and needs and to determine how their communities are affected by substance use and behavioral health challenges.

Each participant was asked the following questions:

1. What substance use concerns do you see in your community?
    a. What do you think are the greatest contributing factors, and what leads you to this conclusion?
    b. What do you believe are the most harmful consequences of substance use/misuse, and what leads you to this conclusion?
2. How specifically does substance use affect the (insert sector here) sector?
3. What substance use and misuse prevention services and resources are you aware of in your community?
    a. What do you see as the best resources in your community?
    b. What services and resources does your community lack?
4. What services and resources specifically dedicated to promoting mental and emotional wellbeing are you aware of in your community?
    a. What do you see as the best resources in your community?
    b. What services and resources does your community lack?
5. What information does the (insert sector here) sector need to better understand substance use/misuse and mental and emotional health in your community?
6. What other questions should we be asking experts in this area?

Once the KII was complete, the Data Coordinator transcribed the audio from the interviews and then analyzed the data. This involved categorizing the information by topics and themes and looking for patterns across the interviews.

Key Concepts

Epidemiology

Epidemiology is defined as the study (scientific, systematic, and data-driven) of the distribution (frequency, pattern) and determinants (causes, risk factors) of health-related states or events (not just diseases) in specified populations (neighborhood, school, city, state, country, global). It is also the application of this study to the control of health problems.[5] This definition provides the theoretical framework that this assessment uses to discuss the overall impact of substance use. Epidemiology frames substance use as a preventable and treatable public health concern. The Substance Abuse and Mental Health Services Administration (SAMHSA), the main federal authority on substance use, utilizes epidemiology to identify and analyze community patterns of substance use and the contributing factors influencing this behavior.

Risk and Protective Factors

One component shared by effective prevention programs is a focus on risk and protective factors that influence adolescents. Protective factors are characteristics associated with a lower likelihood of negative outcomes or that reduce a risk factor's impact. Examples include strong and positive family bonds, parental monitoring of children's activities, and access to mentoring. Risk factors are characteristics at the biological, psychological, family, community, or cultural level that precede and are associated with a higher likelihood of negative outcomes. Examples include unstable home environments, parental use of alcohol or drugs, parental mental illness, poverty, and failure in school performance. Risk and protective factors can exist in any of the domains of the Socio-Ecological Model, described more in the following section.[6]

Social-Ecological Model

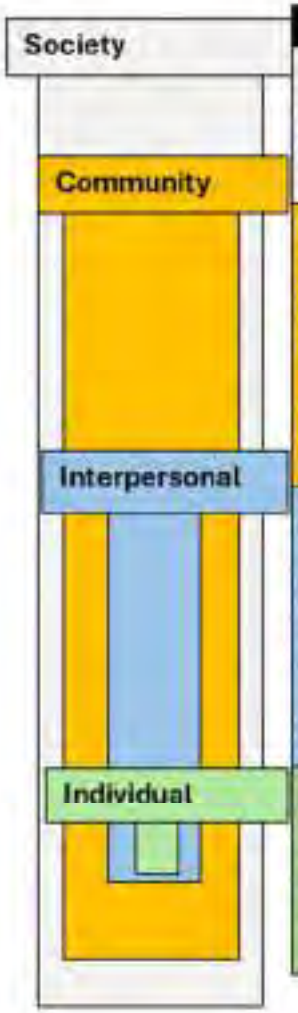
The Socio-Ecological Model (SEM) is a conceptual framework developed to better understand the multidimensional risk and protective factors that influence health behavior and to categorize health intervention strategies.[7] This RNA is organized using the four domains of the SEM (See Figure 2)[8] as described below:

- Societal Domain – Social and cultural norms, policies, and socio-demographics such as the economic status of the community and legislation about the availability of different substances.
- Community Domain – Social and physical factors that indirectly influence youth including educational attainment of the community and community levels of poverty, community environments that youth engage with like school or religious institutions, and community conditions like the physical built environment, the health care/service system, and retail access to substances.

[5] Centers for Disease Control and Prevention. (2012).
[6] Substance Abuse and Mental Health Services. (2019).
[7] Centers for Disease Control and Prevention. (2022a).
[8] Adapted from: D'Amico, EJ, et al. (2016).

- Interpersonal Domain – Social factors and experiences that impact youth including their peer groups at school, friends, family conditions, perceptions of parental attitudes about substance use, perceptions of peer consumption, and perceptions about ease of access to substances

Figure 2. Social-Ecological Model for Substance Use, with Examples



Risk Factors	Protective Factors
• Impoverishment • Unemployment and underemployment • Discrimination • Pro-AOD-use messages in the media	• Media literacy (resistance to pro-use messages) • Decreased accessibility • Increased pricing through taxation • Raised purchasing age and enforcement • Stricter driving-under-the-influence laws
• Availability of AOD • Community laws; norms favorable toward AOD • Extreme economic and social deprivation • Transition and mobility • Low neighborhood attachment and community disorganization • Academic failure beginning in elementary school • Low commitment to school	• Opportunities for participation as active members of the community • Decreasing AOD accessibility • Cultural norms that set high expectations for youth • Social networks and support systems within the community • Opportunities for prosocial involvement • Rewards/recognition for prosocial involvement • Healthy beliefs and clear standards for behavior • Caring and support from teachers and staff • Positive instructional climate
• Family history of AOD use • Family management problems • Family conflict • Parental beliefs about AOD • Association with peers who use or value AOD use • Association with peers who reject mainstream activities and pursuits • Susceptibility to negative peer pressure • Easily influenced by peers	• Bonding (positive attachments) • Healthy beliefs and clear standards for behavior • High parental expectations • A sense of basic trust • Positive family dynamics • Association with peers who are involved in school, recreation, service, religion, or other organized activities • Resistance to negative peer pressure • Not easily influenced by peers
• Biological and psychological dispositions • Positive beliefs about AOD use • Early initiation of AOD use • Negative relationships with adults • Risk-taking propensity/impulsivity	• Opportunities for prosocial involvement • Rewards/recognition for prosocial involvement • Healthy beliefs and clear standards for behavior • Positive sense of self • Negative beliefs about AOD • Positive relationships with adults

The SEM proposes that behavior is impacted by all these levels of influence, from the intrapersonal to the societal, and that prevention and health promotion programs become more effective when they intervene at multiple levels. Changes at the societal and community levels will create change in individuals, and the support of relevant stakeholders and community leaders in the population is essential for implementing environmental change at the community and societal level.

Social Determinants of Health (SDOH)

The U.S. Department of Health and Human Services, Health People 2030 defines the SDOH as the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.[9] The SDOH are grouped into 5 domains (see Figure 3): economic stability, education access and quality, health care access and quality, neighborhood and built environment, and social and community context. SDOH's have a major impact on health, well-being, and quality of life, and they also contribute to health disparities and inequities.

Figure 3. Social Determinants of Health

Healthy People 2030, U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved 6/8/2023 from https://health.gov/healthypeople/objectives-and-data/social-determinants-health

[9] Healthy People 2030, U.S. Department of Health and Human Services, Offices of Disease Prevention and Health Promotion. (2023).

Adolescence

The American Psychological Association defines "adolescence" as a part of human development which begins at puberty (10-12 years of age) and ends with physiological and neurobiological maturity, reaching to at least 20 years of age. Brain development continues into an individual's mid-twenties. Adolescence is a period of major changes in physical characteristics along with significant effects on body image, self-concept, and self-esteem. Mental characteristics are also developing during this time. These include abstract thinking, reasoning, impulse control, and decision-making skills.[10] The World Health Organization (WHO) adds this period of growth poses a critical point in vulnerability where the non-medical use of substances, or other risky behaviors can have long-lasting negative effects on future health and well-being.[11]

A similar but slightly different term that is used in the justice system is "juvenile." The Texas Juvenile Justice System defines a juvenile as a person at least 10 years old but not yet 17 at the time he or she commits an act of "delinquent conduct" or "conduct in need of supervision".[12] Delinquent conduct is generally conduct that could result in imprisonment or jail if committed by an adult. Conduct in Need of Supervision for juveniles includes truancy and running away from home. In the context of some indicators, juvenile will be used instead of adolescent to more precisely define the population of interest.

Adverse Childhood Experiences (ACEs)

The CDC-Kaiser Permanente adverse childhood experiences (ACE) study from 1998 is one of the largest investigations of childhood abuse, neglect, and household challenges, and the effects on health and well-being later in life.[13] ACEs are events that occur in children 0-17 years of age. The ACE questionnaire asks about experiences such as childhood abuse, neglect, and household dysfunction across seven different categories. The study showed that individuals with a score of 4 or more (meaning they experienced at least one event in four of the seven categories) have an increased risk for:

- Smoking, heavy alcohol use, and SUDs
- Mental health issues, such as depression and suicidal behavior
- Poor self-rated health
- Sexually transmitted disease
- Challenges with obesity and physical inactivity
- Heart disease
- Lung disease
- Risk for broken bones

[10] American Psychological Association. (2023).
[11] World Health Organization. (2023).
[12] Texas Juvenile Justice Department. (2022).
[13] Felitti, VJ, et al. (1998).

- Multiple types of cancer

The study also showed that there is a dose-response relationship where experiencing ACEs in more categories is directly linked with an increasing risk for the above physical and behavioral health concerns. ACEs can also negatively impact job opportunities, education, and earning potential.

ACEs are common with the CDC reporting that approximately 61% of adults have experienced at least one type of ACE before the age of 18, and 1 in 6 reports having 4 or more. Women and other marginalized groups are at a higher risk for experiencing 4 or more types of ACEs. ACEs can, however, be prevented by creating safe, stable, and healthy relationships and environments. Preventing ACEs requires understanding and addressing the risk and protective factors that make these experiences more likely to occur.[14] Figure 4 below describes the potential health and socioeconomic benefits in adulthood that could come from preventing ACEs in childhood.

Figure 4. Potential reduction of negative outcomes in adulthood from preventing ACEs in childhood.

Accessed from: https://www.cdc.gov/vitalsigns/aces/pdf/vs-1105-aces-H.pdf. Original source: BRFSS 2015-2017, 25 states, CDC Vital Signs, November 2019.

Positive Childhood Experiences (PCEs)

Unlike ACEs which have been researched for decades, Positive Childhood Experiences are still a relatively new and explored aspect of prevention. Dr. Christina Bethell from Johns Hopkins, one of the leading researchers on Positive Childhood Experiences (PCEs), defines a positive childhood experience as "feeling

[14] Centers for Disease Control and Prevention. (2022b).

safe in our families to talk about emotions and things that are hard and feeling support during hard times."[15] Dr. Bethell and her colleagues conducted a similar study to the ACEs study in 2019 to determine the health impacts of positive childhood experiences. In this study, they identified seven distinct PCEs:

1. The ability to talk with family about feelings.
2. The sense that family is supportive during difficult times.
3. The enjoyment of participating in community traditions.
4. Feeling a sense of belonging in high school (this did not include those who did not attend school or were home schooled).
5. Feeling supported by friends.
6. Having at least 2 non-parent adults who genuinely cared about them.
7. Feeling safe and protected by an adult in the home.[16]

The researchers used data from adults who responded to the 2015 Wisconsin Behavioral Risk Factor Survey (BRFS) and, like the ACEs study, also found that PCEs have a dose-response relationship with adult mental and behavioral health meaning that experiencing more PCEs was associated with better outcomes. This included a lower odd of depression and poor mental health and increased odds of reporting high amounts of social and emotional support in adulthood. The protective effects of PCE's remained even after adjusting for ACEs suggesting that promotion of PCEs may have a positive lifelong impact despite co-occurring adversities such as ACEs.[17]

Consumption Patterns

This needs assessment follows the example of the Texas School Survey (TSS), the Texas Youth Risk Surveillance System (YRBSS), and the National Survey on Drug Use and Health (NSDUH), by organizing consumption patterns into three categories:

- lifetime use (has tried a substance, even if only once)
- school year use (past year use when surveying adults or youth outside of a school setting)
- current use (use within the past 30 days)

These three consumption patterns are used in the TSS to elicit self-reports from adolescents on their use of tobacco, alcohol, marijuana, and other illicit drugs, and their non-medical use of prescription drugs. The TSS therefore serves as the primary outcome measure of Texas youth substance use in this needs assessment.

[15] Kreitz, M. (2023).
[16] Pinetree Institute. (2023).
[17] Bethell, C. et al. (2019).

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PART II – GEOGRAPHICAL AREA AND COMMUNITY DEMOGRAPHICS

Regional Demographics

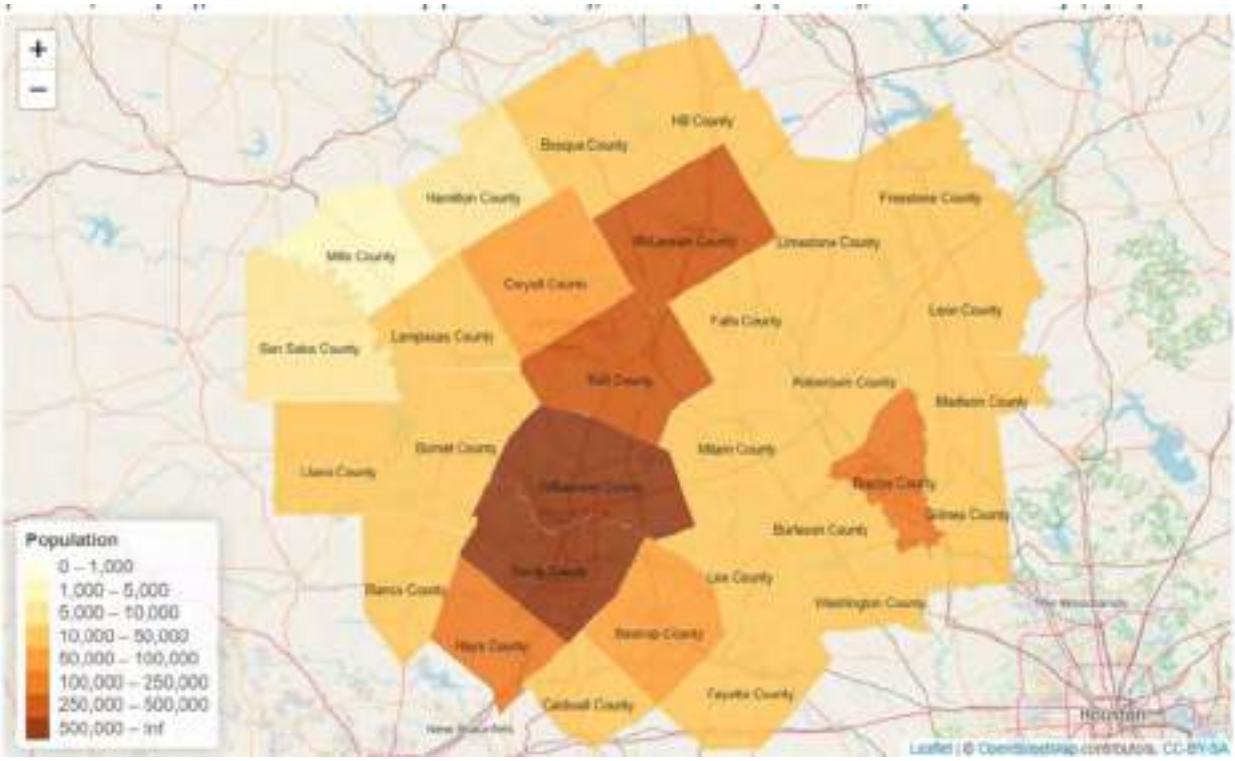
Overview of Region Geographic Boundaries

In general, Texas is a state of vast land area and a rapidly growing population, second only to Alaska in land mass and second in population to California. Public Health Region 7 (PHR7) sits in the center of Texas and includes 30 counties major metropolitan areas like Austin, as well as very rural counties like San Saba. In the middle of Texas region 7 sits between region 6's major metropolitan area (Houston), region 8's major metropolitan area (San Antonio), and region 3's major metropolitan area (Dallas/Fort Worth). This leads to an interesting mix of demographics due to region 7 being a mixture of rural and urban as well as notable issues stemming from its inclusion of numerous large highways between large metropolitan areas.

Counties In region 7

Region 7 is comprised of: Bastrop, Bell, Blanco, Bosque, Brazos, Burleson, Burnet, Caldwell, Coryell, Falls, Fayette, Freestone, Grimes, Hamilton, Hays, Hill, Lampasas, Lee, Leon, Limestone, Llano, McLennan, Madison, Milam, Mills, Robertson, San Saba, Travis, Washington, and Williamson. Of these counties the bulk of the population of this region is in Travis, Brazos, Bell, McLennan, Hays, and Williamson. Major population centers for Region 7 are Austin, Round Rock, Waco, San Marcos, and

Bryan/ College Station. 27 Major Metropolitan Areas (i.e., Concentrations of populations) Major metropolitan areas can be seen in the map below which maps out the populations of the various counties. In Region 7 the main population centers are Brazos County (Bryan/College Station), Bell county (Killeen, Temple), Williamson county (Round Rock), Travis county (Austin), and Hays county (Kyle).



