2008

Comal County Assessment

Social and Environmental Determinants of Well-Being

Data for Planning and Policy Making

Comal County Assessment Team
UT School of Public Health
October 2008

SOCIAL AND ENVIRONMENTAL DETERMINANTS OF WELL-BEING IN COMAL COUNTY

2007-2008 Community Wide Assessment

Prepared for

The Carmage and Martha Ann Walls Foundation

The City of New Braunfels

The Kronkosky Charitable Foundation

The McKenna Health System

The United Way of Comal County

The University of Texas School of Public Health

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The Kronkosky Charitable Foundation
The McKenna Health System
The United Way of Comal County
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Table of Contents

Table of Figures

Preface

Assessment Approach

This assessment uses a model adapted from the National Association of County and City Health Officials entitled Mobilizing for Action through Planning and Partnerships (MAPP). The MAPP Assessments and the issues they address are described below:

- The **Community Themes and Strengths Assessment** provides a deeper understanding of the issues that residents feel are important by answering the questions: "What is important to our community?" and "What assets do we have that can be used to improve community well being?" These questions were explored in two ways. First, a series of 12 focused group discussions involving more than 100 participants was conducted to identify key issues for the community. This process also yielded a roster of interested and active persons who were later invited to participate in an online survey designed to assess the degree of concern about each key issue and rank the top four concerns within each of four issue areas. The results of this assessment were used to guide additional data collection. Nearly 200 persons representing a broad cross section of the community's key informants responded to the online survey.

- The assessment of local services and organizations focuses on the organizations and entities identified in the previous section that contribute to the community well-being. This assessment answers the questions: "What are the capacities of our local community to plan and implement in comprehensive and coordinated ways" and "How are essential services being provided to our community?" Site visits to several organizations were conducted to reinforce and clarify the findings from web sites or published reports.

- The third assessment identifies priority community health and quality of life issues. Questions answered include: "How healthy are our residents?" and "What does the status of well-being in our community look like?" The major part of this report documents and addresses these questions and identifies when indicators are at variance with benchmarks drawn from regional, state or national norms.

- The forces of change assessment focuses on identifying forces such as impending changes that affect the context in which the community and its public health system operate. This assessment answers the questions: "What is occurring or might occur that affects the well being of our community or the local capacity to cope with changes in the environment?" and "What specific threats or opportunities are generated by these occurrences?" The results of this assessment will be expanded and elaborated in the follow up phases of priority setting and action planning designed as a part of the consensus building process and the action planning to follow the assessment. The results of these assessments are combined in a narrative organized by the key issue areas identified in the first assessment. Thus, each area is analyzed and discussed using existing data resources, original data resources from the local surveys and key informant and subject matter expert interviews. Lastly, the document remains in a format to

enable the updating of additional local data, information and other material that will be useful in subsequent action planning activity.

Sources and Limitations of Data

This assessment report uses a combination of data sources. These sources are not always in agreement in data groupings such as age ranges or illnesses, nor are they always comparable in terms of time periods or geographic parameters. Assessments are dependent on existing data resources and these may be difficult to obtain and more difficult to compare. Compilation of data from differing sources is undertaken using rigorous procedures. For example, more than one source is consulted to corroborate a finding or to point out discrepant data that needs reconciliation. It is the aim of this work to provide the best available data to describe the current status of well being indicators in Comal County. To help address the inadequacy and/or disagreement among existing sources, original data are defined and obtained. In this assessment three surveys were conducted to provide a richer view of the local knowledge, attitude and behavior of those persons most knowledgeable of the issues or environment being assessed.

Methods of Determining the Focus of this Assessment

The breadth of this assessment is greater than many similar studies. It spans concerns that range across all age and race/ethnic groups. It includes quality of life issues related to schools, work, transportation and workforce issues, infrastructure, health, and socioeconomic status. It contains what the popular literature describes as the Social and Environmental Determinants of Well Being. In order to provide focus to this wide ranging look at Comal County, it was decided by the Steering Group to seek out the opinions of a broad and inclusive spectrum of residents in the county to help frame the focus of the study. This was done in three ways:

- First, the natural groups and associations of individuals who share common interests, e.g. senior citizens, schools, health, commerce, social welfare, etc. were asked to participate in focused group discussions to identify the major issues affecting quality of life and well being in Comal County. These results were recorded and compiled into listings of issues and concerns by four themes: 1. Children and Youth, 2. Health and Family, 3. Education and Workforce Development, and 4. Transportation and Infrastructure.

- Second, individual interviews with subject matter experts in each of these four areas were conducted to identify more specific concerns and to obtain assistance in framing questions for a survey of Key Informants throughout the county.

- The third technique was a community wide survey of a broadly representative number of key persons who were considered well informed and who had demonstrated to their peers that they were exhibiting leadership in one of more of the areas. These persons were invited to complete a survey on line to register their opinions about the seriousness of a number of issues within each of the four themes. These survey responses included the priority ratings of the top

issues selected by each respondent. These issues were assigned to categories ranging from Greater to No Concern. The percent and number of all respondents assigning issues to each category are presented in the text below.

The full results of this Key Informant Survey are presented in detail in Annex # I. They are summarized here to serve as a framework for understanding the focus and organization of this report.

One hundred eighty-one persons responded to the invitation to share their views on the issues of concern in Comal County. These respondents were a broad cross section of the community. They "self-selected" into the sample and while the results are not a random sampling of all the county leaders in Comal County, their responses mirror the same sets of issues identified in the focus groups described above. Moreover, the characteristics of the 181 respondents reflect the population of adults in Comal County. **The profiles of the key informants are described below to better understand the perspectives that are** represented in the compilation of the findings.

Demographic Profiles of Respondents

Females outnumbered male respondents. Both are well represented and the 15% difference does not constitute a threat to validity. The age distribution of respondents conforms well to the adult population of Comal County. It is weighted slightly toward the "middle age" categories, but the highest numbers of respondents are in the age span of 36 to 55. There is a proportionate representation of "baby boomers" aged 56 to 65.

Figure 1. Respondents by Gender

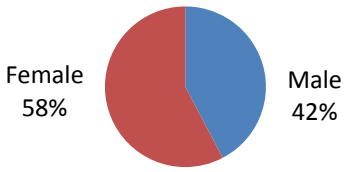


Figure 2. Survey Respondents by Age

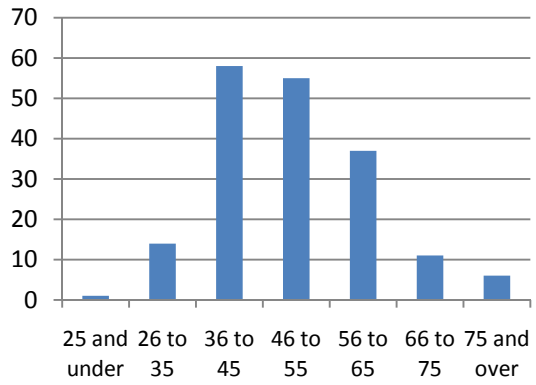
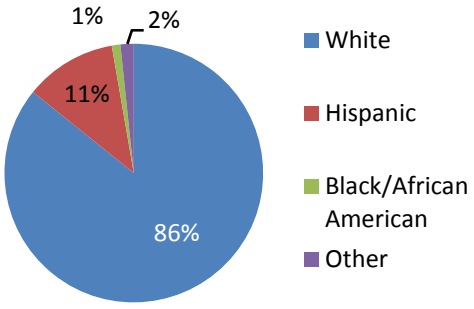
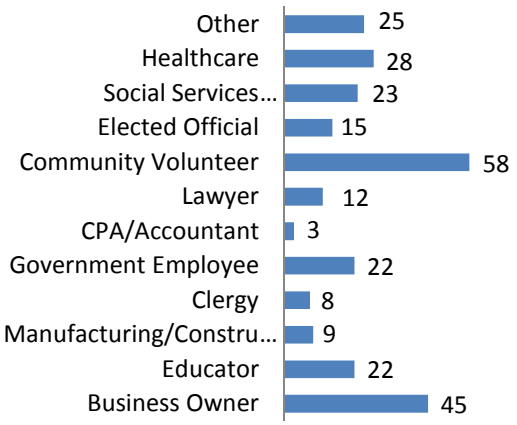


Figure 3. Survey Respondents by Race



Respondents' self-described race/ethnicity is representative of the adult population of the County. While the overall proportion of Hispanics in the county is nearer to 23%, the proportion in these age ranges is between 10% and 18%. The possible under-representation of Hispanic perspective in this Key Informant Survey is balanced by the oversampling in high-density Hispanic zip codes in the subsequent Household Survey. While occupations are not categorized in the same way, the occupational distribution of the respondents appears to reflect the high proportion of managerial, technical, and professional workers in the Comal County working population (see Figure 50).

Figure 4. Survey Respondents by Occupation



Priority Rankings

The following Priority Ratings (averages) are presented to aid the reader in understanding how this assessment was framed and in identifying areas where perception and data may be at odds. Issues deemed of greater concern by 50% or more of respondents served as a starting point for the assessment, but the assessment was by no means limited to these issues. Many issues of low or no concern to respondents were investigated, in some cases extensively. The reason for including the issue might have been because the assessment team's experience supported exploring the issue or because other evidence discovered in the course of the assessment pointed to an emerging problem that may become more acute in the future. An example of this is the concern over racial/ethnic disparities in access to health care. Nearly 75% of the respondents reported low or no concern about this issue. However, analysis of existing data suggests that access to health services is highly dependent upon ability to pay. Other trends in the demographics of the community suggest a widening gap in socio-economic status of the residents. This may be a harbinger of problems in the future that if addressed now can be reduced or avoided.

Children and Youth Issues

Top Five Greater Concerns (the percentage is the proportion of respondents rating the issue as a greater concern)

1. Youth substance abuse: 80.9%
2. Child abuse: 72.5%
3. Education for children 6-18: 71.6%
4. Drop-outs: 69.6%
5. Juvenile crime: 65.5%

Issues of Low or No Concern (the percentage here is the proportion of respondents who rated this as not a concern or as a lesser concern)

1. Youth running from home: 67.6%
2. Extracurricular activities for youth: 58.6%
3. Physical fitness programs at school: 54.9%
4. Health education regarding STDs for youth: 50.0%
5. Safety for children in schools: 46.1%

Health and Family Issues

Top Five Greater Concerns

1. Access to quality health care: 67.7%
2. Physical violence/abuse within the family: 65.7%
3. Support for families in crisis: 53.0%
4. Sexual assault: 53.0%
5. Access to quality mental health services: 52.5%

Issues of Low or No Concern

1. Racial disparities in the delivery of health care: 74.8%
2. Availability of hospice care: 68.7%
3. Support for people with disabilities: 64.5%
4. Chronic illness and disease: 63.5%
5. Access to quality dental care: 52.0%

Education

Top Five Greater Concerns

1. Quality of secondary or high school education: 66.5%
2. Quality of elementary and intermediate education: 57.8%
3. Competitive skill sets: 50.0%
4. Underemployment (not earning a living wage): 49.0%
5. Finding/recruiting skilled job applicants: 46.6%

Issues of Low or No Concern

1. Discriminatory hiring practices: 80.6%
2. Unemployment rates: 74.0%
3. Programs to assist the unemployed: 66.2%
4. residents who commute to work in other counties: 65.1%
5. College graduates who leave the county to find work: 59.9%

Transportation and Environmental Issues

Top Five Greater Concerns

1. Adequate roads and highways: 69.6%
2. Traffic congestion during peak travel times: 65.4%
3. Effective zoning and community planning: 56.5%
4. Cost of living: 56.5%
5. Protection from crime: 55.5%

Issues of Low or No Concern

1. Assisted living/temporary shelter: 63.8%
2. Emergency disaster preparedness: 62.3%
3. Affordable housing: 60.5%
4. Public transportation and transit services: 59.7%
5. Adequate parks and recreational facilities: 56.0%

Determination of Need

....“need” defined: *the difference between the desired state and the current state.* This assessment presents quantitative and qualitative evidence describing the current state of indicators of well being in Comal and surrounding counties. Available and comparable values for these indicators at the state and national levels are also included. Future goals or desired states related to the various issue areas analyzed in this report have not yet been developed by and/or for Comal County. Lacking these one can use findings from other studies or assessments as comparison data. These benchmarks allow for comparison to norms or averages as a representation of how well the indicators for Comal County measure up. For most of these indicators there is no “absolute” standard that is either a minimum or maximum value. Unlike testing drinking water, there is no “safe” or “unsafe” level that must be attained. Need is a relative concept that solidifies as a community creates a vision of its desired state of well being.

In this report it is often the case that in Comal County values for key indicators of well being are, as in mythic Lake Wobegon, “above average”. Some might conclude that the status quo is the satisfactory state and that Comal County has few or no “big” needs that compel remedial action. For some this view will be the logical interpretation. For others who seek improvement in one or several key issue areas, their view of the same evidence will be a call to action. Ultimately, the local process determines priorities for action. An effective community process using the results of this assessment will bring the many stakeholders and viewpoints together to fashion a consensus and a plan for action. This report nominates several key issue areas for inclusion in Comal County’s problem solving process. These **bolded statements** of “need” are embedded in the narrative text of the sections of the report so as to provide the evidence for the conclusion that action is needed to preserve a good state, respond to a changing state, or to remedy a deficiency. These statements of need are also featured in the Executive Summary.

Forces of Change

An assessment is a "snapshot" of a community. These findings tell about the current state of affairs. To attain maximum value of this assessment it is essential to consider the forces that are acting on the community that may or will alter the future state. The dominant force for change in Comal County has been and will continue to be population growth. This growth is not limited to Comal County; indeed, as the data suggest the entire region is growing at a much faster pace than many other parts of the state or nation. The location of Comal County, astride two major north/south transportation corridors and sandwiched between two large metropolitan areas, is another force for change. The natural beauty of the hill country and lake regions attracts visitors and others who relocate here to enjoy the vistas, low tax rates and the pace of the area. This quality of life drives population growth, but also fuels a growing demand for infrastructure and services for the expanding population. The evolving age composition of the population demographic is another force for change. In-migration of retirees and the maturation of the "baby boomer" generation is projected to continue. With this dynamic comes the affluence that will continue to increase per-capita income levels and support demand for property, keeping assessed evaluations stable or moving higher. But, this population will need infrastructure and services that may outweigh their economic contributions to the community.

Another important force of change is the shift in the "*dependency ratio*". Currently, the most rapid growth is in the 25 to 54 year old age cohort. State Demographer and Bureau of the Census projections are that the over-55 age cohort will become the most rapidly growing segment of the population by 2040. This trend signals a shift in the population's "dependency ratio". The ratio is an expression of the combined number of children aged 18 years and younger and elders 65 and older in relation to the number of "working age" adults (ages 19-64). As this ratio increases more and more of the population is "dependent" on the working age segment of the population for goods and services. The question raised is not so much who pays, but who is available to provide the services.

Coping with Forces of Change

To cope with these forces of change it is essential that a community be able to monitor and evaluate trends and changes as they occur. To date the evidence is that Comal County leadership has done a very good job of keeping up with the forces of change. A widely held view reported in the survey of key informant community leaders is that sufficient data and analytic resources currently exist to inform the community about its changing state of affairs. There are, however, serious limitations to available data.

The limitations of various data sources are discussed throughout this report. In short, the data limitations are characteristic of suburban and smaller communities that, while growing and changing rapidly, have not yet attained the size to be adequately represented in samples for surveys conducted by regional, national and state organizations. The result is many gaps in the data and information needed for local assessment, planning and interventions. Paradoxically, while "politics is local" the data resources are not. Like many of its counterparts, Comal County relies on regional (Alamo Area Council of Governments AACOG) alliances to support data gathering and planning. This strategy will of necessity continue to be one means to cope with the rapid and unrelenting change at the county level. Rapidly

growing suburban areas such as New Braunfels, Garden Ridge, and Bulverde are often dependent on local efforts to document the changing conditions. ***There is a need for local data development and partnerships with other communities to provide better, more timely and more tailored information for decision making.***

Executive Summary

Findings, Needs for Action Planning, Next Steps

This assessment adapts a model developed by the National Association of County and City Health Officials entitled *"Mobilizing for Action through Planning and Partnerships (MAPP)."*[1] This model provides a comprehensive, community-driven strategic planning tool for improving community health and well-being. The MAPP model looks at community well being and its determinants through four lenses.

Community Themes and Strengths. The assessment provides a deeper understanding of the issues that residents feel are important by answering the questions: "What is important to our community?" and "What assets do we have that can be used to improve community well being?" These issues and themes provide the framework for the data gathering and analysis.

Local Capacity Assessment. The assessment of local services and organizations focuses on the organizations and entities identified in the previous section that contribute to the community well-being. This assessment asks the questions: "What are the capacities of our local community to plan and implement in comprehensive and coordinated ways?" and "How are essential services being provided to our community?"

Community Health Status. The assessment also identifies priority community health and quality of life issues. Questions answered include: "How healthy are our residents?" and "What does the status of well-being in our community look like?" The major part of this report documents and addresses these questions and identifies when indicators are at variance with benchmarks drawn from regional, state or national norms.

Forces of Change. The assessment seeks to identify forces such as impending changes that affect the context in which the community and its public health system operate. This assessment addresses the questions: "What is occurring or might occur that affects the well being of our community or the local capacity to cope with changes in the environment?" and "What specific threats or opportunities are generated by these occurrences?" The results of this assessment will be expanded and elaborated in the next phases of priority setting and action planning designed as a part of the consensus building process and the action planning to follow the assessment.

The results of these queries are combined in a narrative organized by the key issue areas identified in the survey of key informants. Thus, each area is analyzed and discussed using existing data resources, original data resources from the local surveys, and key informant and subject matter expert interviews. Lastly, the document is in a format to enable the updating of additional local data, information and

[1] National Association of City and County Health Officials. (2008). *Mobilizing for Action through Planning and Partnerships (MAPP). Washington, DC.*

other material as they become available. These results will be useful in subsequent action planning activity.

A broadly representative group of key persons, including community leaders and service providers, was invited to complete a survey to register their assessment of the seriousness of a broad number of issues within each of four areas of concern. Respondents rated issues on a three-point scale ("greater concern", "lesser concern, or "no concern") and also assigned a priority ranking to the issues of most concern to them. The percent of all respondents assigning issues to each category are presented below.

Findings

Rapid and sustained population growth characterizes and challenges Comal County and the surrounding Alamo Area Council of Governments (AACOG) region. This dramatic growth is not slowing. The U.S. Census Bureau's 2005 estimate of the population of Comal County was 94,794 people, which reflects an increase of 34.8 percent since 2000 and an increase of 100.03 percent since 1990. In comparison, from 1990 to 2000 the population of the United States grew 13 percent and the population of the state of Texas grew 23 percent. This dramatic increase in Comal County's population has a number of positive aspects but strains physical and human service infrastructures including school systems, emergency services, road improvements, and water systems.

Minority races represent a small proportion of the population and growth of the minority population (all races) parallels that of the total population. In 2000, the Comal County population was almost 23 percent Hispanic. By 2005 22,439 or 24 percent of Comal County residents were Hispanic. This increase of approximately 1 percent since 2000 is significantly slower than the rate of increase in Texas as a whole.

The total population of Comal County is projected to climb steadily to 121,438 by 2020, an increase of approximately 15 percent over the current 2007 estimate. The largest age group is expected to be those from 45 to 64 years of age. While this is the largest age group in terms of numbers, other age groups are projected to increase at higher *rates,* especially seniors 65 years and older, followed by increases in adults between 25 and 44 years of age and youths under the age of 18. Only the 18- to 24-year old group is projected to experience relatively flat growth rate during this period. The projected increases in these population segments have a number of implications. For example, the population under the age of 18 and those above 65 are the biggest consumers of healthcare services, requiring increased capacity for primary and specialty care. Both senior and child day care, long-term care and assisted living facilities will be in even greater demand in the future.

This county growth rate is reflected at the municipality level. The growth rate for selected incorporated areas within the region based on the 2007 US Census estimates project New Braunfels at 35 percent,

San Marcos at 38 percent and Schertz at 41 percent. These growth rates are three times the growth rates projected for Austin (12%) and San Antonio (14%).

Educational Attainment 42

The 2000 census found that slightly over 28 percent of Comal County residents aged 25 and over were high school graduates. Another 24 percent had some college but no degree, and slightly over 17 percent had a bachelor's degree. More recent estimates from the Quickfacts[2] section of the Census Bureau website indicate that the percentage for Comal County residents with a bachelor's has climbed to 22.66 percent (see graph in the text of the report).

Income and Poverty 43

The most recent estimates from the Census Bureau's American Community Survey (2006) put Comal County's per capita income, or average income per person, at $27,702, higher than Bexar County or Texas even when considering margin of error. Median household income, or the level that half of households are above and below, was $60,511, again markedly above comparison geographies. Fewer than 10 percent of households received cash public assistance or food stamps. Comal County's 2006 inflation-adjusted per-capita income grew by about half since 1976.

However, poverty is a serious issue for a subset of Comal County residents. An estimated 13 percent of the population were living under the federal poverty level in 2006, the most recent estimate available. In 2006 the poverty level was set at $9,800 annual income for one person or $20,000 for a family of four. The Center for Public Policy Priorities' 2007 Family Budget Estimator Project, however, estimates that a family of four living in the San Antonio metropolitan area requires $40,826 in annual income to meet basic needs assuming that the family had employer-sponsored health insurance. If the family must pay the entire health insurance premium, the annual income needed rises to $49,908. In the Austin area these two figures are $43,641 and $53,080, respectively[3].

Texas Education Association data provide another picture of poverty in Comal County. As indicated in the table below, 35 percent of Comal County students are considered economically disadvantaged in some way. Twenty-seven percent of students qualify for free meals, and another 7.4 percent qualify for reduced-cost meals. To qualify for free meals, a child must live in a household with household income falling at or below 130 percent FPL ($26,000); eligibility for reduced-cost meals requires that household income not exceed 185 percent FPL ($37,000).[4] The trend of increasing per capita and household incomes in the upper socio-economic groups and the lack of increase in the lower echelons portends a widening gap in socio-economic status.

This review of demographic characteristics sets the context for the interpretation of the findings from this report. ***In summary, rapid population growth has been a fact for nearly two decades, and it is***

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[2] U.S. Census Bureau, *Quickfacts*

[3] Center for Public Policy Priorities Family Budget Estimator

[4] Department of Agriculture Food and Nutrition Service Child Nutrition Programs - Income Eligibility Guidelines. Federal Register. Vol. 72, No. 38, February 27, 2007.

projected to continue as the major driver of change. What will begin to shift is the age composition of the population, with the graying of Comal County and the addition of younger families with larger family size driving the redistribution of the age composition. The major force of change for Comal County is the demographic transition that is already well underway.

While it is the case that Comal County has coped well with the population growth in the past two decades, the emerging challenge is to provide infrastructure and services to the most "vulnerable" of those who make up the community – the elderly and the youth. These impending changes will require a different approach to planning and assurance of the conditions for well being for the entire community. The new approach will be focused on development and not disease, on wellness and not illness, and on preventing risks and threats in contrast to remediation. These new approaches will concentrate on "root causes" and not current symptoms. For example, the national United Way has adopted a goal of cutting in half the number of lower income working families who are financially unstable over the next ten years. As part of the United Way Financial Stability Partnership(TM), strategies being discussed aim to provide hard working individuals and families with tools and resources to maximize their income, build savings and acquire assets for stable housing, continued education, small business development, and retirement planning.

These approaches will require a clear vision of how the community wants to be in the future. The plan will be driven by opportunity to achieve the desired state and not by a catalogue of deficiencies and deficits. The plan will be proactive and not reactive. It will focus on the future and not the past.

It is already clear that change is rapid and the complex challenges to be faced are "coming fast". Along with this is the realization of the need for rapid cycle planning and rapid response capability. This rapid response requires the capacity to inform and explain threats and opportunities if political will is to be behind the needed actions. In addition to the changes in perspective described above there is a need for a community infrastructure to engage and support citizen participation. There is also the need for accurate, timely and objective information to provide the evidence base for policy and decision making.

What is the evidence about these issues and concerns?

Following is a summary of key informants' evaluation of possible issues of concern. The percent beside each issue represents the proportion of respondents rating the issue as a major or greater concern.

Children and Youth Issues

Top 5 Concerns: related to Children and Youth

1. Youth substance abuse: 80.9%
2. Child abuse: 72.5%
3. Education for children 6-18: 71.6%
4. Drop-outs: 69.6%
5. Juvenile crime: 65.5%

Findings related to these issues:

- The greatest percentage of juvenile arrests in any given year from 2002 through 2006 resulted from the possession of drugs. Additionally, data gathered from the Comal County Juvenile Probation Department indicate that approximately 27.2 percent (205 out of 753) of the drug

tests administered in 2007 were positive. Also noteworthy is the fact that the percentage of arrests for liquor violation has been on the rise since 2002, accounting for 12.6 percent in 2002 increasing significantly to a third (31.7%) of the total arrests in 2006. The high level of concern is supported by the evidence.

- Additionally, the Youth Survey investigated a constellation of factors that contribute to these risky behaviors and found that:
  - One in five Comal County students (20.9%) are spending over three hours per day watching TV and/or using computers for fun. Nearly one in three (31.4%) is spending that amount of time on the cell phone.
  - Students were also asked how many hours of physical activity they engaged in per week. Of the students responding to this question, nearly half (47.9%) indicated that they do not participate in even one hour of sports per week.
  - More than half (56.7%) of students reported zero hours per week of participation in any extracurricular activities. An additional 18.4 percent indicated that they spend only one to two hours in extracurricular activities per week. Thirty-four percent report part-time work. Together these results indicate that two-thirds of the respondents have significant amounts of unfilled time after school.
  - Nearly 40% of students report 2 or more hours/day as being at home without an adult.
  - When asked how their parents would feel about engaging in risky behaviors, the majority of students indicated that their parents would find it 'very wrong.' However, according to student perceptions, adults are significantly less opposed to their drinking alcohol than engaging in other behaviors like stealing.
  - Students reported that one or more of their friends smoked cigarettes (65%); drank beer, wine or hard liquor (78%) or smoked marijuana (64%) in the past 30 days.
  - Another question asked students whether they themselves would try drugs or alcohol or participate in a risky activity if a close friend asked them to do so. Students responded "Yes" (19.1%), "I don't know" (2.6%), and a majority answered "No" (55.3%). The remaining 23 percent did not answer the question.
- The average rate of juvenile violent crime arrests (per 100,000 kids) for Comal County children aged 10 through 17 was higher than Bexar, Blanco, Guadalupe, and Kendall Counties.

Health and Family Issues

Top 5 Greater Concerns

1. Access to quality health care: 67.7%
2. Physical violence/abuse within the family: 65.7%
3. Support for families in crisis: 53.0%
4. Sexual assault: 53.0%
5. Access to quality mental health services: 52.5%

Findings related to these issues:

- Inadequate prenatal care is a problem for Comal County's pregnant women. Infant mortality stands at six per 1,000 live births, comparable to the state rate, and is primarily caused by perinatal complications
- Teen (ages 13 to 19) birth rates for Comal County are only slightly below those for the state of Texas as a whole and are well above national averages and goals.
- While rates of sexually transmitted disease in Comal County adults and teens remain relatively flat and low compared to surrounding counties, no downward trends of any significance have been observed over the past decade. Incidence (new case) rates of gonorrhea exceed Healthy People 2010 goals. Comal County appears to have an elevated rate of morbidity due to chickenpox (varicella) in comparison to surrounding counties; pertussis, cryptosporidiosis, and salmonellosis may be elevated as well. While Comal County's childhood immunization rates are similar to or slightly higher than those of Texas and surrounding counties, less than two-thirds of children are fully immunized against preventable infectious disease.
- Comal County does not appear to shoulder an excessive burden of chronic disease or disability in comparison to neighboring counties or the state, but with an aging population, the cost of chronic disease and disability incurred through health care services and lost productivity can be expected to increase significantly and consistently in the coming decades. Cardiovascular disease and cancer are the two leading causes of overall death in Comal County, trailed by unintentional injury, chronic lower respiratory disease, diabetes, and Alzheimer's Disease.
- Alcohol abuse and problem drinking appear to be significant issues for Comal County youth and adults and may be a contributing factor to mental illness, motor vehicle accidents, interpersonal violence, chronic physical illness, and poor birth outcomes.
- When averaged from 1990 to 2005, the trends in child and teen violent deaths show no striking difference for Comal County in comparison to its contiguous counties.
- Comal County adults may be experiencing excess deaths due to melanoma of the skin among non-Hispanic whites.
- Unintentional injury is a significant cause of death among Comal County's young adults, among whom injuries are primarily due to motor vehicle accidents, and seniors, among whom the injury rate primarily represents falls.
- Comal County residents overall appear to have reasonably good access to primary health care based upon provider numbers, but half of primary care providers are in practice only part-time, and many providers appear to be closed to new patients or to Medicare or Medicaid patients. Providers are also unevenly distributed across the county.
- The data show a striking disparity in insured status between non-Hispanic whites and Hispanic and African American residents, with Hispanic and African American residents being more than twice as likely to be uninsured.

- Access to dental, mental health, and specialty medical care appears to be more restricted than access to primary medical care.
- Comal County could do more to enroll eligible children into Medicaid and CHIP.
- Half of hospital visits by Comal County residents are at hospitals outside Comal County, with the overwhelming majority of outmigration visits occurring at Bexar County hospitals.
- Hospital visits by Hispanics and African-Americans are much more likely to be emergency department rather than outpatient visits, opposite of the pattern seen among whites and persons of other races. This difference likely points to a lack of a medical home and the use of emergency department as source of care of first and last resort.
- Emergency department diagnosis codes are more indicative of presenting symptoms than actual diagnosis, but it appears that many visits could be handled in a primary care setting or prevented entirely through primary care. It is likely that masked among physical symptoms are mental illnesses like depression and anxiety manifesting as pain, headache, gastrointestinal/abdominal distress, and fatigue.
- Lack of transportation does not appear to be a significant barrier to access to health care.
- A large proportion of residents are not aware of available resources and services.

Education and Workforce Issues

Top 5 Concerns:

1. Quality of secondary or high school education: 66.5%
2. Quality of elementary and intermediate education: 57.8%
3. Competitive skill sets: 50.0%
4. Underemployment (not earning a living wage): 49.0%
5. Finding/recruiting skilled job applicants: 46.6%

Findings related to these issues:

- 82 percent of parents responding to the Comal County Household Survey felt their child or children are being sufficiently challenged in their schoolwork, while only 57 percent of youth reported being challenged
- Two measures that provide some proxy for quality of education are neighboring county and statewide comparisons of graduation rates and Texas Assessment of Knowledge and Skills (TAKS) testing.
    - A comparison of TAKS scores in both reading and math for Comal, the surrounding counties and the state reveals no outstanding differences in performance (see tables in text). A five-year average (2003 through 2007) of grades 3 through 11 shows little difference when compared by grade or geography. Performance on TAKS scores in Comal is on a par with neighboring counties and marginally higher than the state as a whole.

- Analysis of the percentage of 9th graders who graduated within four years (averaged over a seven year period), demonstrates that Comal County exceeds the Texas state average for graduation percentage (84.3 percent vs. 82.5%). All but one of its neighboring counties (Bexar County) exceeded the state average of graduates over the same time period.

- Nine out of ten respondents to the Key Informant survey indicate that competitive skill sets for employees is a concern. Nearly half (47.3%) of this number indicated is of greater concern. Nearly two-thirds (sixty-three percent) of the total population is part of the workforce in Comal County. According to the 2007 US Bureau of Labor Statistics, there were 51,006 jobs available within Comal County and unemployment rates in Comal County have been consistently below state and national averages for the past two years. Comal County exceeds the state average for percent of population with a high school diploma or bachelor's degree or higher. Central Texas Technology Center offers educational alternatives for non-college bound high school graduates.
- The top four industries in Comal are education, health, and social services; retail trade; manufacturing; and construction accounting for 53.8 percent of the total workforce.
- Seventy-four percent of students indicated that they live with two adult parents and/or guardians. Fifty percent reported that they have dinner with family 6 or more times per week. Nearly three quarters (73.6%) reported that honesty with parents is important. A significant majority of students reported awareness of strong parental attitudes towards and rules against high risk behaviors.
- More than 50 percent of students reported participating in at least one or more sports and nearly 57 percent of students surveyed reported that they do not participate in weekly extracurricular activities.
- Most students spend time alone at home during the average school day. Approximately 1 out of every 8 students (12.7%) spends 5 hours or more alone on the average school day. Slightly under 1 out of 5 (18.4%) reported spending no time alone on the average school day. Nationally reported survey data suggest that most teens have their first sexual encounter after 3 pm. According to CDC data, Texas teens are more likely to be sexually active, and less likely to use birth control, than the US as a whole. Teen (ages 13 to 19) birth rates for Comal County are only slightly below those for the state of Texas as a whole.

Transportation and Environmental Issues

Top 5 Concerns:

1. Adequate roads and highways: 69.6%
2. Traffic congestion during peak travel times: 65.4%
3. Effective zoning and community planning: 56.5%
4. Cost of living: 56.5%
5. Protection from crime: 55.5%

Findings related to these issues:

- Historically, Comal County leadership has been very proactive and forward thinking in planning for future infrastructure needs. The steady rise in population and traffic volume make this a continuing need.
- Solutions for public transportation may continue to be a topic of discussion for Comal residents as ART bus system cannot be all things to all people, and is not a city *mass* transit or Austin-San Antonio commuter solution. ART is ideally suited, however, for ad hoc trips by special needs populations. While respondents were split as to whether this was a greater or lesser concern, 75% agree that it is a concern. This appears to validate the anecdotal evidence gathered in Comal County indicating public transportation is an issue of some concern. Only 17.2 % of respondents indicated that it is not a concern.
- Continued residential and commercial development may make projects like the New Braunfels Outer Loop more attractive to local residents to alleviate congestion and relieve congestion on rural roads within the county that were not intended for urban traffic volumes. Sixty-five percent of key informant survey respondents indicated that adequate roads were of greater concern; 61.1 percent indicated that traffic congestion was of greater concern.
- Effective zoning is seen as a means of limiting urban sprawl and over-tasking existing roads. Fifty-three percent of community leader respondents indicate effective zoning is a greater concern, 34.5 percent a lesser concern; less than 5 percent indicate that effective zoning is not a concern).
- Where respondents were asked to rank (1^{st} through 4^{th}) issues of concern as action items for strategic planning over the next 3 to 5 years, adequate roads and highways and traffic congestion during peak travel times ranked 1^{st} and 2^{nd} respectively out of 13 possible choices. However, public transportation and transit services ranked 10^{th}. This reflects the tendency to consider owner-operated, private vehicles as the first choice for transportation.
- Water quality may be threatened by rapid population growth; risk is increased in absence of a local groundwater conservation district.
- Air quality is well addressed by the regional planning agency (AIRCO), but will remain a constant in future concerns in light of rapid population growth and the adjacent Bexar County air quality levels that are near “non attainment” of EPA standards.