Demographic Information

Further data not included in the body of the report lies in the Appendix. Demographic information is largely derived from the 2022 American Community Survey, conducted by the Census Brueau.

Table II.1.b.i. simply shows the total population of each county, as aligned with the map above. Major anomalies in population by sex are Falls and Llano counties, where the ratio of men to women is about .9, and Madison county, where the ratio is 1.3. The biggest standout in ethnicity distribution is Hays county, with an unusually high number of people reporting as Hispanic or Latino. Travis, Williamson, and Bastrop counties also have high Hispanic populations, plus some of the much smaller counties (notably Caldwell) being majority Hispanic.

Most counties have fewer than 20% single-parent housholds. Exceptions are Bell, Brazos, Freestone, Hill, Limestone, Llano, and Mills. Almost no counties have a substantial proportion of *male* single parent households, with Falls, Milam, and Lee being unusual in this regard.

Total Population

Bastrop	98435	Hill	36138
Bell	372821	Lampasas	21829
Blanco	11608	Lee	17543
Bosque	18404	Leon	15928

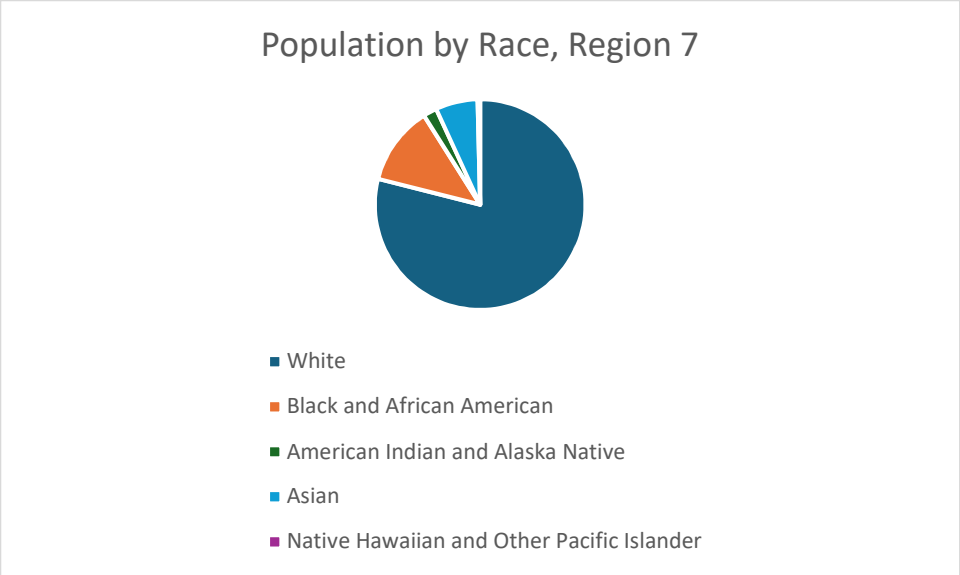
Brazos	234548	Limestone	22222
Burleson	17958	Llano	21637
Burnet	49684	McLennan	261090
Caldwell	46141	Madison	13556
Coryell	82927	Milam	25080
Falls	17013	Mills	4501
Fayette	24564	Robertson	16912
Freestone	19599	San Saba	5779
Grimes	29442	Travis	1289054
Hamilton	8244	Washington	35807
Hays	245351	Williamson	617396

Population by Sex and Age

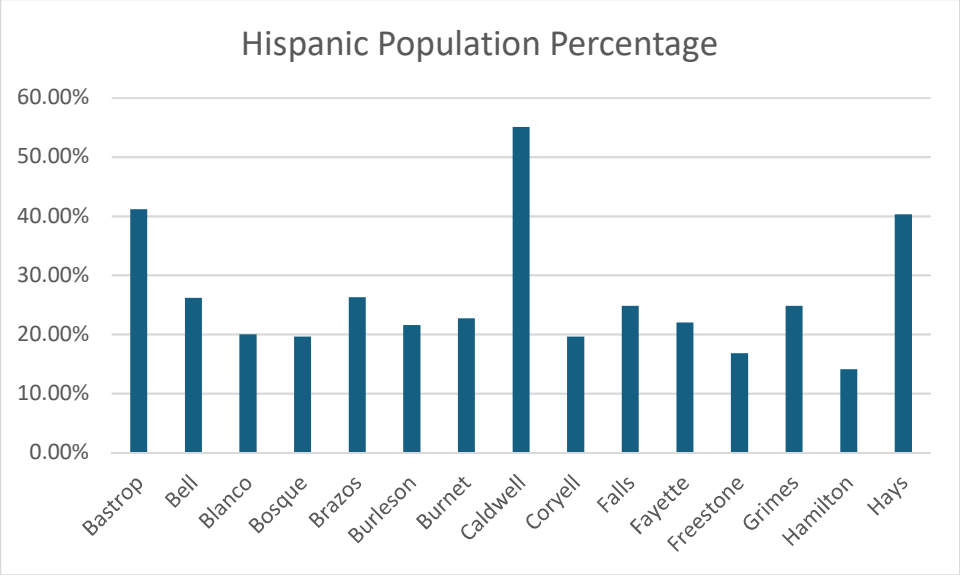
county	fips_code	estimate	estimate_TotalPop_Male	estimate_TotalPop_Female
Bastrop	48021	98435	49988	48447
Bell	48027	372821	186259	186562
Blanco	48031	11608	5853	5755
Bosque	48035	18404	9135	9269
Brazos	48041	234548	118812	115736
Burleson	48051	17958	8767	9191
Burnet	48053	49684	24537	25147
Caldwell	48055	46141	23228	22913
Coryell	48099	82927	42084	40843
Falls	48145	17013	8065	8948
Fayette	48149	24564	12244	12320
Freestone	48161	19599	10221	9378
Grimes	48185	29442	15894	13548
Hamilton	48193	8244	4103	4141
Hays	48209	245351	122589	122762
Hill	48217	36138	18161	17977
Lampasas	48281	21829	11019	10810
Lee	48287	17543	8665	8878
Leon	48289	15928	7918	8010
Limestone	48293	22222	11315	10907
Llano	48299	21637	10332	11305
Madison	48313	13556	7679	5877
McLennan	48309	261090	128169	132921
Milam	48331	25080	12359	12721
Mills	48333	4501	2279	2222
Robertson	48395	16912	8398	8514
San Saba	48411	5779	3086	2693
Travis	48453	1289054	658063	630991

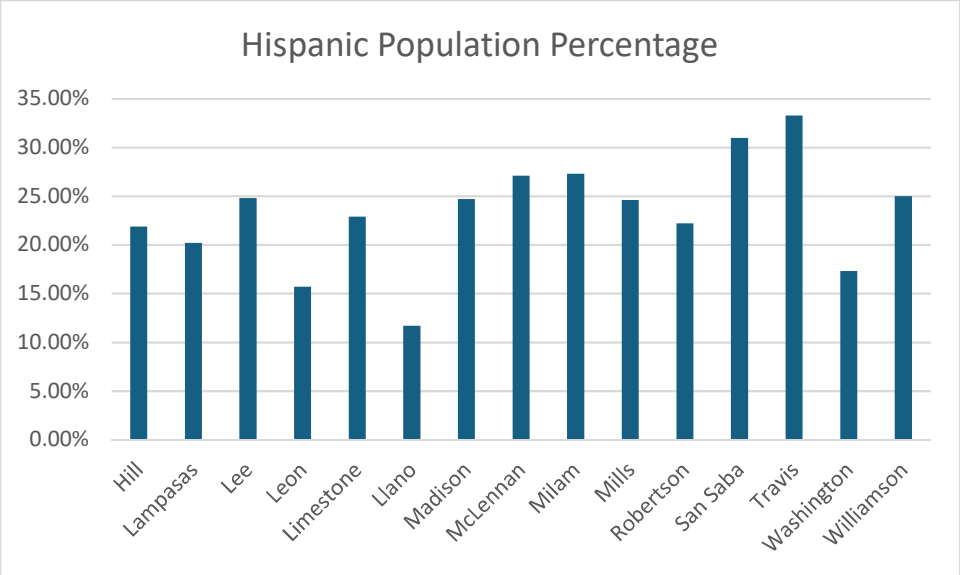
Washington	48477	35807	17609	18198
Williamson	48491	617396	307076	310320

Population by Race Alone and In Combo



Population by Ethnicity by Race



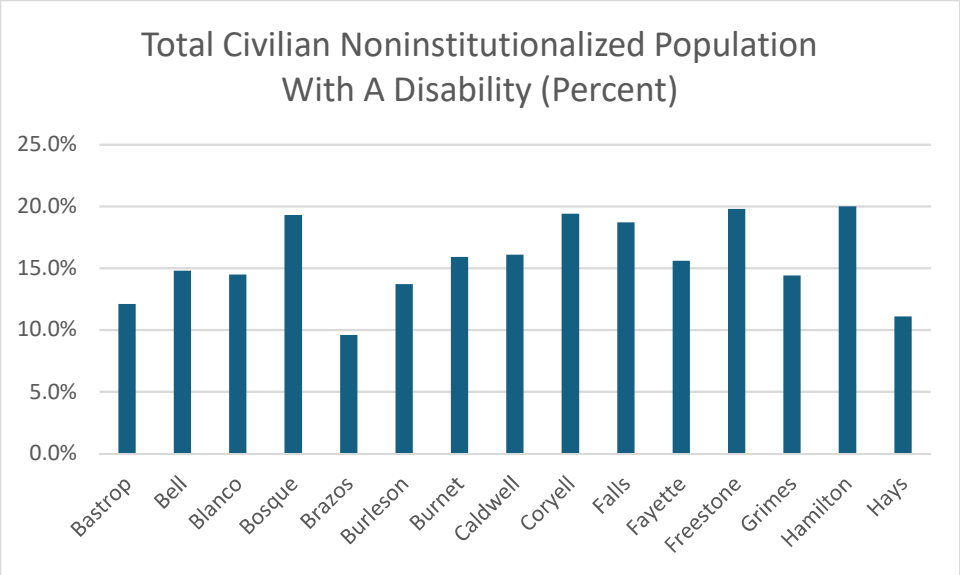


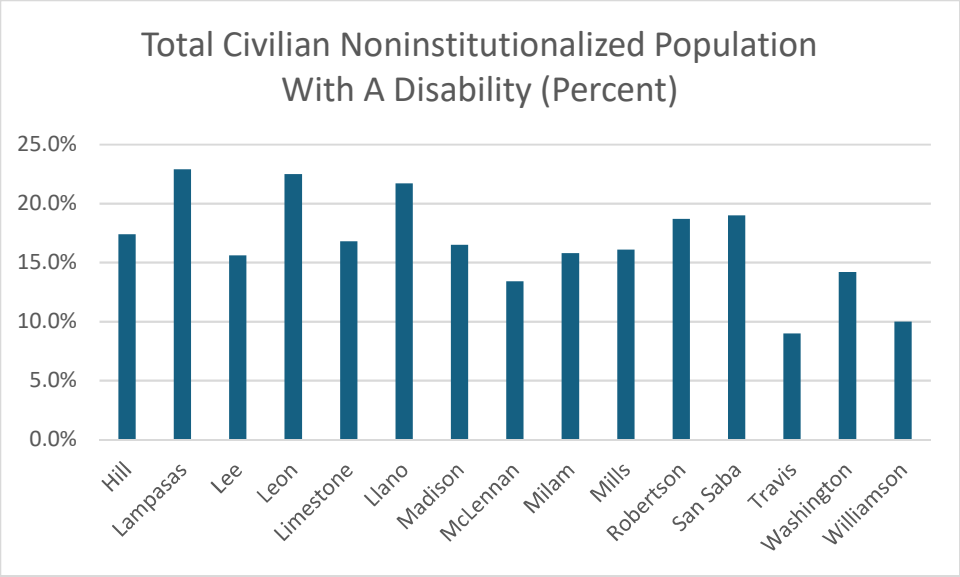
Household Composition

Report Area	Male householder, no spouse/partner present with children of the householder under 18 years (Percent of All Households with Children)	Female householder, no spouse/partner present with children of the householder under 18 years (Percent of All Households with Children)	Percent of Total Households with Children under 18 with a Single Parent
Bastrop	2.79%	11.83%	14.63%
Bell	4.50%	24.49%	28.99%
Blanco	1.87%	12.41%	14.29%
Bosque	0.77%	12.43%	13.20%
Brazos	3.55%	20.52%	24.07%
Burleson	0.95%	9.94%	10.88%
Burnet	3.17%	12.40%	15.57%
Caldwell	1.92%	14.12%	16.04%
Coryell	3.67%	15.86%	19.54%
Falls	5.70%	9.21%	14.90%
Fayette	2.45%	12.48%	14.93%
Freestone	2.80%	19.66%	22.46%
Grimes	3.75%	16.41%	20.16%
Hamilton	7.68%	17.13%	24.82%
Hays	4.38%	10.63%	15.01%
Hill	2.70%	17.27%	19.97%
Lampasas	1.91%	14.45%	16.36%
Lee	4.76%	11.22%	15.98%

Leon	2.19%	15.73%	17.93%
Limestone	6.76%	20.22%	26.98%
Llano	5.97%	20.00%	25.97%
Madison	1.11%	17.91%	19.02%
McLennan	4.11%	20.11%	24.21%
Milam	5.73%	11.41%	17.14%
Mills	14.76%	15.50%	30.26%
Robertson	2.84%	22.80%	25.64%
San Saba	0.00%	12.89%	12.89%
Travis	3.65%	14.33%	17.97%
Washington	4.05%	11.81%	15.86%
Williamson	3.44%	11.34%	14.78%

Percent of Population with a Disability





LGBTQ

LGBTQ population of Texas is approximately 1,071,300 per 2021 BRFSS data,

Limited English Speaking Households

Report Area	Year (5-year Estimates)	Region	Total Households (Count)	Total Limited English-Speaking Households (Count)	Total Limited English-Speaking Households (Percent)
Bastrop	2022	7	33,259	1,132	3.4%
Bell	2022	7	134,495	3,575	2.7%
Blanco	2022	7	4,836	75	1.6%
Bosque	2022	7	7,277	109	1.5%
Brazos	2022	7	86,289	3,619	4.2%
Burleson	2022	7	7,586	229	3.0%
Burnet	2022	7	18,629	160	0.9%
Caldwell	2022	7	15,087	1,044	6.9%
Coryell	2022	7	25,156	510	2.0%
Falls	2022	7	5,499	128	2.3%
Fayette	2022	7	9,310	35	0.4%
Freestone	2022	7	6,701	54	0.8%
Grimes	2022	7	9,769	341	3.5%
Hamilton	2022	7	3,131	15	0.5%
Hays	2022	7	89,328	3,032	3.4%

Hill	2022	7	13,390	299	2.2%
Lampasas	2022	7	7,934	70	0.9%
Lee	2022	7	6,313	289	4.6%
Leon	2022	7	6,397	135	2.1%
Limestone	2022	7	8,195	249	3.0%
Llano	2022	7	9,612	78	0.8%
McLennan	2022	7	94,985	5,793	6.1%
Madison	2022	7	4,081	126	3.1%
Milam	2022	7	9,767	476	4.9%
Mills	2022	7	1,833	21	1.1%
Robertson	2022	7	6,309	121	1.9%
San Saba	2022	7	2,014	49	2.4%
Travis	2022	7	538,109	27,123	5.0%
Washington	2022	7	14,482	258	1.8%
Williamson	2022	7	229,906	7,206	3.1%

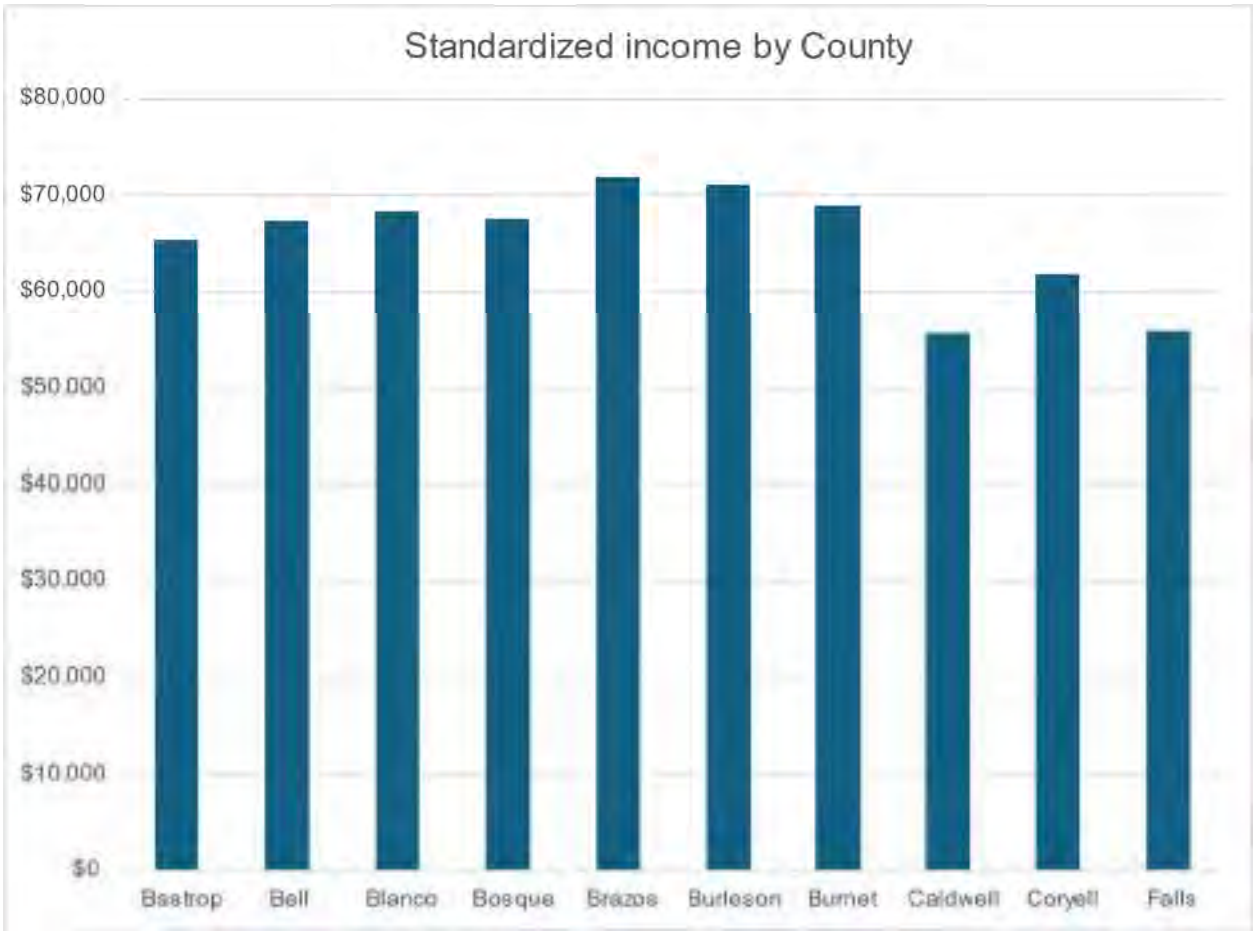
PART III: Risk & Protective Factors (See Appendix)

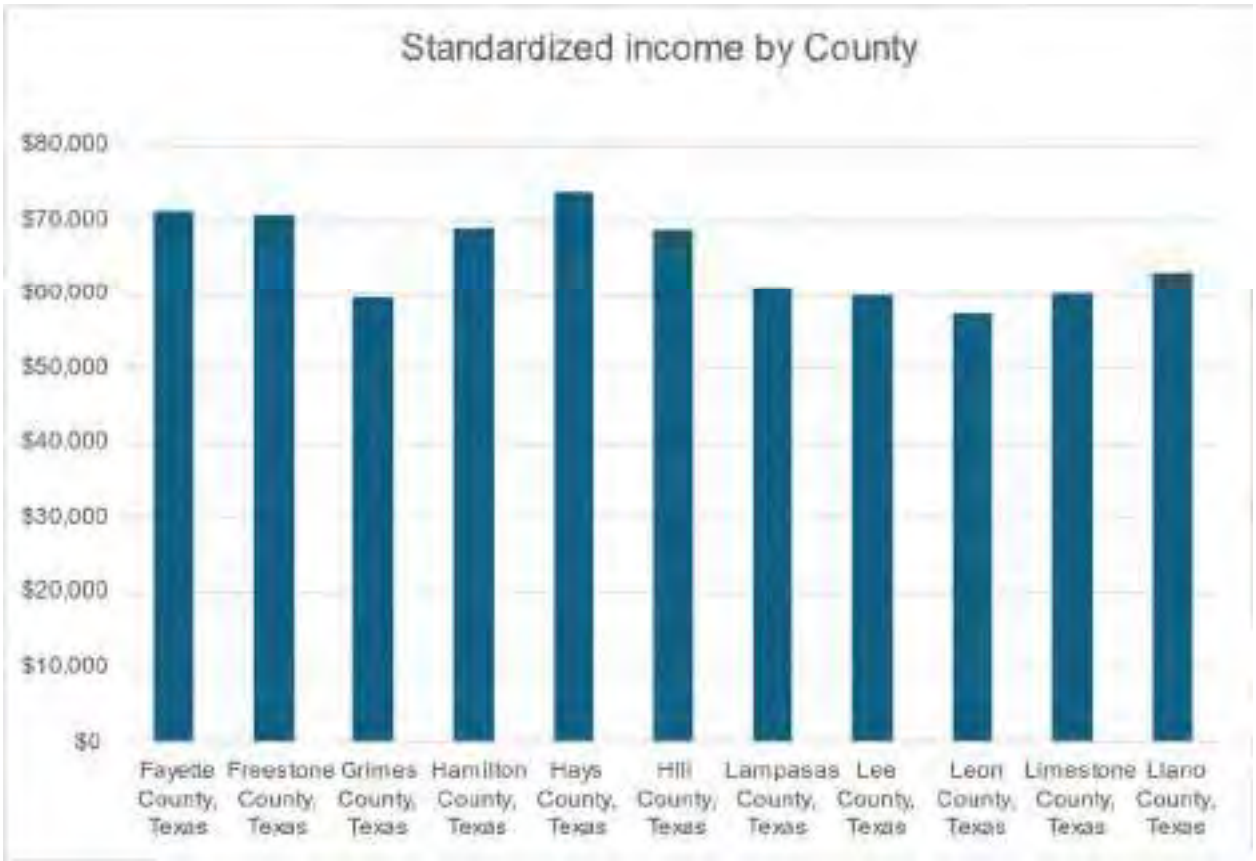
A few key points are listed below:

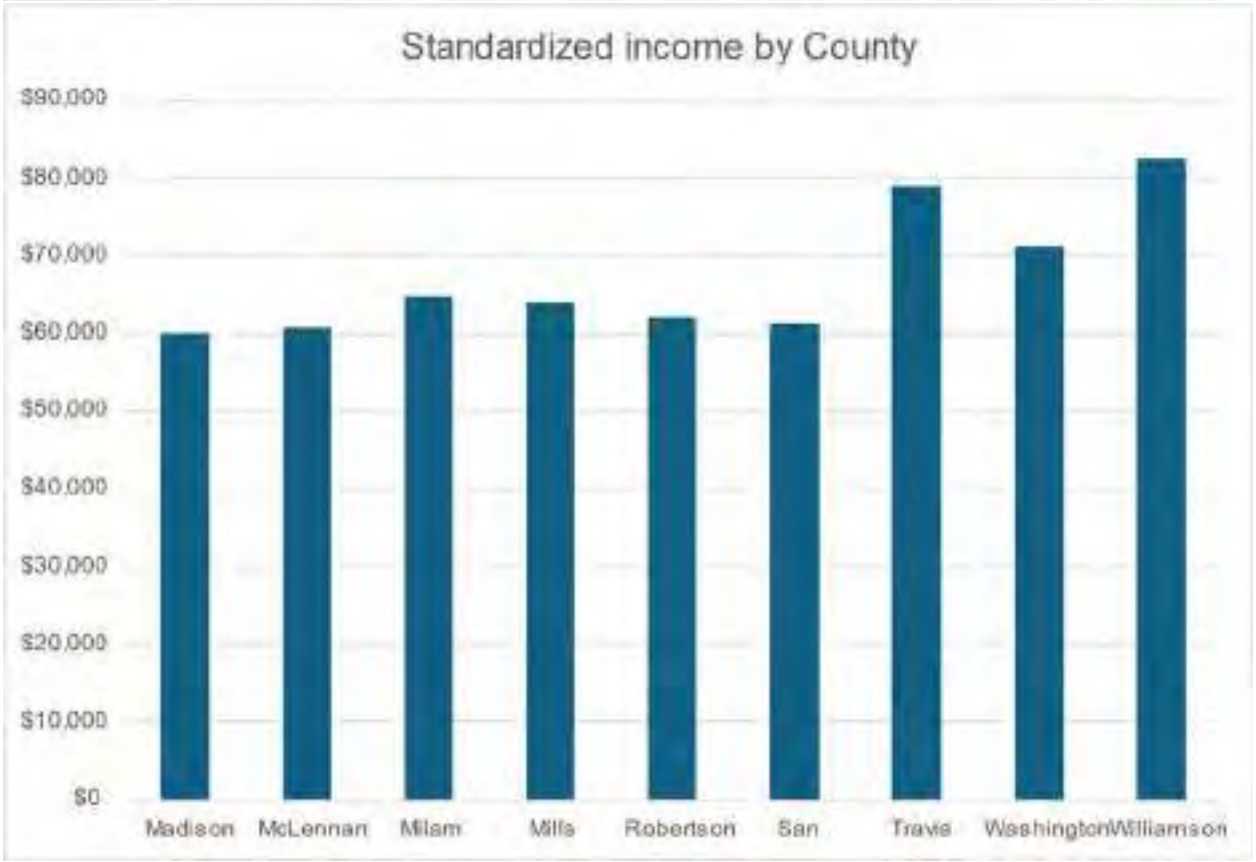
Income

Standardized income is broadly centered around the $60,000 range, with Falls and Caldwell unusually low.

High income is not necessarily as strong a protective factor as some, but it has a significant impact on other risk and protective factors.


Standardized income by County
$80,000
$70,000
$60,000
$50,000
$40,000
$30,000
$20,000
$10,000
$0
Bastrop
Bell
Blanco
Bosque
Brazos
Burleson
Burnet
Caldwell
Coryell
Falls


Standardized income by County
$80,000
$70,000
$60,000
$50,000
$40,000
$30,000
$20,000
$10,000
$0
Fayette County, Texas
Freestone County, Texas
Grimes County, Texas
Hamilton County, Texas
Hays County, Texas
Hill County, Texas
Lampasas County, Texas
Lee County, Texas
Leon County, Texas
Limestone County, Texas
Llano County, Texas


Standardized income by County
$90,000
$80,000
$70,000
$60,000
$50,000
$40,000
$30,000
$20,000
$10,000
$0
Madison
McLennan
Milam
Mills
Robertson
San
Travis
Washington
Williamson

Unemployment, Economically Disadvantaged, Homelessness

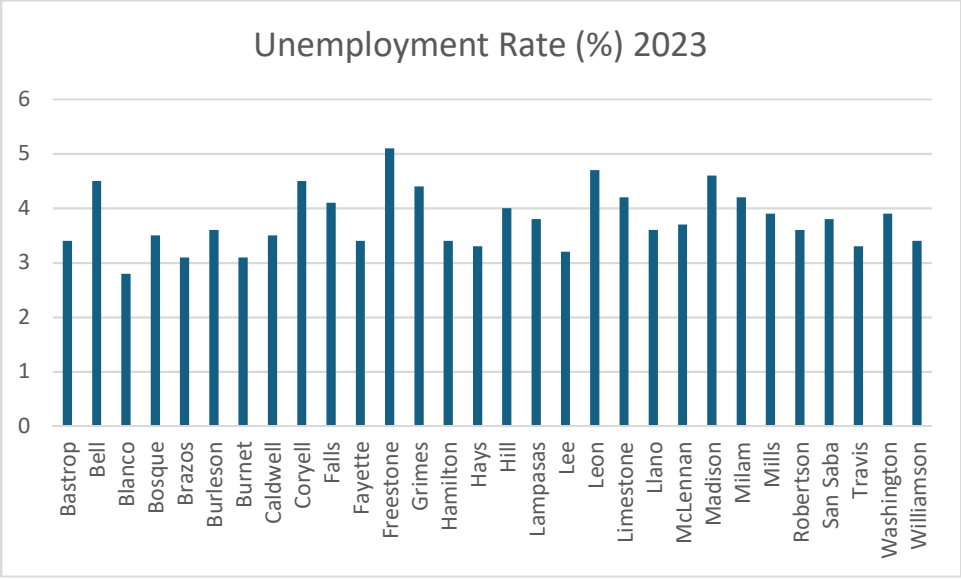
Unemployment *trends* largely resemble one another, with a few exceptions like Mills not changing much even in the broader 2020 worsened unemployment and 2022 improved unemployment. Unemployment *actual numbers* are quite significantly different across the counties, however: Freestone and Grimes particularly stand out as high.

Economic disadvantage among students is determined under the following metrics:
Eligible For Free Meals Under The National School Lunch And Child Nutrition Program
Eligible For Reduced-price Meals Under The National School Lunch And Child Nutrition Program
Other Economic Disadvantage, Including: from a family with an annual income at or below the official federal poverty line, eligible for Temporary Assistance to Needy Families (TANF) or other public assistance, received a Pell Grant or comparable state program of need-based financial assistance, eligible for programs assisted under Title II of the Job Training Partnership Act (JTPA), or eligible for benefits under the Food Stamp Act of 1977.

Curiously, the economically disadvantaged student rate doesn't seem to track unemployment very closely, but Falls and Caldwell (and Lee) are much worse off here, which makes sense given the income numbers.

(Family) unemployment and homelessness are substantial risk factors for youth (and adult) substance use.

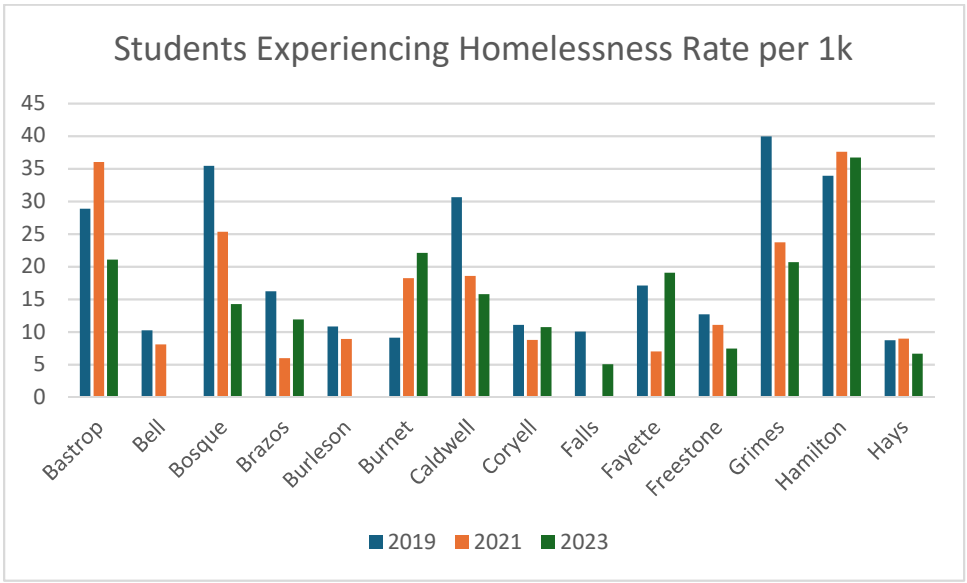
Note that in some cases I have removed counties from the chart for ease of readability if they reported zero in a metric, for readability: in the case of the homelessness charts, Blanco and Mills.