Summary of NEEDS

1. **Youth are at risk in Comal County from a variety of factors, but it is the combination of factors that raises the probability that the risk will result in harm. There is a need for a comprehensive approach to youth risk reduction that will address alcohol use, smoking, driving while intoxicated, teen sexual behavior, sexually transmitted disease, alienation from adults, vulnerability to peer pressures, lack of participation in exercise or other extra-curricular activities, and less than ideal communication among parents, teachers and the children of Comal County. This comprehensive approach will necessarily involve:**

    - **Families**
    - **Peer Groups**
    - **Schools and Training Organizations**
    - **Higher Education**
    - **Youth-Serving Organizations**
    - **CBOs (Non-Profit Service Providers and Associations)**
    - **Businesses (Jobs, Internships and Apprenticeships)**
    - **Faith-Based Organizations**
    - **Libraries, Parks, and Recreation Departments**
    - **Community-Based Health and Social Service Agencies**

2. **Integrated planning for health and social services, housing and transportation related to the needs of seniors is needed to assure efficient and coordinated efforts among the several not for profit, governmental and private organizations. There is a need for a more integrated and comprehensive plan for the elder population, a mechanism for review of priorities, and monitoring of progress to keep pace with the increasing proportion of elders in the total population. The emphasis of this plan should be proactive: on health, wellness, well being, prevention and quality of life. The plan should enlist the active participation of elders, care-givers, service providers and families.**

3. **There is an unmet need for affordable home repair and modernization services. Further deterioration of housing stock will degrade neighborhood quality and result in fewer habitable dwellings, undesirable vacant shells that serve as breeding grounds for disease, crime and unsafe streets. (See also the analysis of the Youth in Schools survey questions 12 & 13.)**

4. **There is a need for a thorough county-wide inventory, monitoring and evaluation of housing stock to assure adequate and affordable housing for the increasing population and especially the most vulnerable groups (elderly and children) seeking housing. Likewise, there is a need for gauging the demand for subsidized public housing.**

5. **Since Comal County is experiencing significant population growth, and occupies a prominent position along the I-35 corridor successful planning for future transportation needs will need to include alternative transport modes. More miles of wider roads will invite more vehicular traffic.**

6. **Given the unprecedented growth in residential development the county is experiencing, the absence of a water authority district for approximately half the county suggests a need to find some mechanism acceptable to voters to protect and maintain water quality into the future.**

7. **There is a need for youth mentorship and school guidance programs to help counterbalance the effects of negative peer pressure on the youth of Comal County.**

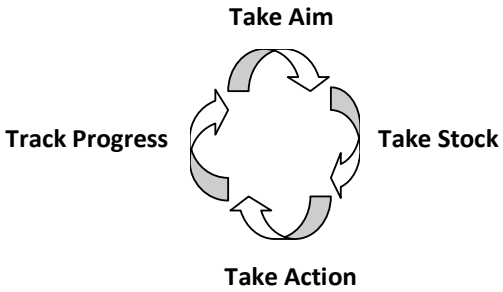
8. **There is a need to collaborate with regional data resources to enhance access to data and expertise for local planning and policy determination. For example, the Alamo Area Community Information System currently lists data for only two indicators for Comal County: # of persons receiving home delivered meals and the summary crime report. There is a related need for an information sharing web site to provide opportunity for data users to download data resources to assist in formulating project proposals and monitoring progress.**

Many new questions have been uncovered in this assessment. There is a need to partner with research institutions to address the need for detailed information to guide plans and interventions.

The common thread connecting these needs is the need for a more comprehensive, forward focused, proactive, evidence-driven process for anticipating forces of change, setting goals, achieving consensus, taking action and assuring accountability and performance. The current pattern of community response might be described as:

See a Problem ➔ Convene a Task Force ➔ Create a Program

But this issue-specific approach has created issue "silos" and spawned disjointed, uncoordinated, piecemeal problem solving. While focus is important, too narrow a focus may fragment the energy and the efforts of a community, and too many community initiatives may weaken interest and dissipate capacity for high impact change. Further, an intervention driven by a single-issue focus may be ineffective because it did not incorporate related issues and "upstream" causes. A more effective approach is to select a limited number of areas for focus and:



This assessment provides the evidence across four major issue areas to select the aims, and evaluate the current baselines and benchmarks. The follow-on activities of taking action and tracking progress will deliver the promise of achieving the best possible opportunity for well being for all the citizens of Comal County.

SOCIAL AND ENVIRONMENTAL DETERMINANTS OF WELL-BEING IN COMAL COUNTY

2007-2008 Community Wide Assessment

Overview

The purpose of this assessment is to provide the best available evidence to document the status of community well being in Comal County. Evidence-based assessment provides a rigorous and objective foundation for community decision making. The leadership of the various sponsoring organizations and partners (described below) is committed to discovering the evidence, analyzing it and making it available for community discussion and action planning. To that end they engaged a university partner to assist in the evidence gathering and analysis. This report is the culmination of the first phase of a community based process to determine priority issues, identify potential remedies or improvements and ultimately to take actions to protect and preserve community well being and its future.

Partners

The success of this effort is directly proportional to the participation and sponsorship of the Comal County Community. In this case the participation has been broad and the sponsorship generous.

The organizations providing direct financial underwriting of this assessment are:

1. McKenna Health System
2. The Carmage and Martha Ann Walls Foundation
3. The City of New Braunfels
4. The Kronkosky Charitable Foundation
5. The United Way of Comal County
6. The University of Texas School of Public Health

Many organizations and individuals contributed their time, information and expertise to make this assessment possible. The core group of community representatives that comprise the Strategic Committee met regularly with the university-based consultants to identify community partners, determine the focus of the assessment, provide input to data collection methods and to review progress.

In addition a broad based group of community stakeholders were identified and involved in providing advice, entrée for data collection, and input to the key questions that were the focus of the study. This breadth of collaboration is direct testimony to the level of interest and the commitment of these citizens

to strive to make Comal County a community with the highest quality of life and the maximum of opportunity for all its citizens.

Methods

This assessment uses a multi-issue approach. The advantage of this approach is that it considers the inter-relatedness of several issue areas, such as transportation, housing, employment and health care. This approach relies heavily on methods that have been developed and fostered by the World Health Organization, the National Association of County and City Health Organizations and by the Centers for Disease Control and Prevention of the U.S. Department of Health and Human Services. They are the methods that have been adopted by the "Healthy Communities" movement that has spread across the globe.

These methods are designed to enable communities to assess and reassess the threats to community well-being and to identify the assets in the community that may be mobilized to reduce or remove those threats. These methods rely upon community engagement. Since the responsibility for taking sustainable action to create healthy communities must be based upon the assets in that community, the views of the citizens are critical to the process.

The assessment was framed on input provided by individuals that participated in twelve different focus groups representing various topics of interest to the community. The groups were comprised of a diverse representation of the incorporated and unincorporated areas county. The representation included: government employees, public and not-for profit program providers, private business owners and employees, interested citizens, recipient of social and medical services, senior citizens and the faith community. Each focus group was invited to provide input on issues and concerns in Comal County. The focus group process and wealth of information that was gathered became the source for determining the content for the survey questions used in the Key Informant, Youth and Household surveys. Many issues of concern emerged in several of the groups confirming agreement among individuals on the needs of their community.

Research Design

This assessment involved both primary and secondary research. The primary research consisted of the design and administration of three surveys – the Key Informant, Youth in Schools, and Household surveys. The secondary research involved extensive review and analysis of original and secondary data.

The purpose of the surveys was to gather statistically valid data from the different populations to objectively assess the relative importance of an array of issues to include: neighborhood and community, elderly, youth, the working population, transportation and infrastructure, healthcare and access to services. The methodology for how each survey was designed and administered is briefly described below.

- Key Informant Survey: The key informant survey was administered through the use of an online survey administration website. This method was chosen for its ease of use and the survey instrument was completed by 181 key persons nominated by their peers within the county.

These persons were drawn from a pool of individuals identified by the stakeholder group and consisted of a wide array of leaders and community minded citizens including business owners, educators, health care, social service agencies, and faith-based organizations, among others.

- Youth Survey: The Youth in Schools Survey was designed and administered by the United Way with technical assistance from the UTSPH consultants and the Communities in Schools working group. This survey was developed from similar surveys of youth at high school grade levels. The surveys were administered with the cooperation of the leaders of the Comal Independent School District and the New Braunfels Independent School District. Each home room class instructor was provided a kit of survey questionnaires, instructions on administration and instructions on collection and submission of the completed instruments. These questionnaires were reviewed for completeness and then sampled for coding and analysis. A twenty-percent random sample of completed questionnaires from each home room was taken and added to a master sample for analysis. Representative coverage of grades 9, 10 and 11 and ages 14-17 was obtained for the analysis. Informed consent from parents for their child's participation was denied by only 14 parents.

- Household Survey: The Household Survey was developed with extensive input from the Steering committee and Stakeholder groups. This survey included items that were designed to repeat some of the queries of earlier surveys in order to compare responses from a random sample of households throughout Comal County. In this method it is possible to detect agreement or disagreement on the knowledge, attitudes and actual practices of the respondents who are drawn from different life stages and stations. This sample was obtained via Random Digit Dialing and the questionnaire was administered by telephone interview (in English or Spanish based on respondent preference) to a sample of 500 Comal County residents.

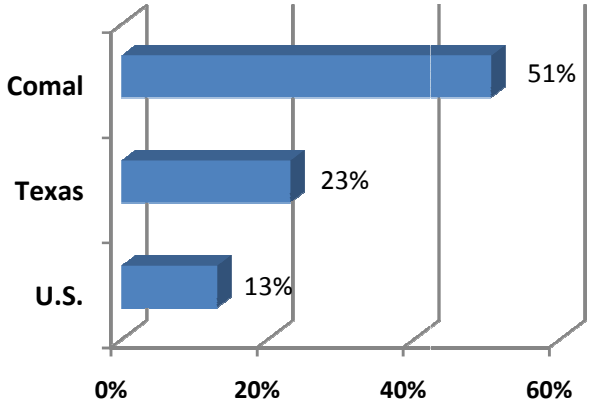
Organization of the Document

The body of the assessment is organized according to several key community themes: *Population and Demographics*, *Community and Quality of Life*, *Working Population*, *Transportation and Infrastructure*, *Youth*, *Health Status*, and *Access to Health Care and Social Services*. Each of these sections weaves together the results from all three surveys – Key Informant, Youth, and Household – and the most recent data available from public and private agencies as cited in footnotes throughout the assessment. The preceding Preface is intended to frame the document, describe the methods used to collect new data, and explain how possible issues of concern were identified and noted. The Executive Summary outlines these issues, identifies needs and next steps the community might collectively take to address those issues.

Demographics

Rapid and sustained population growth characterizes and challenges Comal County and the surrounding Alamo Area Council of Governments (AACOG) region. The Comal County population grew by 51 percent in the decade of 1990 to 2000. The 1990 U.S. census count determined that 51,832 people were living in Comal County. The 2000 count recorded 78,021 people living in Comal County.

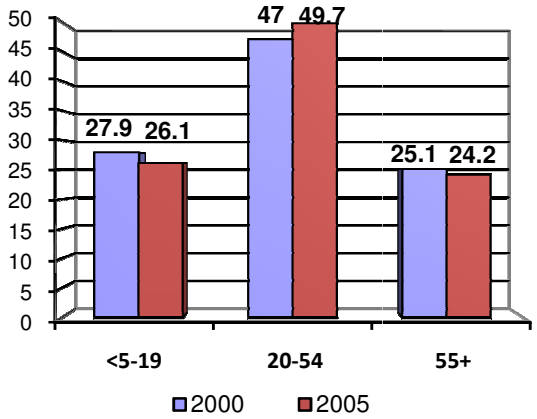
Figure 5. Population Growth 1990 to 2000



This dramatic growth is not slowing. The census for 2005 estimates the population of Comal County was 94,794 people, which reflects an increase of 34.8 percent since 2000, and an increase of 100.03 percent since 1990. In comparison, from 1990 to 2000 the population of the United States grew 13 percent. Over this same time period, the population of the state of Texas grew 23 percent. This dramatic increase in Comal County residents strains physical and human service infrastructures, including school systems, emergency services, road improvements, and water use.

Other growth estimates from the Texas State Data Center using different assumptions and methods predict an even greater rise. These estimates are that the Comal County population in 2007 was 105, 431 (35% increase since 2000) and the New Braunfels population was estimated at 54,435 (49.2% since 2000).

Figure 6. Percent of Comal Co. Population by Age Group



Population by age group in the first half of the decade shows a decline in the youth and in the over-55 populations with the net growth concentrated in the 20-54 age group (see graph above). It is noteworthy that the growth in the working age group did not result in higher unemployment, although the place of employment may not be in Comal County.

Race

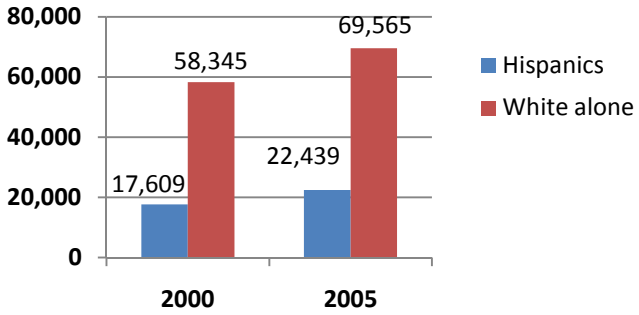
Minority races represent a small proportion of the population (see Figure 7 below), but growth the minority population (all races) parallels that of the total population. In 2000, there were 741 African Americans (0.9%) and 6,216 of other races (American Indian, Asian, Pacific Islander, and other races). Based upon the 2005 American Community Survey, the number of African American residents grew 64 percent between 2000 and 2005. Census 2000 data, the

most recent available, indicate that one in 20 Comal County residents is foreign-born, drawing mostly from Mexico (66%) and secondarily from Germany (8%), the United Kingdom. (5%), and Canada (2%).[5]

Figure 8. Comal Co. Population by Race 2000 and 2005

Race	2000	2005
White	69,501	84,335
Black	741	1,220
Native American	414	503
Asian	360	285
Some other race	5,449	7,063
Two or more races	1,533	1,388
Pacific Islander	23	-

Figure 7. Comal Co. Population by Ethnicity, 2000 and 2005

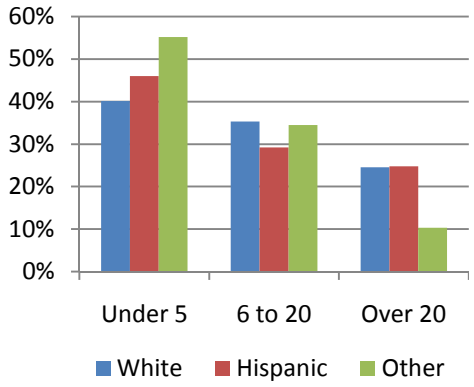


Ethnicity

In 2000, the Comal County population was almost 23 percent Hispanic. According to the American Community Survey, which is limited to the household population and excludes the population living in institutions, college dormitories, and other group quarters, by 2005 22,439 or 24 percent of Comal County residents were Hispanic. The Hispanic or Latino segment of Comal County grew by approximately 1 percent since 2000, a significantly slower rate than in Texas as a whole.

Results from the household survey indicate that residents of other races (Black/African American, Asian/Pacific Islander, American Indian/Eskimo) were more likely to be recent arrivals to Comal County. Whites represent nearly three-quarters of residents who have lived in Comal County for over 20 years. If this pattern continues, the racial/ethnic composition of the population will continue to diversify. When this trend is considered together with the age-specific trends for 2000 to 2005 reported above, the new arrivals are more likely to be in the 20-54 age range with an increasing proportion representing racial/ethnic minorities.

Figure 9. Years in Comal Co. by Race/Ethnicity



[5] Census 2000 Summary File 3

Population Projections

Comal County's growth shows no sign of stopping. Figures 9 and 10 below are based on Texas State Data Center projections of Comal County population growth based on a 0.5 migration scenario (see text box below for definition). As can be seen in Figure 9, the total population is projected to climb steadily to 121,438 by 2020, an increase of approximately 15 percent over the current 2007 estimate.

Figure 10. Comal Co. Population Projections 2000 to 2020: Migration Scenario 0.5

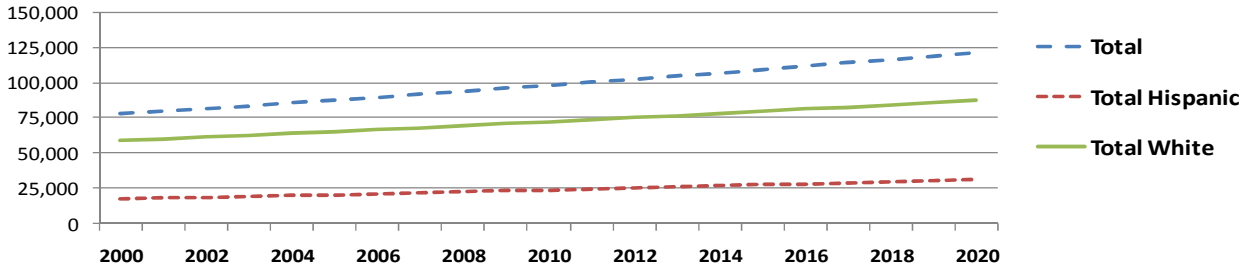
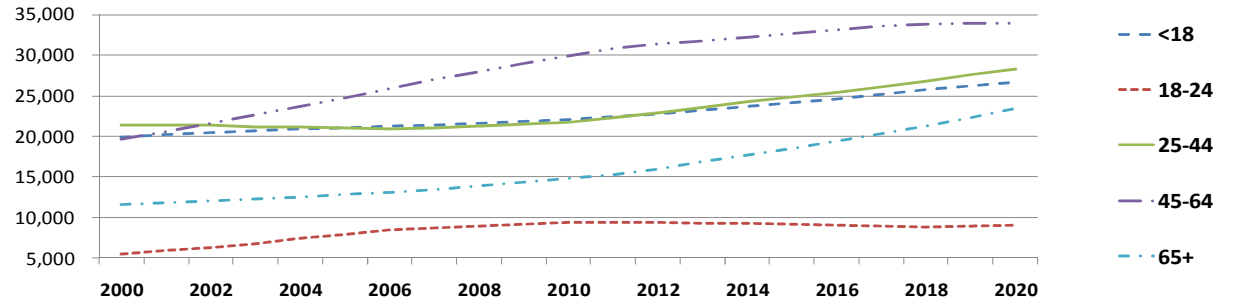


Figure 11 on the following page shows the projected changes in the same population by age group. The largest single age group is expected to be those from 45 to 64 years of age. However, while this is may be the largest age group in terms of numbers, other age groups are projected to increase at higher rate. This can be seen especially in the growth of those 65 years and older, followed by increases in those between 25 and 44 years of age and youths under the age of 18. Only the 18-24 age group is projected to experience a relatively flat growth rate during this period. There are many implications for the projected increases in these segments of the populations. For example, the population under the age of 18 and those above 65 are the biggest consumers of healthcare services, requiring adequate access to primary care and specialty providers. Day-care, long-term care and assisted living facilities will be in even greater demand in the future.

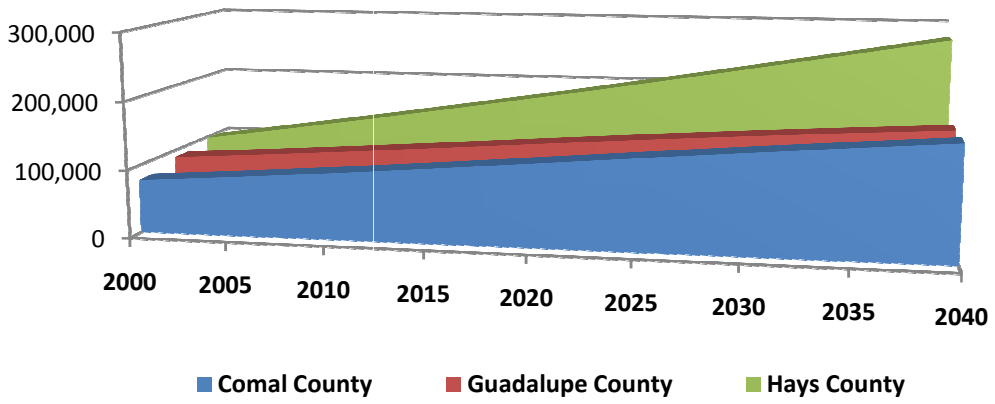
Figure 11. Comal Co. Population Projections by Age Group, 2000 to 2020: Migration Scenario 0.5



Population projections from the Texas State Data Center through the year 2040 show that growth regionally will be at a similar or even faster rate as Comal County. The graph below shows the projected population increase for Guadalupe and Hays Counties. Due to the close proximity of these counties, populations of these areas appear to be growing towards each other in such a way that formerly distinct community identities may seem to blur as needs for resources and infrastructure overlap. Over this 40-

year period (based on a 0.5 migration scenario), Comal is expected to increase its population 215 percent over the 2000 census (2040 projected estimate is 167,802), compared to Guadalupe at a 184 percent increase and Hays at a significantly higher 286 percent increase. Growth in Comal, Guadalupe, and Hays is also affected by the close proximities of the large Metropolitan Statistical Areas (MSA) of Austin and San Antonio.

Figure 12. Population Projections to 2040 for Comal, Guadalupe, and Hays Counties: Migration Scenario 0.5



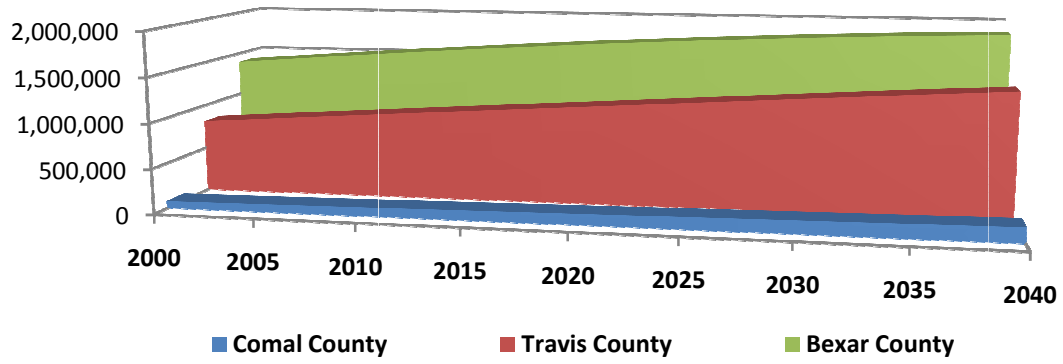
The graph below shows the same 40-year population projections with Bexar, Comal, and Travis Counties. The difference in population for the two MSAs as compared with Comal shows the impact of regional growth. The unabated growth in the large MSAs will drive growth in Comal well into the mid-century. The projected population increase for Travis is 71 percent and 35 percent for Bexar County. In comparison, the growth rate for the three smaller counties is projected to be significantly higher. This difference may include growth from individuals leaving the large MSAs for the less densely populated surrounding counties.

The One-Half 1990-2000 Migration (0.5) Scenario

This scenario has been prepared as an approximate average of the zero (0.0) and 1990-2000 (1.0) scenarios. It assumes rates of net migration one-half of those of the 1990s. The reason for including this scenario is that many counties in the State are unlikely to continue to experience the overall levels of relative extensive growth of the 1990s. A scenario which projects rates of population growth that are approximately an average of the zero and the 1990-2000 scenarios is one that suggests slower than 1990-2000 but steady growth.

The Texas State Data Center

Figure 13. Population Projections to 2040 for Bexar, Comal, and Travis Counties: Migration Scenario 0.5



This rapid increase in population is further illustrated by estimates compiled by the US Census identifying the top 100 fastest growing counties in the country. The table below highlights the Texas counties included in that list. Comal ranks 46th while Hays and Kendall are number 20 and 69, respectively. Comal County has moved up in rank over the past two years, from the former rank of #69.

Figure 14. Population Estimates for the 100 Fastest-Growing US Counties with 10,000 or more Population in 2007: April 1, 2000 to July 1, 2007

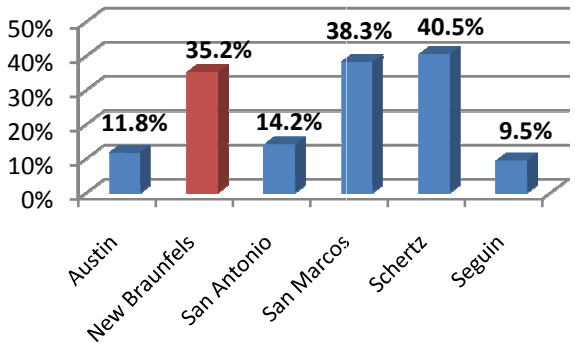
Rank	Geographic Area	Population Estimates		Increase, 2000 to 2007	
		July 1, 2007	April 1, 2000	Number	Percent
3	Rockwall County	73,810	43,079	30,731	71.3
13	Williamson County	373,363	249,982	123,381	49.4
15	Collin County	730,690	491,776	238,914	48.6
20	**Hays County**	**141,480**	**97,574**	**43,906**	**45.0**
22	Fort Bend County	509,822	354,452	155,370	43.8
29	Denton County	612,357	432,962	179,395	41.4
32	Montgomery County	412,638	293,768	118,870	40.5
42	Kaufman County	96,373	71,310	25,063	35.1
46	**Comal County**	**105,187**	**78,021**	**27,166**	**34.8**
69	**Kendall County**	**31,342**	**23,746**	**7,596**	**32.0**
91	Ellis County	143,468	111,360	32,108	28.8
100	Burnet County	43,689	34,147	9,542	27.9

Note: The April 1, 2000 estimates base reflects changes to the Census 2000 population resulting from legal boundary updates as of January 1 of the estimates year, other geographic program changes, and Count Question Resolution actions. All geographic bou

Source: http://www.census.gov/popest/counties/CO-EST2007-08.html

This county growth rate is reflected at the community level. The graph at right shows the growth rate for selected incorporated areas within the region based on the 2007 US Census estimates. New Braunfels at 35 percent, San Marcos at 38 percent and Schertz at 41 percent are experiencing higher growth rates in comparison to Austin (12%) and San Antonio (14%).

Figure 15. Population Growth by Incorporated Place, 2000- 2007



Distribution within the County

According to the 2000 census, the largest portion of the population (47%) of Comal residents lived in New Braunfels. The Canyon Lake area contained 22 percent of all residents, Bulverde 5 percent and Garden Ridge 2 percent. All other areas combined accounted for the remaining 24 percent, including communities such as Fischer, Smithson Valley, Sattler, Startzville, Hunter, and Solms.

Educational Attainment

The 2000 census found that slightly over 28 percent of Comal County residents aged 25 and over were high school graduates. Another 24 percent had some college, but no degree, and slightly over 17 percent had a bachelor's degree. More recent estimates, available from the Quickfacts section of the census website, indicate that the percentage for Comal County residents with a bachelor's has climbed to 23 percent and the proportion without a high school diploma has decreased from 16% to 11% (see Figure 17).

Figure 16. Comal Co. Population Distribution, 2000

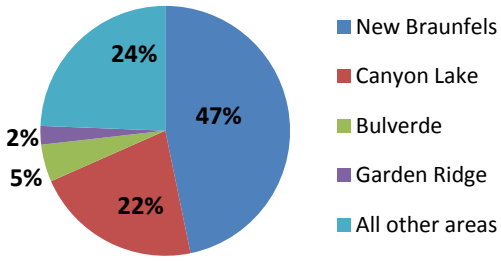
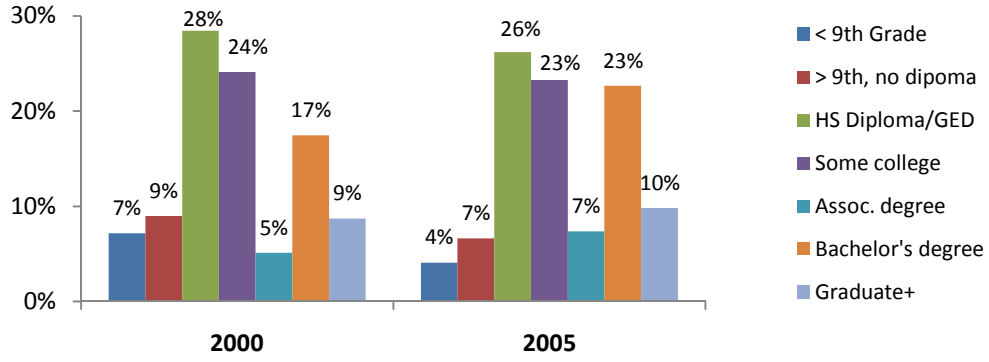


Figure 17. Comal Co. Educational Attainment, Percent of Population Aged 25 and Older



Income and Poverty

The most recent estimates from the Census Bureau's American Community Survey (2006) put Comal County's per capita income, or average income per person, at $27,702, higher than Bexar County or Texas even when considering margin of error (Figure 1). Median household income, or the level that half of households are above and below, was $60,511, again markedly above comparison geographies even with margin of error. Fewer than 10% of households received cash public assistance or food stamps.

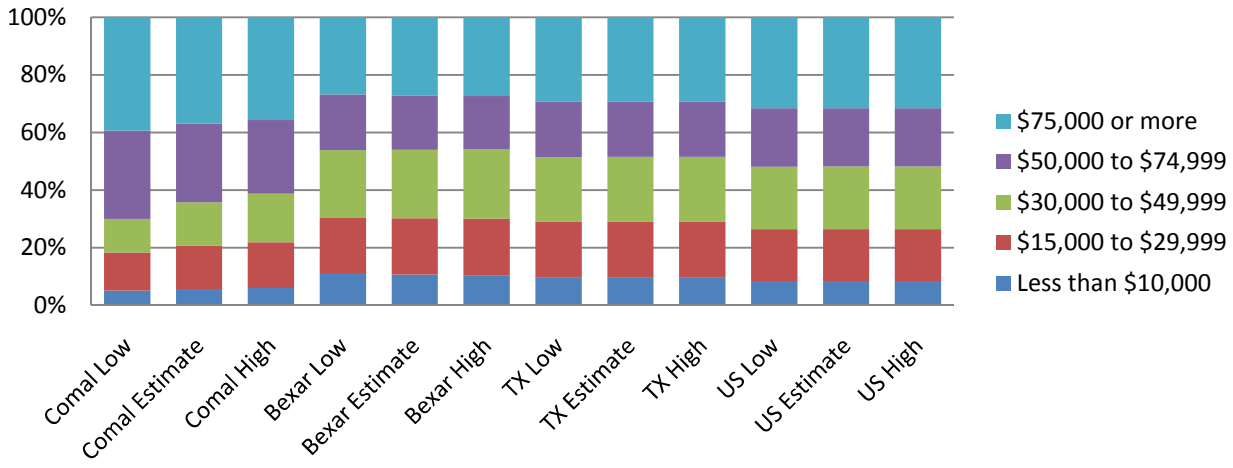
Figure 18. Estimated Per Capita Income, Household Income, and Percent of Households Receiving Public Assistance in Past 12 Months, 2006

	Comal Co.			Bexar Co.			Texas			US		
	Low	Estimate	High	Low	Estimate	High	Low	Estimate	High	Low	Estimate	High
Per Capita Income	$26,168	**$27,702**	$29,236	$20,470	**$20,818**	$21,166	$22,380	**$22,501**	$22,622	$25,224	**$25,267**	$25,310
Median Household Income	$56,474	**$60,511**	$64,548	$41,810	**$42,860**	$43,910	$44,635	**$44,922**	$45,209	$48,369	**$48,451**	$48,533
% of Households with Cash Public Assistance or Food Stamps	6.6%	**9.3%**	11.7%	10.5%	**11.1%**	11.8%	10.1%	**10.3%**	10.4%	8.8%	**8.8%**	8.9%

US Census American Community Survey 2006

Looking at the distribution of household income rather than the median, Comal County compares quite well, with fewer than 30 percent of households earning less than $50,000 per year. Nearly 40 percent of households earned $75,000 or more.

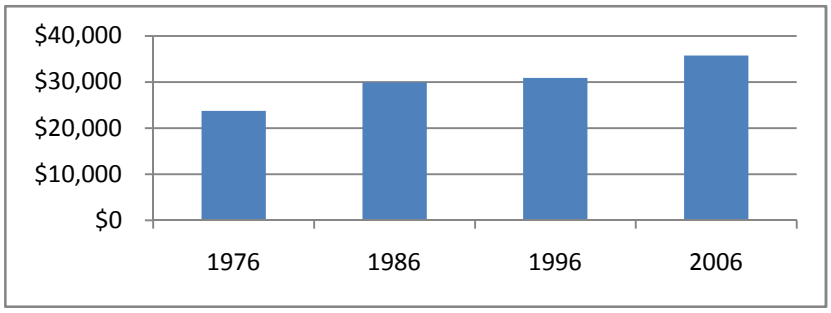
Figure 19. Estimated Percent of Households in Income Range in Past 12 Months, 2006



US Census American Community Survey 2006

Adjusting for inflation, Comal County's per-capita income has increased markedly over time. The 2006 adjusted per-capita income grew by about half since 1976.

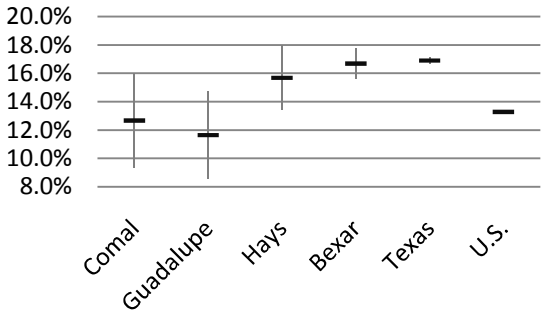
Figure 20. Inflation-Adjusted Per-Capita Income Trend for Comal Co., 1976-2006



Source: Stats Indiana

However, poverty is a serious issue for a subset of Comal County residents. The chart below shows the US Census American Community Survey 2006 estimated percent of residents living in poverty as a horizontal bar, while the vertical black bar indicates the margin of error. While a lower proportion than in all comparison geographies except Guadalupe County, an estimated 13 percent of the population were living under the federal poverty level in 2006, the most recent estimate available. In 2006 the poverty level was set at $9,800 annual income for one person or $20,000 for a family of four. The Center for Public Policy Priorities' 2007 Family Budget Estimator Project, however, estimates that a family of four living in the San Antonio metropolitan area requires $40,826 in annual income to meet basic needs assuming that the family had employer-sponsored health insurance. If the family must pay the entire health insurance premium, the annual income needed rises to $49,908. In the Austin area these two figures are $43,641 and $53,080, respectively[6].

Figure 21. Estimated Percent of Population in Poverty, 2006



US Census American Community Survey 2006

Texas Education Association data provide another picture of poverty in Comal County. As indicated in the table below, 35 percent of Comal County students are considered economically disadvantaged in some way. Twenty-seven percent of students qualify for free meals, and another 7.4 percent qualify for

[6] Center for Public Policy Priorities Family Budget Estimator

reduced-cost meals. To qualify for free meals, a child must live in a household with household income falling at or below 130 percent FPL; eligibility for reduced-cost meals requires that household income not exceed 185 percent FPL.[7] It should be noted that that these data indicate *eligibility* for free or reduced-cost meals, but not that eligible children are actually receiving these benefits.