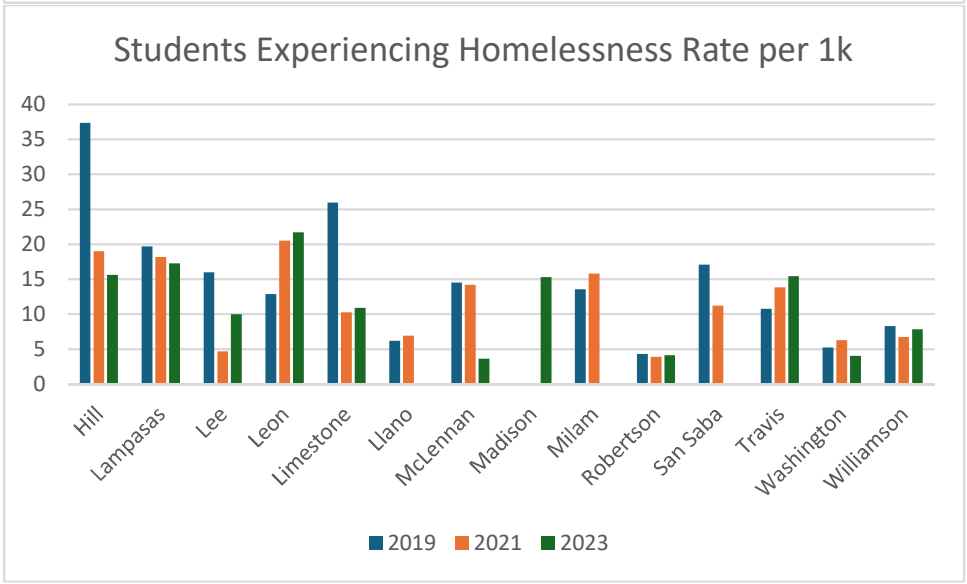


Economically Disadvantaged Student Rate per 1k:

	2018	2019	2020	2021	2022	2023
Bastrop	707.48	696.16	722.46	679.16	750.73	708.92
Bell	577.89	573.38	516.02	570.57	556.42	590.56
Blanco	429.25	442.78	393.23	376.13	426.51	437.73
Bosque	633.81	636.80	631.65	619.77	630.53	647.93
Brazos	587.54	598.93	584.76	595.71	606.23	611.25
Burleson	626.24	628.25	608.83	633.49	650.62	664.30
Burnet	627.22	628.25	609.67	609.10	643.13	661.80
Caldwell	722.24	719.23	772.84	766.37	742.95	737.67
Coryell	562.31	554.20	611.72	614.15	596.95	593.88
Falls	786.19	751.95	792.82	803.38	809.88	803.51
Fayette	536.09	475.96	520.90	508.99	537.62	537.85
Freestone	582.87	591.07	623.82	637.52	615.36	619.67
Grimes	655.57	642.05	657.38	651.42	641.73	663.70
Hamilton	521.22	531.40	517.26	537.92	531.25	548.06
Hays	474.71	458.63	428.93	443.37	457.67	457.36
Hill	652.70	635.26	617.66	647.39	657.04	630.81
Lampasas	538.79	541.99	527.33	616.57	536.55	524.48
Lee	572.13	585.32	610.91	578.58	538.00	540.68
Leon	578.54	523.15	583.62	591.44	591.82	597.10
Limestone	707.30	734.58	744.21	757.62	748.92	747.68
Llano	656.17	652.41	653.37	652.84	685.08	705.97
McLennan	587.58	631.63	625.79	636.26	642.90	719.27
Madison	696.85	711.33	635.40	722.85	724.39	637.05
Milam	698.35	685.49	655.36	1276.5	665.74	677.44
Mills	629	622.36	566.03	579.81	554.64	589.32
Robertson	647.97	622.96	616.40	598.62	609.38	619.34
San Saba	695.69	624.12	702.59	594.89	701.66	715.27
Travis	570.27	568.72	572.01	568.27	566.19	571.96
Washington	591.38	249.32	600.92	526.46	582.34	585.36
Williamson	288.87	278.11	260.07	251.31	289.34	294.14

Student homelessness is fortunately fairly low in absolute terms and, broadly, dropping, except in Burnet and Hamilton for reasons that are not immediately clear. A particular anomaly in students experiencing homelessness is Burney County, which has experienced significant and steady upticks.

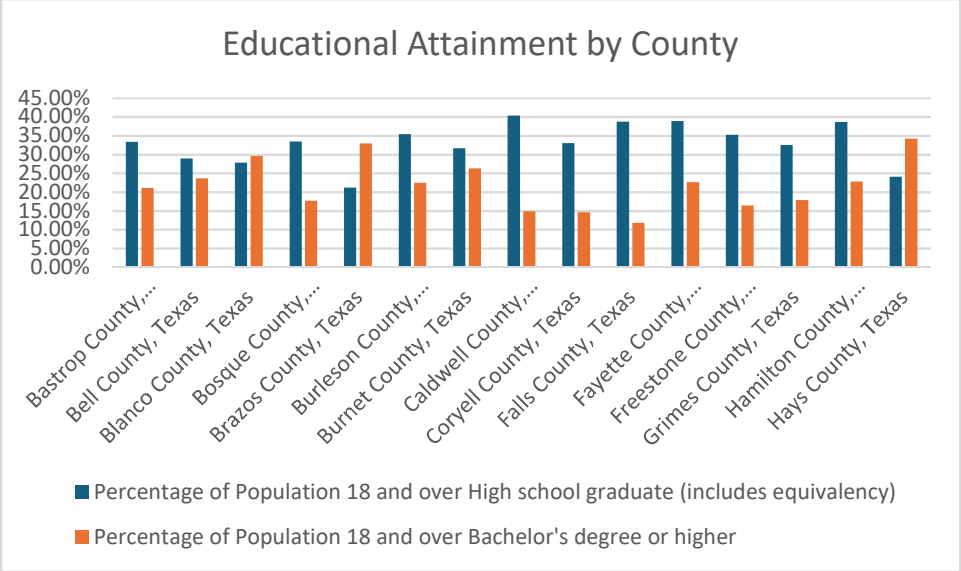


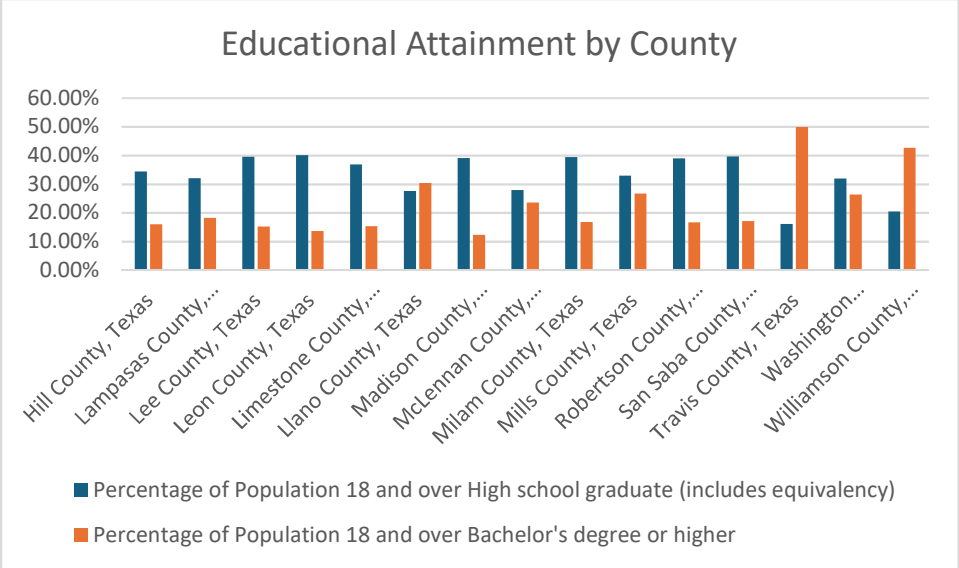


Educational Attainment

Educational attainment (percentage of population with a high school diploma, percentage of population with a bachelor's or higher) exhibits some strange characteristics. Higher education attainment seems to map with income, which is unsurprising, but several counties have a dramatically higher bachelor's rate than high school rate.

High educational attainment is generally a protective factor and low is generally a risk factor, with the same caveats about indirectness as eg income.





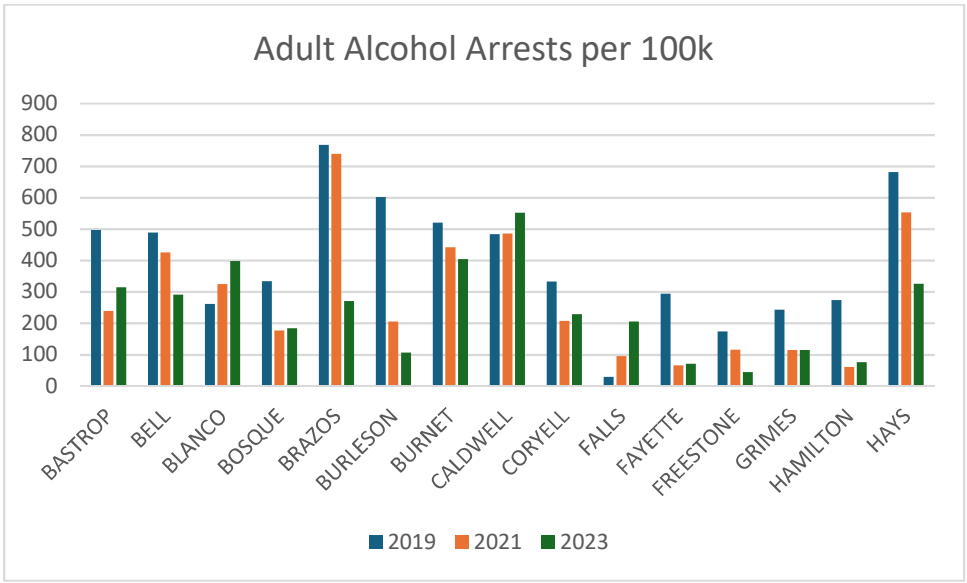
Alcohol and Drug Arrests

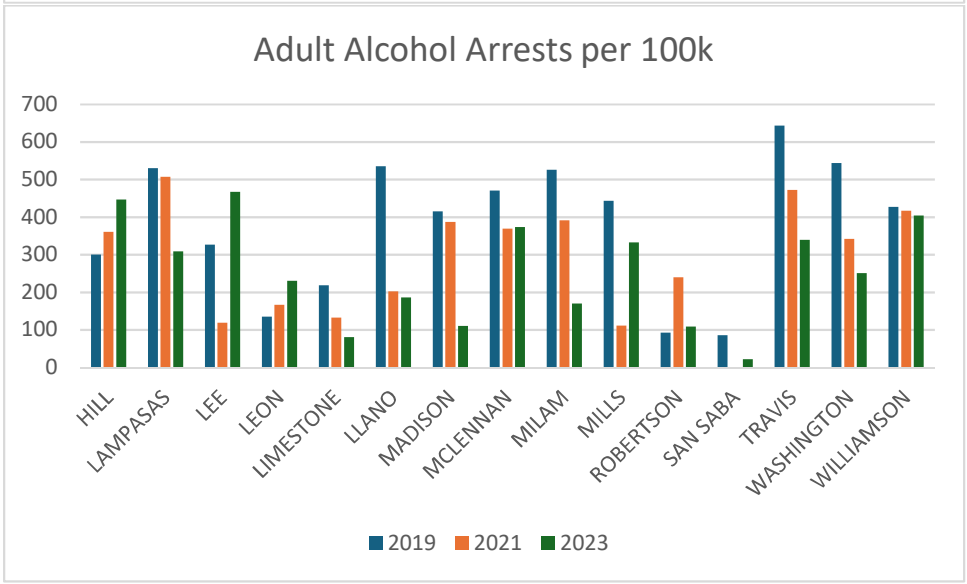
Alcohol arrests trend broadly down over the years, which is probably a good thing but could very easily be a confoundment in the data (changing law enforcement practices). Brazos County had remarkably high alcohol arrests in 2019 and 2021 followed by a steep drop. Blanco, Caldwell, Hill, and Lee saw rises in alcohol arrests. Lampasas obviously had a remarkable anomaly in 2021 juvenile arrests. These are admittedly fairly low-population counties.

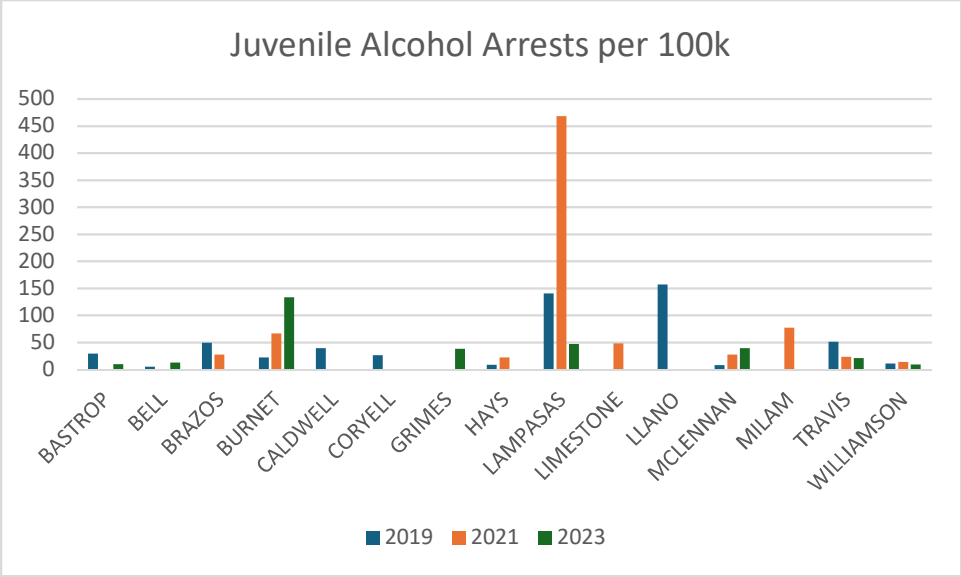
The downward trend in adult drug arrests is less consistent. Washington county stands out as both relatively very high and rising. For juvenile drug arrests, Grimes, Lampasas, and Washington all demonstrate a recent and major increase / incidence.

As will come up elsewhere in this report, arrests are not a perfect metric for determining how much substance abuse is actually happening in the county or region. Even the trends may be misleading if there are other factors – the aforementioned changes in practices or law, an increase in drinking at home rather than out, or changes in substance preference – but they are still useful.

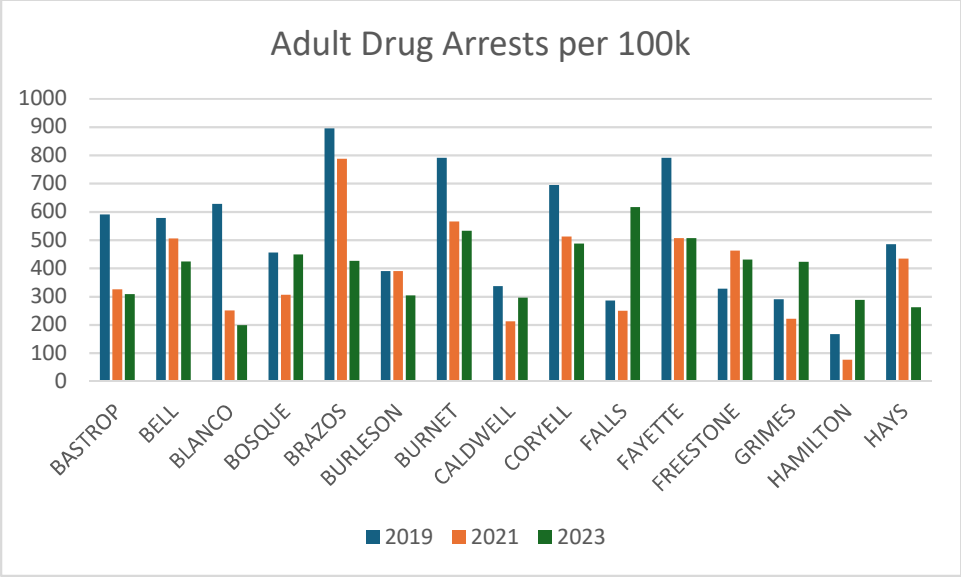
Alcohol Arrests

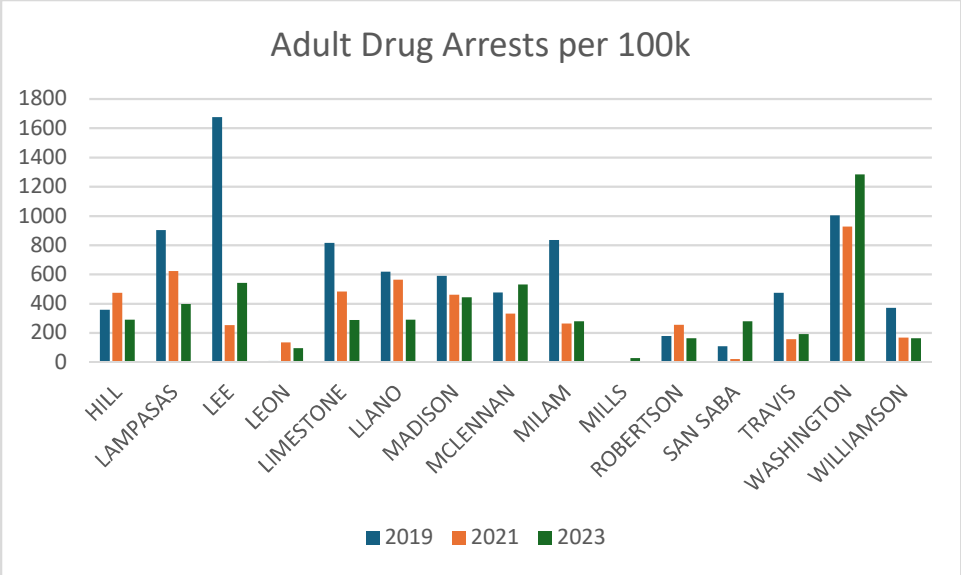


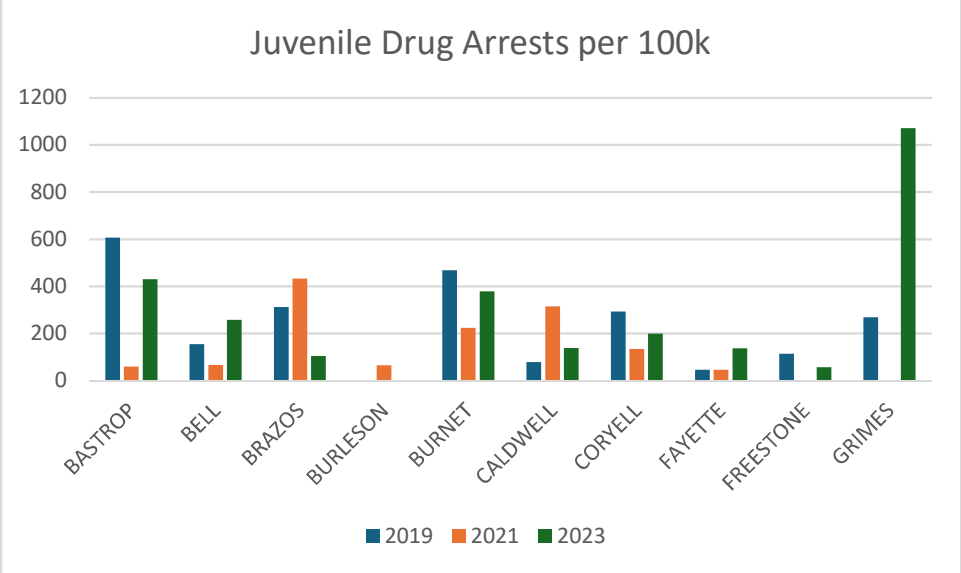


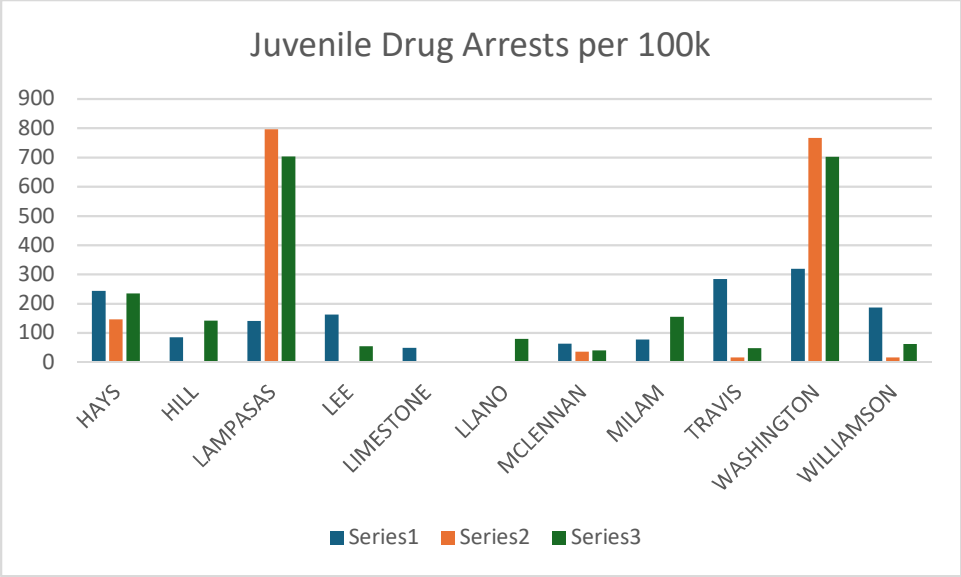


Drug Arrests




Adult Drug Arrests per 100k
1800
1600
1400
1200
1000
800
600
400
200
0
HILL
LAMPASAS
LEE
LEON
LIMESTONE
LLANO
MADISON
MCLENNAN
MILAM
MILLS
ROBERTSON
SAN SABA
TRAVIS
WASHINGTON
WILLIAMSON
2019
2021
2023

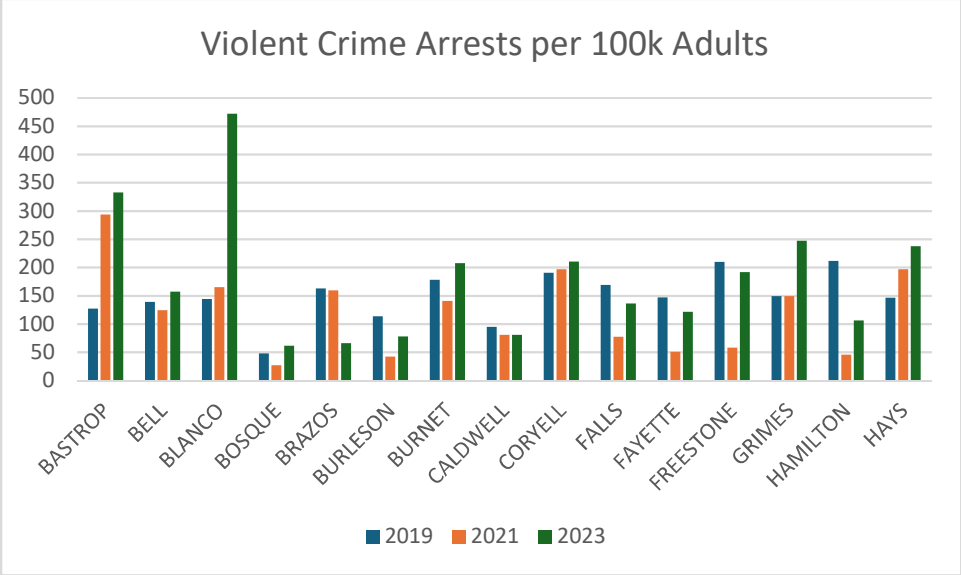

Juvenile Drug Arrests per 100k
1200
1000
800
600
400
200
0
BASTROP
BELL
BRAZOS
BURLESON
BURNET
CALDWELL
CORYELL
FAYETTE
FREESTONE
GRIMES
2019
2021
2023

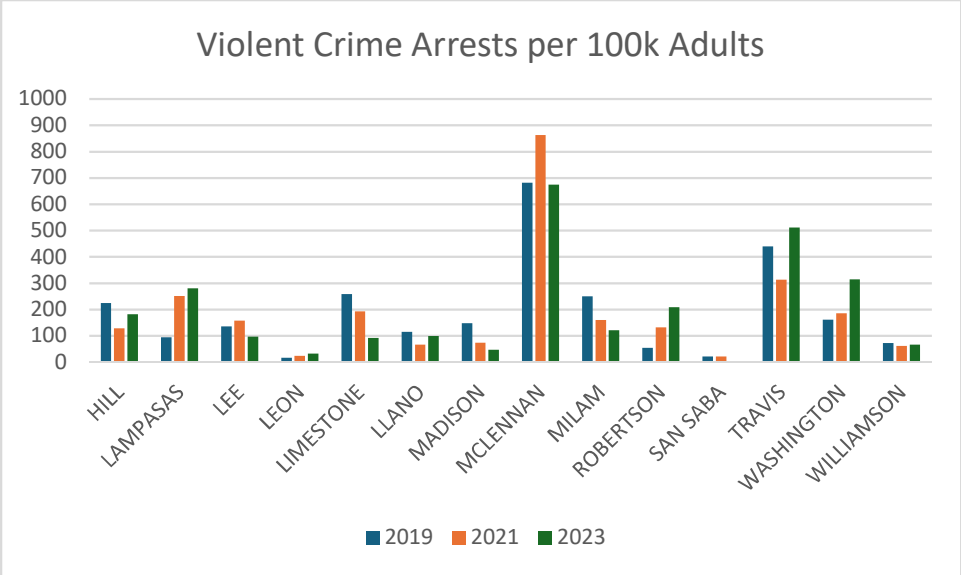


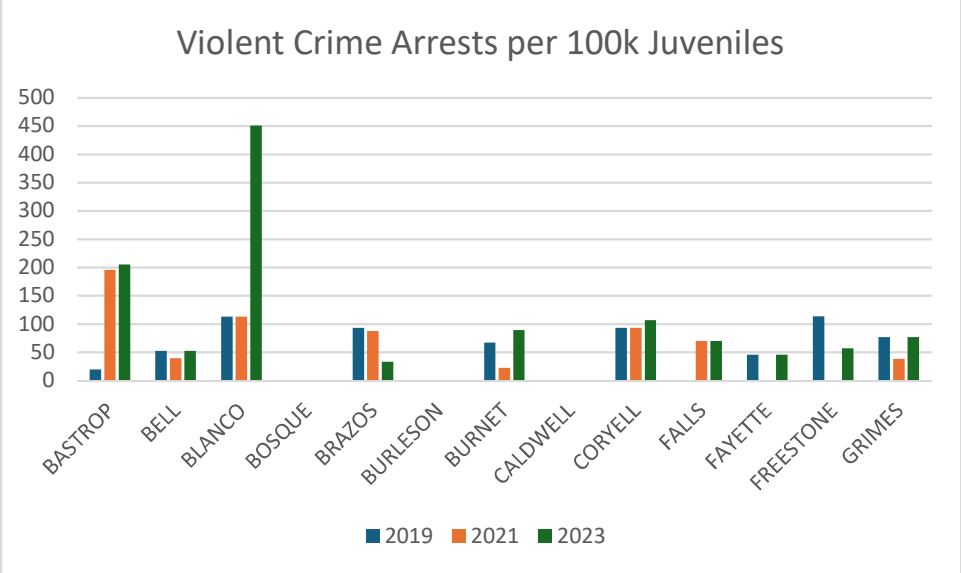
Violent and Property Crime Arrests

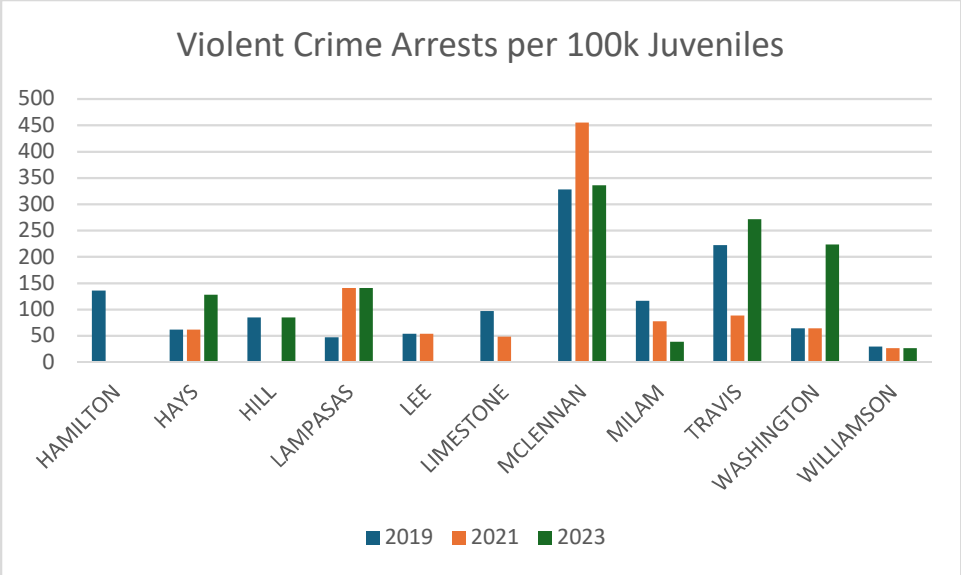
Juvenile and adult violent arrests hover around the 100 per 100k mark with no obvious pattern, and distinctly high metrics from McLennan. The rise in Blanco adult *and* juvenile violent crime -arrests is also troubling. It's curious to me that the two populations would have extremely loosely the same arrest rate. The same general phenomenon seems to happen with property crime, but with an (understandably) higher actual rate.

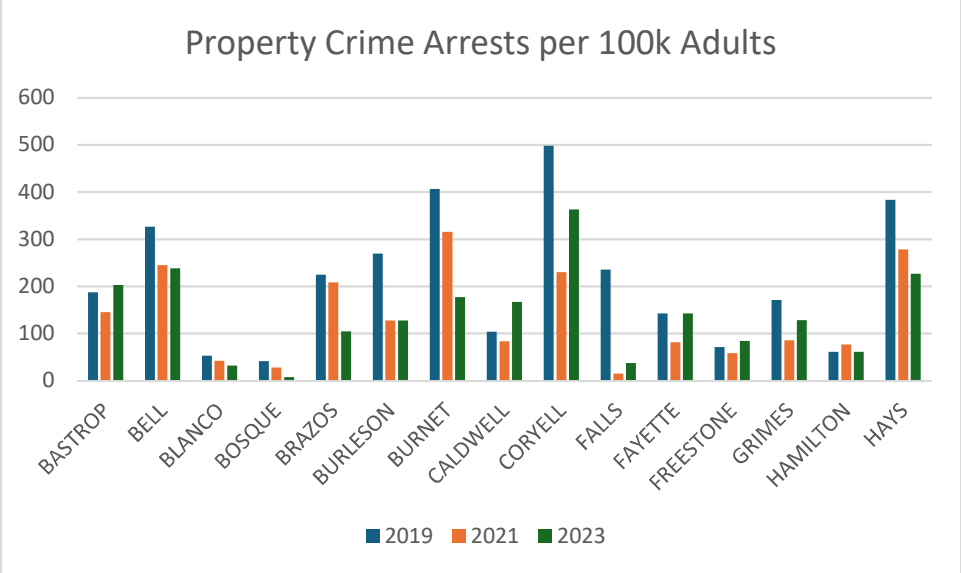
Arrests for violence and property crime are a loose proxy for an array of societal risk factors.

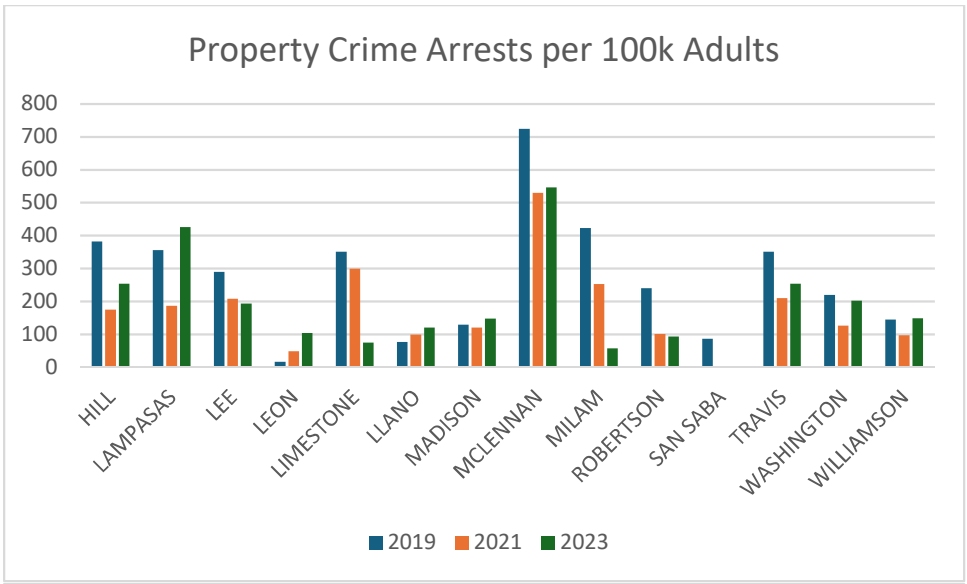


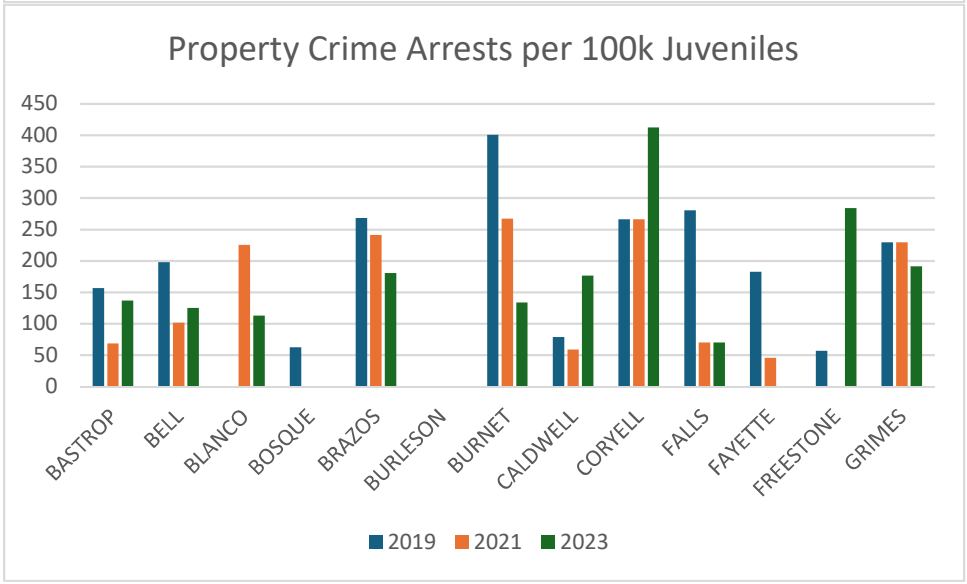

Violent Crime Arrests per 100k Adults
1000
900
800
700
600
500
400
300
200
100
0
HILL
LAMPASAS
LEE
LEON
LIMESTONE
LLANO
MADISON
MCLENNAN
MILAM
ROBERTSON
SAN SABA
TRAVIS
WASHINGTON
WILLIAMSON
2019
2021
2023