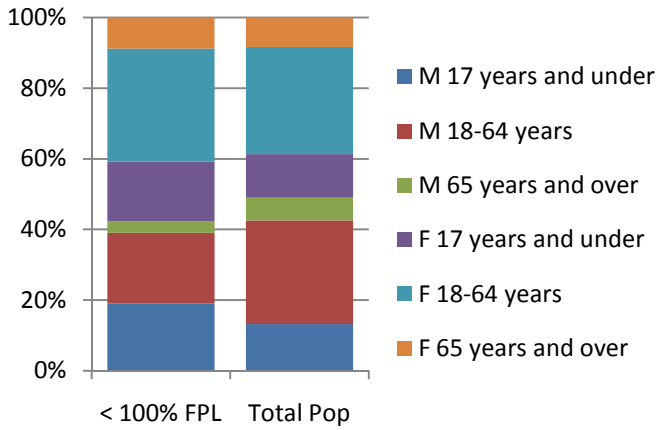
Figure 22. Percent of Students by Economically Disadvantaged Status, 2007-2008

	Eligible For Free Meals		Eligible For Reduced Meals		Other Economically Disadvantaged		Not Economically Disadvantaged		Total Count
	Count	%	Count	%	Count	%	Count	%	
Region 13	119,126	34.5%	28,988	8.4%	1,179	0.3%	195,861	56.8%	345,154
Comal Co.	6,059	26.7%	1,672	7.4%	217	1.0%	14,780	65.0%	22,728
Guadalupe Co.	6,542	31.4%	1,702	8.2%	8	0.0%	12,562	60.4%	20,814
Hays Co.	8,693	32.7%	2,289	8.6%	3	0.0%	15,603	58.7%	26,588
Kendall Co.	15,235	32.1%	3,991	8.4%	11	0.0%	28,165	59.4%	47,402
Bexar Co. (Region 20)	114,769	37.3%	30,959	10.1%	43,068	14.0%	119,128	38.7%	307,924
Texas	1,837,096	39.3%	391,318	8.4%	348,207	7.5%	2,094,872	44.8%	4,671,493

Texas Education

As in other areas of the state and nation, poverty in Comal County is not evenly distributed by gender and age. As the chart at right illustrates, in comparison to the population of Comal County as a whole, male youth and females of all ages are overrepresented in the population living in poverty. While these data are drawn from the 2000 Census, this general pattern can be expected to have held over time.

Figure 23. <100% FPL vs. Total Population by Age and Sex



Source: US Census 2000 SF3

[7]Department of Agriculture Food and Nutrition Service Child Nutrition Programs - Income Eligibility Guidelines. Federal Register. Vol. 72, No. 38, February 27, 2007.

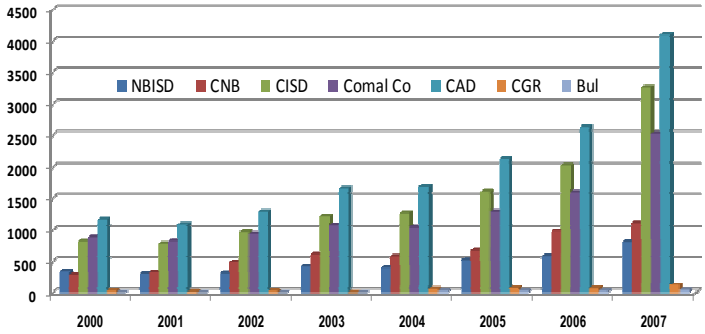
This review of demographic characteristics sets the context for the interpretation of the findings from this report. In summary, rapid population growth has been a fact for nearly two decades, and it is projected to continue as the major driver of change. What will begin to shift is the age distribution of the population—with the graying of Comal County and the addition of younger families with larger family size driving the redistribution of the age composition. The major force of change for Comal County is the demographic transition that is already underway.

While it is the case that Comal County has coped well with the population growth in the past two decades, the emerging challenge is to provide infrastructure and services to the most "vulnerable" of those who make up the community—the elderly and the youth.

Community and Quality of Life

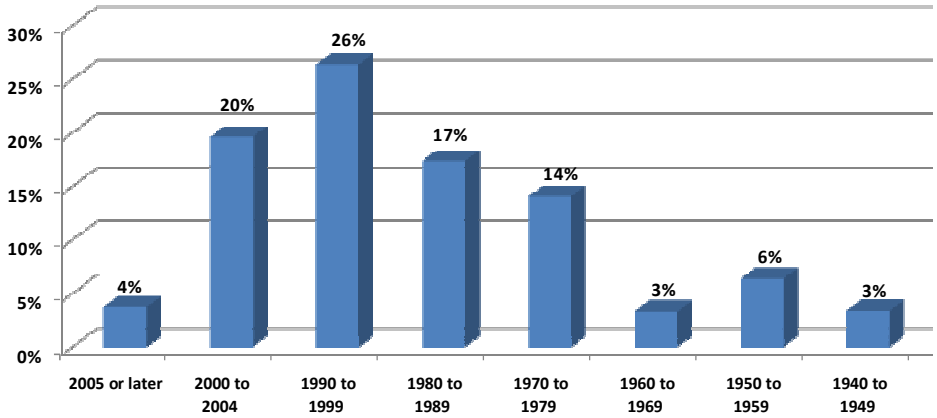
The explosive growth in population and new residential neighborhoods in Comal County over the past decade emphasizes its attractiveness as a place to live. The county's position along the I-35 corridor, between San Antonio and Austin makes it an attractive destination for families fleeing the ever-growing urban sprawl of those two large, metropolitan areas. Commercial development along I-35 is also a factor for growth as many diverse new businesses and shopping centers have sprung up along the length of the highway. In addition to the increase in population discussed earlier in this report, a dramatic picture of the growth in Comal County can be seen in the increase in parcels for new construction (Figure 24). The total for all appraisal districts (New Braunfels ISD, City of New Braunfels, Comal ISD, Comal County, Comal Appraisal District, City of Garden Ridge and Bulverde) has increased ten-fold from 1992 to 2007, with the most rapid increases occurring from 2003 to 2007 (Comal County Appraisal District).

Figure 24. New Parcels 2000-2007



Not surprisingly, housing data available in the 2006 American Community Survey (ACS) from the US Census Bureau is reflective of the explosive growth in new parcels in Comal County. As the graph at right indicates, nearly half (49.72) houses in Comal have been built since 1990, while nearly one quarter (23.65%) have been built since 2000.

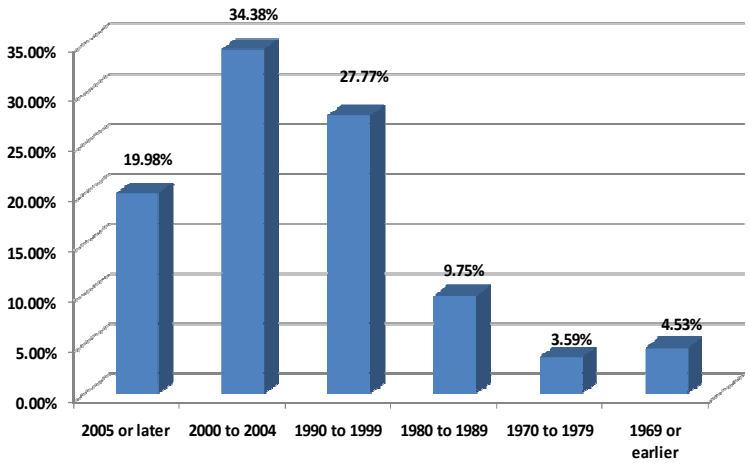
Figure 25. Year Structure Built



Source: US Census Bureau, 2006 American Community Survey

The ACS also provides figures on what year a householder moved into their unit, which provides a corollary to the increased rate of housing construction in the past 10 to 15 years. The graph below shows that the vast majority of Comal County householders (82.14%) have moved into their current residence since 1990, while more than half (54%) have moved into their unit since 2000. While it may not be possible to say that first time residents to Comal County account for all of these moves, it seems clear from census estimates of the increasing population that in-migration must account for the majority of new structures and new moves. The significant growth in parcels, new construction and population in Comal County in recent years suggests that availability of land suitable for new residential and commercial development may become more limited while demand continues to grow, helping to drive housing costs upward.

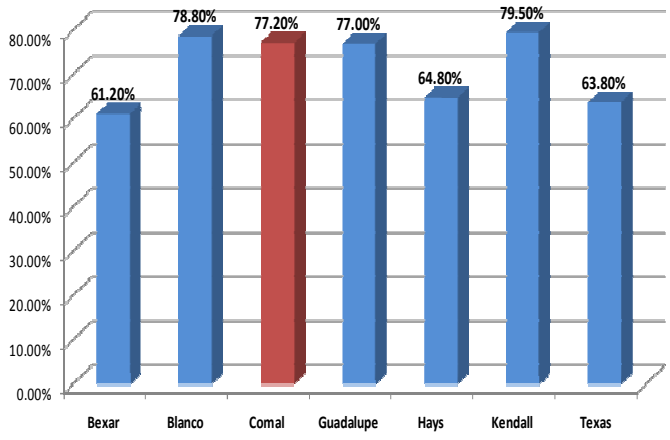
Figure 26. Year Householder Moved into Unit



Housing and Home Ownership

In examining the rates of home ownership (graph at right), it is clear that Comal County in 2000 Census (at slightly over 77%) was ahead of the state average (63.8%) and similar to the neighboring counties. Results of the Household Survey (2008) indicated a home ownership rate of slightly over 72 percent, a rate below the 2000 census. Differences in the percentage may be accounted for by sampling methods between the two estimates and are within the margin of error of the Household Survey.

Figure 27. Home Ownership Rate, 2000



Another measure of home ownership is found in examining rates of home ownership to those of renting (Figure 28). Comal County, with 27,675 owner occupied units (American Community Survey, 2006) has an owner-renter ratio of 3.08, while Guadalupe County, the neighboring county most similar to Comal county in size, has a ratio of 4.8. Hays County, with a slightly higher population, has the lowest ratio of the three at only 1.75. The differences in rates of ownership may in part, , be explained by differences in housing costs or values. In 2006, as shown in the graph below, the median value for a home in Comal County was $162,900 compared to $112,900 in Guadalupe. Thus it may be that owner to renter rates are higher in Guadalupe County because housing is more affordable. In contrast, median home values for Comal and Hays were almost identical, yet owner-renter rates for Comal were nearly twice that of Hays. This may be reflective of Comal's popularity as a place to relocate or retire.

Figure 28. Homeowner- and Renter-Occupied Units, 2006

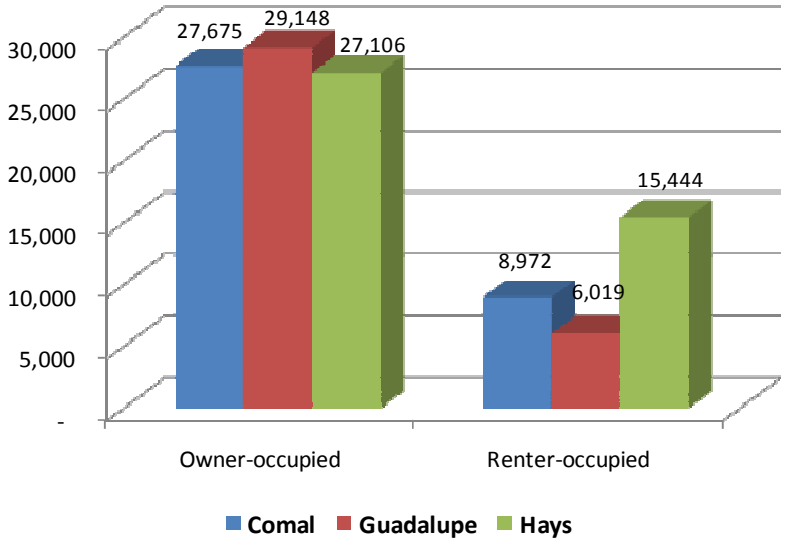
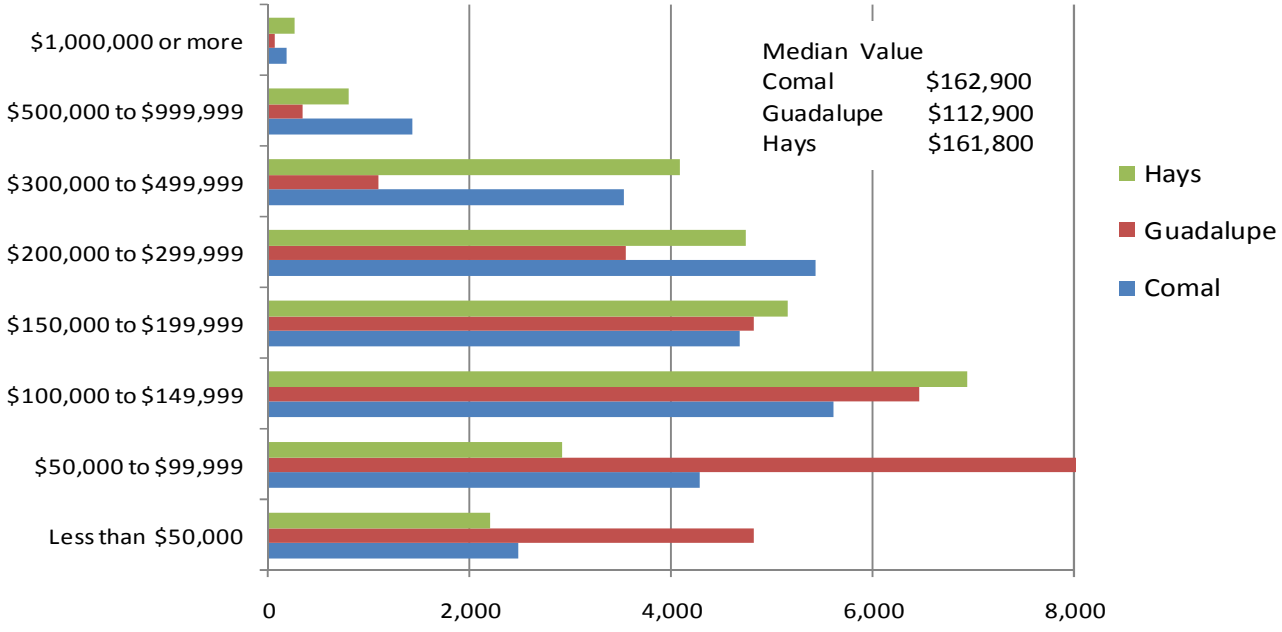


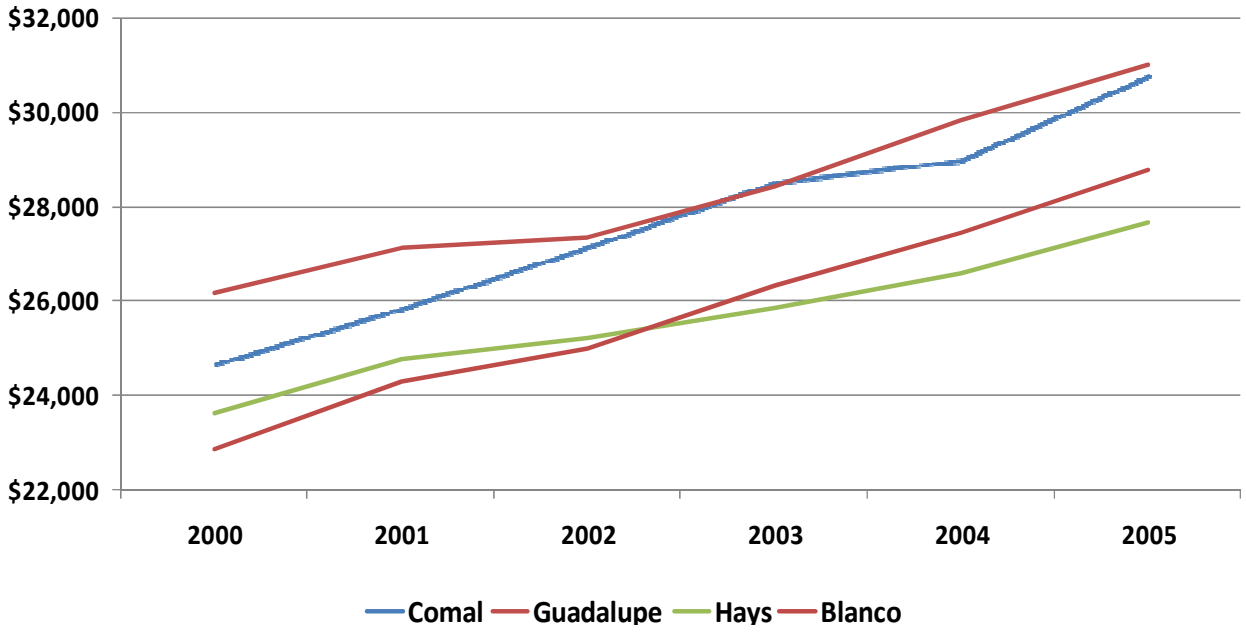
Figure 29. Value of Owner-Occupied Housing Units, American Community Survey 2006



To determine public perceptions of quality of housing in Comal County, survey respondents were also asked to rate the overall quality of housing in their neighborhoods. The overwhelming majority of respondents rated quality of housing as either excellent (41.6%) or good (45.4%). A small proportion (10.6%) rated the quality of housing as fair and less than 1 percent of respondents rated housing in their neighborhoods as poor. Next, survey respondents were asked to rate the quality of the house or apartment unit in which they personally resided. Results to this question were similar, with the majority of people rating the quality or physical condition of their personal residence as either excellent (44.6%) or good (44.8%). Fewer than 1 in 10 respondents (9.4%) rated their personal residence as only fair, while less than 1 percent indicated they felt the condition of their residence was poor. Finally, respondents were asked to rate their level of concern about streets in their neighborhood needing repair. This proved to be at some level of concern for 50 percent of respondents with 22.1 percent ranking this as a greater concern and 27.9 percent indicating it was a lesser concern. The remaining half (49.2%) indicated that this was not a concern.

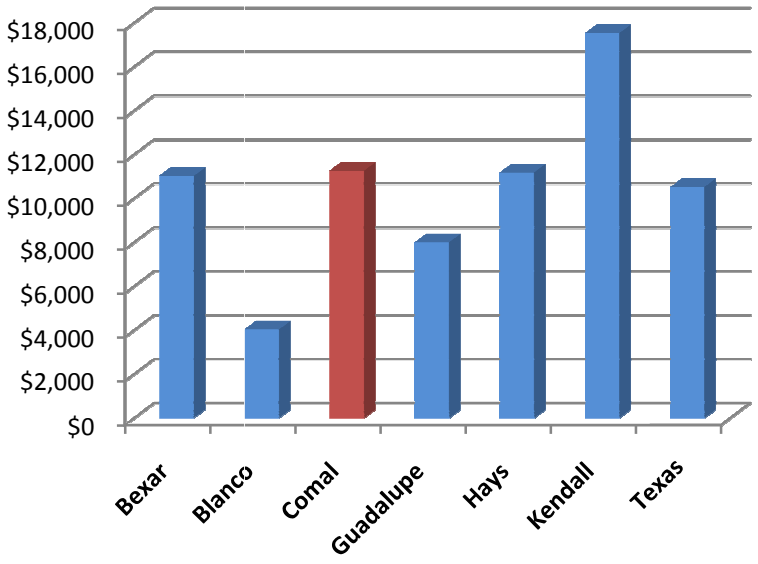
A review of US Census data reveals many of the economic indicators that combine to make Comal County a popular area in which to live. According to figures available through the Bureau of Economic Analysis (graph below), average wages per job have been rising steadily for Comal and the surrounding counties. It is notable that the rate of increase for average wages per job for Comal exceeds that of Hays County, which has the additional economic stimulus of a university town.

Figure 30. Average Wage per Job, 2000 to 2005



Another indicator of economic prosperity from the census is retail sales per capita. As seen in the graph at left, Comal County, at a rate of $11,271 per capita is above the state average of $10,528 and all neighboring counties with the exception of Kendall County. This high rate of retail sales per capita in comparison to the state and to Bexar County, which contains a large metropolitan area (San Antonio) indicates that a significant proportion of the Comal County population have sufficient disposable income to make more retail purchases per capita than the state as a whole or any of the neighboring counties (except for Kendall). This appears to indicate better-than-average local economy for Comal County and a sufficient customer base to attract and grow new business. For example, plans were recently announced for a large new commercial development (Herald Zeitung, March 2008) built along I-35. Plans for a new hospital were announced in August of 2008; more information on this development may be found in the *Access to Health Care and Social Services* section.

Figure 31. Retail Sales per Capita, 2002



Cost of Living

While it may be an adequate measure of disposable income and incentive for continued commercial development, retail sales per capita may be impacted over the next 3 to 5 year planning horizon by rising consumer prices driven by the cost of energy, a cost which has spiked dramatically within the first two quarters of 2008. As consumers understand very well, this single indicator drives the cost of innumerable products and commodities, from gasoline at the pump to natural gas for cooking and heating to kilowatt hours of electricity. Figure 32 below, compiled from national data available from the Bureau of Labor Statistics shows the increase in the price per gallon of unleaded regular gasoline over a period of 10 years. Gasoline prices rose steadily from 1998 to 2004, and have nearly doubled since 2004. This in turn, is driving up the cost of commodities and goods which must be trucked or shipped to consumers. Figure 33 shows the increase in cost, again over a 10-year period, of selected food items that most households purchase on a weekly basis. While for most of the period shown, prices have been

increasing the increase over the past year appear to be trending upward more rapidly. While these figures are based on averages for US cities, the effects felt by the consumer are fairly uniform from state to state and from county to county. If these trends continue, Comal County residents may (like consumers across the country), find that price is the determining factor about the products they buy, the type of car they drive, and where they live in proximity to their work.

Figure 32. Annual High Price per Gallon of Unleaded Regular: Average for all US Cities, 1998 through June 2008

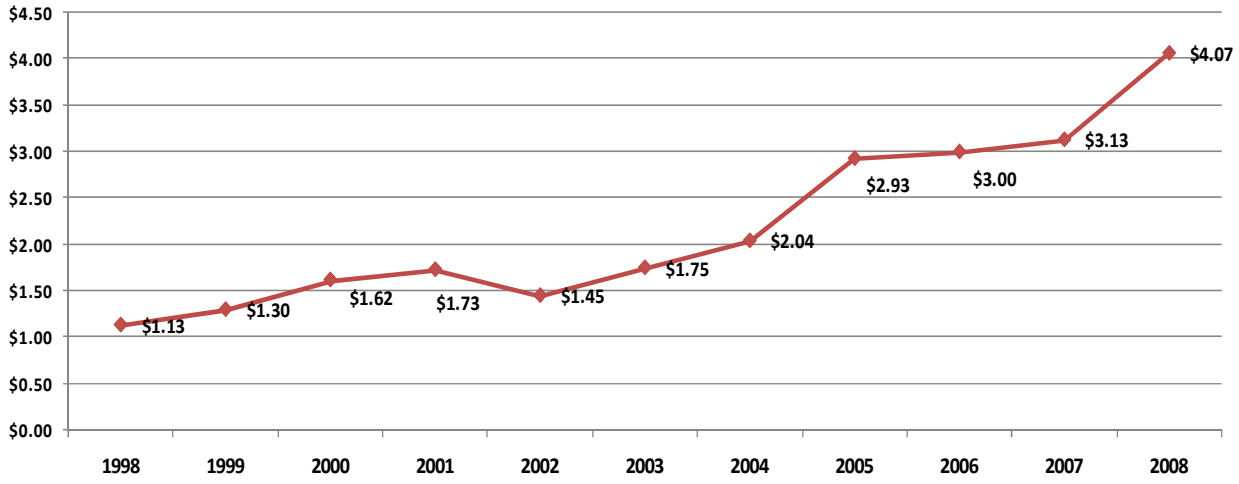
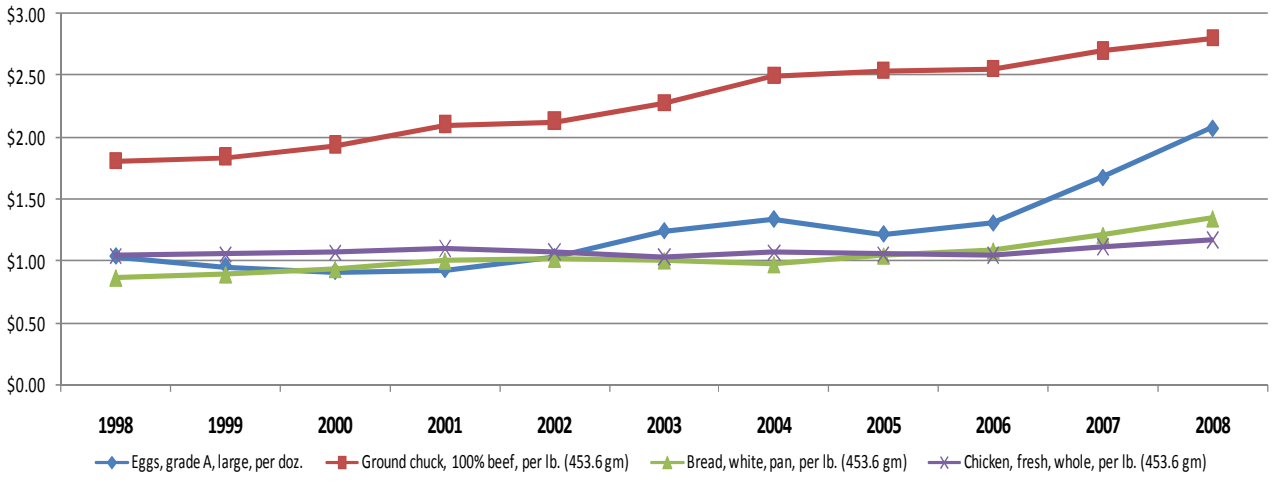


Figure 33. Increase in Average Annual Cost for Selected Food Items, 1998 through June 2008

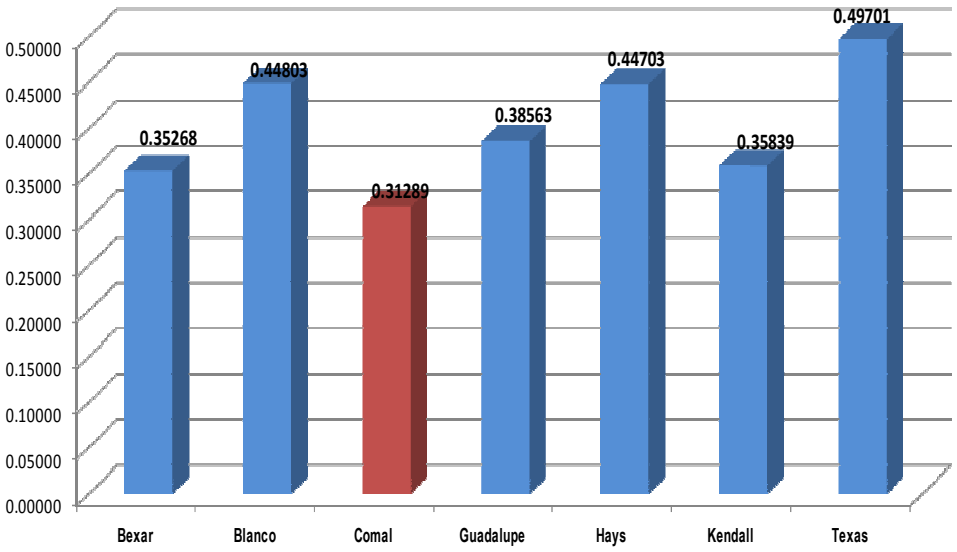


With indicators of consumer cost rising steadily, it is important to understand perceptions of cost among Comal County residents and whether or not they report difficulty in meeting basic living expenses such as utilities and food. For the Household Survey of 2008, respondents were asked (question 1L) to rate their degree of concern with the general cost of living in Comal County (including utilities and property taxes). Responses to this question were varied. Over 43 percent of respondents indicated that this was of greater concern, while another 22 percent (approximate) indicated that it was a lesser concern. Thus, cost of living rates as some level of concern for the majority (65%) for Comal County residents. However, a third (33%) of respondents indicated that cost of living was not a concern to them. Survey respondents were also asked whether they had experienced interruption in utilities due to difficulty in paying bills, and whether or not they had been forced to miss a monthly mortgage payment or rent. Responses to these questions did not reveal serious problems. Nearly 96 percent of respondents indicated no lapse in utilities due to financial difficulties, while 97 percent reported that they had not been forced to miss a mortgage payment or monthly rent. As an indicator of ability to buy food, respondents were also asked whether they or someone knew ever went to bed hungry. Once again a clear majority (88.2%) indicated they had not, while 9.4 percent indicated that they or someone they knew had. While it is encouraging that hunger may not be a problem for the majority of the respondents, it is distressing that even one individual should report going to bed hungry. **A consistent finding in most all socio economic indicators and in responses to economy sensitive questions is that about 10% of the population experience difficulty due to economic factors.**

Housing affordability

Over the past 15 years, average property tax rates in Comal County have been consistently lower than the surrounding counties and Texas as a whole (see graph at right). Comal, at 0.31289 per $100 valuation, is slightly below Bexar (0.35268) and markedly below the state average (.49701). The 15-year average for Travis County (not depicted in the graph) is also significantly higher at 0.503975. Thus, lower property tax rates in Comal County may serve as an additional attractor for new residents seeking to relocate near jobs in Austin or San Antonio.

Figure 34. Property Tax Rates: 15-Year Average, 1991 through 2006



According to a key informant interview with Nancy Davison, Housing & Community Development Coordinator for the City of New Braunfels, the cost of homes has been steadily increasing to the point where it now can be extremely difficult to find a house for sale for under $100,000. In fact, the growth in new housing units has been in the range of $150,000 and up. There are also homes available in the $100,000 to $125,000 range in residential areas east of I-35 and spilling over into Guadalupe County. For low-income families an affordable house is considered to be the $60,000-$70,000 range. There is a minor home repair program sponsored by HUD and the State Department of Housing and Community Affairs. This program offers individuals up to $25,000 to repair any and all code violations and rehabilitate the home from top to bottom. Having sufficient income to maintain a home in good condition is often a challenge for both low income families and those, like older adults, on fixed incomes. As an indicator of this for Comal County, households with older adults (65 years and over) were asked if they could afford to make home repairs as needed. Responses to this question were more split. While the majority (56.6%) indicated that they could afford to make needed home repairs, a significant proportion (40.1%) indicated that they could not afford such repairs. It appears that the housing stock may be experiencing "deferred maintenance" with about four in 10 households needing repairs that were not affordable.

> "**Affordable housing, affordable housing, and affordable housing for seniors."**
>
> Nancy Davison, Housing & Community Development Coordinator for the City of New Braunfels (in response to a question on priority needs for the next 3 to 5 years). This observation is reflective of the demographic trend of the entire country: the Baby Boomers, the largest single demographic cohort in our history, are aging and affordable, assisted living complexes for seniors will be a growing need in this timeframe. Thus, the greatest continuing needs for affordable housing will be in the form of affordable apartment units for both senior and families in need (at or below federal poverty level) and housing units for low to moderate income families.

Figure 35. Gross Rent as a Percentage of Household Income in the Past 12 Months, 2006

Percentage of HH Income	Number	Percent
Less than 10.0 percent	579	6%
10.0 to 14.9 percent	747	8%
15.0 to 19.9 percent	2,072	23%
20.0 to 24.9 percent	1,022	11%
25.0 to 29.9 percent	897	10%
30.0 to 34.9 percent	804	9%
35.0 to 39.9 percent	739	8%
40.0 to 49.9 percent	584	7%
50.0 percent or more	1,199	13%
Not computed	329	4%
Total	8,972	100%

Source: US Census Bureau American Community Survey, 2006

The general guideline is that housing cost should not exceed 30 percent of household income.[8] However, as shown in Figure 35, 37 percent of households shoulder a rent burden of 30 percent or greater of household income. Thirteen percent of households lose half or more of their income to the cost of rent.

Habitat for Humanity is an active program

[8] US Department of Housing and Urban Development, *Affordable Housing*, http://www.hud.gov/offices/cpd/affordablehousing/, Retrieved August 29, 2008.

in Comal County to address the issue of affordable housing. This program is a primary asset to enable the working poor, those earning minimum wage jobs who are also frequently without health insurance benefits, to someday own a home. Currently, the agency's plans call for 73 homes to be constructed beginning in January 2009. Low to moderate income families are eligible, and those accepted to the program are required to invest a certain number of hours assisting in the construction of their new home (sweat equity). While 73 homes may seem like a large number, the actual schedule for construction will be limited to 4 to 5 homes annually. Monthly mortgage payments for these homes average from $250 to $300, far below the normal $700 to $800 monthly payment experienced by most low to moderate income families (source: Nancy Davison in Key Informant Interview). In an effort to gain a better understanding on public perceptions of affordable housing in Comal County, a question in the Household Survey asked respondents if they felt an adequate number of affordable housing units were available. Responses to this question were inconclusive. While 46.2 percent of respondents said yes, more than half were split on the question with 23.1 percent indicating that there were not adequate numbers of affordable housing units while the remaining 30.7 percent said they did not know. Without a clear majority in the affirmative, it cannot be said conclusively that adequate affordable housing exists in Comal County. Since more than 50 percent of those surveyed responded either in the negative or that they did not know, it would seem that the definition of what constitutes affordable housing is a function of personal perception and financial resources. It is interesting to note that the majority of respondents (75%) who indicated they did not know also reported being home owners. While subject to interpretation, the differences in responses to this question may indicate that gaps in affordable housing do exist for some Comal residents. **Certainly, an unmet need exists for affordable home repair and modernization services. Further deterioration of housing stock will degrade neighborhood quality and result in fewer habitable dwellings, undesirable vacant housing shells that serve as breeding grounds for crime and unsafe streets. For more evidence of this need see the analysis of the Youth in Schools survey questions 12 and 13.** While overall, 12 percent of total respondents indicated that there were vacant and abandoned buildings in their neighborhood, sixteen percent of Hispanic students indicated that they were aware of such buildings in their neighborhood, compared with 10.1 percent of Non Hispanic White students (Youth in Schools Survey 2008).

Analysis of Household Survey Responses Related to Affordable Housing

Community residents are divided in their perception of affordable housing as a problem area. Fewer than half (48%) of the respondents felt the number of available affordable housing units was adequate. This proportion is similar to the percent of key informants nominating this as an issue area of greater concern (60.5%) As reported above, nearly a quarter felt that the number of affordable units was inadequate and 29 percent did not know. There was an unexpected pattern when analyzed by ethnicity. Seventy percent (69.7%) of the Hispanic respondents felt the number of affordable units was adequate while only 40% of the non-Hispanic Whites felt the supply was adequate. Other race/ethnic groups (Black, Asian, American Indian) were similar to the non-Hispanic white response. Household income below $25,000 (40%)and above $100K (29%) were more likely to see the supply as inadequate. A higher percent of the respondents in these income categories were uncertain about the adequacy of the supply.

Expected relationships between ethnicity and household income were not observed. Age of the respondent did not explain the patterns. This is an area that deserves more investigation to ascertain the status in a housing market that has inflated rapidly and remains at high levels of valuation (both rents and purchase prices) and demand. **There is a need for more thorough inventory, monitoring and evaluation of housing stock to assure adequate and affordable housing for the increasing population and especially the most vulnerable groups (elderly and children) seeking housing.**

Respondents reporting actual problems (in contrast to their perceptions) were fewer in numbers, but no more clear in their demographic characteristics. Twenty-four (4.8%) of the Comal county respondents reported problems with buying residential property. This was not related to race/ethnicity nor to household income. Indeed, two thirds of those reporting problems were above the median income level for families in Comal County. Most of these respondents were in the working age range with only 2.7% of the above 65 age reporting problems with buying a residence. Thirty percent of those reporting problems could not get a loan and 21% could not afford the down payment. Only one respondent reported "discrimination" as the problem in buying residential property. Nearly half the respondents described the problem as the property was "too expensive".

Only one person reported problems with renting property in Comal county that was due to "discrimination". The majority of the 13 respondents reported difficulties that were related to convenient location (23%), unsafe neighborhood (30%), and inability to afford the rent (38%). Again these responses were not associated with race/ethnicity, age or income. One must be cautious in interpreting these data due to the very low numbers of respondents reporting difficulty in buying (4.8%) or renting (2.6%) residential property. However there is a persistent response pattern that demonstrates a financial strain on families seeking to obtain either by purchase or renting, adequate housing. **There is a need for continued monitoring of prices and stock of housing in the private market in order to gauge the demand for publicly subsidized housing.**

HUD contracts with housing authorities to provide Section 8 voucher assistance to very low-income households, households already assisted under the Housing Act of 1937 and households with incomes up to 80 percent of area median that qualify to receive a voucher in connection with other HUD programs. HUD determines median income levels for each area annually.