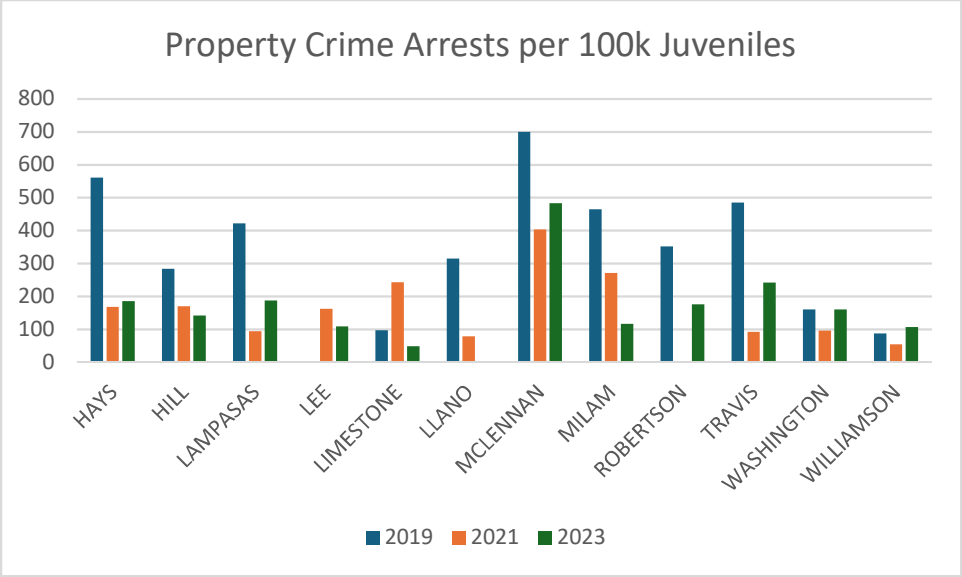

Violent Crime Arrests per 100k Juveniles
500
450
400
350
300
250
200
150
100
50
0
BASTROP
BELL
BLANCO
BOSQUE
BRAZOS
BURLESON
BURNET
CALDWELL
CORYELL
FALLS
FAYETTE
FREESTONE
GRIMES
2019
2021
2023


Violent Crime Arrests per 100k Juveniles
500
450
400
350
300
250
200
150
100
50
0
HAMILTON
HAYS
HILL
LAMPASAS
LEE
LIMESTONE
MCLENNAN
MILAM
TRAVIS
WASHINGTON
WILLIAMSON
2019
2021
2023


Property Crime Arrests per 100k Adults
600
500
400
300
200
100
0
BASTROP
BELL
BLANCO
BOSQUE
BRAZOS
BURLESON
BURNET
CALDWELL
CORYELL
FALLS
FAYETTE
FREESTONE
GRIMES
HAMILTON
HAYS
2019
2021
2023


Property Crime Arrests per 100k Adults
800
700
600
500
400
300
200
100
0
HILL
LAMPASAS
LEE
LEON
LIMESTONE
LLANO
MADISON
MCLENNAN
MILAM
ROBERTSON
SAN SABA
TRAVIS
WASHINGTON
WILLIAMSON
2019
2021
2023


Property Crime Arrests per 100k Juveniles
450
400
350
300
250
200
150
100
50
0
BASTROP
BELL
BLANCO
BOSQUE
BRAZOS
BURLESON
BURNET
CALDWELL
CORYELL
FALLS
FAYETTE
FREESTONE
GRIMES
2019
2021
2023

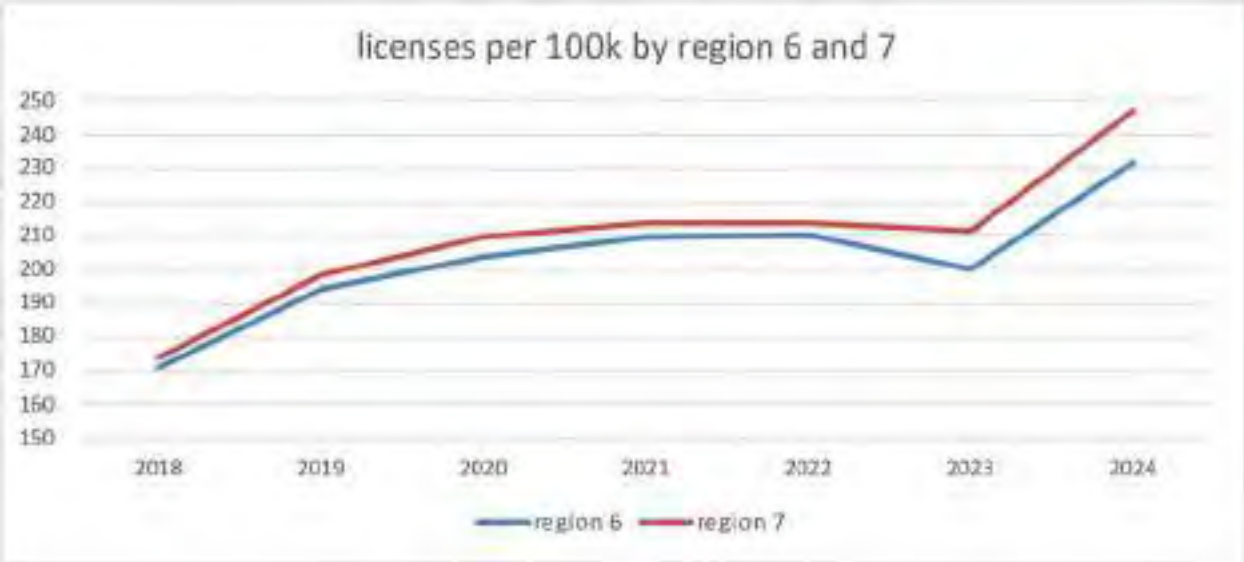


Alcohol, Tobacco, and E-Cig Permits

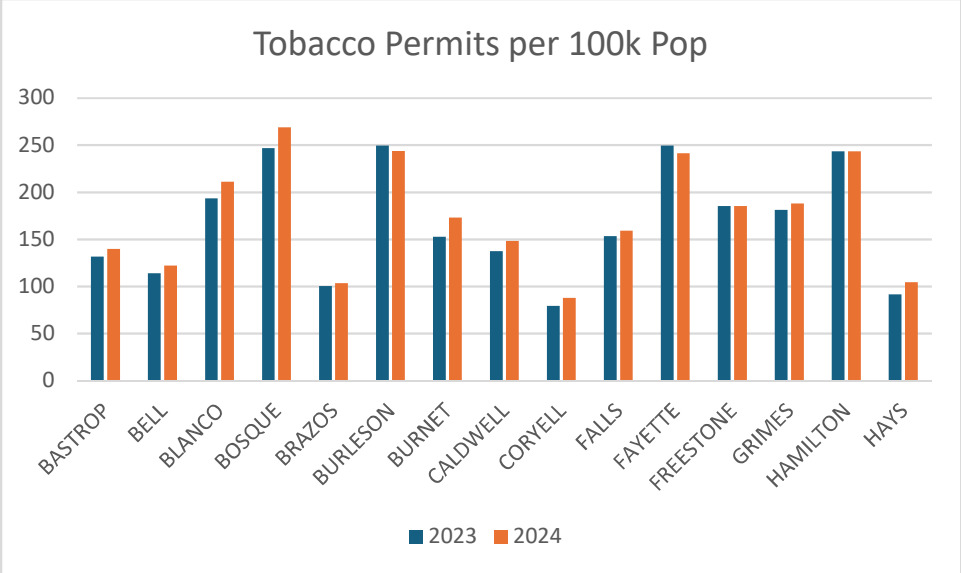
Alcohol licenses is another dataset where we only have regional data, not a county breakdown, so instead the comparison is between region 6 and region 7. The two regions have extremely similar alcohol license per capita numbers, but region 7 is far more spread out. Tobacco and e-cig permits have broadly increased over the last several years.

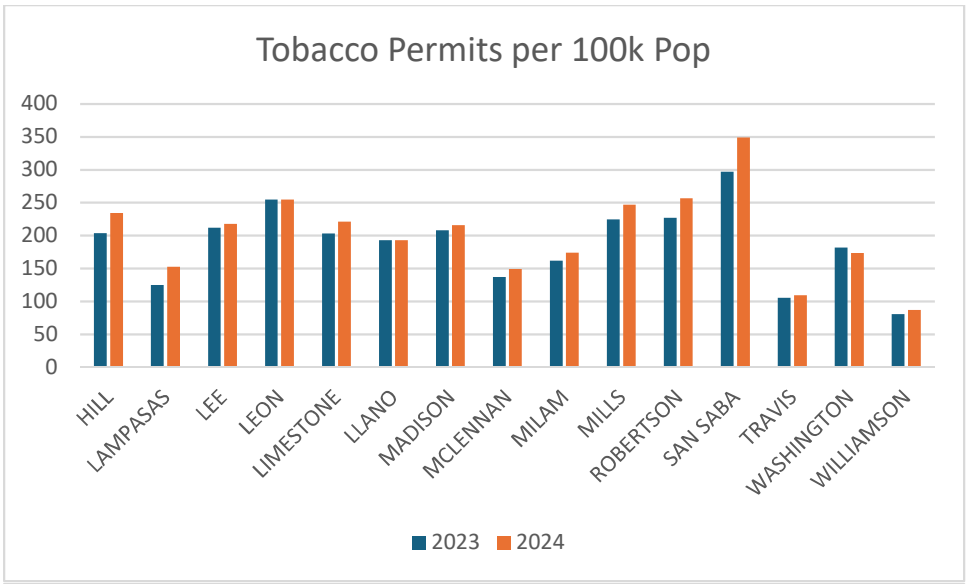
The existence of legal substance vendors could be described as a risk factor, but also represents a very loose proxy for substance use in the region.

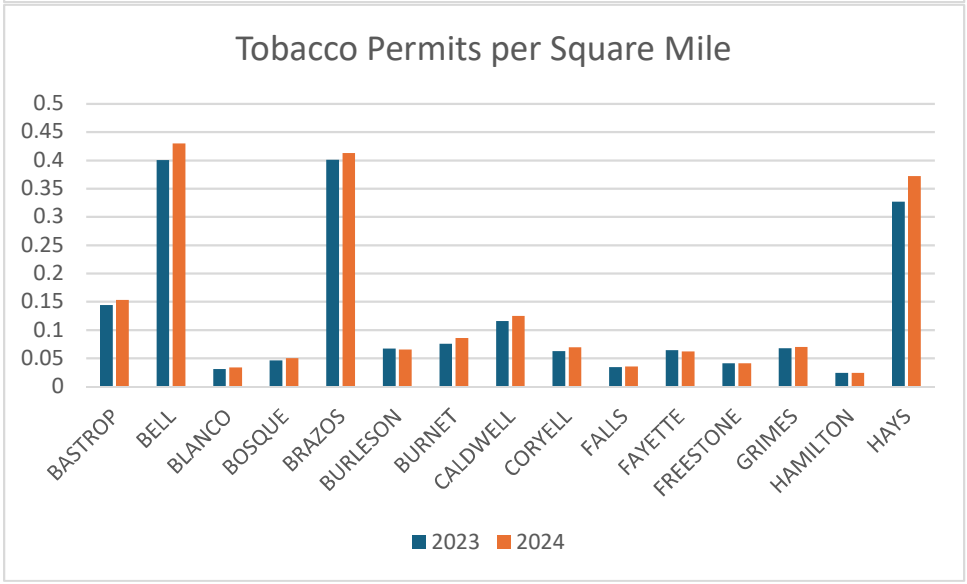
ALCOHOL LICENSES

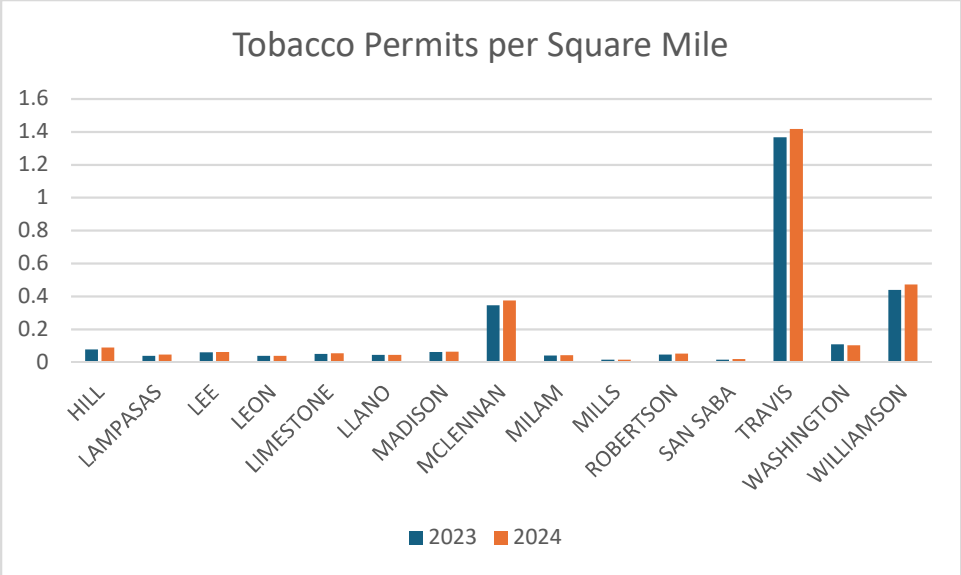


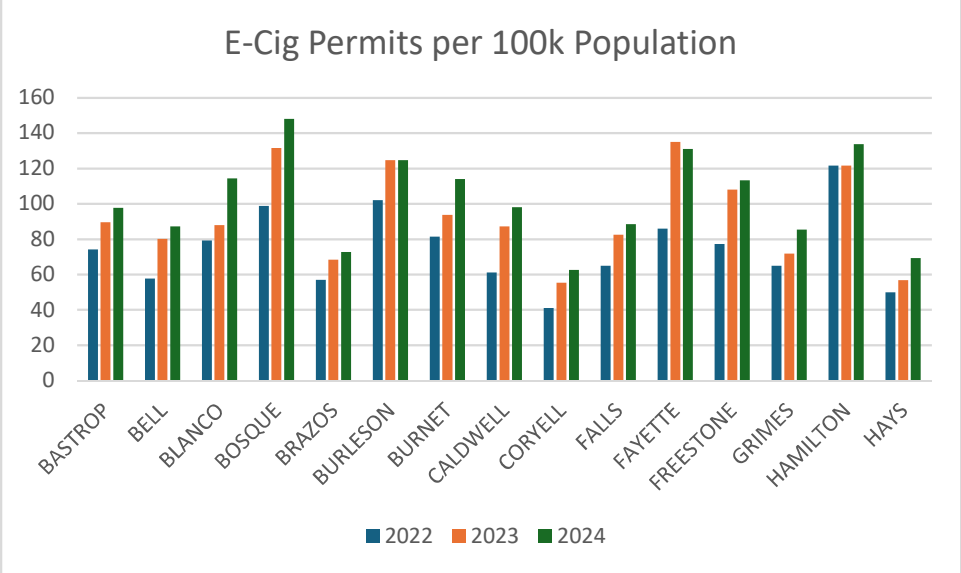
Permits per square mile is essentially a population density chart.