-HUD Website

Availability of Public Housing

The New Braunfels Housing Authority (NBHA) assists low-income families, the disabled and elderly find affordable housing in Comal County. As the local public housing authority, NBHA administers the Section 8 Housing program of Housing and Urban Development (HUD). The NBHA is allotted HUD vouchers for tenet-based rental assistance (TBRA) or project-based rental assistance based on available federal funding. Currently, the NBHA is allotted approximately 300 vouchers. Eligible families are required to contribute approximately 30 percent of their income toward rent, and then are provided a voucher for the balance of the rent, which is capped at a fair market rate determined by HUD.

The units available for rent under this program vary from apartment complexes to free standing homes. The table below represents the distribution of the available public housing units in Comal County, as

well as numbers of Section 8 vouchers available through the City of New Braunfels and through AACOG. Occupancy rates appear to be high, so while the current need may be answered; planning for future need remains an issue in light of the county's growing population, especially those segments of the population with special needs like the elderly or the disabled. In addition to population increase, the continued spread of that population into formerly rural areas may argue the need for future low income housing units to be more widely distributed across the county.

Figure 36. Available Public Housing Units in Comal Co.: Low Income (Section 8), Elderly and Special Needs, 2008

Name	Population Served	# Units (approximate)
Balcones Haus	low income housing for elderly	60
Bavarian Manor Apartments	low income housing for family	65
Braunfels Haus Apartments	low income housing for family	74
Eden Heights Apartments, Inc.	Low income housing (ages 62+)	90
Ellis Townhomes	rental assistance based on income	60
Laurel Plaza Apartments	low income housing for elderly or disabled	100
Village Circle	low income housing for family	50
Landa Place	Elderly, low to moderate income	100
Villa Serena	low income housing for family	70
Total units		**669**
Section 8 Vouchers	City of New Braunfels	292
	AACOG	98
	Total possible vouchers	390
Sources: New Braunfels Housing Authority; Alamo Area Council of Governments		

Youth Perspectives on Neighborhood and Community

Of the youth responding (Youth Survey, q. 10) to the question of whether they liked their neighborhood or the area where they lived a total of 80.4 percent indicated that they did, while 19.6 percent indicated that they did not. Responses varied slightly by race/ethnicity, with more non-Hispanic whites (83.4%) indicating that they did like their neighborhood than Hispanics (75.5%). A similar difference was also noted between Non Hispanic Whites and all other races/ethnicities (76.3%), which included Black and Asian/Pacific Islander.

Figure 37. Do you like your neighborhood, or the area where you live?

Race/Ethnicity	No	Yes
Non Hispanic White	16.6	83.4
Hispanic	24.5	75.5
Other race ethnicities	23.7	76.3
Total	**19.6**	**80.4**

When asked in the survey (Youth Survey, q. 9) if they would miss the area they lived in if they had to move, a majority (72.8%) of Comal County 9th, 10th and 11th grade youth responded in the affirmative. Of the students responding to this question there was a slight difference in response by race/ethnicity. Slightly more non-Hispanic whites (76.3%) than Hispanics (67.7%) indicated they would miss the area they live in. This difference was again reflected between non-Hispanic whites and all other ethnicities. Of all students in total answering this question, 72.8 percent indicated they would miss the area where they now live.

Figure 38. If you had to move, would you miss the area you now live in?

Race/Ethnicity	No	Yes
Non Hispanic White	23.7	76.3
Hispanic	32.3	67.7
Other race ethnicities	32.6	67.4
Total	**27.2**	**72.8**

Figure 39. Are the streets difficult to cross in your neighborhood?

Race Ethnicity	No	Yes
Non Hispanic White	80.2	19.8
Hispanic	77.4	22.6
Other race ethnicities	77.1	22.9
Total	**79.0**	**21.0**

Figure 40. Do you have enough room to walk or bike?

Race Ethnicity	No	Yes
Non Hispanic White	25.1	74.9
Hispanic	27.1	72.9
Other race ethnicities	21.8	78.2
Total	**25.2**	**74.8**

Students were asked (Youth Survey, q. 18) whether they found streets difficult to cross if they walked to school or when they walked in their neighborhoods. Of all students responding to this question 79 percent indicated that streets were not difficult to cross. Differences in response rates by race/ethnicity for this question were not significant.

In a similar question, students were asked whether they had room in their neighborhood to walk or ride a bike (Youth Survey, q. 17), either on the way to school or other destinations. Of the total students responding to this question (n=1,007), nearly 75 percent indicated that they did have enough room to walk or bike, while slightly over 25 percent indicated that they did not. Differences in responses to this question by race/ethnicity were not significant.

Students were also asked (Youth Survey, q. 12) about the presence of derelict or abandoned buildings in their neighborhoods and the prevalence of graffiti, indicators which are often harbingers of community neglect and urban decay. While these problems appear to be relatively minor in Comal County, responses did vary somewhat when compared between Non Hispanic Whites and Hispanics and other race/ethnicities. Of the total students who responded to the question pertaining to abandoned buildings, 88 percent indicated that there were no such structures in their neighborhood, while 12 percent of that total indicated that there were. Sixteen percent of Hispanic students indicated that they were aware of such buildings in their neighborhood, compared with 10.1 percent of Non Hispanic White students.

For the question (Youth Survey, q. 12) regarding the presence of neighborhood graffiti, student responses were similar with a total of 89.4 percent indicating that there was no graffiti in their neighborhood and 10.6 percent indicating there was graffiti in their neighborhood.

When asked if people frequently moved in and out of their neighborhood (Youth Survey, q. 13), student responses were similar across race and ethnicity. Nearly 80 percent indicated that there was no frequent movement, while slightly under 21 percent indicated that there was. When asked if they themselves had moved within the past 12 months (Youth Survey, q. 16), student responses were almost identical to the question about neighbors moving. A majority of students (77.3%) had not moved within the past year, while the remainder (22.7%) had moved. Responses were fairly similar between race/ethnicity, although slightly more Hispanic students (24.5%) reported having moved within the past 12 months than did Non Hispanic Whites (20.8%).

Figure 41. Are there lots of empty, abandoned, or rundown buildings?

Race/Ethnicity	No	Yes
Non Hispanic White	89.9	10.1
Hispanic	84.0	16.0
Other race ethnicities	87.4	12.6
Total	**88.0**	**12.0**

Figure 42. Is there lots of graffiti?

Race/Ethnicity	No	Yes
Non Hispanic White	92.6	7.4
Hispanic	84.5	15.5
Other race ethnicities	84.7	15.3
Total	**89.4**	**10.6**

Figure 43. Do people move in and out of your neighborhood a lot?

Race/Ethnicity	No	Yes
Non Hispanic White	80.0	20.0
Hispanic	78.4	21.6
Other race ethnicities	78.9	21.1
Total	**79.4**	**20.6**

Figure 44. Have you moved in the past year (last 12 months)?

Race Ethnicity	No	Yes
Non Hispanic White	79.2	20.8
Hispanic	75.5	24.5
Other race ethnicities	72.0	28.0
Total	**77.3**	**22.7**

A total of 1,016 students responded to the question of whether or not they felt safe in their neighborhood (Youth Survey, q. 14). Eighty-one (81.1%) of students indicated that they did feel safe, while the remainder (18.9%) indicated that they did not. For this question however, greater disparity was noted in responses by race/ethnicity with more Hispanic students reporting that they felt unsafe in their neighborhoods (24.4%) than Non Hispanic Whites (16.5%). Students were asked (Youth Survey, q. 12) if they see fights breaking out in their neighborhoods. Of the total, 22.6 percent indicated that they have indeed witnessed fights, while the majority of students (77.4%) indicated that they had not. As with the question pertaining to feeling safe in their neighborhood, Hispanic students and those of other races/ethnicities were more likely (28%) to have witnessed a fight in or around their neighborhood than Non White Hispanics (19%).

Students were also asked (Youth Survey, q. 12) about familiarity with drug selling as an indicator of neighborhood safety. Negative responses to this question were more pronounced with just under a third (30.6%) of all respondents indicating that they are familiar with this practice in their neighborhoods. While the majority of students (69.4%) indicated that they were not aware of drug selling in their neighborhoods, students of all races/ethnicities were more likely be aware of drug selling than those that reported feeling unsafe or witnessing fights in their neighborhoods. Once again, Hispanic students and those of other race/ethnicity were more likely (34.7 percent and 40.2 percent, respectively) to be familiar with drug selling in their neighborhoods than Non-Hispanic Whites (26.9%).

Figure 45. Is it safe in your neighborhood, or the area where you live?

Race/Ethnicity	No	Yes
Non Hispanic White	16.5	83.5
Hispanic	24.4	75.6
Other race ethnicities	18.8	81.2
Total	**18.9**	**81.1**

Figure 46. Do you see people getting into fights?

Race/Ethnicity	No	Yes
Non Hispanic White	81.0	19.0
Hispanic	71.9	28.1
Other race ethnicities	72.0	28.0
Total	**77.4**	**22.6**

Figure 47. Does there seem to be a lot of crime and/or drug selling?

Race/Ethnicity	No	Yes
Non Hispanic White	73.1	26.9
Hispanic	65.3	34.7
Other race ethnicities	59.8	40.2
Total	**69.4**	**30.6**

As shown in Figure 48 below, Texas Department of Public Safety crime data for New Braunfels, Bulverde, and outlying areas of Comal County are in line with neighboring cities and counties for robbery and auto theft. The rate of burglaries per 100,000 population, however, appears significantly higher in New Braunfels and Comal County than in comparison geographies other than San Antonio and Bexar County. Similarly the rate of larceny is much higher in New Braunfels than any nearby city except San Antonio.[9] (Rates of interpersonal violence – rape, aggravated assault, and murder – are reviewed in the *Health Status* section below.)

[9] Source: Texas Department of Public Safety, *Texas Crime Report for 2006*

Figure 48. Selected Crime Rates per 100,000 Population, 2006

	Total Population	Robbery	Burglary	Auto Theft	Larceny
Comal Co. SO	47,322	21.1	634.0	82.4	1,198.2
New Braunfels PD	48,505	55.7	826.7	162.9	3,447.1
Bulverde PD	4,572	0.0	240.6	21.9	1,443.6
Bexar Co SO	157,796	50.1	1,151.5	245.3	2,359.4
San Antonio PD	1,292,116	179.6	1,132.2	512.0	4,440.5
Hays Co SO	62,857	3.2	345.2	41.4	544.1
San Marcos PD	47,418	69.6	552.5	257.3	2,052.0
Guadalupe Co SO	44,292	4.5	648.0	121.9	1,034.0
Schertz PD	27,424	29.2	485.0	113.0	1,670.1
Kendall CO SO	20,200	5.0	217.8	44.6	688.1
Boerne PD	8,282	12.1	398.5	108.7	2,125.1

* SO = Sheriff's Office

** PD = Police Department

Source: Texas Department of Public Safety, *Texas Crime Report for 2006*

These several indicators point to a small, but significant, proportion (10-30%) of the total population that does not experience the same high quality of life as the majority (70-90%). Some of this disparity is associated with ethnicity which is also associated with education and income levels. But ethnicity does not explain all the differences. The root cause would seem to be poverty and the increased level of financial instability with the group described as the "working poor". As is seen in the following section, females and children are disproportionately represented among those living in poverty.

There is a need for a strategy and for interventions to provide hard working individuals and families with tools and resources to maximize their income, build savings and acquire assets for stable housing, continued education, small business development, and retirement planning.

Working Population

Comal County is home to a robust and vibrant workforce with workers that span the adult age spectrum. The table below shows the distribution of the working population broken down into three age groups. As defined by the US Census, the working population is classified into post high school/college aged (18 to 24), young adults (25 to 44), and older adults (45 to 64). According to the US Census Bureau, an estimate for 2006 indicated that 15 percent of individuals 65 and over were employed nationally.

As a total percentage of the population, two-thirds (63%) of the residents residing in Comal County are classified as working. The percentage of workers in Comal is the same as Guadalupe, but slightly lower than neighboring Hays County.

Figure 49. Working Population Estimates by County, 2006

	Comal County		Hays County		Guadalupe County		Kendall County	
Age Category	**No.**	**% of Total**	**No.**	**% of Total**	**No.**	**% of Total**	**No.**	**% of Total**
18 to 24 Year Old	9,641	9.5%	25,228	19.4%	11,605	10.7%	3,930	9.7%
25 to 44 Year Old	28,581	28.2%	37,620	28.9%	30,873	28.5%	7,685	25.4%
45 to 64 Year Old	25,559	25.3%	27,125	20.8%	25,765	23.8%	8,012	26.5%
Total Working Population	63,781	63.0%	89,973	69.1%	68,243	63.0%	19,627	61.6%

Source: Stats Indiana

Sources of Employment

According to the US Bureau of Labor Statistics, there were a total of 51,006 jobs available within Comal County in 2007. Bexar County (San Antonio), to the south had 951,890 jobs, and Travis County (Austin) to the north had 723,675 jobs.[10]

Public transportation connecting multiple points along the Interstate 35 corridor (defined as San Antonio/Bexar County, Comal, Hays and Travis Counties) is projected to be in operation in 2011. If this rapid transit system is implemented, the commuting time to Austin and San Antonio will be cut in half. Not only will the commuter rail make it even easier to take a position in either Austin or San Antonio, a Comal County resident will benefit from eliminating the cost of high gasoline prices for a lengthy commute. The Austin-San Antonio commuter rail is discussed in further detail in the transportation section of this report.

Within Comal County proper, the recreational theme water park Schlitterbahn, is the largest employer with 1,800 employees, but these jobs are seasonal.[11] Other major employers include the Comal Independent School District (1,700 jobs); Wal-Mart Distribution Center (1,200 jobs); New Braunfels ISD School District (912 jobs); and McKenna Hospital (900 jobs), now CHRISTUS Santa Rosa - New Braunfels.[12] Figure 50 below outlines Comal County job distribution by occupation with median earnings in 2006. It is noteworthy that of the total workforce employed (over the age of 16 years of age), 35 percent of jobs were in a management or professional occupation.

[10] US Bureau of Labor Statistics, BLS
[11] Greater New Braunfels Chamber of Commerce
[12] Greater New Braunfels Chamber of Commerce

Figure 50. Estimated Occupation Distribution and Median Earnings, Comal County Workers* 16 and Older, 2006

Occupation	Number	% of Total	Median Earnings
Management, professional, and related occupations:	16,400	35%	$48,781
Management, business, and financial occupations:	7,422	16%	$52,155
Professional and related occupations:	8,978	19%	$43,947
Computer and mathematical occupations	1,467	3%	$58,304
Architecture and engineering occupations	731	2%	$79,957
Community and social services occupations	298	1%	$7,014
Legal occupations	100	0%	$32,193
Education, training, and library occupations	2,718	6%	$44,615
Arts, design, entertainment, sports, and media occupations	1,421	3%	$30,347
Healthcare practitioner and technical occupations:	2,243	5%	$40,750
Health diagnosing and treating practitioners and other technical occupations	1,437	3%	$70,486
Health technologists and technicians	806	2%	$29,375
Service occupations:	7,705	16%	$18,276
Healthcare support occupations	756	2%	$20,810
Protective service occupations:	1,410	3%	$37,955
Fire fighting and prevention, and other protective service workers including supervisors	171	0%	$10,464
Law enforcement workers including supervisors	1,239	3%	$38,702
Food preparation and serving related occupations	2,936	6%	$8,993
Building and grounds cleaning and maintenance occupations	1,411	3%	$28,715
Personal care and service occupations	1,192	3%	$9,970
Sales and office occupations	12,384	26%	$23,168
Farming, fishing, and forestry occupations	70	0%	**
Construction, extraction, maintenance, and repair occupations:	6,119	13%	$30,077
Construction and extraction occupations	4,382	9%	$26,952
Installation, maintenance, and repair occupations	1,737	4%	$46,531
Production, transportation, and material moving occupations:	4,730	10%	$28,264
Production occupations	2,334	5%	$25,393
Transportation and material moving occupations:	2,396	5%	$33,715
Total	47,408	100%	$31,085

* Full-time civilian employees; ** Too few observations to compute an estimate

Source: US Census Bureau American Community Survey

As shown in Figure 51 below, the overwhelming majority of Comal County workers are employed in private for-profit businesses or sole proprietorships. Women, however, are less likely than men to be self-employed and more likely to work in non-profit organizations. Across all classes of worker, women's median earnings total only 59 percent of the median earnings of men. The income disparity is greatest within the private for-profit sector, where the median earnings of female employees are just over half (52 percent) of median earnings among males. The pattern actually reverses slightly within local and state government. This disparity in income of *full-time workers* is likely a significant contributor to the disproportionate representation of females and children among the population living in poverty.

Figure 51. Class of Worker Distribution and Median Earnings for Comal Co. Workers* 16 and Older, 2006

	Male			Female		
	Number	% of Total	Median Earnings	Number	% of Total	Median Earnings
Private for-profit wage and salary workers:	19,695	72%	$35,756	14,233	71%	$19,199
Employee of private company workers	18,276	67%	$35,604	13,732	68%	$18,533
Self-employed in own incorporated business workers	1,419	5%	$72,111	501	2%	$52,013
Private not-for-profit wage and salary workers	509	2%	$46,165	1,609	8%	$25,494
Local government workers	1,161	4%	$40,615	882	4%	$43,404
State government workers	1,069	4%	$34,817	1,070	5%	$38,162
Federal government workers	457	2%	$63,758	267	1%	$50,538
Self-employed in own not incorporated business workers	4,377	16%	$32,343	2,079	10%	$20,387
Unpaid family workers	0	-	-	0	-	-
Total	27,268	100%	$36,679	20,140	100%	$21,524

* Full-time civilian employees

Source: US Census Bureau American Community Survey

Employment & Unemployment Rate

Despite the tremendous increase in population size over the last several years, Comal County's unemployment rate appears to have held steady and compares favorably to neighboring counties. Of the Comal County workforce of 51,827, fewer than four percent are unemployed.[13]

The US Census Bureau defines the labor force as including all people classified in the civilian labor force, plus people on active duty with the United States Army, Air Force, Navy, Marine Corps, or Coast Guard. The Civilian Labor Force consists of people classified as employed or unemployed.

[13] US Bureau Labor Statistics

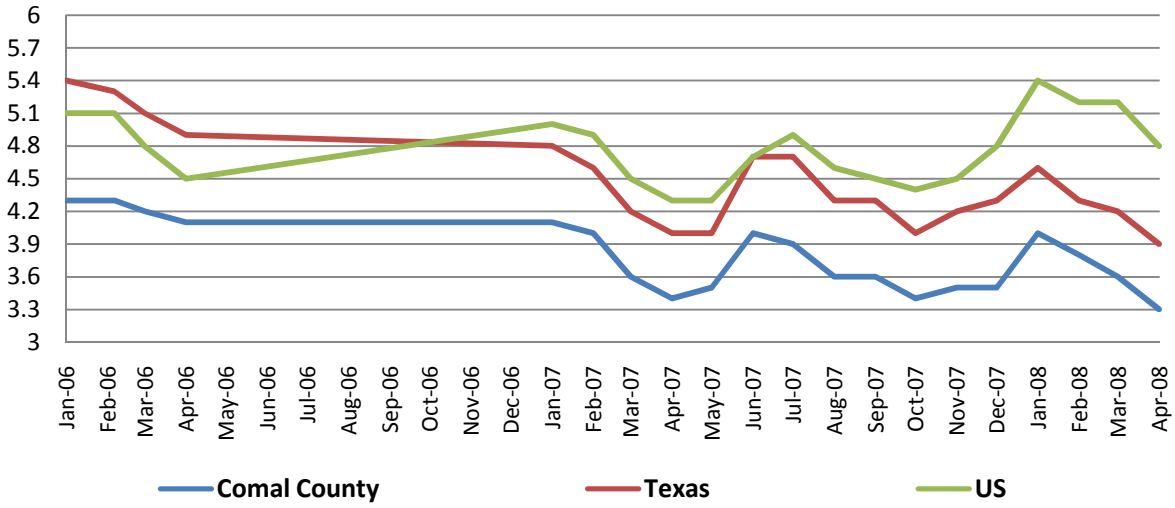
Comal County outperforms Texas and the nation as a whole in employment rates for any given month dating back as far as January 2006. While not spared from the economic downturn, Comal County continues to weather the storm better than many other areas of the state and country.

Figure 52. Annual Labor Force Averages by County, 2007

Labor Force	Comal County	Guadalupe County	Hays County	Blanco County
Total Labor Force	51, 827	54,828	71,618	4,854
Employed	49,916	52,714	68,949	4,689
Unemployed	1,911	2,114	2,669	165
Unemployment Rate	3.7%	3.9%	3.7%	3.4%

Source: US Bureau Labor Statistics

Figure 53. Comal Co., Texas, and National Unemployment Rates, Not Seasonally Adjusted



Source: Texas Labor Market Information

Key Informant Survey Results

To add further support to the graph above, results from the Comal County Assessment Key Informant Survey indicate that 46.3 percent of the 181 respondents who completed the survey confirmed that underemployment (not earning a living wage) was a greater concern within Comal County. Additionally, with 52.7 percent of the 181 leaders stating that the cost of living was a greater concern, it is evident that although unemployment (54 percent of leaders avowed that unemployment was either a lesser concern or had no opinion at all) is not particularly an issue, earning a livable wage is.

> "We need better paying jobs here in the community. Commuting does not allow for working individuals to have the time to put back into their community. Over the last few years the loss of major employers and the laying off of individuals has become an economic concern that affects all aspects of our community..."
>
> -Key Informant Survey

Educational Attainment

The 2000 census found that slightly over 28 percent of Comal County residents aged 25 and over were high school graduates. The proportion of Comal County residents who did not complete high school was 11 percent, or nearly half of the proportion of Bexar County (20%) and Texas (21%) dropouts.

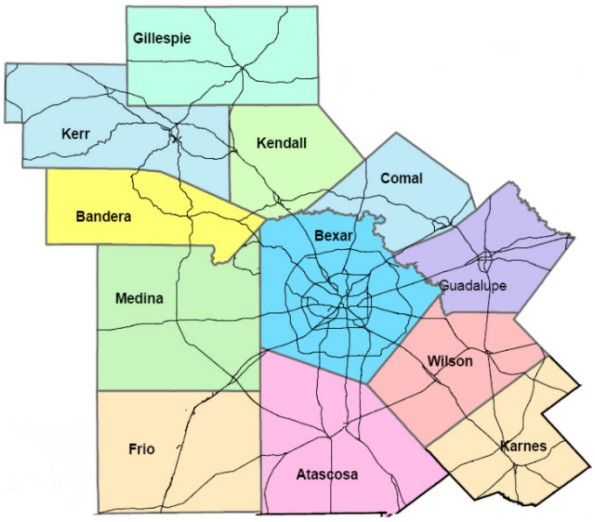
Census 2000 data indicate that 24 percent of Comal County residents had some college education but no degree, and slightly over 17 percent had a bachelor's degree. More recent (2005) census estimates indicate that the percentage of Comal County residents with a bachelor's degree has climbed to 26.2 percent (see graphs in demographics section), exceeding Texas (23.2%) as well as its large, metropolitan neighbor Bexar County (22.7%).

Work Force Development

> "Not everyone is going to college; we need trade schools or classes when the children are still in school (builder, carpenter, electrician, plumber, etc.)."
>
> "I think we need to make a trade school situation in the high schools. Not all students are college bound."
>
> -Key Informant Survey

To support the education and training of those students electing not to attend a traditional high school, Comal County residents have access to the Central Texas Technology Center (CTTC). Operating under the auspices of the Alamo Community College, the CTTC is a workforce development training campus that offers an assortment of classes ranging from basic Microsoft application classes (i.e. Word, Excel, etc.), to ESL preparation. Some courses of study offer an Associate's Degree. As stated on its website, the CTTC's primary mission is to "provide education to local communities and the regional area to help stimulate economic development utilizing workforce education. The CTTC further offers a wide range of academic, technical and continuing education programs to include the granting of Associate Degrees through the colleges of the ACCD" (source: Central Texas Technology Center). Additional educational programs are planned for a new campus of ACCD in northeast Bexar County.

Figure 54. AACOG 12-County Region



To support workforce development the Alamo Area Council of Governments (AACOG) developed the Alamo Area Development Corporation for the 12 counties that make up the Alamo Area Region. Through Workforce Solutions Alamo (formerly Alamo WorkSource), AACOG operates four full service career centers offering easy access to a wide array of employment and training services in Pleasanton, New Braunfels, Seguin, and Kerrville. Additionally, in order to serve the eleven rural counties of the Alamo, seven satellite career centers are located in Bandera, Boerne, Hondo, Pearsall, Floresville, Fredericksburg, and Kennedy.

Availability of Child Care and Out-of-School Programs

Child care and out-of-school programs are crucial for single-parent workers and families where all caregivers work. Texas Department of Family and Protective Services data from 2007, the most recent available, indicate that Comal County has significantly greater day care capacity than any of the comparison geographies. Twenty-four hour residential care, however, is in much shorter supply.

Figure 55. Day Care and Residential Care Capacity, 2007

	Child Population Age 0-13	Licensed Day Care Operations	Licensed Day Care Capacity	Capacity per 1,000 Children	Residential Licensed 24-Hour Care Operations	Residential 24-Hour Care Capacity	Capacity per 1,000 Children
Comal Co.	16,267	42	3,716	228.4	25	220	13.5
Guadalupe Co.	21,408	33	2,327	108.7	34	134	6.3
Hays Co.	23,972	71	4,526	188.8	43	483	20.1
Kendall Co.	4,901	12	936	191.0	21	171	34.9
Bexar Co.	325,107	665	63,448	195.2	686	3,644	11.2
Texas	4,942,402	10,855	910,097	184.1	3,900	39,173	7.9

Source: Texas Department of Family and Protective Services *2007 Data Book*

Having licensed day care slots available, however, does not necessarily mean that families are able to utilize them. Household Survey questions relating to the availability of child care were answered by 73 respondents. As Figure 56 below indicates, affordability is by far the greatest problem reported; quality of care and convenient location were secondary issues. It appears that hours of child care availability are generally acceptable to respondents.

Figure 56. Household Survey responses (n=73) relating to availability of child care

Issue	Major Problem	Minor Problem	Not a Problem	No Opinion/ Don't Know
Finding quality child care	19.2%	11.0%	52.1%	17.8%
Finding affordable child care	27.4%	8.2%	46.6%	17.8%
Finding child care that operates around your work schedule	13.7%	6.8%	61.6%	17.8%
Finding child care convenient to your home or work	19.2%	6.8%	56.2%	17.8%
Finding child care during the hours you need it	11.0%	9.6%	61.6%	17.8%

Of 142 respondents to a Household Survey question asking whether "your children need out-of-school programs (after school or during the summer)", 31 percent said yes. Unfortunately, 40 percent of youth survey respondents reported having no recreational facilities near their house.

Key Informant Survey Results

Results from the Comal County Key Informant Survey illustrate significant levels of concern about workforce development issues. As summarized in the figure below, 50.0 percent of respondents indicated that competitive skill sets for individuals seeking employment was of greater concern while 42.7 percent reported it as a lesser concern. Thus, a greater majority of the respondents (92.7%) indicate that this issue of some degree of concern. This was also the case for finding/recruiting skilled job applicants and access to technical training and development programs.

Figure 57. Key Informant Survey Responses: Workforce Development

Question	Greater Concern	Lesser Concern
Competitive skill sets for individuals seeking employment	50.0%	42.7%
Finding/recruiting skilled job applicants	46.6%	42.4%
Access to technical training and development programs	41.7%	45.3%

Transportation and Infrastructure

Comal County has a land area of 561.45 miles and a total population, according to Census 2006 estimates, of 101,181. The population density is 139.1 persons per square mile. This is comparable to Hays County, which has a population density of 143.9, and slightly higher than Guadalupe County's 125.20 persons per square mile. In 2004, according to Texas Department of Transportation figures compiled by The County Information Project, there were 724 centerline miles (21 unpaved and 703 paved) and 1,448 lane miles (43 unpaved and 1,405 paved) for a total of 2,172 miles of roads within the county[1]. The table below shows total centerline and lane miles for Comal and the counties contiguous to Comal. Although Comal has the smallest total land area in square miles (562), it ranks 3rd in total lane miles. If expressed as a ratio of tot al lane miles to total land area (see table below right), Comal ranks highest of all surrounding counties at 2.58 lanes miles for every square mile of land area. This suggests that Comal has a more comprehensive network of roads and more alternate routes for motorists trying to access I-35 and US 281 for daily work commutes.

Figure 58. Population, Motor Vehicle Registrations, and County Road Miles by County

	Bexar	Blanco	Comal	Guadalupe	Hays	Kendall
Total Land Area (square miles)	1,247	711	562	711	678	662
Total Population (Census 2005 Estimate)	1,555,592	9,250	101,181	108,410	130,325	30,213
Population Density (per square mile)	1,117	12	139	125	144	36
Motor Vehicle Registrations - 2006	1,271,316	12,548	106,888	101,989	113,062	45,824
Total Centerline Miles - 2004	859	209	724	691	749	395
Unpaved	20	74	21	121	94	85
Paved	839	135	703	570	655	310
Total Lane Miles - 2004	1,723	417	1,448	1,384	1,497	789
Unpaved	40	148	43	243	188	169
Paved	1,683	269	1,405	1,141	1,309	620
Ratio of Total Lane Miles to Total Land Area	1.38	0.59	2.58	1.95	2.21	1.19
Ratio of Motor Vehicle Registrations to Total Land Area	1019.50	17.65	190.19	143.44	166.76	69.22

Source: The County Information Project

Volume of Vehicles

The number of motor vehicle registrations in Comal County has been rising steadily for many years. Figures available from the Texas Department of Motor Vehicles indicate that there were 113,848 motor vehicle registrations in Comal in state fiscal year (FY) 2007. The graph below illustrates this steady growth in motor vehicle registrations for FY 2000 through 2007. When compared with the surrounding counties, the growth (the percent increase over FY 2000) in Comal for this period appears even more significant. Comal County ranks second at 42 percent growth. At a 57 percent increase, Hays County has experienced markedly higher growth in vehicle registrations. This is likely to be attributable in part to

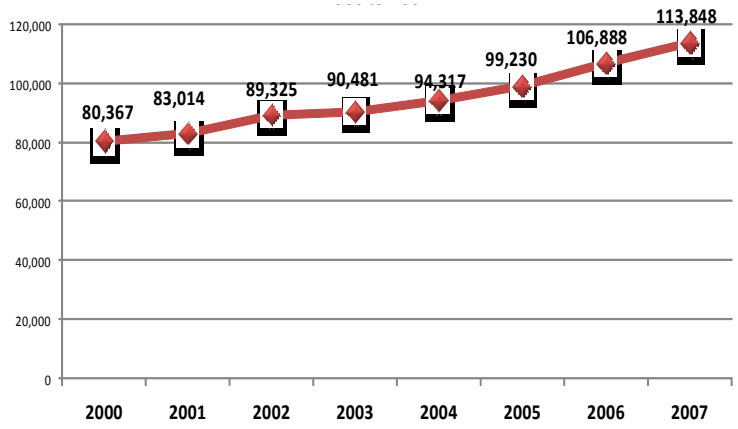
the student population at SWTS in San Marcos. When compared with the overall growth in the state (16.8%) for this period, all of the counties surrounding Comal appear to have experienced fairly significant increases in vehicle registrations with the exception of Bexar County at a smaller 19 percent increase. This suggests that the region around the metropolitan area of San Antonio is growing at a faster rate than the state. And while other explanations are possible, this may also suggest that significant portions of growth in Comal and the surrounding counties may be attributable from Bexar County by families moving to counties that may be perceived as more rural in an effort to escape urban sprawl.

Figure 59. Motor Vehicle Registrations: Percent Increase 2001 to 2007

Motor Vehicle Registrations Percent Increase 2001 to 2007	
Hays	57%
Comal	42%
Guadalupe	37%
Kendall	37%
Blanco	33%
Bexar	19%

Another metric that may be useful in trying to determine the volume of traffic is number of vehicles operating in a given area. A ratio of motor vehicle registrations to total land area in square miles (table at left) shows that Comal County has a significantly higher volume of vehicles per square mile (190.19) than the neighboring counties with the obvious exception of the large metropolitan area represented by Bexar County. Since the population densities of Hays and Guadalupe are much closer to that of Comal County they make a more valid comparison. According to Census 2006 population estimates, the population density of Hays County is 144 persons per square mile, only about 4 percent higher than Comal County at 139 persons per square mile. Yet Comal has 190 registered vehicles per square mile compared to Hays at 167 vehicles per square mile, a density 14 percent higher. The population density of Guadalupe County is 125 persons per square mile, approximately 10 percent less than that of Comal County with 143 registered vehicles per square mile, yet Comal has a nearly 33 percent greater volume of vehicles per square mile than Guadalupe.

Figure 60. Comal County Motor Vehicle Registrations, 2000 to 2007



From the preceding figures, it is clear that the concentration of personal vehicles in Comal County in relation to population and land area is relatively high, especially when compared to neighboring counties like Guadalupe and Hays. This growth is consistent with a special report released by the Bureau of Transportation Statistics (BTS) in 2007 indicating that increasing income is a contributing factor to personal car ownership and highway passenger travel. Corroboration for the report's findings can be seen in upward trends in average wages per job and median household income which for Comal is

higher than state averages and most of the surrounding counties (see the Community and Quality of Life section of this report). As income increases, the report notes, outcomes can include:

- More individuals and households with personal vehicles;
- Greater numbers of multiple vehicle households;
- More relocation to suburbs increasing commuter miles;
- More frequent discretionary trips covering greater distances

The primary result of this relationship is marked increase in highway travel and vehicle miles of travel (VMT), increasing congestion and delays. In describing this relationship of income and numbers of vehicles the BTS report cites findings from a National Household Travel Survey (2001) indicating that 93 percent of all households have at least one vehicle. And, that even in households where annual income is below $25,000, 80 percent have at least one vehicle and over 10 percent actually have three or more. As a corollary to the cited growth in vehicle registrations and availability of vehicles per household, survey respondents were asked if their family had at least one vehicle available for personal use. The overwhelming majority (97.8%) reported they did have at least one vehicle, while only 2.2 percent reported having none. The BTS special report notes that, among households with no vehicles, the majority (78%) are in the lowest categories of income. While some households may not own a vehicle they may still have access through family or friends. To allow for that circumstance, respondents to the Household Survey were also asked simply if their family had transportation to go to work, school and access other essential services. Results are summarized in Figure 61 below and are reflective of the high rate of personal vehicle ownership. In all categories, the majority of respondents indicated they had the necessary transportation. Percentages decline somewhat for transportation to school and social service agencies and may be reflective of vehicle availability (if not owned) and/or low household income. Finally, respondents were asked if any older adults (65+) in their household required special travel arrangements, like a modified van. Of the 152 individuals responding to this question, an overwhelming majority (98.7%) indicated no such need, while a small minority (1.2%) indicated that they did need special arrangements.

Figure 61. Household Survey: Transportation Availability

Does your family have transportation to go to…	Yes	No
Work?	93.8%	2.8%
Grocery store?	98.4%	1.4%
Doctor's office?	97.8%	1.8%
School?	79.3%	11.4%
Social service agency?	65.7%	19.3%
Average	87.0%	7.3%

Annual Average Daily Traffic Counts

As mentioned above, high rates of vehicle ownership and vehicle miles traveled translate to increased highway use and congestion. Another measure of highway and road use is the annual average daily traffic count (AADT) available from the Texas Department of Transportation (TxDOT). The AADT is a measure of the total volume of traffic in both directions for a year divided by 365. It is a measure commonly used by engineers for designing traffic loads and flow of major highways and ancillary roads. It also serves as a measure of how commuters use detours in efforts to avoid heavily congested areas on

major thoroughfares. Such differences in available alternate routes make comparison with other counties (Bexar and Hays) along the I-35 corridor difficult. It is interesting to note that the AADT count for the most heavily trafficked section of I-35 in Comal County is 95,000 vehicles per day.

Commute Times

According to the 2006 American Community Survey of the US Census, Comal County residents had an average commute time of 27.7 minutes (see Figure 62). This commute time is slightly higher than Bexar and Guadalupe counties (at 23.8 and 22.0 respectively) and also above the state average of 24.6 minutes. Only Hays County, with an average commute of 29.4 minutes, is higher.

Figure 62. Mean Travel Time to Work in Minutes, 2006

County	Minutes
Bexar	23.8
Comal	27.7
Guadalupe	22.0
Hays	29.4
Texas	24.6

Source: US Census American Community Survey, 2006

Additional statistics from the Survey (see table below) indicated that residents in Comal and Guadalupe counties were somewhat more likely to drive to work alone (80.3 percent and 83.7 percent respectively) than the state as a whole (78.5%). This is to be expected in the absence of a daily city or county-wide transit system and excludes the regional buses available through the Alamo Area Council of Governments (discussed below). Comal commuters were also slightly less likely to carpool (11.0%) than the state (12.7%) and more likely to work at home (5.3%) than the state (3.5%).

Figure 63. Percent of Population by Method of Community to Work, 2006

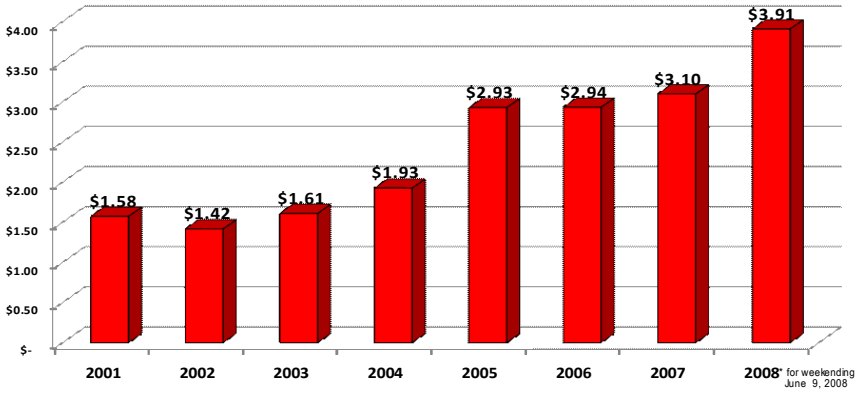
COMMUTING TO WORK 2006 American Community Survey										
	Bexar	Percent	Comal	Percent	Guadalupe	Percent	Hays	Percent	Texas	Percent
Workers 16 years and over	681,406		45,886		50,768		67,754		10,514,531	
Car, truck, or van -- drove alone	531,367	78.0%	36,861	80.3%	42,516	83.7%	54,115	79.9%	8,253,633	78.5%
Car, truck, or van -- carpooled	76,930	11.3%	5,040	11.0%	5,300	10.4%	6,500	9.6%	1,334,892	12.7%
Public transportation (excluding taxicab)	20,721	3.0%	0	0.0%	0	0.0%	557	0.8%	177,160	1.7%
Walked	17,740	2.6%	606	1.3%	849	1.7%	2,066	3.0%	195,559	1.9%
Other means	13,914	2.0%	928	2.0%	472	0.9%	1,204	1.8%	184,847	1.8%
Worked at home	20,734	3.0%	2,451	5.3%	1,631	3.2%	3,312	4.9%	368,440	3.5%

Source: US Census Bureau, American Community Survey 2006

Fuel Costs and Decisions about Commuting

The cost of fuel is another issue greatly affecting transportation in the spring and summer of 2008. Although prices across the country have been increasing steadily for years (see also Cost of Living, page 55), the increases of 2008 appear to have greater impact on the public, and the choices they make about driving. The graph below shows the highest weekly retail price per gallon reached in year from 2001 through June 9, 2008, as compiled by The Energy Information Agency. The weekly retail price for the end of May 2008 represents a 248% increase over the highest price reached in 2001. Even considering the steady increase in fuel prices over the past decade, the increases experienced in the early spring of 2008 seem without precedent. That being so, the debate over both the short and long term effects on consumer driving choices continues without resolution. The most probable effect in the short term is that consumers will shift from larger, less fuel efficient vehicles like SUVs and trucks to smaller more fuel efficient vehicles including hybrids. In fact, both GM and Ford have announced they will cease production of larger SUVs and will close some plants that produce them. Factors affecting consumer choices about driving and fuel consumption (without being limited to the following) may include:

Figure 64. Texas Weekly Retail Price per Gallon: Annual High for Conventional Regular, 2001 through 2008



- Reducing the number of miles they drive and/or feeling compelled to reduce spending in other areas to channel dollars toward fuel for commuting to work. Figures recently release by the Federal Highway Administration (FHA) indicate that Americans drove 9.6 billion fewer miles in May of this year than they did in May of 2007.

- Not all people, especially those with lower incomes, can necessarily afford to switch over to newer more fuel-efficient cars like hybrids. These families will of course continue to struggle with, and be more severely impacted by, high fuel prices.

- Many families that can afford to switch vehicles, they have sufficiently large families that smaller cars are not a practical option

- Incredibly high fuel prices in Europe (often more than double the prices paid by Americans) have not eliminated the personal vehicle as the primary choice for transportation. (A recent commentary posted by the Reason Foundation, quoting the European Commission suggests that per capita car ownership has actually increased 5 times faster in Europe than in the US since the 1990s).

- In many areas, like Comal County, public transportation options for workers commuting to San Antonio and Austin are currently unavailable.

- Telecommuting (working at home) or carpooling may be the best options for offering some relief to high fuel prices for the foreseeable future (2-3 years).

Proposed Local Road Expansions: New Braunfels Outer Loop and Walnut Avenue

Comal County's position between Austin and San Antonio make it an attractive area for home buyers. The substantial growth in population and residential developments in Comal County over the past decade have strained existing roads, many of which are simple rural, farm-to-market roads. This increased congestion has emphasized the need to examine the possible expansion of existing routes.

One such project is the proposed outer loop around the City of New Braunfels. The loop would be an approximate 40-mile band that would provide alternate access to I-35 and Texas Hwy 46. The concept for the outer loop was originally conceived by the City of New Braunfels in 1964, and, though it currently remains under study, construction could start as early as 2013 if approved. Construction could take as many as 30 years to complete in segments and could have significant positive impact in efforts to grow infrastructure at a rate comparable to that of the population.

Another major project that has already received approval is the expansion of Walnut Avenue in New Braunfels. Approved by the New Braunfels City Council in March of 2008, the $12.5 million dollar project will expand to 4 lanes the section of Walnut Avenue between Katy Street to Business 1-35. This section of Walnut is heavily traveled and the project goal is to alleviate increased congestion in the future.

Possibility of Vehicle Saturation and Implications for Future Highway Congestion

As indicated above, Comal County residents on average have higher median household incomes and higher rates of vehicle ownership for the region. Like most residents in and around the San Antonio and Austin metropolitan areas, traffic congestion and delays on local highways are a constant source of frustration. In the Key Informant Survey conducted for this assessment, 65 percent of respondents indicated that adequate roads were of greater concern and 61 percent indicated that traffic congestion was of greater concern. Possible measures to address such concerns are varied and it is probable that no single remedy will achieve comprehensive improvement. According to one report (Polzin, 2006), it is possible that vehicle ownership may be reaching a saturation point, as the number of zero-vehicle households is already low and that the costs per mile of travel have begun to rise. This forecast is confirmed by another released by the Victoria Transport Policy Institute concluding that per capita vehicle ownership and operational costs per vehicle mile have peaked and will not increase in the future (Litman, 2006). However, other research indicates that a frequently overlooked factor in highway vehicle travel is the impact of new immigrant households, which may be just starting the process of growth in household income and vehicle acquisition (Fogg, et al, 2002).

It is possible that the truth lies somewhere in the middle of these two very well-reasoned forecasts. The future does not converge on a single point, but within a range of possible outcomes. Litman probably

characterizes future planning needs for Comal County best when in summarizing the shifts in demand he has identified he advocates that…

> …society will benefit from developing a more diverse transport system and more multi-modal land use patterns (Litman, 2005b). This would, for example, more effectively serve a growing elderly population, anticipate the needs of commuters if fuel prices rise significantly, and serve people who prefer walking, cycling and transit travel over driving for some trips. Total travel demand will continue to grow, particularly in areas with ***significant population increases, or along major international freight corridors*** (emphasis added). However, this does not necessarily mean that road and parking capacity must expand proportionately. Travel demand growth will primarily occur in urban regions, where traffic is concentrated and facility expansion costs are high. Alternative modes improvements and mobility management programs are often the most cost effective ways to improve transport in such areas (VTPI, 2005). Increased transport system diversity does not eliminate automobile travel. On the contrary, automobiles will likely continue to be the primary travel mode for the foreseeable future, measured in person-miles. It means that more attention should be given to improving other modes, so they can accommodate a major portion of future travel demand growth.

Since Comal County is experiencing significant population growth, and occupies a prominent position long the I-35 corridor successful planning for future transportation needs will need to include alternative transport modes and that highway expansion may not appear to residents to be the preferred remedy.

Public Transportation in Comal County

A frequently recurring theme in focus group interviews conducted for this assessment has been public transportation. This reflects general frustrations with lengthy commutes, escalating gas prices, and the ever-present construction projects brought on by urban sprawl. Neither New Braunfels, nor any of the other smaller communities scattered across Comal County own or operate any form of public transportation like buses or trolleys, although one or two cab companies do exist.

With the exception of the Alamo Regional Transit (ART) buses operated by the Alamo Area Council of Governments (AACOG), no other public transportation system (PTS) exists for Comal County. However, a need for a city bus service is still identified by residents of the county, especially those in the New Braunfels area. A year-long trial of a public transportation system was conducted in New Braunfels in 1996 under an agreement of the AACOG and the Community Council of South Central Texas (CCSCT)[1]. Under the agreement, the CCSCT covered all operating costs, including salaries for drivers and dispatchers, while the City of New Braunfels invested $15,000 in route maps, posters and necessary signage.

The trial began on March 11, 1996 with a fleet of 5 buses, each capable of holding twenty or more passengers, including those in wheelchairs. Service was provided Monday through Saturday, from 9:15 in the morning to 7:10 in the evening. The cost of a one-way fare was $0.75, and the cost of a transfer

was $0.25. In the first three weeks of operation, the buses averaged 132 one-way fares per week, with that number declining to 69 fares per week between April and the end of June. That average increased to 80 fares per week during July and April with the increased demand from summer tourists and teenagers on summer break. Ridership peaked at 284 in September of 1996 when free fares were offered for a 30-day period to promote the system, an offer that was repeated during the Christmas shopping season. However, ridership declined markedly following each of these promotional periods resulting in high operational costs per passenger and project termination after the initial period ended.

However, the Alamo Area Council of Governments does provide public transportation to Comal (and eleven other counties surrounding the San Antonio Metropolitan Statistical Area) through its Alamo Regional Transit program. According to its website, the AACOG is "a voluntary association of cities, counties and special governmental districts" serving the Alamo Area/State Planning Region 18, which covers an area of 11,354 square miles. The ART program operates 362 days per year, on a published fee schedule (there is no cost to Medicaid recipients and those over 60), and provides bus rides to San Antonio, Seguin, Bulverde, Canyon Lake and New Braunfels. Other stops within the county are offered at a nominal rate of $3 per stop.

On any given weekday, the ART program has from 5 to 8 buses operating in New Braunfels alone, providing rides to doctor's offices, clinics, grocery stores, pharmacies and sundry destinations. Over an 18-month period (from September 2006 to February 2008), ART provided a total of 31,461 separate trips for a total of 278,299 miles in Comal County alone. This averages to 1,748 trips and 15,461 miles per month for that period. It is important to note that, for reporting purposes, a "trip" is defined as any segment between stops, and not necessarily point of origin to penultimate destination. Despite continually rising gas prices, the ART program has not raised its prices in 3 years, though it may do so by fall of 2008. Figures provided by the AACOG indicate that for the period from September 1, 2007 to July 31, 2008 approximately 249 unduplicated riders used the ART buses.

Since the ART program represents a significant resource for Comal County residents, respondents to the Household Survey were asked if they were aware of its availability. Results to this question are represented in Figure 65 below. A majority (81.3%) of respondents indicated that they were not aware of this public transportation option, while remainder (18.7%) indicated that they were. Since anecdotal evidence exists regarding a perceived lack of public transportation in Comal County, the proportion of survey respondents reporting no knowledge of the ART buses may indicate opportunities for public education and increased awareness. Survey respondents who indicated they were aware of the ART buses were also asked if their family regularly used this transportation option. Here, only a small minority (4.3%) indicated that they regularly used the buses.

Figure 65. Are you aware of public transportation availability through AACOG?

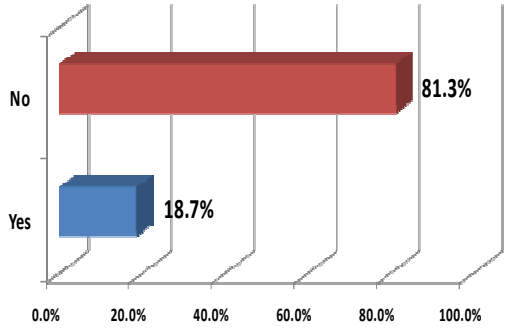
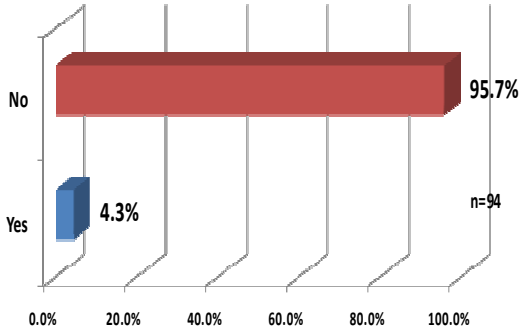


Figure 66. Does your family regularly use AACOG public transportation?



Austin San Antonio Rail District

One of the most significant initiatives currently underway to address the ever increasing traffic congestion on Interstate-35 is the Austin San Antonio Intermunicipal Commuter Rail District (ASAICRD). Formally created in 2003 by the 77th Texas Legislature (as the result of a planning process begun in 1994,) ASAICRD will, when completed, serve an estimated 3 million people living and working along the I-35 corridor between San Antonio and Georgetown. Using existing tracks, the system may begin operation as early as 2011 or 2012. The operational plan for 14 stations along the 110 mile length of the system with an initial schedule trains running every 60 minutes during peak hours at a speed of approximately 80 mph. The maximum fare for a one-way ticket is currently estimated as $12. Comal County residents will have access to the system from a station to be located in New Braunfels just east of San Antonio Street (directly across from the Central Fire Station). Upon leaving New Braunfels, the route (which parallels I-35) will continue between Garden Ridge, Schertz and northwest of Selma as it makes its way to San Antonio. When completed the rail system will offer Comal residents and commuters an alternative to personal vehicle use and increasing highway congestion.

Environmental Quality: Water and Air

Water Quality

Anecdotal data collected for this needs assessment from focus groups and interviews, as well as results from the key informant survey, suggest that water quality and availability are issues of concern for Comal residents, especially in light of the rapid rate of population growth and residential and commercial development that characterizes the county. A study on land use commissioned by the League of Women Voters of the Comal Area in 2003 noted that, "*As the population continues to grow, water demands will likely outstrip the total local surface water and ground supplies. Comal County is an arid region, averaging about 30 inches of rain a year, a fact not widely recognized.*" Comal County water is captured through two aquifers: the Glen Rose layer of the Trinity Aquifer in the northwestern half of the county and the Edwards aquifer in the southeastern half. Both are porous limestone aquifers which are vulnerable to pollution. While both aquifers contain features like caves, holes and cracks that

can result in rapid recharge during rainfall, increased property development, which includes the covering of natural surface areas with features such as parking lots, roads and driveways, can increase runoff and inhibit recharge. Additionally, because of the large surface features, such aquifers lack the filtering potential of, for example, sand aquifers found in some other areas of the state. While the Texas Commission for Environmental Quality (TCEQ) has some regulatory authority for the Edwards Aquifer Recharge Zone for pollution abatement for commercial development, it does not have such authority for residential construction (the county health department has jurisdiction over residential on-site sewage facilities). There is, however, no such regulatory authority for the Trinity Aquifer, although there have been attempts in the past to establish a groundwater conservation district to protect and regulate this area. This does not suggest that water resources for Comal and the surrounding areas are poorly managed, or that planning to meet future need is not engaged. On the contrary, regional planning efforts are well documented, and a comprehensive hydrology analysis for the region is beyond the scope of this report. **It does suggest that there is some level of awareness and concern in Comal County that water supplies to meet future demand cannot be taken for granted and are vulnerable to continued (and especially unrestrained) growth. Opportunities may still exist for increased vigilance through public awareness, education and organized conservation efforts.**

Air Quality

The LWC-CA study also identified air quality as an important issue for residents in Comal and surrounding counties. Primary sources of air pollution identified in the study for Comal County and the surrounding region include:

- Automotive, including trucks and heavy equipment
- Home power equipment, including lawn mowers and chainsaws
- Quarries, which emit both air-borne dust and fumes from heavy equipment
- Industrial, including those which include degreasing operations and chemical pollutants
- Public utilities, including power plants that burn coal
- Airports
- Increased demand from rapid growth including residential and commercial development, including commuter traffic up and down the I-35 corridor

There is no state-mandated regional planning commission to address issues regarding air quality and pollution such as those listed above. The Air Improvement Resources Committee (AIRCO) of the Alamo Area Council of Governments (AACOG) works locally with the Environmental Protection Agency (EPA) to design and implement clean air strategies for the region. The strategies are formalized by AIRCO into a State Implementation Plan (SIP) (available on the AACOG website). The current plan (2002) identifies three strategies as most beneficial for the 4-county region including:

1. Vapor recovery systems to return displaced gasoline vapors to tanker trucks delivering to high volume (≥25,000 gallons monthly) gas stations.

2. Reduced Reid Vapor Pressure, a plan in which oxygenating compounds (ethanol is an example) are added to fuel to reduce its ability to vaporize, especially in hot summer months.
3. Controls on degreasing operations involving degreasing solvents that can volatize into the air as volatile organic compounds (VOCs, which contribute to ozone). The measure requires that any such cleaning equipment include a cover.

Notes

[1] *Centerline miles are measured down the centerline of the road for the total length of a specific route; lane miles are route length times the number of lanes (thus 4 lanes times 10 miles of road would be 40 lane miles).*

Youth

A crucial link in preserving and protecting the future of the community resides in the well being of its youth. Concerns voiced in both the Comal County Key Informant Survey and in the Communities in Schools focus groups highlighted the desire of the community to identify preventive health efforts and determine needs of the youth of the community.

Toward that end, a 91-question youth survey was developed to assess the overall state of youth well being in Comal County. This survey targeted several key areas of concern voiced by community leaders and focus group members including: education, leisure and after school activities, the after school and household environments, peer influences, bullying, teen pregnancy, teen sexually transmitted diseases (STDs), substance abuse, and juvenile crime. All publicly schooled Comal County youth in grades 9th through 11th (i.e. those 14-17 years of age) were surveyed. High school seniors and those 18 years of age and older were excluded. High school seniors or recent graduates, are more likely to be focused on higher education or making the transition to the workforce. Issues of school busing or peer bullying tend to be less problematic at this life stage. The following assessment describes the results garnered from the analysis of a 20 percent sample of 3,284 returned surveys. When appropriate, these primary data are compared to information available from other sources labeled accordingly.

Education

Comal County is served by both the New Braunfels Independent School District (NBISD) and the Comal Independent School District (CISD). New Braunfels High School (30.7 percent of Comal County H.S. students) is located in the NBISD, while Smithson Valley High School (33.6%), Canyon High School (26.5%), Canyon Lake High School (8.8%), and Memorial High School (less than one%) are all a part of the CISD. The demographics of enrolled students at these schools approximate the demographic makeup of the county. The age range (14-17) surveyed has a higher proportion of Hispanics than the county as a whole and portends the shifting age structure that will transform the demographic makeup of the population.

> "Quality education is one that provides adequate background knowledge and the critical thinking skills necessary to fully participate in American society."
>
> -John Seidlitz, *Educational Consultant*

Figure 67. Student Ethnicity by Campus, 2007

Ethnicity	New Braunfels HS	Canyon Lake HS	Canyon HS	Memorial HS	Smithson Valley HS
African American	2.1%	1.3%	2.1%	0.0%	2.8%
Asian/Pacific Islander	0.8%	0.7%	0.8%	0.0%	1.3%
Hispanic	38.7%	15.9%	33.6%	34.8%	20.9%
Native American	0.3%	0.4%	0.4%	0.0%	0.4%
White	58.1%	81.7%	63.1%	65.2%	74.6%

Source: Texas Education

Results from the Key Informant Survey identify quality of secondary or high school education and quality of elementary and intermediate education as the two uppermost concerns. Quality of education is a critical factor for success in developing competitive skill sets in youth for future employment and higher education. Objective assessment of the quality of education provided in Comal County is a difficult and

imprecise undertaking. Perhaps quality of education is best measured in the outcome, not the process. Comprehensive quantitative and analytical assessments are not readily available. What is most often available is subjective data, based on anecdotal experience. However, there are two metrics that provide some proxy for quality of education: neighboring county and statewide comparisons of graduation rates and Texas Assessment of Knowledge and Skills (TAKS) testing.

A comparison of TAKS scores in both reading and math for Comal, the surrounding counties and the state reveals no outstanding differences in performance (see tables below). A five-year average (2003 through 2007) of grades 3 through 11 shows little difference when compared by grade or geography. Performance on TAKS scores in Comal is on a par with neighboring counties and marginally higher than the state as a whole. While this suggests that the Comal County school students are performing at or above local norms, this is a relative comparison and not an absolute standard.

Figure 68. Percent Passing TAKS Reading, 2003 to 2007 Average

Percent Passing TAKS Reading 2003 to 2007 Average									
State/County	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**
Texas	89.9%	80.5%	80.7%	83.6%	78.5%	83.0%	79.3%	74.8%	80.0%
Bexar	89.9%	79.2%	80.7%	81.6%	76.6%	81.2%	78.8%	74.2%	80.4%
Blanco	93.3%	82.7%	86.4%	87.9%	84.2%	88.3%	91.0%	78.7%	83.2%
Comal	94.9%	86.4%	88.1%	89.7%	83.7%	85.4%	85.2%	79.9%	83.1%
Guadalupe	93.2%	82.6%	84.4%	91.0%	83.2%	85.9%	83.3%	78.7%	80.6%
Hays	92.3%	83.0%	83.0%	85.0%	82.9%	84.8%	82.8%	74.5%	79.9%
Kendall	95.3%	89.5%	91.5%	95.2%	91.9%	93.6%	92.2%	85.9%	85.6%

Source: Kids Count

Figure 69. Percent Passing TAKS Math, 2003 to 2007 Average

Percent Passing TAKS Math 2003 to 2007 Average									
State/County	**Grade 3**	**Grade 4**	**Grade 5**	**Grade 6**	**Grade 7**	**Grade 8**	**Grade 9**	**Grade 10**	**Grade 11**
Texas	80.4%	79.7%	81.3%	71.6%	64.2%	61.2%	53.1%	56.2%	67.9%
Bexar	77.9%	77.5%	81.2%	66.9%	60.4%	56.9%	49.4%	53.3%	65.5%
Blanco	79.7%	78.0%	87.8%	77.5%	69.0%	64.6%	64.8%	62.8%	75.6%
Comal	86.8%	85.6%	87.7%	81.3%	70.1%	65.7%	63.3%	64.3%	74.6%
Guadalupe	82.8%	80.9%	84.2%	83.5%	70.9%	66.6%	60.2%	63.5%	72.6%
Hays	83.2%	81.7%	81.9%	71.8%	68.2%	61.8%	57.1%	59.5%	68.7%
Kendall	87.8%	88.2%	90.1%	84.8%	82.7%	77.1%	75.4%	73.6%	78.8%

Source: Kids Count

Secondly, analysis of the percentage of 9th graders who graduated within four years (averaged over the seven year period depicted), demonstrates that Comal County exceeds the Texas state average for graduation percentage (84.3 percent vs. 82.5%). All but one of its neighboring counties (Bexar County) exceeded the state average of graduates over the same time period. In the most recent year graduation rates are lower for Comal than its surrounding counties except for Bexar County.

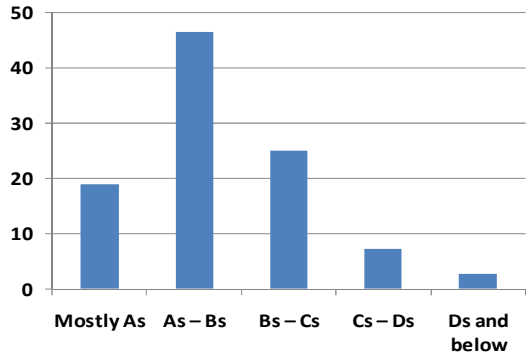
Figure 70. Percent of 9th Grade Students Graduating within Four Years, 2000 to 2006

County	2000	2001	2002	2003	2004	2005	2006
Bexar	76.8%	77.1%	79.2%	81.5%	81.8%	79.6%	75.7%
Blanco	95.7%	88.2%	93.7%	95.4%	97.3%	91.4%	92.1%
Comal	84.1%	83.5%	82.0%	83.6%	85.3%	87.1%	84.4%
Guadalupe	82.0%	86.9%	84.6%	88.1%	86.5%	88.8%	86.0%
Hays	82.8%	83.4%	83.9%	85.0%	85.0%	86.6%	85.9%
Kendall	87.6%	88.7%	88.8%	92.4%	91.7%	91.4%	95.2%
Texas	80.7%	81.1%	82.8%	84.2%	84.6%	84.0%	80.4%

Source: Kids Count

In a comparison with surrounding counties and the state, Comal students do not excel in math or reading test scores, nor is the graduation rate as high as Blanco, Guadalupe, Hays or Kendall Counties. The trends in these indicators are not improving. This evidence does not allay the concerns about the educational outcomes from Comal County Schools.

Figure 71. Comal High Schools Grade Distribution



Community stakeholders were also interested in the student perspective of education in Comal County. In the Youth Survey, students were asked to identify the range in which their grades normally fall. The results are depicted in the graph at right. Nearly half (46.5%) reported their grades as being in the A to B range.

When asked whether grades were important, 62.7 percent of survey respondents felt grades were 'very important', 33.9 percent 'somewhat important', and 3.4 percent 'not important.' Students were also asked whether or not they found their school work to be challenging (see Figure 72). Perceptions of teaching assistance and mentoring were also queried. Interestingly, 82 percent of parents responding to the Comal County Household Survey felt their child or children are being sufficiently challenged in their schoolwork, while only 57 percent of youth agreed.

Figure 72. Percent of Students Reporting Being Challenged and Encouraged in School, 2008

Survey Question	% Yes	% No	% Don't Know
Does your school work challenge you?	57.0	29.8	13.2
Does your teacher routinely discuss your progress?	24.2	52.7	23
Do teachers in school encourage you to be the best you can be?	72.8	27.2	-----

Another area of interest documented by survey responses was the student perception of communication between schools and parents/guardians. Students were shown a list of seven items including: (1) absences from school; (2) grades/report cards; (3) academic awards; (4) induction ceremonies; (5) conduct/behavior; (6) PTA meetings; and (7) and volunteer opportunities. Students were then asked to report how many of the seven items were routinely reported to parents by the school system. A small number (12.7%) of students reported that none of these items was communicated; about a quarter (23.4%) felt that only one item in the list was reported; almost two thirds (65.1%) felt at least two items were reported; and most (82%) of students reported at least three. The overwhelming majority of parents (80%) responding to the Household Survey reported that they had attended a parent-teacher conference in the past year to discuss their child's performance and behavior at school. From either perspective, communication between schools and parents may present opportunities for improvement. Additional evidence from the perspective of teachers will improve the understanding of this important area.

Leisure/After-School Environment

Another concern of the community stakeholder group was to assess both how and where students spent their time after school and what recreational facilities were available to them in the community. Students were shown a listing of ten recreational facilities common to many communities. These included the YMCA, Boys & Girls Clubs, athletic clubs, church recreational facilities, parks, baseball diamonds, hiking trails, jogging trials, bicycle paths, public libraries and an 'other' category. Students were asked to note how many of these facilities were available within walking distance of their home. Of the students responding to this question, 22 percent reported having 1 facility, 12.8 percent reported having 2, and a quarter (25.1%) had three or more. However**, a significant proportion of the students (40.1%) reported having no facilities available within walking distance of their home.**

Another area of interest for adults in the community dealt with how much time today's youth spend playing video games, watching TV, using a computer for other than learning purposes, and talking/texting on cell phones. Survey responses were tabulated and are compared to national averages reported by the Centers for Disease and Control and Prevention (CDC) in the 2007 Youth Risk Behavior Surveillance System survey (YBRSS) for 9th-11th graders.

"Not adequate spending on Parks –You also have generational conflicts – older residents versus youth priorities – they compete. Facilities for 11-20 year olds non-existent. 70% of youth drop out of traditional sports by age 12. Where do they go? What do they do…?"

"I consider obesity in the population a major threat. I don't know why PE was removed from the school curriculum."

"...70% of youth will drop out of organized sports by age 12. Only 10% of youth are gifted athletes. Obesity rates among youth are skyrocketing into a national epidemic because these kids have nowhere to go and they are the bulk of the youth…"

-Key Informant Survey

One in five Comal County students (20.9%) are spending over three hours per day watching TV and/or using computers for fun, as compared to 36.4 percent of students nationwide. Nearly one in three (31.4%) is spending that amount of time on the cell phone. Taken together with other findings about how youth spend discretionary time, it is important to identify the risk factors associated with threats to teen well being and consider whether 6 or more hours per day of TV, Texting and Telephoning time for a quarter of these teens is the best that the community can do to provide alternative choices.

When queried about physical activities, 61.6 percent of students in Comal County reported participating in organized sports. This figure slightly exceeds the national average of 58.2 percent in the 2007 Youth Risk Behavior Surveillance System survey (YBRSS) for 9th through 11th graders. The majority (51.9%) of Comal County youth respondents stated that they took part in one or two sports, while 17.8 percent indicated that they participated in three or more sports. More than a third (38.4%) indicated that they did not take part in any type of organized sport activity.

Figure 73. How many sports do you participate in?

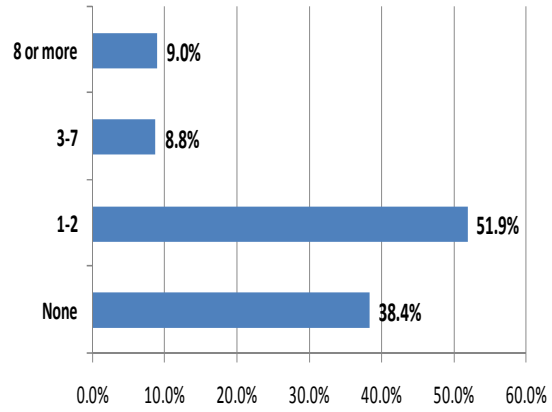
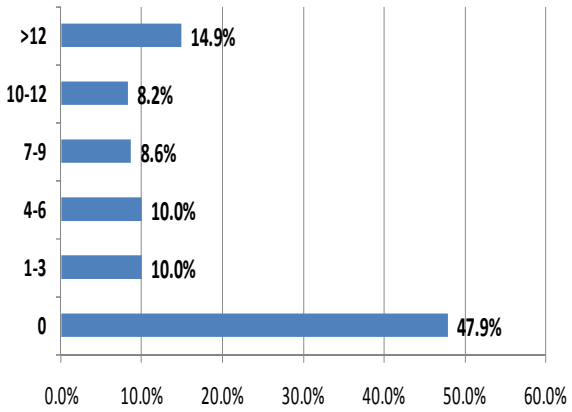
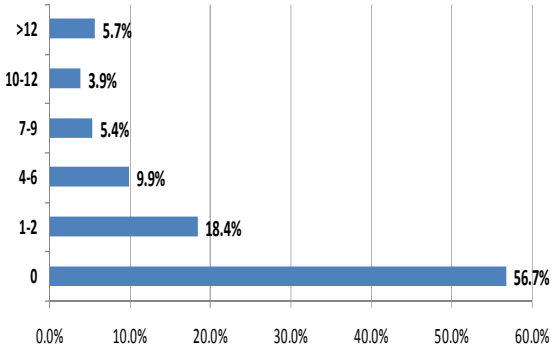


Figure 74. How many hours of sports a week?



Students were also asked how many hours of physical activity they engaged in per week. Of the students responding to this question, nearly half (47.9%) indicated that they do not participate in even one hour of sports per week. Such a large proportion is alarming in light of current recommendations for adequate levels of routine aerobic activity defined as 30 minutes 5 times a week (approximately 2.5 hours per week). The 10 percent reporting 1-3 hours of physical activity are barely meeting this recommendation.

Figure 75. How many hours of extracurricular activities per week?



This is particularly concerning given recent reports that find over one third (35%) of Texas school age children are overweight or obese, twice the proportion of all U.S. students (16%). [1]

Students were also shown a list of the following clubs and extracurricular activities: scouting, band, choir, chess club, debate team, dance team, honor society, cheerleading/pep squad, student government, ROTC, and an 'other' category. Significantly, ***more than half (56.7%) reported zero hours of participation in any extracurricular activities per week.*** And an additional 18.4 percent indicated that they spend only one to two hours in extracurricular activities per week. This indicates that three quarters of the respondents have significant amounts of unfilled time after school. This correlates with the high number (37.3% of students report 2 or more hours/day) of hours that students report as being at home without an adult.

Family Life

The family and household environments of students was a focus area of the youth survey. The abundance and/or lack of a supporting home and family environment can be pivotal in the academic performance and behavior issues of youth. As can be seen in Figure 76 below, nearly 3 quarters (74%) lived at home with two adults. Many studies have highlighted the association between the number of meals eaten together as a family during the week and the corresponding likelihood of multiple risk behaviors. In 2005, Fulkerson et al, surveyed 99,462 6th through 12th graders in 213 cities and 25 states. Their report demonstrated that feelings of strong family support, positive peer influences, and strong self esteem were all positively associated with frequency of family meal times. Likewise, their findings reaffirmed earlier works which showed an inverse relationship between frequency of family meals and all high risk behaviors.

NEEDS ARE FOR:

"Parental involvement in the raising of their children"

"After school mentoring & child care until parents get home."

-Key Informant Survey

Figure 76. Who do you live with?