Tobacco Permits per 100k Pop
400
350
300
250
200
150
100
50
0
HILL
LAMPASAS
LEE
LEON
LIMESTONE
LLANO
MADISON
MCLENNAN
MILAM
MILLS
ROBERTSON
SAN SABA
TRAVIS
WASHINGTON
WILLIAMSON
2023
2024


Tobacco Permits per Square Mile
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
BASTROP
BELL
BLANCO
BOSQUE
BRAZOS
BURLESON
BURNET
CALDWELL
CORYELL
FALLS
FAYETTE
FREESTONE
GRIMES
HAMILTON
HAYS
2023
2024

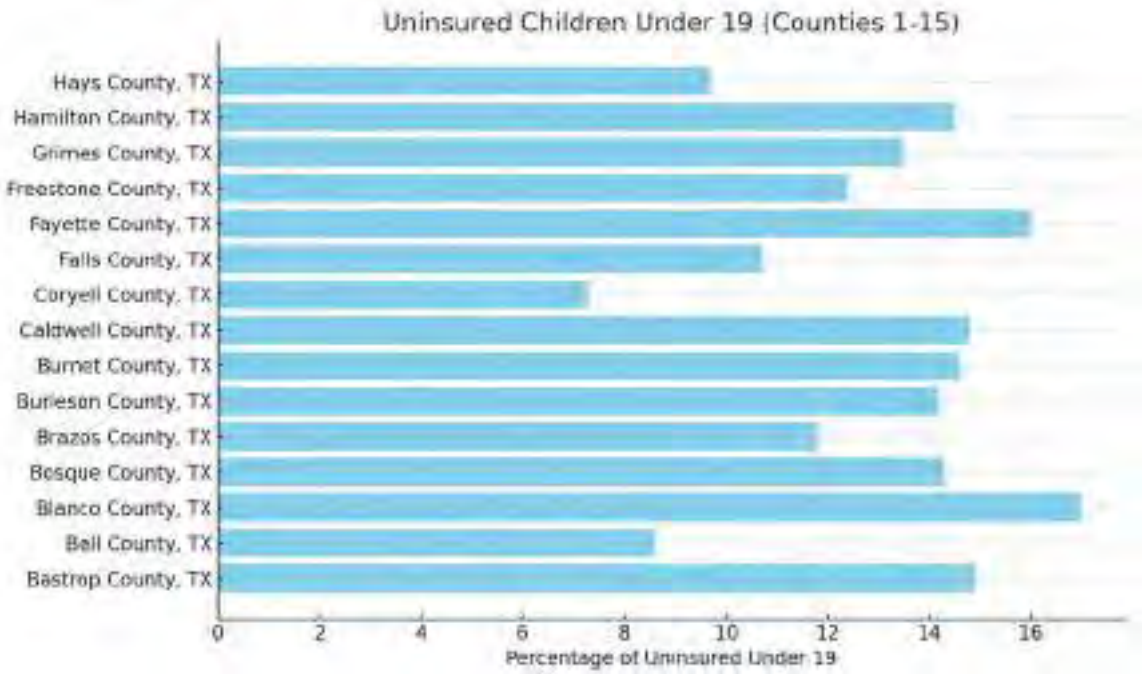


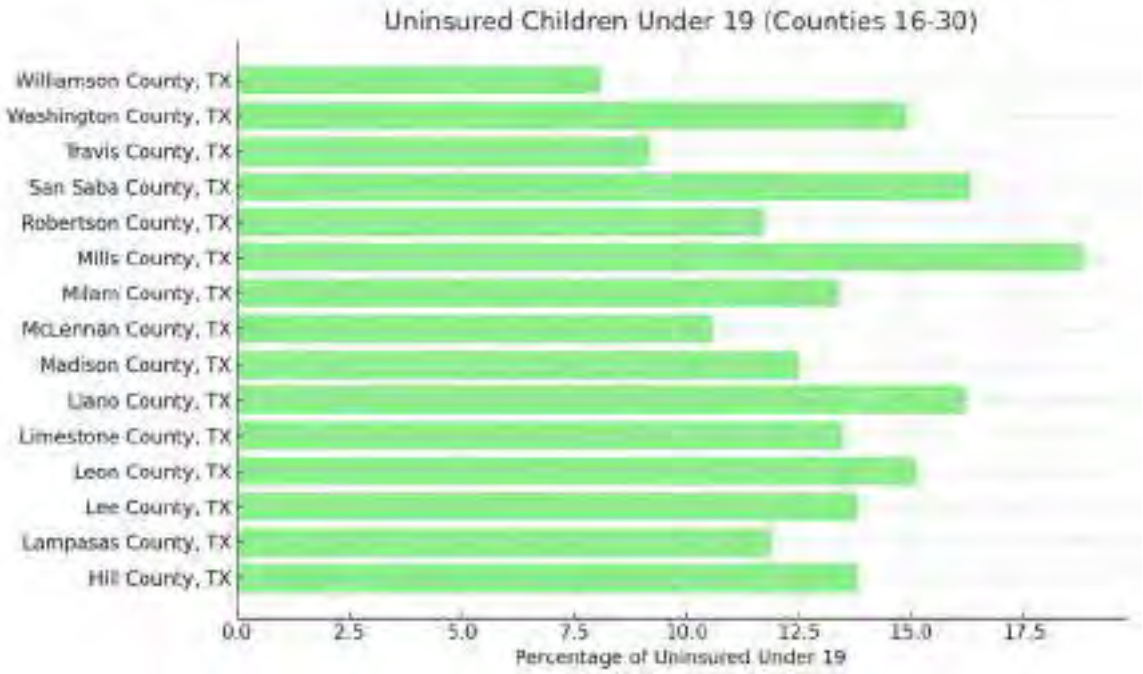


Uninsured Population

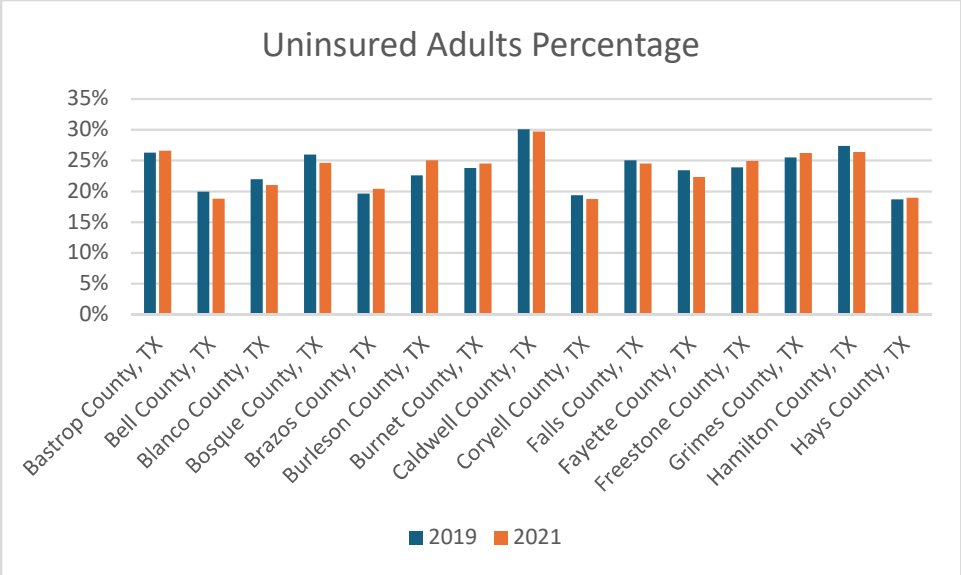
The uninsured child rate only has one year's data and ranges between approximately 8 and 15%. This Is lower than the adult rate, but still a problem.

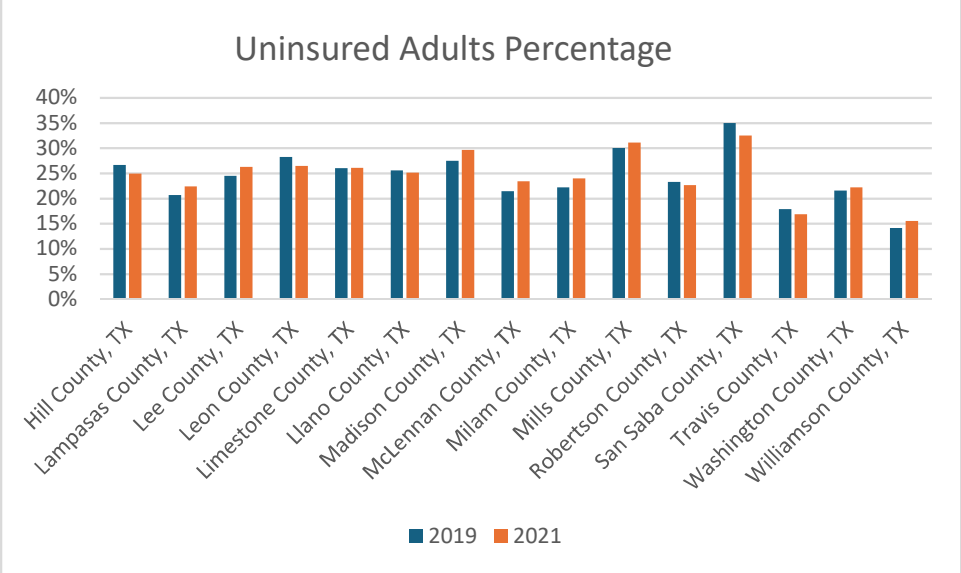
Lack of insurance is both a risk factor for substance abuse (reduced access to health care, reduced access to mental health care, proxy for economic disadvantage, potential for self-medication) and leads to worse health outcomes for substance abuse.





The underinsured adult rate exhibits no obvious patterns for a given county over the four years in question, and generally sits between 20 and 30%, which is high enough to be a serious public health concern. Caldwell, Mills, and San Saba perform especially poorly on this metric.





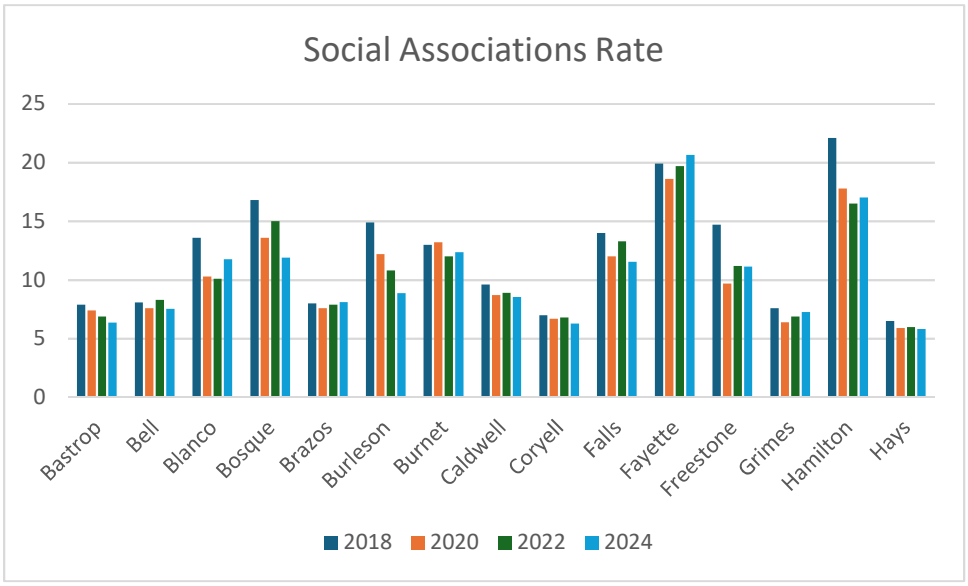
School Infractions

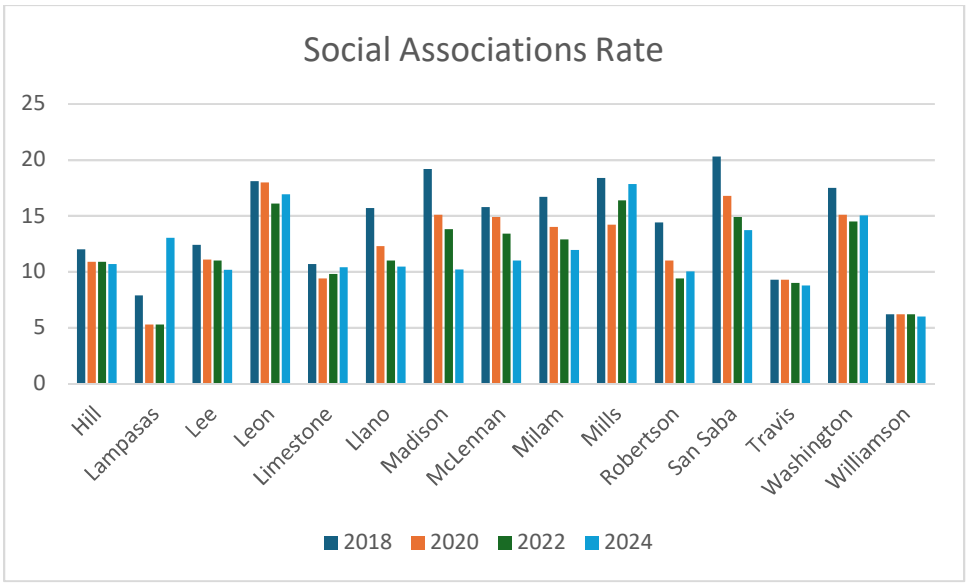
Student school infractions display a small upward trend overall, with a huge dip in 2020-2021, which makes sense because so many fewer children were in school due to the pandemic. This is consistent with 2020, and to a lesser degree 2021, being anomalous in other metrics. The vast majority of infractions in Texas were for controlled substances.

Social Associations

The number of social associations, per capita, per county, has remained virtually flat with a few exceptions. This makes some sense given that it takes some effort to start one up and some significant event to shut very many down. Madison metrics have fallen by about half.

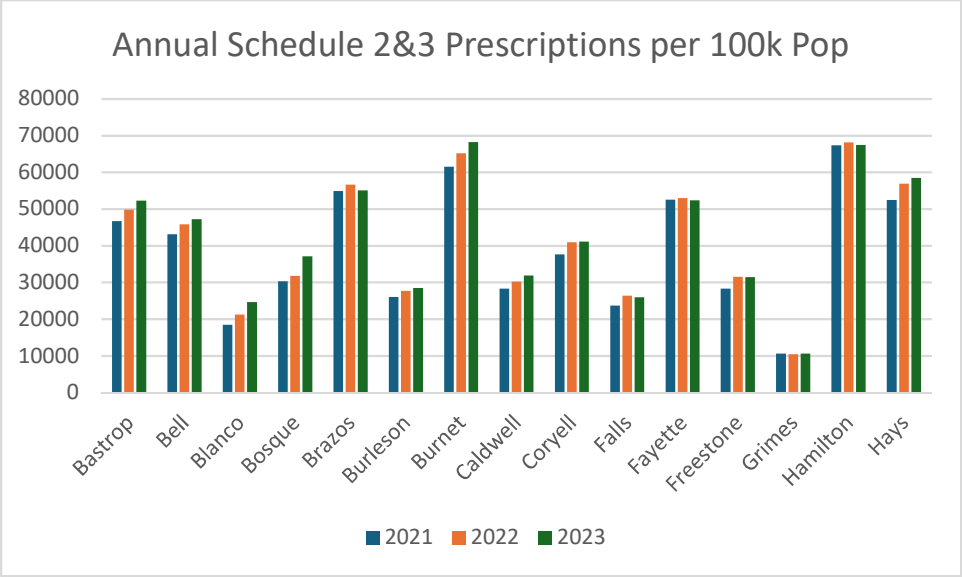
Involvement in social associations – a broad category – is considered a protective factor.

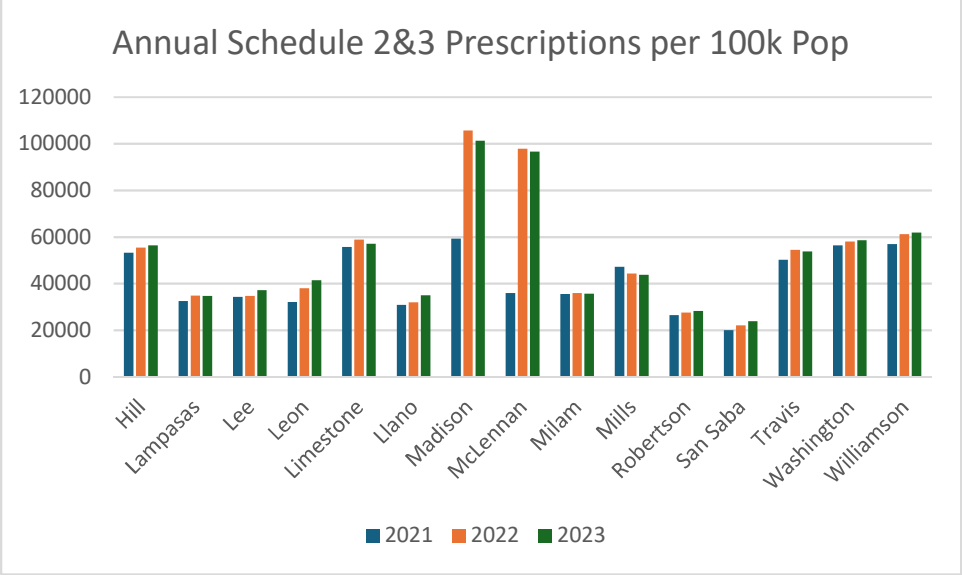




Schedule 2 and 3 Drug Prescription

Schedule 2 and 3 drug prescription rates have also remained mostly flat. Madison and McLennan counties saw a steep rise after 2021. They represent a loose proxy for overall availability of prescription drugs in the area.

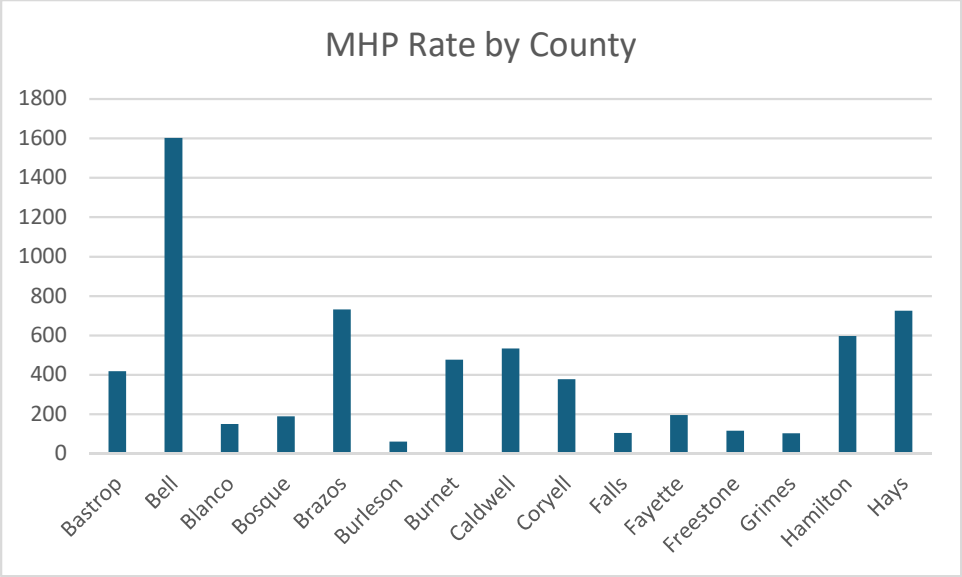


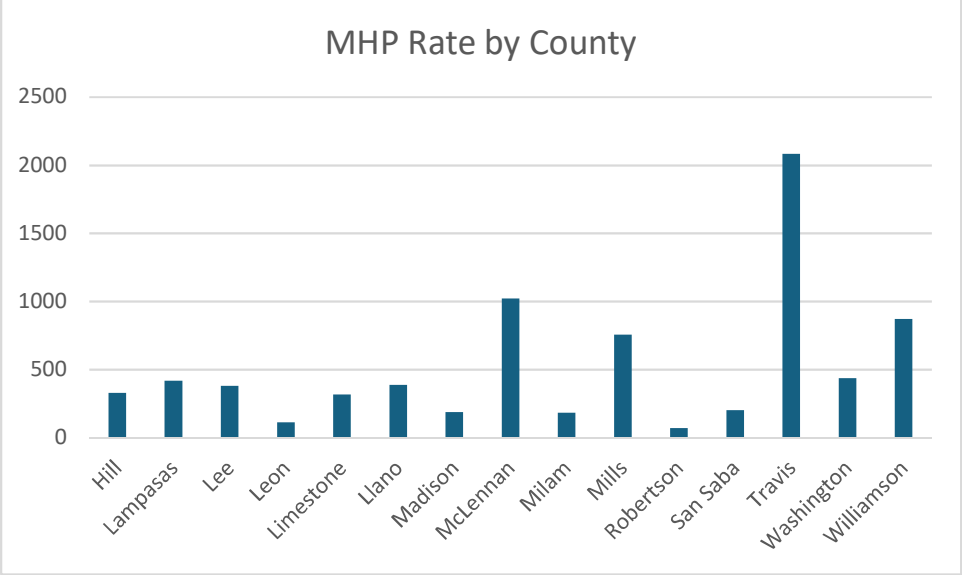


Mental Health Providers

Some counties are extremely well served by mental health providers, at least by number per capita (Bell, Travis), while more are extremely poorly served (mostly but not entirely rural). It also likely correlates to some degree with income. Despite poor performance on several risk factors, McLennan has a relatively high number of mental health providers.

Access to mental health care is a substantial protective factor regarding substance abuse and also extremely important for treatment and recovery.

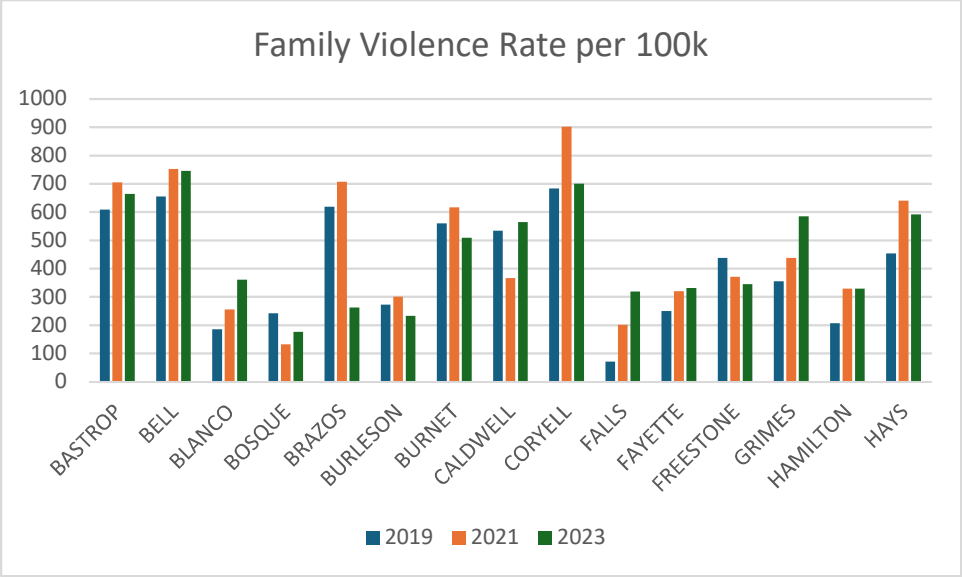


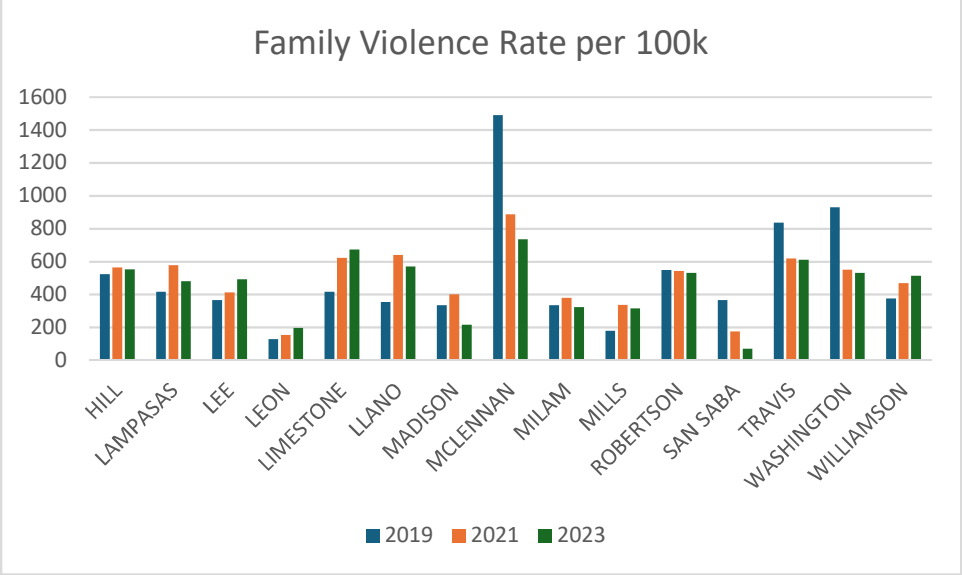


Family Violence

Family violence rate doesn't seem to display an especially clear timing trend. Coryell and McLennan stand out as having particularly high rates. I would caution that this may be a metric that is particularly vulnerable to reporting shifts. Victims of maltreatment doesn't have all that clear a time component either, although 2022 seems to have been oddly low.

Family violence is both a serious problem in its own right and a major risk factor for substance abuse.

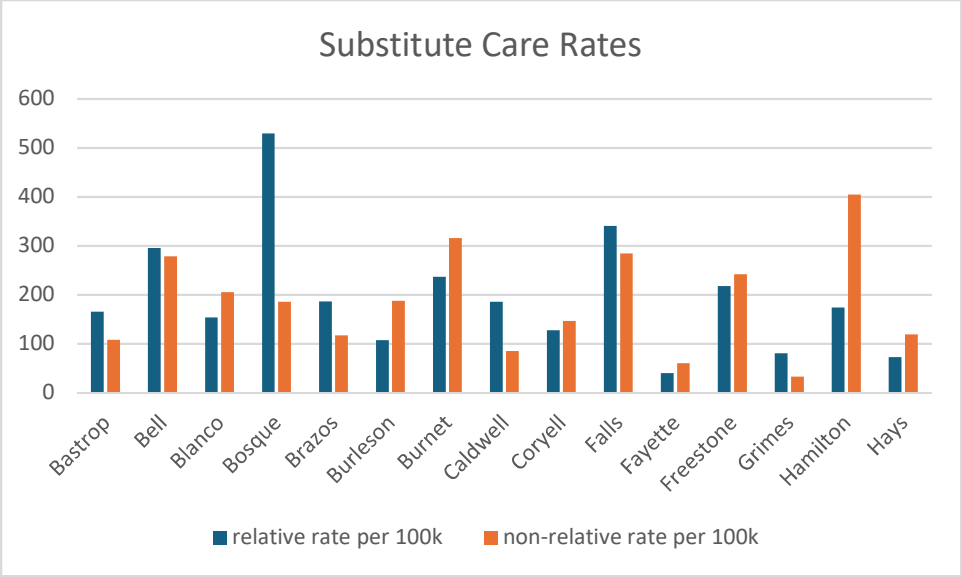


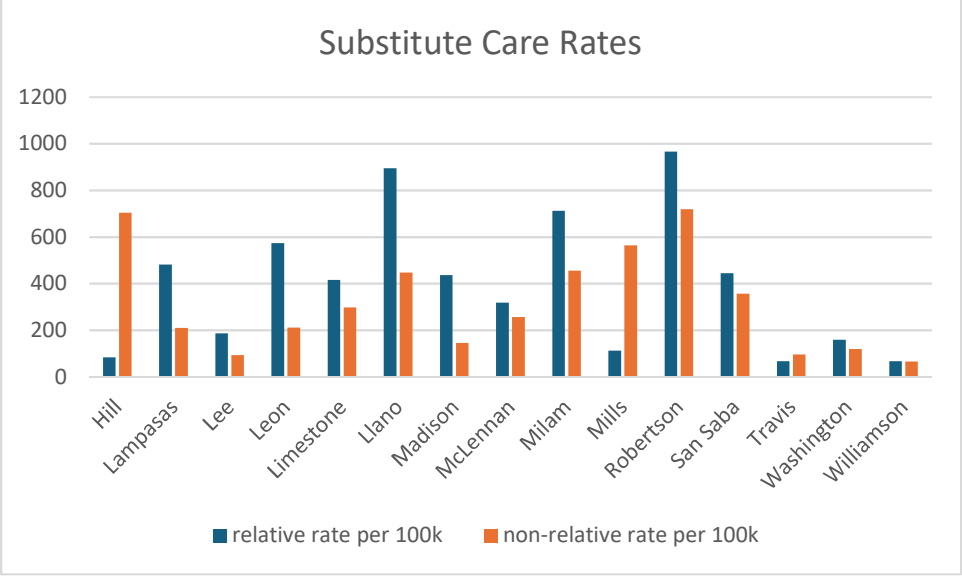


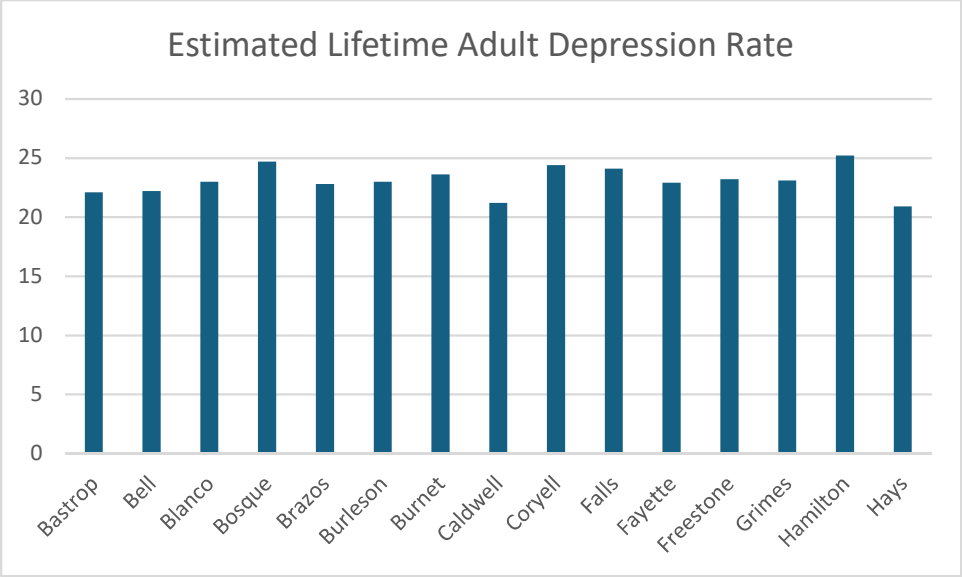
Substitute Care and Adult Depression

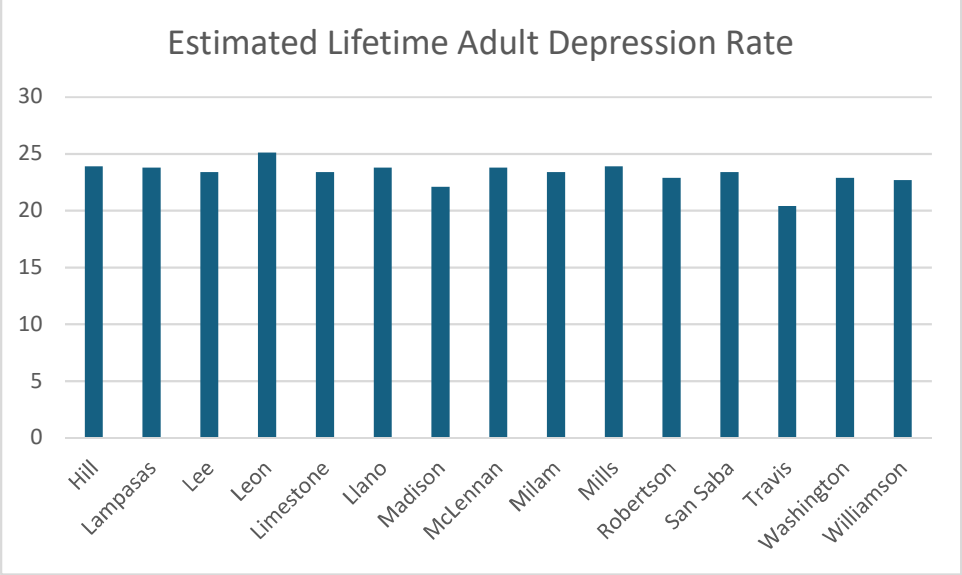
Substitute care rates – children in the care of someone other than one or both parents - seem unusually high in Mills and Llano counties. Adult depression rates, curiously, don't vary much by county.

Adult depression is a risk factor for adult substance abuse and indirectly one for the children of depressed parents.


Substitute Care Rates
600
500
400
300
200
100
0
Bastrop
Bell
Blanco
Bosque
Brazos
Burleson
Burnet
Caldwell
Coryell
Falls
Fayette
Freestone
Grimes
Hamilton
Hays
relative rate per 100k
non-relative rate per 100k


Substitute Care Rates
1200
1000
800
600
400
200
0
Hill
Lampasas
Lee
Leon
Limestone
Llano
Madison
McLennan
Milam
Mills
Robertson
San Saba
Travis
Washington
Williamson
relative rate per 100k
non-relative rate per 100k





TSS: Parental Approval

In Texas School Survey reporting, which represents a very large portion of relevant datasets despite the perils involved in self-reporting, expected parental approval of substance use doesn't seem to change too much over the years and is overwhelmingly "strongly disapprove". Also a very important note about TSS results is that they're regionwide, for privacy reasons: no county breakdowns here, but large and interesting datasets.

Regarding the TSS in particular, any risk and protective factor assessments are based on the existing general consensus, not on any particular data analysis. Parental disapproval may be a protective factor.