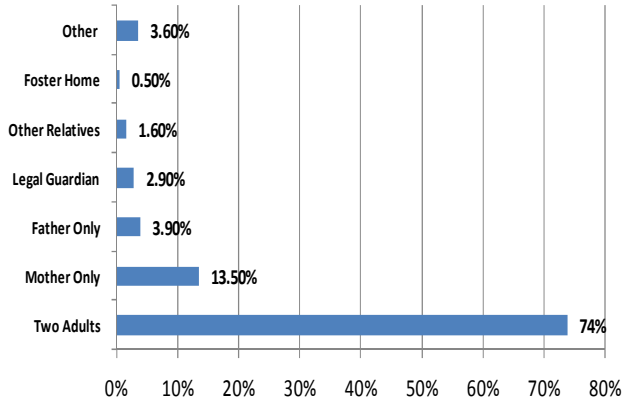
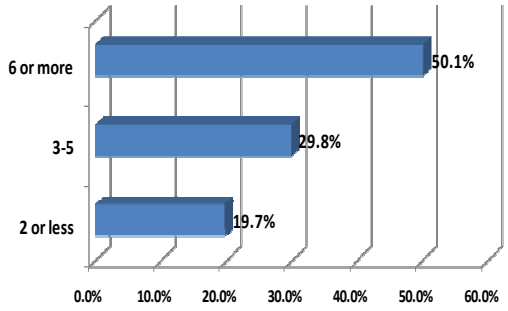


Figure 77. How many days per week do you eat dinner with your family?



Family meal times serves as one surrogate indicator of overall parental involvement and influence in many studies. As shown in Figure 77, slightly more than half (50.1%) of Comal County youth reported eating dinner with their family at least 6 days per week.

Fewer than one in three (29.8%) reported having dinner with family three to five times per week, while approximately one in five (19.7%) reported having dinner with family less than twice a week. **There is a need to develop resources and opportunities for family strengthening associated with protecting youth from high-risk behaviors.** Other indications of concern are the reported relaxed parental attitudes towards smoking/alcohol and the finding that many students spend several hours unsupervised after school. These self-reported findings are consistent with those of communities with a high proportion of youth with problem behaviors including illegal substance use, adolescent parenting, and increased high school dropout rates.

Parental attitudes towards various behaviors have been shown to influence a young person's decision about whether or not to engage in risky behaviors. As depicted in the table below, the majority of the students responding to the survey indicated positive attitudes toward their parents. The higher than expected number of respondents reporting "don't know" is hard to interpret, but it is clear that this was an alternative to an unequivocal positive response. Uncertainty about these questions is a troubling finding if this indicates unawareness and not just unwillingness to report.

Figure 78. Student Perceptions of and Attitudes Toward Parents

Survey Question	% Yes	% No	% Don't Know
Are there adults in your life who really care about you?	90.6%	3.7%	5.6%
Would your parents know if you did not come home on time?	71.7%	15.8%	12.4%
Do your parents know where you are and who you are with?	85.6%	14.3%	-----
It is important to be honest with your parents even if you might get punished?	73.6%	15.7%	10.7%
Do you enjoy spending time with your parents?	68.3%	16.5%	15.2%

When asked how their parents would feel about engaging in risky behaviors (see table below), the majority of students indicated that their parents would find it 'very wrong.' However, according to student perceptions, adults are significantly less opposed to their drinking alcohol than engaging in other behaviors like stealing.

Figure 79. Student Perceptions of Parental Attitudes about Risk Behaviors, 2008

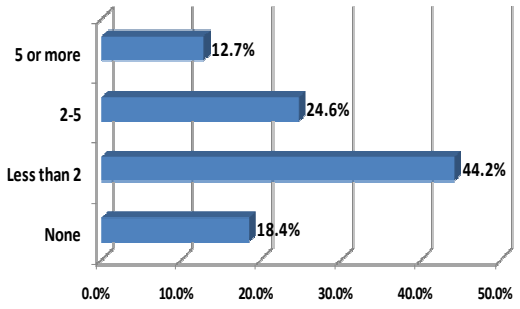
Risk Behavior	Very Wrong	Somewhat Wrong	Neutral	Somewhat OK	OK
Smoke cigarettes	77.6%	11.4%	5.1%	1.6%	4.1%
Drink alcohol	48.9%	21.9%	12.8%	8.9%	7.3%
Use marijuana	82.9%	6.4%	4.7%	1.1%	4.7%
Steal or shoplift	88.0%	6.1%	2.3%	0.8%	2.7%
Provoke fights	64.2%	17.5%	10.9%	3.3%	4.0%

Students were also asked to self report how many of the following 12 topics their parents had clear rules about: tobacco use, alcohol/drugs, missing school, homework, grades, dating, curfew, household chores, respect for elders, keeping out of trouble, phone/internet use, and TV/video games. As shown in Figure 80, only 5.1 percent of students reported having no parental rules for any of the topic areas. The vast majority (63.3%) of students responding to this question indicated that their parents have clear rules for these areas of behavior. And another 11.6 percent responded that they had parental rules in all of the areas listed.

Figure 80. Parental Rules

Survey Question	# topics w/rules
Zero	5.10%
1-2	9.40%
3-5	22.10%
6-11	63.30%
All 12	11.60%

Figure 81. How many hours per day are you home without an adult?



Students were also asked to quantify the number of hours spent home alone on a school day, on average, without an adult. As shown in Figure 81, the majority of students indicated that they spend at least some time alone at home on the average school day. Nearly 1 in 4 indicated that they spend between two and five hours alone at home each day, while approximately 1 out of every 8 students (12.7%) reported being alone for 5 hours or more. Less than 1 in 5 (18.4%) reported that they are never alone or left unsupervised after school. Interestingly, however, of parents responding to the Comal County Household Survey question asking whether in the past month their child or children stayed home alone to take care of themselves or a sibling under 13 on a regular basis even for a small amount of time, 90 percent said no. This discrepancy deserves further study.

Sexual Activity in Teens

In both 2007 and 2008 the Comal County Community Plan identified teenage pregnancy as the issue of the highest priority.[14] This concern was echoed by community residents participating in focus groups conducted for this assessment and in the Key Informant Survey conducted subsequently.

According to data reported in the National Longitudinal Survey of Youth (1997), the overwhelming majority of teens (85%) have their first sexual encounter after 3 p.m. (Figure 82). When considered in combination, the gap in participation in after-

"Teen sexual activity…I feel that we are missing the boat in some areas with regards to the challenges that are facing our youth…parenting skills and support for the underage… Teenage moms/ Head start…you hear that we don't have sex in Comal County, but we do…"

-Comal County Parent

[14] Comal County Community Plan, November 8, 2007

school activities and the large numbers reporting between 2 to 5 hours of time each day without parental supervision indicate that Comal youth are vulnerable to, and have significant opportunities for, risk behaviors such as teen sex and unplanned pregnancies.

Teen sexual behavior in Comal County is best estimated by the Youth Risk Behavioral Surveillance (YRBS) results and other national surveys. Sample sizes drawn from Comal County are too small to permit generalization to the entire county. Therefore, the best estimation available is taken from surveys of teen sexual behavior in Texas. Fifty-three percent of Texas teenagers are sexually active, as compared to 46 percent of teenagers nationwide. The likelihood of sexual activity increases with increasing age (see Figure 84 below).

Figure 82. Time of First Sexual Encounter: 16- to 18-Year-Olds

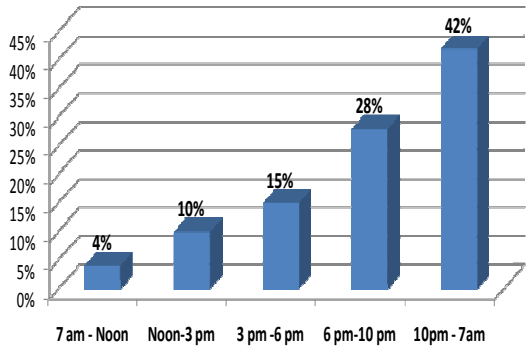


Figure 83. Teenagers Sexually Active by Grade

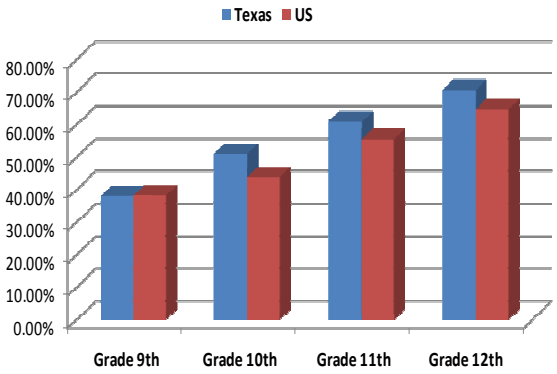
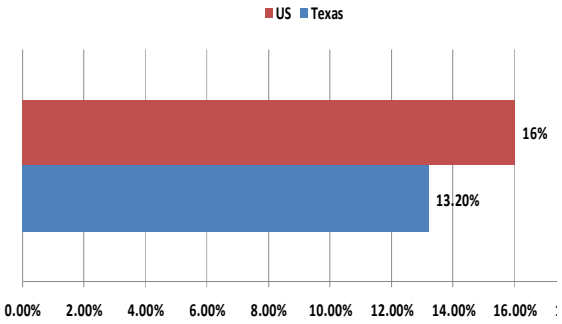


Figure 84. Teens Using Birth Control Pills Before Last Sexual Encounter



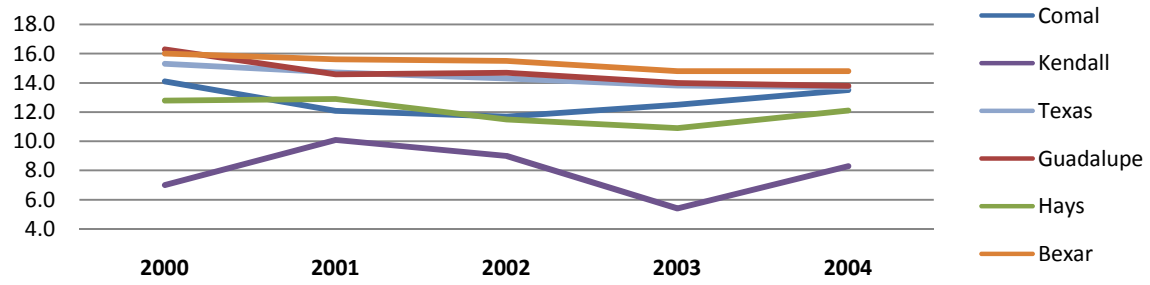
Teen Pregnancy

Older teenagers between the ages of 18 to 19 gave birth at nearly threefold higher rate compared with younger youth in age range of 15 through 17 years (at the rate of 101 versus 36 per 1,000 individuals). Another factor related to teen birth is race/ethnicity. Teen birth rate is 98 per 1,000 for Hispanics, 63 per 1,000 for Non-Hispanic Blacks and 33 per 1,000 in Non-Hispanic Whites. As shown in Figure 83, use of birth control pills is more frequent among Non-Hispanic white 22.3 percent teens compared to Non-Hispanic black, (7.8%) and Hispanic (6.8%) peers.[15]

[15] CDC YRBSS, 2007

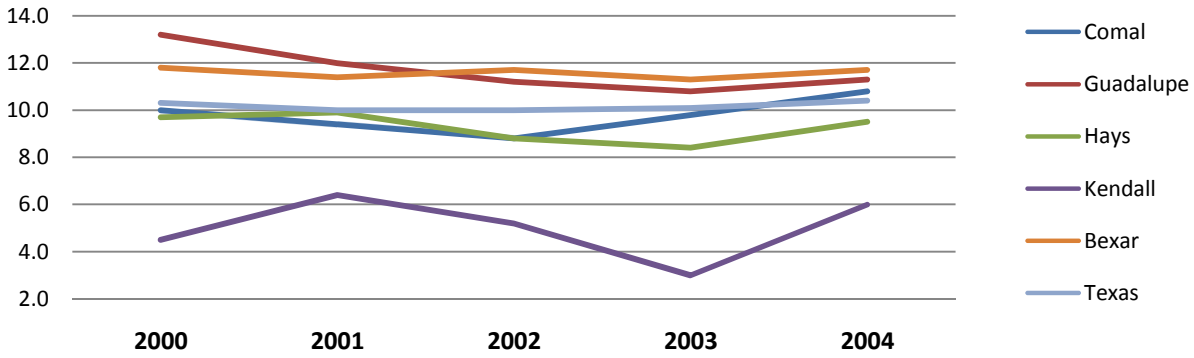
Figure 85 below shows the percentage of teen births for Comal County compared with Texas and surrounding counties. These percentages are calculated by using the number of births to females ages 13 through 19 as a numerator and number of all live births as denominator. Figure 86 shows the percentage of births to single teens. The percentages were calculated by dividing births to unmarried females (ages 13 through 19) by all live births.

Figure 85. Percentage of Births to Teens Ages 13 to 19, 2000-2004



Source: Kids Count Data sites / Texas Department of State Health Services / CLICKS

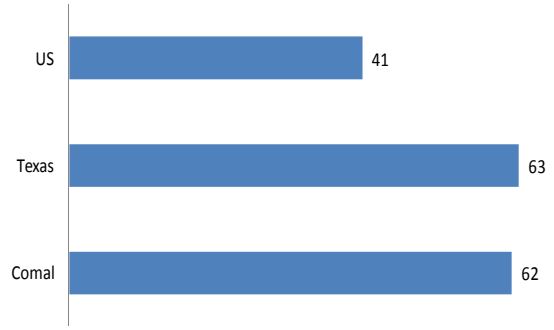
Figure 86. Percentage of Births to Single Teens Ages 13 to 19, 2000-2004



Source: Texas Department of State Health Services / Kids Count CLICKS

In comparison to the six surrounding counties, Comal County has had among the third and fourth highest percentage of teen births, depending on the year, and the pattern of teen births is very similar to that of Texas as a whole. Teenage pregnancy rate was 62 (per 1,000) for Comal County teenagers aged 15 through 19 years old in 2005, comparable with 63 (per 1,000) for the State of Texas.

Figure 87. Pregnancy Rate Among Teens Ages 15 to 19, 2005



Source: CDC YRBSS, 2007

Peer Influences

Literature on problem youth suggests that peer pressure and peer influence are important factors in explaining conduct disorders and are predictors of youth crime. Criminal records and hospital admissions only tend to reflect the data on those individuals who 'get caught' or become sick enough to be hospitalized. In contrast, youth survey data is a more reliable source of information on high risk behavior. Comal County students were asked about the behaviors seen in their immediate group of friends. The goal here is to more accurately benchmark the level of these negative, risky behaviors in the student peer groups.

Figure 88. Percent of Students Reporting Peer Risk Behaviors

In the past 12 months, how many of your group of friends have:					
	None	1-2	3-7	8 or more	No Answer
Smoked cigarettes	35.3%	19.5%	22.2%	5.5%	17.5%
Tried beer, wine, hard liquor	22.2%	14.6%	21.1%	9.6%	32.5%
Used marijuana	36.8%	16.3%	20.6%	6.4%	19.9%
Used steroids	81.9%	10.8%	3.8%	3.5%	0.0%
Used other illegal drugs	64.5%	12.3%	12.3%	10.9%	0.0%
Been suspended from school	47.5%	25.4%	17.4%	9.7%	0.0%
Been expelled from school	67.6%	19.4%	7.4%	5.7%	0.0%
Carried a handgun	84.8%	6.8%	3.6%	4.7%	0.1%
Sold illegal drugs	59.5%	16.9%	13%	10.6%	0.0%
Stolen motor vehicle	82.2%	9.4%	3.9%	4.6%	0.0%
Been arrested	59.2%	21.1%	12.8%	6.9%	0.0%
Dropped out of school	65.4%	21.8%	7.8%	5.0%	0.0%
Been a member of gang	73.5%	8.9%	9.1%	8.5%	0.0%
Been a victim of dating violence	80.7%	10.3%	2.4%	3.8%	2.8%

Another question intended to identify the significance of peer pressure, asked students whether or not they, themselves, would try drugs, alcohol or participate in a risky activity if a close friend asked them to do so. Students responded 'Yes' (19.1%),' I don't know' (2.6%), and a majority answered 'No' (55.3%). Fewer than one in five students (17.8%) further answered 'Yes' even if their doing so might lead to their arrest. Further analysis is required to be able to gauge whether peer pressure is more or less a factor in youth high risk behavior compared with other youth populations.

While peer pressure strongly influences approximately twenty percent of the survey respondents, it is only one of the influences in the lives of today's youth. Several questions were also asked in an attempt to delineate other sources of adult influence.

Figure 89. Guidance from Influential Adults

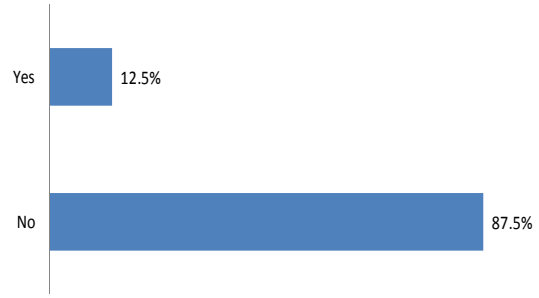
Is there an influential adult that you seek guidance from:	Yes	No	Don't Know
at home?	71.1%	19.3%	9.6%
at school?	43.9%	42.5%	13.6%
outside of home or school?	44.5%	26.7%	28.8%

Nearly 20% of the youths responding report no influential adult to whom they turn for guidance in the home setting; 42.5% report no one in the school setting, and nearly 27% report they have no adult source of guidance outside of home or school. Again, the proportion of youth responding "don't know" is noteworthy, but hard to interpret. One may assume if the teen does not know an influential adult in any of these settings, it is unlikely that they will seek out guidance from one or more of these sources.

These data suggest that there is a need youth mentorship and school guidance programs to help counterbalance the effects of negative peer pressure on the youth of Comal County.

Bullying

Figure 90. Within the past six months, have you been in a fight at school?



While bullying may not appear on the typical list of health indicators for a community, this topic was often voiced in the focus groups and community leader survey that were used to define areas of inquiry for the youth survey. One in four Comal County Household Survey respondents reported that their child or children being bullied by other children is a problem. When asked if they had been in a fight within the last 6 months, the clear majority indicated that they had not been a fight (see graph at right). What is not clear from these data is the possible under-reporting and/or the incidence of "cyber-bullying"-- an increasing phenomena where students "attack" others by using social networking web pages such as MySpace and FaceBook. This area of concern deserves additional inquiry.

Juvenile Crime

> "No county Juvenile Justice Alternative Education Program (JJAEP) to send expelled students to."
> -Key Informant Survey

With over 4 million students in the State of Texas, the youth population is a significant cohort. Parents and educators alike express growing concerns about juveniles as crime victims and crime perpetrators. As the youth population is substantial in number, it is imperative to examine whether the youth is being protected from crime and whether additional initiatives need to be in place to protect the community against juvenile crime. In the Key Informant Survey, the issue of juvenile crime ranked in 7th place on a list of fourteen issues related to children and youth, although 95 percent of parents responding to the Household Survey said that trouble with the law is not a problem for their child or children. This difference is better understood by the fact that respondents without children tend to see juvenile crime as a greater threat. The Texas Education Agency publishes data on the distribution of students who were on disciplinary placement and who were classified as being at-risk. As shown in Figure 91, a small percent of students are on disciplinary placement in contrast to the significant number and percent of students at risk. [16]

Figure 91. Distribution of Students on Disciplinary Placement and At Risk, 2005-2006

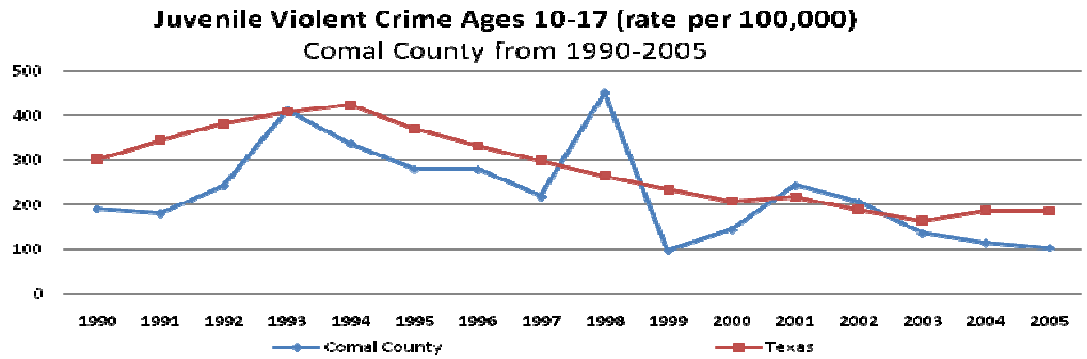
County	# School Districts within the County	Total Student Count	Students w/ Disciplinary Placement	% of Total	Students at Risk	% of Total
Blanco	2	1,663	74	4.6%	671	40.4%
Comal	2	20,174	323	1.6%	7,207	35.7%
Guadalupe	4	18,803	454	2.4%	8,311	44.2%
Hays	4	23,215	585	2.5%	9,678	41.7%
Kendall	2	7,239	108	1.5%	1,875	25.9%
Texas	---	4,505,572	104,198	2.3%	2,195,942	48.7%

Source: Texas Education

Juvenile violent crime by children between the ages of 10 through 17 is on a trend downward (see Figure 92). After being at its highest peak in 1998, juvenile crime was at its lowest in 1999 and in 2005. Additionally, other than the three years (1998, 2001, and 2002) when Comal County's rate exceeded that of the State, overall Comal County has had lower juvenile violent crimes per 100,000 kids (ages 10-17) over the course of a 15 year span.

[16] *Texas Education Agency's Definition of Students on Disciplinary Placement and At-Risk:* 1) Students with Disciplinary Placement: Counts and percents of students placed in alternative education programs under Chapter 37 of the *Texas Education Code* (Discipline; Law and Order) are shown (for the 2004-05 school year) in the AEIS reports. Disciplinary placement counts are obtained from PEIMS records. Districts report the disciplinary actions taken toward students who are removed from the classroom for at least one day. Although students can have multiple removals throughout the year, this measure counts students only once and includes only those whose removal results in a placement in a disciplinary alternative education program or juvenile justice alternative education program. 2) At risk: A student is identified as at risk of dropping out of school based on state-defined criteria (TEC 29.081.) At-risk status is obtained from PEIMS 110 records. The percent of at-risk students is calculated as the sum of the students coded as at risk, divided by the total number of students in membership.

Figure 92. Juvenile Violent Crime[17]

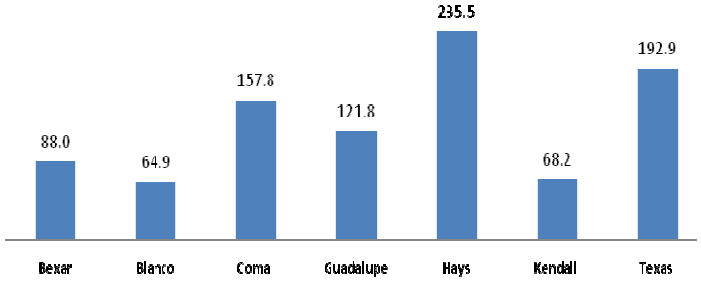


Source: Kids Count Data

In terms of the number of juvenile violent crime arrests for children aged 10 through 17, Comal County had a higher average rate of arrests (per 100,000 kids) than Bexar, Blanco, Guadalupe, and Kendall County. The number of juvenile violent crime arrests in Comal County, however, was significantly lower compared to the state and Hays County. Comal County does not have a juvenile detention center. Arrested juveniles are sent to the detention centers in either Guadalupe or Hays County.

Based on data from the Texas Juvenile Probation Commission, the 2005 referral[18] rate for Comal was 32.3 per 1,000 kids. This is higher than that for Blanco (11.2) and Kendall (23.0) but lower than Bexar (59.1), Guadalupe (82.1), and Hays (51.2). The referral rate is a useful indicator for the need for preventive and early intervention services, to protect youth from becoming adult criminals.

Figure 93. Juvenile Violent Crime Arrests per 100,000 Children Ages 10-17, 2000 to 2005 Average



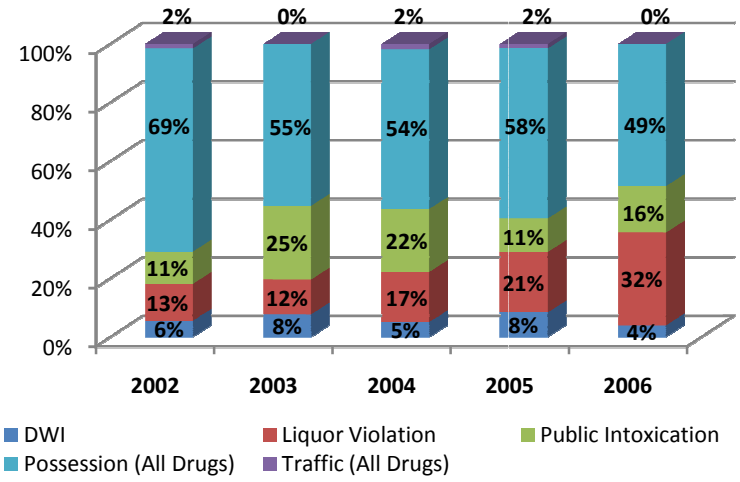
Source: Kids Count Data

[17] Number of arrests and rate per 100,000 children ages 10-17, for the offenses of murder, manslaughter, forcible rape, robbery, and aggravated assault.

[18] *Juvenile Probation Commission's Definition of Referral:* Any occasion when *all three* of the following conditions exist: (1) delinquent conduct, conduct indicating a need for supervision, or violation of probation was allegedly committed: (2) the juvenile probation department has jurisdiction and venue; and (3) face-to-face contact occurs with the office or official designated by the juvenile board.

A closer look at juvenile arrests, by the type of offense, indicates that the greatest percentage of arrests came from the possession of drugs on any given year from 2002 through 2006. Additionally, data gathered from the Comal County Juvenile Probation Department indicated that approximately 27.2 percent (205 out of 753) of the drug tests administered to probationers in 2007 were positive. Also noteworthy is the fact that the percentage of arrests for liquor violation has been on the rise since 2002, accounting for 12.6 percent in 2002 increasing significantly to a third (31.7%) of the total arrests in 2006.

Figure 94. Juvenile Arrests (Ages 0-17) in Comal County



Source: Raw Data from Texas Dept. of Public Safety, Analysis by DSHS Mental Health and Substance Abuse Division

Youth are at risk in Comal County from a variety of factors, but it is the combination of factors that raises the probability that the risk will result in harm. There is a need for a comprehensive approach to youth risk reduction that will address alcohol use, smoking, driving while intoxicated, teen sexual behavior, alienation from adults, vulnerability to peer pressures, lack of participation in exercise or other extra-curricular activities, and less than ideal communication between parents, teachers and the children of Comal County.

Health Status

According to surveys conducted in Comal County, the five health-related concerns cited most frequently by respondents are: (1) access to quality health care (67.7% of respondents); (2) physical violence/abuse within the family (65.7%); (3) support for families in crisis (53.0%); (4) sexual assault (53.0%); and (5) access to quality mental health services (52.5%). The health issues cited most frequently as of little or no concern to respondents were (1) access to quality dental care (52.0% of respondents); (2) Chronic illness and disease (63.5%); (3) support for people with disabilities (64.5%); (4) availability of hospice care (68.7%); and (5) racial disparities in the delivery of health care (74.8%). The degree to which perceived concern is consistent with available data varies by issue, but as discussed below, it appears that several issues of little concern now can be expected to loom large in Comal County's health and well-being in the in the future.

Births

Seventy-one percent of Comal County women giving birth between 1999 and 2004 were married, as compared to 67 percent in Guadalupe County, 72 in Hays, 82 in Kendall, 64 in Bexar, and 67 percent in Texas.[19] A larger percentage of Comal County births were to mothers who smoked during pregnancy. As noted in the Youth section, in 2007 Comal County's rate of births to teens was 62 per 1,000 live births, as compared to 63 and 41 per 1,000 in Texas and the United States, respectively.

Figure 95. Birth Risk Factors and Outcomes for Births between 1999 and 2004

Birth Risk Factor/Outcome	Comal	Guadalupe	Hays	Kendall	Bexar	TX
4 or More Prior Births	4%	4%	6%	3%	5%	4%
Inadequate Prenatal Care	23%	19%	19%	13%	15%	25%
Care Began First Trimester	84%	85%	84%	88%	85%	79%
Smoking during Pregnancy	7%	6%	5%	5%	4%	6%
Spacing fewer than 18 Months	8%	8%	7%	6%	9%	8%
Low Birth Weight	7%	7%	6%	7%	8%	8%
Very Low Birth Weight	1%	1%	1%	1%	1%	1%
Premature	10%	10%	9%	9%	11%	10%

Source: TDSHS Center for Health Statistics

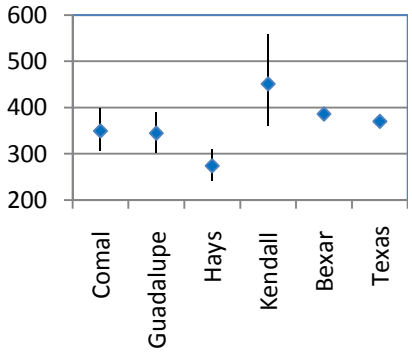
Nearly one-quarter of Comal County births followed inadequate prenatal care, higher than any neighboring county but lower than Texas as a whole. Interestingly, however, Comal County fares quite well on percent of births with first-trimester entry into prenatal care, indicating that women are not maintaining compliance with recommended prenatal care schedules later in pregnancy. Comal County's

[19] TDSHS Center for Health Statistics: Births to Texas Residents, 1999-2004

experience was similar to or better than comparison geographies for the other birth risk factors and outcomes[20].

The chart at right shows the estimated rate of birth defects by county, with 95% confidence interval, for births between 1999 and 2004. The actual rate is 95% certain to fall within this confidence interval, and the confidence interval grows larger as the number of data points – in this case, birth defects – grows smaller, hence the large interval for Kendall County, which has few births, and the very small interval for Texas, with a large number of births. Comal County had 350 birth defects per 10,000 live births during the six-year period, slightly better than the Texas rate of 370, although the confidence interval does stretch from 306 to 400 defects per 10,000 live births.[21]

Figure 96. Birth Defects, 1999-2004



Illness and Disability

Population morbidity (illness) data are not generally available at the county level by age or gender. This brief review of Comal County morbidity is for the general population for the most recent time period available, which varies by data source. A review of morbidity for the entire Comal County population is followed by more detailed information for youth, adults, and seniors where those data are available.

Infectious Disease

The following table provides morbidity rates – cases of illness per 100,000 people – for selected causes of infectious disease for 2006. Comal County has lower morbidity rates than comparison geographies for chlamydia, gonorrhea, HIV, and tuberculosis. Rates are higher than comparison areas for chickenpox, cryptosporidiosis, pertussis, and salmonellosis. Case numbers are low for the latter three illnesses, however, so those rates should be interpreted with caution.[22]

Comal County Health Department surveillance data indicate that further attention might be warranted for MRSA (methicillin-resistant Staphylococcus aureus). Forty-seven cases of MRSA were reported between January and June 2008, a 50 percent increase over the prior period three-year average (i.e., January through June of 2005, 2006, and 2007) of 31 cases.[23]

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[20] TDSHS Center for Health Statistics: Births to Texas Residents, 1999-2004
[21] TDSHS Center for Health Statistics
[22] TDSHS Infectious Disease Surveillance Unit, *Epidemiology in Texas: 2006*
[23] Comal County: 2005, 2006, 2007, and 2008

Figure 97. Morbidity Rates (Cases per 100,000 Population) for Selected Diseases: 2006

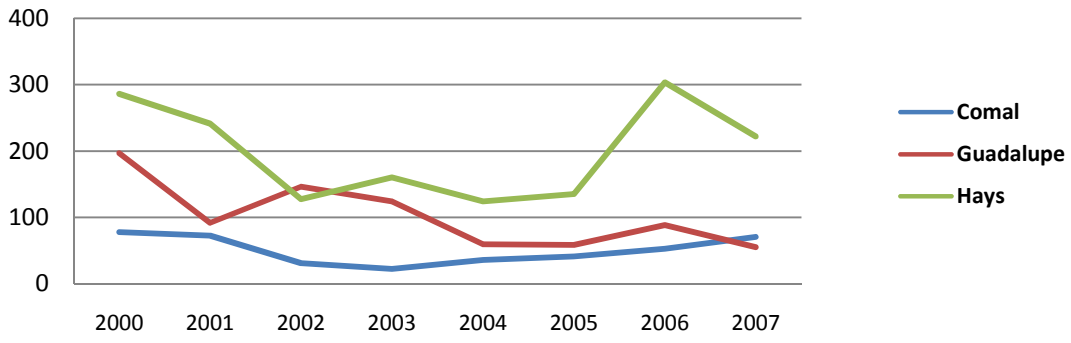
	Comal	Guadalupe	Kendall	Bexar	TX
Chickenpox	83.0	16.9	361.7	54.6	50.2
Cryptosporidiosis	14.7	0.9	0.0	0.0	1.2
Pertussis	8.4	2.8	24.3	4.0	4.1
Salmonellosis	25.2	8.5	24.3	12.0	13.0
Chlamydia	191.1	202.1	104.3	504.1	321.0
Gonorrhea	27.3	47.9	10.4	169.9	129.0
HIV	4.2	1.9	3.5	14.1	14.2
Tuberculosis	1.1	3.8	0.0	6.0	6.8

Source: TDSHS Infectious Diseases Surveillance Unit Epidemiology in Texas 2006

With regard to sexually transmitted diseases among young people, a school based pregnancy prevention program "Worth the Wait" and health education on related topics are provided in both Comal County public school districts. Although teens have access to information, there is growing concern among the local public health department staff that sexually active teens are neither knowledgeable nor behaving in ways consistent with consistently taking precautions to protect themselves from sexually transmitted diseases (STDs). Rates of chlamydia and gonorrhea remain a concern. While gonorrhea rates in Comal County appear low in comparison with the surrounding counties, local public health department staff have pointed out that rates of infection for gonorrhea appear to be on the rise slightly over the past five years (see Figure 98).

> "Even if one person has chlamydia or gonorrhea, it is a public health concern."
> - Gwen Mills, Comal County Health Dept.

Figure 98. Gonorrhea Rate in Youths Ages 10 - 19 from 2001 to 2007



Source: TDSHS – HIV/STD Epidemiology & Surveillance

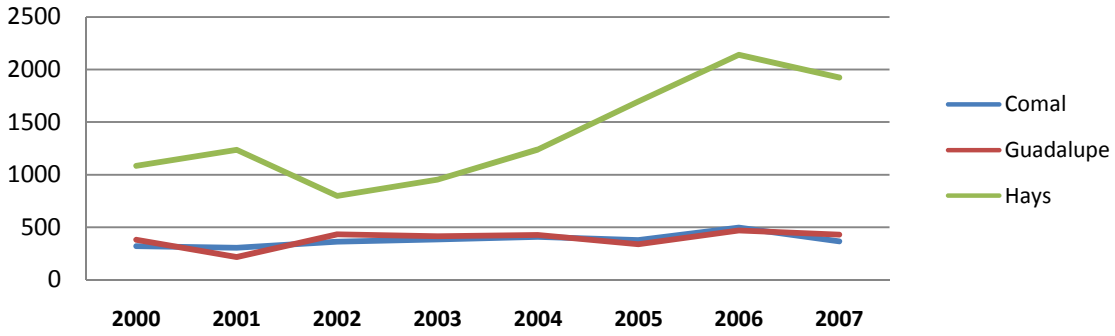
There is not yet an explicit Healthy People[24] goal for 2010 for chlamydia, but one has been set for new cases of gonorrhea. Incidence data, defined as new cases per 100,000 population, show that Comal lags well behind the Healthy People 2010 goal.

While chlamydia rates have remained fairly stable over the past eight years, the rate of infection (per 100,000) is actually higher than gonorrhea. Given this, and the absence of the any downward trends for chlamydia, it is clear that both gonorrhea and chlamydia remain a concern in Comal County.

Figure 99. Comal Co. Gonorrhea Rate (New Cases per 100,000 Population) in Comparison to HP 2010 Goal

Source: Texas Dept. of State Health Services

Figure 100. Chlamydia Rate in Youth Ages 10 - 19 from 2000 to 2007



Source: Texas Department of State Health Services – HIV/STD Epidemiology & Surveillance

Comal County Health Department officials have also voiced concern about the prevalence of childhood preventable diseases and lower than desired immunization rates. Lack of effective health education and outreach to young parents are often cited as contributing factors to the lower than optimal immunization rates. Although few in number, Comal County still sees cases of mumps, pertussis, and varicella (chickenpox) despite of availability of vaccines and has higher rates of pertussis and varicella than the state and several neighboring counties. While detailed data are unavailable at the county level, the following table compares immunization coverage across Texas' 11 Public Health Regions; Comal County is in Region 8.

"In our immunization database, we have the ability to identify clients with missing or past due immunizations and schedule the required shots."

-Gwen Mills, Comal County Health Dept.

[24] Healthy People

Figure 101. Childhood Immunization Levels by Public Health Region

PHR	4-3-1[(i)]	4-3-1-3[(ii)]	DTP4[(iii)]	POLIO3[(iv)]	HIB3[(v)]	MMR1[(vi)]
1	63.8	56.2	65.6%	82.7%	75.8%	83.1%
2	66.4	63.3	69.6	86.6	86.9	86.9
3	63.8	59.0	67.4	83.5	78.7	83.2
4	61.7	51.7	64.0	81.7	69.8	84.2
5	54.7	50.4	58.0	78.2	73.5	81.7
6	64.0	57.6	67.5	82.4	75.7	82.5
7	60.6	56.3	63.6	81.2	78.1	83.2
8	64.6	60.9	67.2	86.8	81.0	83.1
9	59.3	54.9	61.9	80.1	78.5	83.8
10	75.1	73.3	78.4	94.9	91.2	86.5
11	64.9	61.8	67.3	87.9	82.2	83.8

(i) Completion of 4 doses of diphtheria-tetanus-pertussis vaccine (DTP), 3 doses of polio vaccine, 1 dose of measles-mumps-rubella vaccine (MMR) by two years of age
(ii) Completion of the 4-3-1 series plus 3 doses of *Haemophilus influenzae* type b (HIB) vaccine by two years of age
(iii) Completion of 4 doses of DTP by two years of age
(iv) Completion of 3 doses of polio vaccine by two years of age
(v) Completion of 3 doses of HIB vaccine by two years of age
Source: DSHS 1999 Texas Retrospective Immunization Survey

Chronic Illness

Chronic disease morbidity data are not readily available for Comal County specifically. Along with Comal County mortality data, the following review of chronic disease morbidity in Texas will help illuminate the nature and extent of Comal County's chronic disease burden.

CDC Behavioral Risk Factor Surveillance System (BRFSS) data estimate the lifetime prevalence of a number of chronic diseases by asking telephone survey respondents whether they have ever been told by a medical provider that they have a particular disease. (One caution to keep in mind in that because the respondent's information about his or her disease conditions comes from a medical provider, these estimates will undercount prevalence among the uninsured and other populations with impaired access to medical care.) According to this respondent self-report of conditions he or she currently has or has had, 22 percent of Texans suffer from arthritis, 12 percent from asthma, eight percent from diabetes, 4.5 percent from angina, four percent from a heart attack, and three percent from a stroke.

According to the Key Informant Survey, 63.5% of respondents said that there was no concern or less concern in Comal County about chronic disease. While chronic disease is not perceived as a major problem now, the pressure on the delivery system due to the growth of elderly in Comal County will increase. The proximity to the major medical market in Bexar County may tend to mask the demand

and the perceived need. Approximately half of the hospitalizations for Comal County residents occur out of county.

Mental Health and Substance Abuse

In Comal County specifically, about 15 percent of 142 respondents to the Household Survey question reported that a child's (or children's) emotional problems were a major or minor problem, and about 17 percent reported that a child's (or children's) aggressive or angry behavior toward others was a major or minor problem. Behavioral Risk Factor Surveillance System (BFRSS) data for Comal, Guadalupe, Hays, and Kendall County indicate that 20 percent of respondents reported having five or more days of poor mental health in the past year. Texas respondents report an average of 3.2 days of poor mental health per month.

Documents and reports from qualitative data collection conducted in Comal County reveal that residents are concerned about teenagers using drugs and alcohol. Whereas some parents report that this issue is insignificant compared with others, such as teenage pregnancy, many parents voice the opinion that the use of illegal drugs and alcohol is a growing concern and that the community is not doing enough to address it.

Of the respondents to the Comal County Household Survey question, none responded that his or her child(ren) drinking alcohol was a major problem; only six percent indicated it was a minor problem. Only one of the respondents indicated that his or her child(ren)'s use of drugs was a major problem; another five (2.8%) indicated it was a minor problem. These results can be interpreted in one of two ways. If one assumes that 100 percent of parents with children using drugs or alcohol know about it and would report considering it a major or minor problem, the use of alcohol or drugs among Comal County youth is remarkably low. However, parents may not know about a child's drug or alcohol use or may not consider such use a problem, in which case the results say less about the prevalence of drug and alcohol abuse among youth than about parental knowledge of and/or attitudes about their children's behavior. While youth reports may not be a reliable indicator of alcohol and drug use, either, it bears noting that parent reports are very sharply at odds with the Comal County Youth Survey data (see page 89). Forty-five percent of Comal County's youth reported that in the past 12 months at least one person in their group of friends had tried alcohol, 47 percent reported that at least one friend had used cigarettes, 43 percent reported that at least one friend had used marijuana, and 35 percent reported that at least one friend had used other drugs. (These data should be interpreted with caution, as for the questions relating to alcohol, cigarettes, and marijuana, a significant percentage of students – 33 percent, 18 percent, and 20 percent, respectively – did not provide any response.)

Four in ten reported that at least one friend had sold drugs in the past 12 months, and seventeen percent felt that there was a lot of crime or drug selling in his or her neighborhood. And while 89 percent of youth survey respondents reported that their parents would consider cigarette smoking "very wrong", only 49 percent reported that their parents would consider alcohol use very wrong. Twenty-nine percent of respondents reported that their parents would consider alcohol use "neutral", "somewhat OK", or "very OK". Another indicator of problem drinking among Comal County youth is the significant number of youth who have been arrested for driving while intoxicated or other liquor

violation, and the rate of youth deaths related to alcohol ranged from 17.7 to 29.1 per 100,000 in the period from 2001 to 2004[25].

Substance abuse treatment admission data from 2007 indicate that 47 Comal County adults with an average age of 35 were admitted primarily because of alcohol use. Another 50 adults with an average age of 32 were admitted for marijuana, amphetamine, heroin, or other opiate abuse. The average age of first use ranged from 13 for marijuana to 21 for opiates other than heroin. This admission was the first admission for only 45 percent of these adults, and it was the first admission for only 8 percent of heroin users.[26] Close to nine out of ten youth survey respondents knew at least one adult who has used marijuana, cocaine, crack, or other drug, and four in ten knew three or more.

While the data are not available at the Comal County level, just over 20 percent of Texas BRFSS respondents in 2004-2005 reported being current smokers, and 54.2 percent of those smokers report having tried to quit at some point in the past year. Smokeless tobacco, cigars, or pipes were used by 7.4 percent of respondents. About half of respondents reported having had at least one drink in the past month, 15.1 percent reported binge drinking, and 5.4 percent reported chronic drinking, where binge drinking is defined as five or more drinks on one occasion in the past month and chronic drinking is defined as having consumed an average of two or more drinks in the past month. Drinking and driving was reported by 3.3 percent.

Disability

According to BRFSS data, one in five Texans rate their own health as "fair" or "poor", and respondents report 3.5 days of poor physical health. Slightly under 17 percent report being limited in their activities by physical, mental, or emotional health problems.[27] Of 27 respondents to the Comal County Household Survey question, 19% reported that they or another household member was the full-time caregiver and/or legal guardian for a mentally or physically impaired person younger than 65.

Disability data are difficult to compare across geographies and years because the American Community Survey population sample is small enough to create a fairly wide margin of error, but data for 2005 and 2006 are presented in Figure 102 below and some interesting questions do emerge. Among Comal County adults aged 21 to 64, the percent with any cognitive or physical disability in 2005 was much lower than comparison geographies, particularly Bexar County. Yet in 2006 the proportion of disabled Comal County adults had risen to par with Bexar County, a two-thirds increase. Again, these rates should be interpreted with caution.

[25] Texas Department of Mental Health Retardation and Texas Council of Alcohol and Drug Abuse
[26] Texas Department of Mental Health Retardation and Texas Council of Alcohol and Drug Abuse
[27] CDC Behavioral Risk Factor Surveillance Survey, 2004-2005

Figure 103 shows the proportion of the senior population with any cognitive or physical disability. Comal County does not appear to differ significantly from comparison geographies. Perhaps the most important point here is that disability increases with age and Comal County's senior population is growing faster than other counties or the state. Thus disability will be an increasingly important factor to consider in planning health and human services, including home health care services, assisted living facilities, transportation, and even health care facilities' disabled accessibility.

Figure 102. Percent of Adults Aged 21-64 with Disabled Status

	2005		2006	
	M	F	M	F
Comal	8%	9%	15%	15%
Guadalupe	11%	10%	15%	9%
Hays	12%	9%	7%	8%
Bexar	14%	13%	14%	15%
TX	12%	13%	12%	13%
US	12%	13%	13%	13%

Source: American Community Survey 2005 and 2006

Unintentional Injury

By far the most common type of accident suffered by Comal County seniors is falling, and the rate of falls in the 85 and older group is 80% higher than the rate among 75 to 84 year olds and two and a half times the rate among 65 to 74 year olds. Motor vehicle accidents are also a cause of a significant number of accidents among 65 to 74 year olds.[28]

The most common cause of unintentional injury in the Comal County adult population (aged 20 to 64) is motor vehicle accidents. As Figure 104 illustrates, motor vehicle accidents appear to be a particularly significant cause of injury among 25 to 34 year olds.

Figure 103. Percent of Population Disabled by Age and Gender

	2005		2006	
65 to 74	**M**	**F**	**M**	**F**
Comal	28%	20%	38%	38%
Guadalupe	40%	33%	19%	32%
Hays	24%	16%	49%	37%
Bexar	29%	36%	37%	36%
TX	33%	35%	33%	36%
US	30%	30%	30%	31%
75 and over				
Comal	55%	48%	38%	62%
Guadalupe	62%	70%	48%	69%
Hays	43%	52%	53%	53%
Bexar	54%	60%	54%	65%
TX	54%	59%	56%	61%
US	49%	54%	49%	55%

Source: American Community Survey 2005, 2006

[28] TDSHS Center for Health Statistics

Figure 104. Most Common Causes of Unintentional Injury Among Adults Aged 20-64: 2003 and 2004

	20 - 24		25 - 34		35 - 44		45 - 54		55 - 64	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
Unintentional: Motor Vehicle Traffic										
Comal	16	165.3	28	158.5	27	99.7	14	48.6	20	96.2
Guadalupe	31	215.7	28	121.1	25	79.6	30	104.1	11	56.4
Hays	31	84.3	35	96.6	26	80.7	31	97.2	13	71.5
Bexar	422	177.9	539	122.4	446	104.2	334	88.1	189	75.2
TX	6827	198.6	8396	125.6	7154	106.5	5974	101.5	3515	91.8
Unintentional: Fall										
Comal	6	62	8	45.3	18	66.4	19	66	21	101
Guadalupe	2	@.@	9	38.9	21	66.8	31	107.6	28	143.5
Hays	6	16.3	13	35.9	10	31	16	50.2	14	77
Bexar	100	42.1	181	41.1	310	72.4	370	97.6	384	152.7
TX	1391	40.5	2986	44.7	4341	64.6	5191	88.2	5098	133.1

Source: TDSHS Center for Health Statistics

Interpersonal Violence

At least two of the concerns expressed by key informants – family violence and sexual assault – are forms of interpersonal violence. Data relating to the prevalence of interpersonal violence overall are distributed across – and likely often hidden within – information on other issues like injury, mental illness, and health-related and social behaviors.

Evidence indicates that some Comal County residents live in a climate where verbal or physical violence is fairly common. Thirty-eight percent of youth survey respondents indicated that family members yell at or insult each other, and eighteen percent of youth survey respondents said they see people get into fights. Only 64 percent of youth reported that their parents would consider provoking fights to be 'very wrong', as compared to 88 percent for stealing or shoplifting. Of the respondents to the Household Survey question, 25 percent indicated that harassment or bullying of their child(ren) by other children is a major or minor problem.

As with alcohol and drug use, a real gap may exist in the area of interpersonal violence between what Comal County parents know and are concerned about and what their children are experiencing: only two of 142 respondents to the Comal County Household Survey question reported a 'minor problem' that their child(ren) had experienced dating violence, and none reported a 'major problem'. Yet nineteen percent of youth surveyed reported that at least one of their friends had been a victim of dating violence in the past 12 months.

The following two tables summarize Comal County's Child Protective Services and Adult Protective Services investigation results in 2007. Comal County appears to be in line with comparison geographies in terms of the number of confirmed victims per 1,000.

Figure 105. Confirmed Child Protective Services Child Abuse and Neglect Victims and Investigations, 2007

	County Child Population	Confirmed Victims	Confirmed Victims per 1,000 Children	Completed Investigations	Confirmed CPS Investigations	Percent Investigations Confirmed
Comal Co.	22,549	246	11	578	149	26%
Guadalupe Co.	28,999	415	14	757	243	32%
Hays Co.	31,256	395	13	731	235	32%
Kendall Co.	7,061	44	6	108	27	25%
Bexar Co.	416,742	6,733	16	13,827	3,750	27%
Texas	6,376,086	71,344	11	163,471	42,445	26%

Source: Texas Department of Family and Protective Services *2007 Data Book*

Figure 106. Adult Protective Services Victims and Investigations, 2007

	Population Ages 18-64 with a Disability	Population Ages 65 and Older	Total APS Completed Investigations	Confirmed APS Investigations	Percent Completed Investigations Confirmed	Confirmed Victims per 1,000 Disabled/Elder Population
Comal Co.	8,583	13,764	199	158	79%	10.2
Guadalupe Co.	9,281	12,169	186	118	63%	6.5
Hays Co.	12,388	10,847	191	99	52%	4.4
Kendall Co.	2,684	4,448	45	33	73%	6.2
Bexar Co.	125,381	158,240	5,852	4,015	69%	14.2
Texas	1,913,697	2,328,376	64,459	45,934	71%	11.9

Source: Texas Department of Family and Protective Services *2007 Data Book*

Figure 107 summarizes rates of family violence in Comal County (unincorporated), New Braunfels, and Bulverde in comparison with nearby counties and municipalities. While Comal County and Bulverde appear to be in line with other areas, New Braunfels' rate is twice that of San Antonio and 2.3 times that of Texas. According to the Texas Department of Public Safety, 76 percent of family violence victims statewide are female, and victims are more likely to be female at any age: 46.5 percent of family violence victims in Texas are wives, common-law wives, ex-wives, or female roommates; 10.4 percent are husbands, common-law husbands, ex-husbands, or male roommates. Mothers and stepmothers account for 5.6 percent of total victims; fathers and stepfathers account for 2.8 percent. Nearly four and one-half percent are daughters, stepdaughters, or granddaughters, while three percent are sons,

stepsons, or grandsons. Sisters and stepsisters account for 3.8 percent of victims; brothers and stepbrothers, 2.9 percent. The 20- to 24-year-old age group contains the greatest concentration of family violence victims. Among offenders, 79 percent are male and the largest number is in the 25- to 29-year-old age group. Assault constitutes 96.7 percent of family violence offenses; forcible sex offenses are the next most common type at 2.5 percent.[29] Demographics and type of offense aggregated at the Comal County or New Braunfels levels are not available in published data.

Figure 107. Family Violence Rates per 100,000 Population, 2006

	Population	Incidents	Rate
Comal Co. SO*	47,322	378	798.8
New Braunfels PD**	48,505	908	1,872.0
Bulverde PD	4,572	16	350.0
Bexar Co SO	157,796	1,360	861.9
San Antonio PD	1,292,116	12,558	971.9
Hays Co SO	62,857	177	281.6
San Marcos PD	47,418	217	457.6
Guadalupe Co SO	44,292	372	839.9
Schertz PD	27,424	133	485.0
Kendall CO SO	20,200	52	257.4
Boerne PD	8,282	37	446.8
Texas	23,507,783	186,983	795.4

* SO = Sheriff's Office
** PD = Police Department
Source: Texas Dept. of Public Safety, *Texas Crime Report for 2006*

Figure 108 below compares Comal County, New Braunfels, and Bulverde to neighboring counties and municipalities in terms of murder, rape, and aggravated assault rates in 2006, the most recent data published. Murder rates are comparatively low in Comal County and municipalities, and rape and aggravated assault rates in New Braunfels and Bulverde are similar to comparison geographies. Rape, however, is twice as common in outlying Comal County as in New Braunfels, and significantly higher than in San Antonio and Bexar County. Comal County's aggravated assault rate is nearly 50 percent higher than that of New Braunfels and is significantly higher than any comparison geography except San Antonio. In the case of both rape and aggravated assault, one interesting pattern is the lack of consistency in county rates as compared to municipality rates, as one might expect crime to be higher in more urban areas. While the Texas Department of Public Safety does not publish crime rates by month or zip code of residence, one possible explanation is that large numbers of younger people congregate – often with alcohol – in water recreation areas in outlying Comal County during summer months. This explanation, however, does not account for the similar pattern in Kendall County.

[29] Texas Dept. of Public Safety, *Texas Crime Report for 2006*

An array of studies in has linked violence against animals with violence against people, child abuse and family violence in particular. One of the Humane Society of the United States' (HSUS) "worst 100 animal cruelty cases" in the country in 2006 occurred in Comal County (The Humane Society of the United States, One Hundred of the Worst Animal Cruelty Cases in the United States: 2006, 2007). Comal County is unusual, however, in that it has a family violence center, the Crisis Center of Comal County, that participates in the HSUS Safe Havens for Animals ™ Program. The program provides foster care for the pets of domestic violence victims seeking help.[30]

Figure 108. Selected Crime Rates per 100,000 Population, 2006

	Total Population	Murder	Rape	Aggravated Assault
Comal Co. SO	47,322	2.1	44.4	268.4
New Braunfels PD	48,505	0.0	22.7	193.8
Bulverde PD	4,572	0.0	0.0	87.5
Bexar Co SO	157,796	7.0	36.1	219.3
San Antonio PD	1,292,116	9.2	39.8	388.7
Hays Co SO	62,857	0.0	6.4	105.0
San Marcos PD	47,418	2.1	54.8	225.7
Guadalupe Co SO	44,292	2.3	18.1	207.7
Schertz PD	27,424	0.0	62.0	182.3
Kendall CO SO	20,200	5.0	44.6	128.7
Boerne PD	8,282	12.1	12.1	120.7

* SO = Sheriff's Office
** PD = Police Department
Source: Texas Dept.of Public Safety, *Texas Crime Report for 2006*

Injuries due to domestic violence and sexual assault may be masked in assault and homicide statistics, as 75% of TCFV respondents reported that they would be likely to call the police in a domestic violence situation, yet only 20% actually did.[31] National studies find that between five and 15 percent of victims report the assault, and only two percent of rapists are convicted.[32]

Comal County and New Braunfels clearly suffer from a serious problem of family violence, rape, and aggravated assault, with females at greater risk for family violence and sexual assault. Alcohol use likely plays a significant role. The solution to this problem involves enforcement, community awareness, education in schools, and counseling for both victims and offenders.

Other Health-Related Behaviors and Risk Factors

Only nine percent of Comal County respondents to the Household Survey reported their child or children being overweight as a "major problem" or "minor problem". Eighty percent, however, reported that their child(ren) participated in an organized physical education program. (Such a program may or

[30] Kronkosky Charitable Foundation, Research Brief: Animal Cruelty, 2008
[31] Texas Council on Family Violence, Abuse in Texas 2006.
[32] Texas Association Against Sexual Assault, 2008.

may not be school-based). While responses to the student survey also indicated high levels of participation, it appears that significant physical activity does not follow solely by virtue of enrollment.

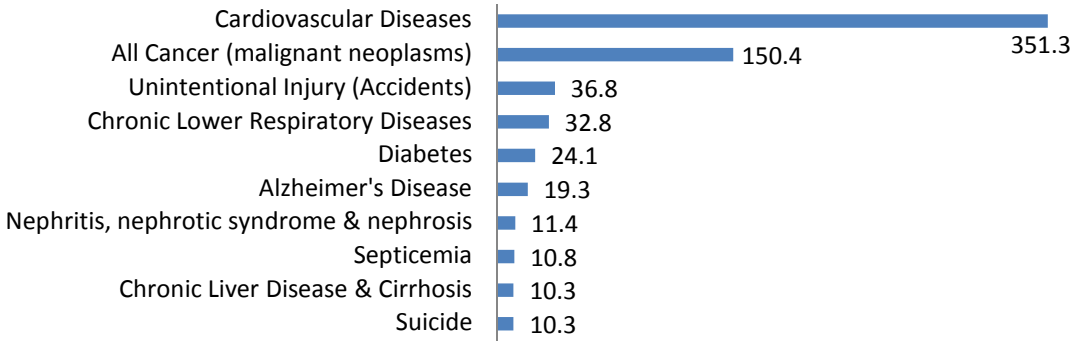
Deaths

The following review of Comal County mortality begins with a broad overview of overall crude and age-adjusted mortality and Years of Potential Life Lost. Following the overview is more detailed information focused on mortality among Comal County infants, youth, adults, and seniors.

Numbers of deaths and crude death rates can help a community understand and plan for the volume for resources, e.g., hospital beds, residents need.

According to the Texas Department of State Health Services, the crude overall mortality rate, or number of deaths from all causes occurring in the total population in a given year, totaled 8.45 deaths per 1,000 persons in 2004.

Figure 109. Crude Mortality Rates (Deaths per 100,000 Pop) for Selected Causes of Death in Comal Co., 2004



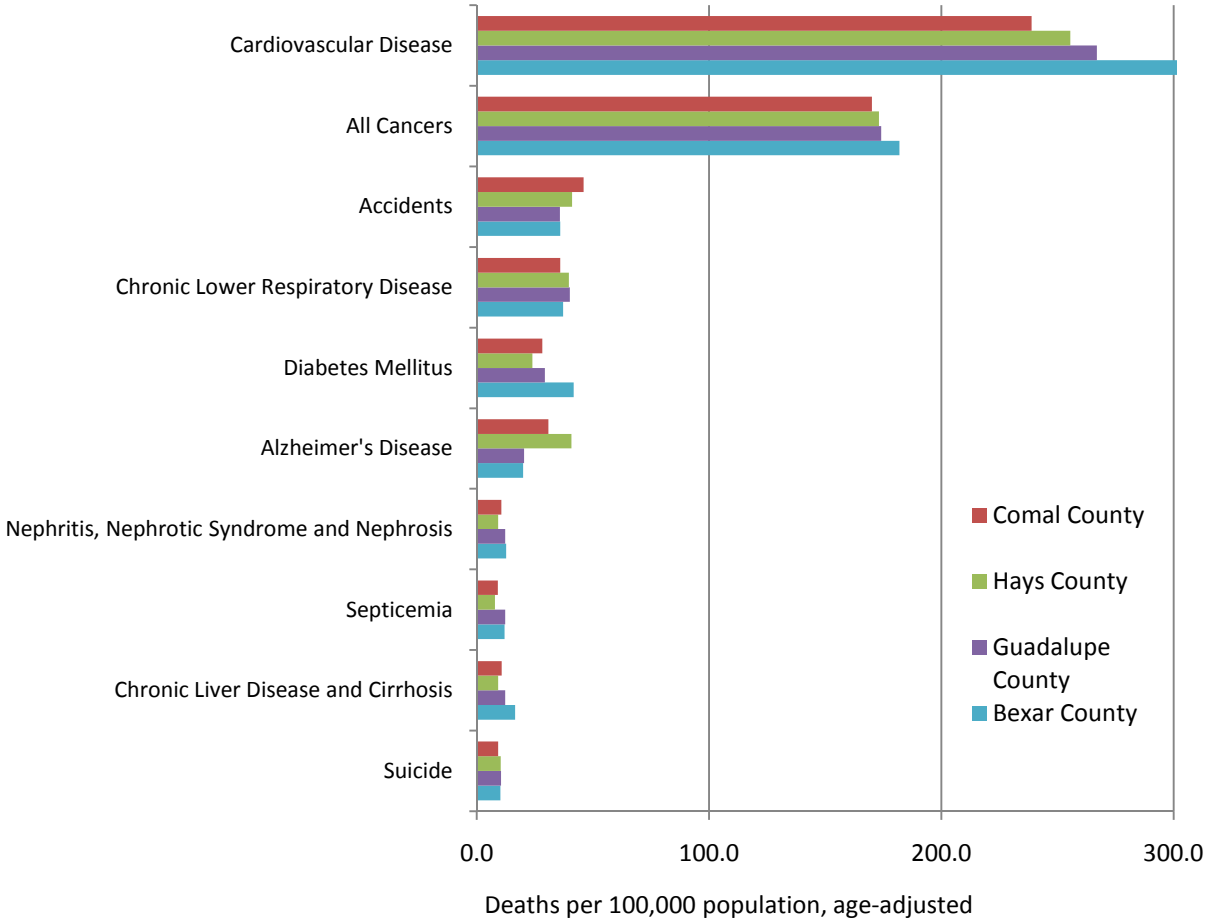
Source: Texas Department for State Health Services , Deaths of Texas Residents

A multi-county comparison of age-adjusted mortality rates for these same causes during the six-year period from 1999 to 2004 shows Comal County's mortality experience relative to neighboring counties. While cardiovascular disease is Comal County's leading cause of death, the mortality rate is comparatively low. Conversely, while not the leading causes of death, Comal County shoulders a comparatively higher burden of death from Alzheimer's disease, accidents (including motor vehicle accidents and unintentional injuries), and chronic lower respiratory diseases like emphysema, bronchitis, and asthma.[33]

Age-adjusted death rates account for the age makeup of the population and allow apples-to-apples comparisons with other geographic areas with younger or older populations.

[33] Texas Department of State Health Services, Texas Death Data, 1999-2004

Figure 110. Age-Adjusted Mortality Rates for Selected Causes of Death, 1999-2004



Source: TDSHS Center for Health Statistics

Finally, the following table outlines Years of Productive Life Lost (YPLL) using Comal County deaths recorded in 2004. While suicide, septicemia, and chronic liver disease and cirrhosis ranked very low in terms of county mortality, the high number of YPLL indicates that these diseases claimed lives relatively younger than did, for example, Alzheimer's disease. Cardiovascular disease, cancer, and accidents also appear to cause a significant number of premature deaths.

Years of Productive Life Lost tells how many person-years of productive (working) life were unnecessarily lost to a preventable disease – that is, the degree to which people die prematurely from a given cause.

Figure 111. Years of Productive Life Lost and Death Rates for Overall Population in Comal County

Name of disease	Mortality rate per 100,000	Number of deaths	Total YPLL per cause	Population Estimates 2004	YPLL per 100,000
Cardiovascular Diseases	351.3	38	534.9	90,884	589.0
Unintentional Injury (Accidents)	36.8	19	530.5	90,884	584.0
All Cancer (malignant neoplasms)	150.4	44	485.1	90,884	534.0
Suicide	10.3	9	232.9	90,884	256.3
Septicemia	10.8	3	117.9	90,884	130.0
Diabetes	24.1	8	101.6	90,884	112.0
Chronic Liver Disease & Cirrhosis	10.3	6	95.0	90,884	104.5
Chronic Lower Respiratory Diseases	32.8	6	53.2	90,884	58.0
Alzheimer's Disease	19.3	1	13.0	90,884	14.0
Nephritis, nephrotic syndrome & nephrosis	11.4	2	3.3	90,884	4.0

Source: Texas Death Certificate Data

Texas Cancer Registry data yield very little evidence that Comal County is suffering from higher than expected mortality for any particular cancer. The possible exceptions are melanoma, cancer of the liver and hepatic bile duct, and cancer of the brain and other nervous system. As the table at right indicates, however, in the case of both liver and brain cancer, the Comal County confidence interval includes the Texas mortality rate, meaning that there may in fact be no difference in mortality. Only melanoma of the skin among non-Hispanic whites has a confidence interval higher than the Texas mortality rate, which implies a slight excess of melanoma in Comal County.

Figure 112. Cancer Mortality Rates (Age-Adj.), 2001-2005

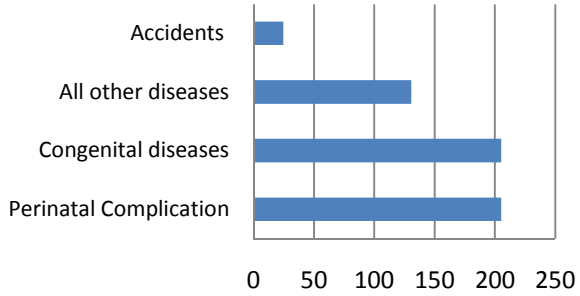
		Deaths	Rate	Lower CI	Upper CI
Melanoma of the Skin					
Comal	White Non-Hispanic	23	5.6	3.6	8.6
Texas	White Non-Hispanic	2,200	3.5	3.4	3.7
Liver and Intrahepatic Bile Duct					
Comal	All Races	37	7.5	5.3	10.3
Texas	All Races	6,208	6.6	6.5	6.8
Brain and Other Nervous System					
Comal	All Races	31	6.4	4.3	9.1
Texas	All Races	4,349	4.5	4.3	4.6

Source: TDSHS Texas Death Data, 2001-2005

Infant Mortality

Infant mortality, defined as the number of children who die before their first birthday per 1,000 live births, is an important indicator of a community's overall health status. The infant mortality rate for Comal County for 2006 is six deaths per 1,000 live births, which closely tracks the state average but is slightly higher than surrounding counties. In comparison to the federal Healthy People 2010 goal for infant mortality of 4.5, Comal County, like the State of Texas, has room for improvement.

Figure 113. Comal County Infant Age-Specific Death Rate per 100,000 population, 2000 through 2004)



Source: TDSHS - Death of Texas Residents

Vital statistics data for 2000 to 2004 reveal that perinatal complication is the primary cause of infant mortality. Perinatal complications, defined as certain conditions originating in the first 30 days of life, include complications of pregnancy, labor and delivery, and disorders related to low birth weight, birth trauma, respiratory conditions, and other unspecified conditions in the perinatal period. Congenital conditions – conditions existing at birth – include malformations of the circulatory system, respiratory system, and heart malformation, as well as genetic abnormalities like Down syndrome. Examples of causes that comprise the "all other diseases" category are infectious diseases caused by bacteria, virus, or parasites; diseases of the respiratory tract; sudden death syndrome; and unknown causes of mortality or abnormal clinical and laboratory findings not elsewhere classified.

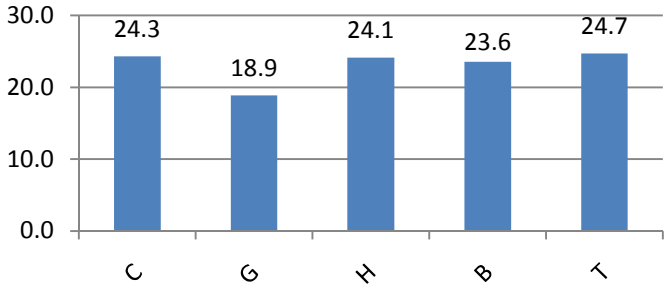
Concerns have been raised among prospective parents regarding Comal County's lack of neonatal specialists and a hospital-based high-risk neonatal unit. This lack of specialized services could be a contributing factor to these reported deaths. The nearest neonatal specialty unit is in Bexar County. Air transport for high-risk neonatals using AirLife is an option since Comal County is within the 150 miles radius of AirLife's base, the South Texas Medical Center. However, parents are concerned about the time that would elapse during the evacuation.

Youth Mortality

The graph below shows how Comal County compares to its contiguous counties in terms of child deaths. Despite the major fluctuations that Comal has seen in child deaths, when averaged out from 1990 through 2005, Comal County matches up and compares well to the Bexar, Guadalupe, and Hays Counties.

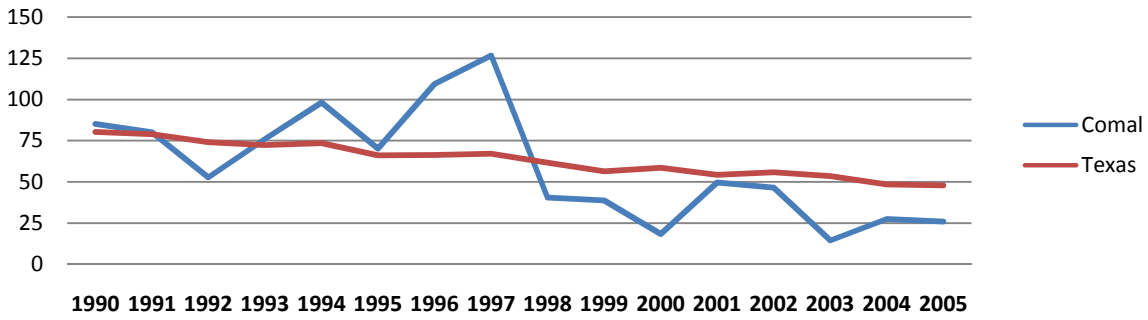
In terms of teen violent deaths, the overall trend for deaths for teens aged 15 through 19 is declining at the State as well as at the county level. On a comparative scale with the State's teen death rates, Comal had a higher number of teen violent deaths for 4 out of the 15 years for which the data was obtained. (The high fluctuation across years in Comal County is an artifact of the small number of teen deaths.)

Figure 114. 15-year Average Mortality: Deaths per 100,000 Children Aged 1-17, 1991-2005



Source: Annie E. Casey Foundation Kids Count CLIKS

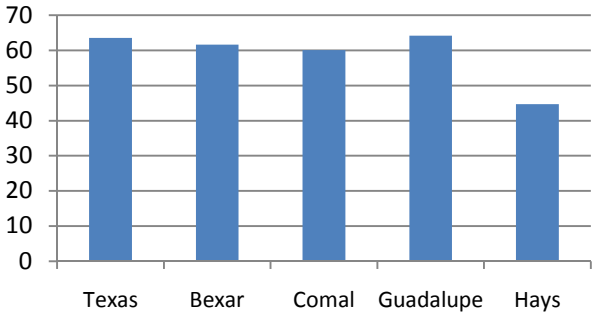
Figure 115. Teen Violent Deaths Ages 15-19 (rate per 100,000)



Source: Annie E. Casey Foundation Kids Count CLIKS

In comparison to its surrounding counties, Comal had a lower death rate average than Bexar, Blanco, Guadalupe, Hays, and Kendall County. Blanco County leads the region with 143 deaths for every 100,000 teens; whereas Hays had the lowest amount at a rate of 45 deaths (per 100,000 teens).

Figure 116. Teen Violent Death Ages 15-19 (rate per 100,000), 1990-2005 average



Source: Annie E. Casey Foundation Kids Count CLIKS

Adult Mortality

Without accounting for Comal County's age distribution, the highest mortality among Comal County adults is due to cancer, with cardiovascular disease, accidents, and homicide trailing. However, as the table on the following page illustrates, mortality varies significantly across the adult age spectrum. (An asterisk indicates that the number of deaths was too small to calculate a mortality rate.) Accidents are the primary contributor to mortality among 15 to 34 year olds.

Heart disease and cancer begin to cause a larger number of deaths in the 35 to 44 year old age range, while diabetes and chronic liver disease and cirrhosis mortality is largely confined to the upper end of the age range.

Figure 117. Age-Specific Mortality Rates for Adults 15-64, 1999 to 2004

	15 to 24		25 to 34		35 to 44		45 to 54		55 to 64	
Cause of Death	n	Rate	n	Rate	n	Rate	n	Rate	n	Rate
Malignant Neoplasms (C00-C97)										
Comal	0	*	10	18.1	22	28.5	84	110.1	152	283.9
Guadalupe	5	6	8	11.7	22	24.8	67	87.4	150	294
Hays	5	3.1	6	6.3	23	25.3	74	91.7	123	271.5
Bexar	82	6.2	125	9.7	451	35	1,310	121.7	2,248	330.7
TX	920	4.7	1,801	9.3	7,038	35.3	20,173	122.3	35,886	346.3
Diabetes Mellitus (E10-E14)										
Comal	1	*	0	*	4	*	11	14.4	21	39.2
Guadalupe	0	*	1	*	2	*	11	14.4	20	39.2
Hays	0	*	2	*	2	*	5	6.2	17	37.5
Bexar	4	*	18	1.4	83	6.4	181	16.8	448	65.9
TX	80	0.4	296	1.5	941	4.7	2,718	16.5	5,095	49.2
Diseases of the Heart (I00-I09, I11, I13, I20-I51)										
Comal	2	*	7	12.7	17	22	44	57.7	78	145.7
Guadalupe	1	*	5	7.3	25	28.2	75	97.8	88	172.5
Hays	4	*	3	*	15	16.5	50	62	71	156.7
Bexar	29	2.2	100	7.7	400	31.1	958	89	1,631	239.9
TX	525	2.7	1,474	7.6	6,018	30.2	16,156	97.9	27,652	266.8
Chronic Liver Disease and Cirrhosis										
Comal	0	*	0	*	5	6.5	21	27.5	16	29.9
Guadalupe	0	*	1	*	10	11.3	18	23.5	18	35.3
Hays	0	*	1	*	8	8.8	10	12.4	14	30.9
Bexar	0	*	22	1.7	171	13.3	347	32.2	286	42.1
TX	13	0.1	192	1	1,728	8.7	3,676	22.3	3,010	29
Accidents (V01-X59, Y85-Y86)										
Comal	24	37.8	29	52.5	40	51.9	30	39.3	18	33.6
Guadalupe	29	34.7	24	35.1	28	31.6	24	31.3	18	35.3
Hays	54	33.8	26	27.4	33	36.3	41	50.8	20	44.1
Bexar	444	33.3	371	28.7	451	35	335	31.1	175	25.7
TX	8,021	40.6	6,375	33	7,679	38.5	6267	38	3,597	34.7

Source: TDSHS Center for Health Statistics

Senior Mortality

In reviewing mortality among Comal County seniors, it appears that Comal residents fare better than neighboring counties or the state on most causes of death. Comal County senior mortality rates are generally lower for heart disease, cancer, diabetes, influenza, liver and kidney disease, and septicemia (systemic bacterial infection). Comal County mortality rates appear to be somewhat higher for Alzheimer's Disease among seniors 65 and older and for stroke, accidents, and suicide in seniors 75 and older, although the suicide rate should be viewed with considerable caution given how uncommon the occurrence is. The following table summarizes age-specific mortality data for selected causes of death in the population 65 and older.

Figure 118. Age-Specific Mortality Rates (Deaths per 100,000 Population)

	Comal	Guadalupe	Hays	Bexar	TX
All Cancers					
65 to 74	701.1	757.8	647.3	710.8	770.6
75 and older	1267.6	1314.8	1461.2	1344.4	1406.6
Alzheimer's Disease					
65 to 74	25.4	16.8	33.1	22	22.7
75 and older	479.1	319.6	630.3	305.3	342.6
Heart Disease					
65 to 74	459.8	514.5	507.5	615	661.2
75 and older	2031.8	2542.4	2091.6	2734.3	2713.3
Stroke					
65 to 74	111.8	83.9	143.4	133.4	130.5
75 and older	797.5	548.4	888.2	722.8	773
Accidents					
65 to 74	43.2	44.7	58.8	43.6	47.7
75 and older	172.9	152.5	157.6	180.6	154.7
Suicide					
65 to 74	*	16.8	29.4	12.3	13.7
75 and older	24.3	21.8	23.9	16.3	18.9

Source: TDSHS Center for Health Statistics * Number of deaths too small to calculate mortality rate

Access to Health Care and Social Services

Medical, Dental, and Mental Health/Substance Abuse Care

Overview of Factors Influencing Access to and Utilization of Care

The factors that determine access to and utilization of needed medical, dental, or mental care services are many, complicated, and interrelated. Perhaps the most commonly understood barrier to access is cost of care. As more tests and treatments become available and health care costs rise in general, both insurance and out-of-pocket costs become more difficult for both patients and employers to shoulder. Small businesses and service industries are less likely than other employers to provide insurance for employees or to cover a significant portion of the premium. While gains have been made in the past decades, coverage and benefits for dental care and mental health lag behind medical care. Even where insurance is sponsored by the employer, the out-of-pocket costs to the patient – premium-sharing, deductibles, and co-pays – may be out of reach even for middle-income families, particularly where the employee must pay to extend coverage to all members of the family. Finally, low reimbursement rates, complicated billing procedures, and long delays in payment can lead medical, dental, and mental health providers to decline to accept new patients – or any patients – with a particular insurance plan. While this issue is most widely known to be a problem with Medicaid, CHIP, and Medicare, private insurance plans can be equally unattractive, particularly to mental health and other non-medical clinicians.

A number of other barriers, however, can prevent or delay utilization of needed care. Particularly – but not only – in rural areas, people may not be able to gain physical access to a health care provider. The ratio of physicians to population may be too low for all to gain access in a timely manner. The provider may be too far away, whether or not the person needing care has transportation. Services may not be available at a time when the person needing care can go to the clinic, particularly if local practices are open only during weekday hours, if those needing care (or their caregivers) work multiple jobs to make ends meet, or if the employment situation is such that time off for health care visits is difficult to get, means forfeiture of pay while absent, or means job loss altogether. Lack of reliable transportation or transportation that takes too much time – often the case where use public transportation to the clinic requires multiple transfers – can push needed care out of reach. Patients who are not aware of the need for services, particularly preventive care, or of the availability of services and financial help will often not present for care until they are ill enough to visit the emergency room. Finally, the attitudes, health-related behaviors, and health status of the person needing care (or his or her caregivers) play a major role in determining whether and when needed services are utilized. Physical or mental disability, social isolation, mental illness or substance abuse, child or elder abuse or neglect, fear of medical care or what diagnostic tests may reveal, cultural norms and expectations about what constitutes "illness" and "treatment", and the stigma attached to certain diseases can all prevent utilization of needed care even when access is financially and in all other ways available[34].

[34] See, for example, Salganicoff A. Women's Health Policy: Coverage and Access to Care Tutorial. Kaiser Family Foundation, 2008; Aday LA, Begley CE, Lairson DR, Slater CH, Evaluating the Medical Care System: Effectiveness, Efficiency, and Equity. Ann Arbor, MI: Health Administration Press, 1993.

Public Insurance and Health Care Assistance Programs Available in Comal County

Following is a very brief review of the public insurance and health care assistance programs available to Comal County residents. Medicare is a federal program that covers seniors aged 65 and older, as well as younger people with a disability or end-stage renal disease, regardless of income. Medicare eligibility requirements and benefits are set by the federal government, which added the "Part D" drug benefit in 2006. Medicaid is a federal health insurance program for low-income people administered by states and partly funded through state matching dollars. Within certain limits, each state sets its own Medicaid eligibility requirements and benefits, and individual state initiatives can be approved by the federal government through a waiver process. In Texas Medicaid provides coverage for low-income children, pregnant women, and aged people with disabilities. The income limit varies across and within these coverage groups, with limits generally decreasing with increasing age. CHIP covers children from the Medicaid cut-off up to 200% of the Federal Poverty Level.[35]

Two important Texas waivers passed by the Texas Legislature in 2005 eventually gained federal approval and were implemented in 2007; both waivers have the potential to extend coverage to groups in serious need. The CHIP Perinatal Program covers low-income uninsured women whose children will be Medicaid-eligible, providing financial access to prenatal, delivery, and postpartum care for a set number of months. Depending on when she began prenatal care, the woman loses coverage within a few months of the birth. The Women's Health Program extends coverage for well-woman and family planning services to uninsured women with incomes up to 185% of the Federal Poverty Level. Under a change authorized by the legislature in 2007 to the existing Medicaid Treatment Act, coverage for treatment is extended to all women with incomes under 200% FPL who have been diagnosed with breast or cervical cancer. Previously only women diagnosed through the state's Breast and Cervical Cancer Services program were eligible for coverage.[36]

County indigent care programs, including Comal County's, provide basic health services to populations defined by state law as having few or no assets and an income below 21% FPL, current $182 per month. In any Texas county, only a tiny proportion of the population is eligible under these guidelines.[37]

The Texas Department of State Health Services contracts with providers to offer medical, dental, nutrition, and other services to low-income residents under an array of grant programs. These programs include Women, Infants, and Children (WIC) nutrition; Primary Health Care; Title V for family planning and/or child health and dental services; Titles X and XX for family planning services; Vaccines for Children; Children with Special Health Care Needs (CSHCN); and a number of other programs.[38]

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[35] Center for Public Policy and Priorities, The Texas Health Care Primer 2007

[36] Center for Public Policy and Priorities, The Texas Health Care Primer 2007

[37] Center for Public Policy and Priorities, The Texas Health Care Primer 2007

[38] Texas Department of State Health Services, 2008

Access to Health Care in Comal County

The preceding high-level overview of available resources and factors affecting access to and utilization of care provides some context for exploring health care access and usage in Comal County. Following is a review of what is known about access to and utilization of medical, dental, and mental health care.

Primary Care Provider Availability

With 58 primary care medical providers serving a Census-estimated 2007 population of 105,187[39], Comal County has an overall population-to-physician ratio of 1,814:1, which in itself indicates no primary care physician shortage. However, physicians are not evenly distributed throughout the county. The following table summarizes the number of physicians in specialties generally recognized as primary care by zip code and census tract of practice.

Figure 119. Comal County Zip Codes

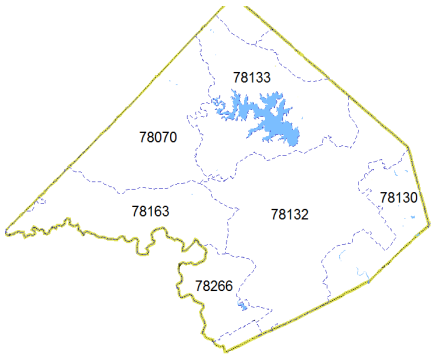


Figure 120. Primary Care Physicians by Zip Code of Practice Address, September 2008

Primary Specialty Code	78070	78130	78132	78133	78163	78266	Total
Family Practice	4	23			2	2	31
General Practice				1		1	2
Internal Med - Peds		1					1
Internal Medicine		7					7
Obstetrics And Gynecology		6			1		7
Pediatrics		7	1				8
Preventive Medicine						1	1
Urgent Care - Family Practice		1					1
Total	4	45	1	1	3	4	58

Source: Texas Medical Board (TMB) data acquired from CHRISTUS Santa Rosa

Having a physician available does not guarantee access to care, as physicians may not be accepting new patients; may not accept Medicare[40], Medicaid/CHIP, or a given private insurance; or may not operate full-time. As Figure 121 indicates, nearly half of Comal County physicians practice fewer than 40 hours per week. (One physician did not provide hours of operation.) While nearly all part-time physicians practice 20 or more hours per week, part-time practices make a significant dent in provider availability. Six non-OB/GYN physicians who have been providing labor and delivery services plan to stop offering that care, negatively impacting the availability of obstetric services (personal communication with Dr. Dorothy Overman, September 19, 2008).

[39] US Census Bureau, Population Estimates 2007

[40] Cobb C. (2008). Doctors accepting Medicare are hard to find. *The Herald-Zeitung*. New Braunfels, TX, September 8, 2008.

Figure 121. Primary Care Physicians by Practice Hours, September 2008

Primary Specialty Code	Part-Time		Full-Time	
	No.	%	No.	%
Family Practice	14	45%	16	52%
General Practice	2	100%		0%
Internal Med - Peds	0	0%	1	100%
Internal Medicine	1	14%	6	86%
Obstetrics And Gynecology	1	14%	6	86%
Pediatrics	2	25%	6	75%
Preventive Medicine	0	0%	1	100%
Urgent Care - Family Practice	0	0%	1	100%
Total	20	34%	37	64%

Along with Rural Health Clinics, Federally Qualified Health Centers (FQHCs) are designed to be the primary care safety net for the nation's medically underserved. An MUA or MUP (Medically Underserved Population) designation is required for an FQHC to serve the area with federal funding. Comal County is not designated in whole or in part as either a Medically Underserved Area (MUA) or a Medical Health Professions Shortage Area (HPSA), nor is it eligible for designation at present. Federal HPSA designation requires a population-to-physician ratio of more than 3,500:1 using Census 2000 population, while Comal County as a whole has a ratio of only 1,346:1. MUA designation involves a more complex formula involving physician-population ratio, percent of the population living under 100% of the Federal Poverty Level, percent of the population over 60 years of age, and infant mortality rate.[41]

The Institute for Public Health and Education Research's (TIPHER) House of Hope clinic at 256 Krueger in New Braunfels began serving patients in January 2008 and is working to add on-site dental care. Constructed with in-kind and financial assistance from Habitat for Humanity and a number of other local supporters, the 2,500 sq. ft. clinic includes two medical exam rooms, two dental operatories, and lab and pharmacy areas. Patients are qualified for eligibility through the Community Council of South Central Texas and assessed a $10 or $25 co-pay for the visit, depending on income, with a lab co-pay generally lower than $10. Sliding-fee scale pharmacy services are provided in partnership with the Comal County Prescription Assistance Program. House of Hope will also periodically host immunization clinics and other activities of the Comal County Public Health Department.[42,43]

Sponsored by New Braunfels Christian Ministries, New Braunfels Volunteers in Medicine (NBVIM) is opened in early September 2008 with technical assistance from the Volunteers in Medicine Institute and planning and financial support from an array of local organizations and individuals. At full capacity the clinic will provide physical exams, primary medical care including pediatrics, primary dental care, pharmaceutical dispensing, and social support services to about 6,000 patients per year (personal communication with Jennifer Malatek, September 19, 2008). NBVIM's goal is to offer care at least five days a week with after-hours care available at least one evening per week. Eligibility for care is

[41] US Health Resources and Services Administration (HRSA) Shortage Designation Branch, 2008
[42] The Institute for Public Health and Education Research, TIPHER News, January 2008
[43] Fisher G, Here to Help, The Herald-Zeitung, March 23, 2008

restricted to uninsured Comal County residents with incomes at or below 200% of the federal poverty level. The clinic will be supported through in-kind donations of volunteer labor – both clinical and non-clinical – and grants and contributions.[44]

As is often the case because of lack of parity in benefits even for the insured, access to mental health and substance abuse services may be worse than for primary medical care, and respondents to the Comal County Key Informant Survey perceive access to substance abuse treatment as very limited. TIPHER's House of Hope clinic has begun offering substance abuse services, including substance abuse counseling and psychiatry.[45] Key informants advocate for a more comprehensive approach to substance abuse screening, referral and treatment and question whether enough is being done to prevent, screen for, and treat substance abuse among both youth and adults.

The *Comal County Community Plan 2006-2007* noted several concerns regarding mental health care for adults. County population growth, decreased funding, and a more narrow definition to qualify for services publically available under the Texas Council of Offenders with Mental Impairments (TCOMI) will result in fewer slots available for treatment. Currently, the Hill Country Community MHMR Center is only adult TCOMI program in a 19 county service area. Mental health coverage of uninsured and Medicaid/Medicare patients will also be affected. Connections Individual and Family Services, Inc., Hill Country, and a few private resources accept Medicaid/Medicare re-imbursement.

Specialty Care Provider and Inpatient Availability

As shown in Figure 122, Comal County has roughly twice as many specialists as primary care physicians. Sixty-three percent of specialists work 40 or more hours a week. Again, while it appears that Comal County has reasonably good access to specialists based upon the number practicing, nothing is known about whether these physicians' panels are open or to what degree care is available under Medicare, Medicaid/CHIP, or an indigent care plan.

Figure 122. Comal Co. Specialists, Sept. 2008

Primary Specialty Code	Total
Allergy & Immunology	1
Anesthesiology	3
Cardiovascular Diseases	6
Child & Adolescent Psychiatry	1
Dermatology	4
Diagnostic Radiology	3
Emergency Medicine	9
General Surgery	5
Nephrology	2
Neurology	4
Occupational Medicine	1
Ophthalmology	3
Orthopedic Surgery	5
Otolaryngology	2
Palliative Medicine	1
Pathology	4
Physical Med & Rehabilitation	3
Psychiatry	5
Pulmonary Critical Care Med	1
Pulmonary Diseases	2
Radiology	4
Rheumatology	1
Urology	4
Other Specialties	2
Total	**76**

Source: TMB data acquired from CHRISTUS Santa Rosa

[44] New Braunfels Volunteers in Medicine, *Frequently Asked Questions*, 2008
[45] The Institute for Public Health and Education Research, TIPHER News, January 2008

CHRISTUS Santa Rosa Hospital - New Braunfels is a 56-year-old hospital acquired by CHRISTUS Santa Rosa Health Care from McKenna Health Systems in February 2008.[46] The 132-bed facility offers a Birthing Center; a Special Procedures Lab for cardiac catheterization and intervention radiology (cardiac interventions are not currently offered); imaging, including digital mammography, bone density imaging, magnetic resonance imaging (MRI), and computed tomography (CT); inpatient and outpatient diabetes care, including individual and group patient education; inpatient, outpatient, and home health wound and ostomy care, including counseling and a support group; cardiac, pulmonary, and hand rehabilitation following events such as surgery, injury, or stroke; specialized counseling and preparation for joint replacement surgery; intensive care; an emergency department; and pastoral care. The hospital was accredited by the College of American Pathologists' (CAP) Commission on Laboratory Accreditation in June 2008.[47]

Subsequent to the acquisition, CHRISTUS Santa Rosa announced an investment of over $3,800,000 in equipment and expanded services in the intensive care unit and emergency department, as well as in the areas of cardiac care and pediatrics, two concerns identified through a planning retreat with community leaders and physicians.[48] In an effort to ensure ongoing community input and responsiveness to area needs, the Regional Governing Board of CHRISTUS Santa Rosa Health Care has appointed a 12-member civic Advisory Board for the New Braunfels hospital.[49]

Additional inpatient capacity may be on the way, perhaps in as few as two years. The Regional Health Group, a local physicians group, has partnered with the Atlantic Health Group healthcare management firm in Houston to develop a 130-bed regional hospital as part of the 400-acre New Braunfels Town Center at Creekside multipurpose development at FM 306 and IH-35. The Regional Health Group, formed by approximately 85 physicians from Comal, Guadalupe, and Hays Counties, hope to establish cardiac and neonatal intensive care capacity within Comal County. The partnership projects an estimated inpatient volume of about 29,000 patient-days per year.[50] At present plans call for 100 medical surgical beds and 30 intensive care and coronary care beds, as well as operating suites and diagnostic imaging and lab services.[51] The proposed medical tract, which will include medical office space as well as the hospital, totals 31.6 acres flanked on two sides by separate senior, multifamily, and single-family townhome developments.[52] The Creekside project has been designated as a tax-increment

[46] Christus Santa Rosa taps new leader for New Braunfels hospital, San Antonio Business Journal, Monday, June 30, 2008

[47] News release: CHRISTUS Santa Rosa Hospital - New Braunfels

[48] News release: CHRISTUS Santa Rosa Hospital - New Braunfels

[49] News release: CHRISTUS Santa Rosa Hospital - New Braunfels

[50] Poling T. (2007). Doctors hope to build a hospital in New Braunfels-San Marcos area. *San Antonio Express-News*, January 17, 2007.

[51] Silva TL. (2008). New hospital eyes for city up the road. *San Antonio Business Journal*, 22:8, August 15, 2008.

[52] New Braunfels Town Center at Creekside Master Plan, http://www.newbraunfelstowncenter.com/masterplan.html. Retrieved August 25, 2008.

reinvestment zone (TIRZ) through a partnership between Creekside's developers and the Comal County and New Braunfels governments.[53]

Insurance Coverage

Twenty-nine percent of Household Survey respondents reported that a household member was without health insurance sometime in the past 12 months. According to the US Census Bureau, 31.1 percent of Hispanic, 27.2 percent of black or African American, and 13.3 percent of white Comal County residents were without health insurance in 2005[54]. In comparison, 15.3 percent of Americans are uninsured, and at 24.1 percent Texas has the highest proportion of uninsured in the country.[55] Thus Hispanic and African American Comal County residents face serious disparities in access to care.

According to the Center for Public Policy and Priorities, Comal County made significant gains from 2000 to 2005 in enrolling children 18 and under in Medicaid and CHIP, increasing the percentage of children enrolled in Medicaid from 8.3 percent to 18.8 percent and in CHIP from 0.6 percent to 4.0 percent. Despite these increases, Comal County still ranked 244th and 211th of 254 Texas counties in child Medicaid and CHIP enrollment, respectively.[56] Enrollment levels are only partially within Comal County's control. After over 17,000 children were denied CHIP coverage in May 2007, Texas CHIP enrollment stood at 305,991, a decrease of 40% since the last round of budget cuts in September 2003.[57]

Transportation

The availability of transportation to access health care is an issue and has been discussed in detail elsewhere in this assessment. Physicians and community organizers feel that public transportation would reduce barriers to access, but lack of transportation for medical visits is reported as a problem by no more than two percent of respondents to the Household Survey. The perceived need within New Braunfels as noted by one of the key informant respondents in another survey may be an example of the urban-suburban expectations for public transportation.

Health Care Utilization

Of 502 Comal County Household Survey respondents, 12 percent indicated that someone in his or her household needed medical care but could not get it. Overwhelmingly the reason reported was financial, whether direct cost, lack of insurance, or in one case, inability to find a physician who accepted Medicaid/CHIP/Medicare. Being unable to get off work, nervousness or fear, and a back injury were other reported barriers. No respondents indicated being unable to get needed medical care because of lack of available appointments, lack of child care, not knowing a qualified doctor/clinic, a private

[53] Silva TL. (2008). New hospital eyes for city up the road. *San Antonio Business Journal*, 22:8, August 15, 2008.
[54] US Census Bureau American Community Survey
[55] US Census Bureau, Income, Poverty, and Health Insurance Coverage in the United States: 2006
[56] Center for Public Policy and Priorities, The State of Texas Children 2007: Comal County
[57] Center for Public Policy and Priorities, Record Number of Children Dropped from CHIP

insurance plan not being accepted, lack of transportation, long in-clinic wait times, or lack of doctors speaking the patient's language.

Nine percent of respondents indicated that someone in the household went without a prescription because he or she was unable to pay for it. Seventeen percent reported that someone in his or her household had problems paying medical bills in the past year.

These survey results should be interpreted carefully: the relatively low number of respondents indicating a household problem with getting needed medical care or prescriptions could point as much to delays in care-seeking or lack of education about the need for preventive care as to good financial access to care, since "needed medical care" was a precondition for not getting it. Prescription medications are not uncommonly "rationed" by lower-income patients, stretching the supply and the time until a new prescription is needed but reducing the dose below what is effective. Those who were without insurance may not have been denied care; instead they have been seen by a physician anyway at no low cost or else later found themselves paying off a high balance. And yet those experiencing problems paying medical bills cannot be assumed to be uninsured; they may have had to meet a high deductible, or may have had prescriptions or procedures not covered by their insurance plan, or may have had an emergency room visit with a high co-pay.

As noted above, having Medicaid or other payor source does not guarantee that needed services are accessed. In 2006, only 36.4 percent of the 7,576 Comal County children eligible for dental care under Texas HealthSteps received a dental check up. Twenty-eight percent received one dental checkup and eight percent received more than one dental checkup (source: Department of State Health Services).

While the data are not directly comparable with Comal County's Household Survey because Texas survey respondents reported only on their own experience, not that of all members of the household, 63 percent Texas BFRSS survey respondents in 2004-2005 reported having had a routine medical checkup in the past year and 19 percent reported needing to see a doctor in the past year but being unable to because of the cost. Fifty-nine percent reported having visited a dentist and 54 percent reported having had an eye exam in the past year.[58]

As shown in Figure 123, about half of hospital visits by Comal County residents were at hospitals outside Comal County. The percent of visits occurring at hospitals elsewhere is commonly referred to as the outmigration rate. Outmigration rates vary by service line but for the most part hover in the range of 40 to 60 percent. Comal County residents are most likely to remain within the county for ophthalmology, nephrology and urology, and substance abuse. Outmigration is most common for rehabilitation, psychiatry, cardiovascular care, and oncology.

[58] Texas Department of State Health Services Behavioral Risk Factor Surveillance System, 2004-05

Figure 123. Comal Co. Residents' Utilization of In-County vs. Out-of-County Hospital Care, by Service Line

Service Line	In-County Visits		Out-of-County Visits	
	No.	%	No.	%
General	1,460	56%	1,159	44%
Cardiovascular	848	40%	1,246	60%
Maternal Health	818	56%	647	44%
Pulmonary	653	59%	445	41%
Orthopedics	446	42%	624	58%
Neurology	229	43%	303	57%
Newborns	225	47%	251	53%
Nephrology/Urology	267	62%	164	38%
Trauma	144	48%	155	52%
Women's Health	145	52%	135	48%
Oncology	104	40%	154	60%
Psychiatry	14	10%	130	90%
Diabetes	57	55%	47	45%
Men's Health	41	45%	50	55%
Otolaryngology	44	55%	36	45%
Rehabilitation	0	0%	69	100%
Substance Abuse	19	61%	12	39%
Reconstructive/Plastic	10	48%	11	52%
Ophthalmology	5	63%	3	38%
Total	**5,529**	**49.5%**	**5,641**	**50.5%**

Source: CHRISTUS Santa Rosa

The overwhelming majority of hospital visits outside Comal County were in Bexar County, with Hays, Travis, and Harris Counties lagging far behind. Figure 125 summarizes the 20 most common hospital destinations and the five service lines for which residents most commonly leave Comal County. These five service lines combined represent 22 percent of all outmigration visits. Northern Bexar County hospitals, not surprisingly, are most frequently utilized. But patients are somewhat more likely to visit Travis or Hays for maternal health and orthopedic services.

Figure 124. Top Five County Destinations for Comal Co. Resident Hospital Visits

Hospital Destination	Visits	%
Comal County, TX	5,529	49.5%
Bexar County, TX	5,134	46.0%
Hays County, TX	177	1.6%
Travis County, TX	163	1.5%
Harris County, TX	75	0.7%

Source: CHRISTUS Santa Rosa

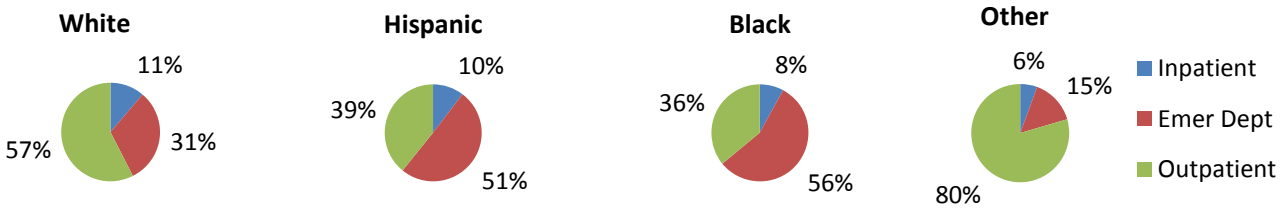
Figure 125. Outmigration: Five Most Common Service Lines, 20 Most Common Destination Hospitals

		Total		Cardiovascular		General		Maternal Health		Orthopedics		Pulmonary	
Hospital Name	**County**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
North Central Baptist	Bexar	163	13%	31	11%	72	15%	11	12%	30	13%	19	13%
Methodist Hospital	Bexar	139	11%	34	12%	57	12%	7	8%	23	10%	18	13%
Northeast Baptist Hosp	Bexar	135	11%	39	13%	54	11%	9	10%	20	9%	13	9%
Northeast Methodist Hosp	Bexar	114	9%	32	11%	52	11%	0	0%	18	8%	12	8%
University Health System	Bexar	93	8%	15	5%	35	7%	6	7%	28	12%	9	6%
Central Texas Med Ctr	Hays	62	5%	11	4%	30	6%	6	7%	8	3%	7	5%
St Luke's Baptist Hosp	Bexar	56	5%	16	5%	15	3%	8	9%	11	5%	6	4%
Meth Specialty/Transplant	Bexar	40	3%	7	2%	18	4%	0	0%	11	5%	4	3%
Baptist Medical Center	Bexar	40	3%	14	5%	13	3%	8	9%	1	0%	4	3%
TexSan Heart Hospital	Bexar	38	3%	30	10%	4	1%	0	0%	0	0%	4	3%
CHRISTUS Santa Rosa M.C.	Bexar	29	2%	8	3%	16	3%	0	0%	4	2%	1	1%
Metropolitan Meth Hosp	Bexar	28	2%	2	1%	15	3%	4	4%	5	2%	2	1%
CHRISTUS Santa Rosa Children's	Bexar	26	2%	1	0%	16	3%	0	0%	4	2%	5	4%
Nix Health Care System	Bexar	25	2%	4	1%	9	2%	2	2%	6	3%	4	3%
CHRISTUS Santa Rosa - CC	Bexar	25	2%	5	2%	11	2%	5	6%	3	1%	1	1%
St. David's South Austin Hospital	Travis	16	1%	1	0%	6	1%	3	3%	4	2%	2	1%
Univ Med Ctr Brackenridge	Travis	14	1%	1	0%	5	1%	1	1%	7	3%	0	0%
The Methodist Hospital	Harris	13	1%	2	1%	4	1%	0	0%	6	3%	1	1%
Seton Medical Center	Travis	12	1%	4	1%	1	0%	3	3%	1	0%	3	2%
St. David's Medical Ctr	Travis	12	1%	2	1%	3	1%	2	2%	4	2%	1	1%
Other Hospitals		160	13%	36	12%	46	10%	14	16%	38	16%	26	18%
Total		1,240	100%	295	100%	482	100%	89	100%	232	100%	142	100%

Source: CHRISTUS Santa Rosa

As the two figures below show, the demographic mix of patient varies greatly by type of visit. Fifty-seven percent of hospital visits by non-Hispanic whites were outpatient visits (shown in green), with 31% of visits occurring in the emergency department (shown in red). This ratio is reversed for Hispanics and blacks. One likely explanation for this pattern, given what else is known about access to care in Comal County, is that Hispanics and blacks are less likely than whites or other races to have a medical home for preventive and primary care. The ED is used as the source of care of first and last resort.

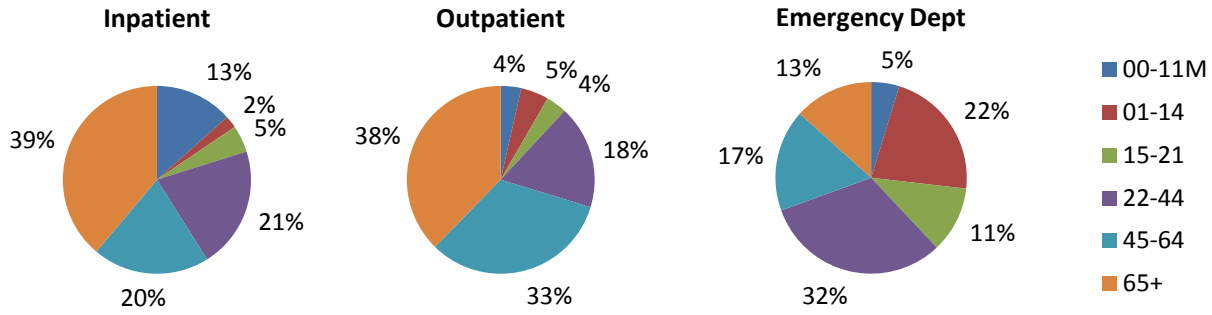
Figure 126. Type of Hospital Visit by Race of Patient



Source: CHRISTUS Santa Rosa Hospital - New Braunfels

With regard to age of patient, seniors 65 and older comprise the largest age group for both inpatient and outpatient visits. Senior patients make up 39 percent of inpatient visits and 38 percent of outpatient visits, but only 13% of ED visits. Adults 45 to 64 years of age make up a larger portion of outpatient visits than inpatient or ED visits. Children and adults one to 44 years of age together make up two-thirds of ED visits but only 28 percent of inpatient and 27 percent of outpatient visits, a pattern likely driven by the relatively common occurrence of injury in these age groups. The large proportion of inpatient visits by children under one year of age likely primarily represents births.

Figure 127. Type of Hospital Visit by Age of Patient



Source: CHRISTUS Santa Rosa Hospital - New Braunfels

Figure 128 below illustrates one of the many pitfalls of attempting to use billing data diagnosis codes to try to understand the pattern of illnesses in a population. The codes utilized are more indicative of symptoms than of disease process, and those diagnosis codes used may have been selected from among equivalent codes according to reimbursement requirements of the patient's insurance plan. But these data do tell us something about what symptoms drive a person to visit the emergency department. Not surprisingly, fever, otitis media (earache), acute laryngopharyngitis (sore throat), and digestive distress are the among the most common presenting symptoms in children. Accidents become a major issue among adolescents and young adults. Chest pain appears more frequently among older adults and seniors, as do abdominal symptoms and diabetes mellitus. As might be expected, accidents – primarily falls – appear more frequently among seniors 65 and older.

Figure 128. Five Most Common Emergency Department Diagnoses (Dx) as Percent of All Diagnoses in Age Group

Code	Age Group	% of All Dx
0 to 11 Months Old		
7806	Fever	16%
382	Otitis media	14%
465	Acute laryngopharyngitis	11%
787	Digestive symptoms including nausea, vomiting, diarrhea	7%
466	Acute bronchitis and bronchiolitis	4%
1 to 14 Years Old		
7806	Fever	10%
382	Otitis media	7%
E88	Accidental fall	5%
787	Digestive symptoms including nausea, vomiting, diarrhea	5%
465	Acute laryngopharyngitis	4%
15 to 21 Years Old		
789	Abdominal symptoms including pain	6%
338	Pain	4%
E92	Accidents caused by cutting and piercing instruments or objects	4%
7806	Fever	4%
787	Digestive symptoms including nausea, vomiting, diarrhea	3%

Code	Age Group	% of All Dx
22 to 44 Years Old		
789	Abdominal symptoms including pain	6%
338	Pain	6%
7865	Chest pain	4%
E92	Accidents caused by cutting and piercing instruments or objects	4%
787	Digestive symptoms including nausea, vomiting, diarrhea	4%
45 to 64 Years Old		
401	Essential hypertension	7%
7865	Chest pain	5%
789	Abdominal symptoms including pain	5%
338	Pain	5%
250	Diabetes mellitus	4%
65 Years and Older		
401	Essential hypertension	10%
78079	Malaise and fatigue	6%
7865	Chest pain	5%
E88	Accidental fall	4%
250	Diabetes mellitus	4%

Source: CHRISTUS Santa Rosa Hospital - New Braunfels

Because most of these codes describe symptoms rather than the underlying disease, it is important to note that mental illness may play as large a role in driving emergency department visits as does physical illness. Pain, including chest and abdominal pain and headache; fatigue; and diarrhea and other gastrointestinal distress are all common physical manifestations of depression and anxiety.

A number of studies have found that a large proportion of ED visits are for conditions that could be treated in a primary care setting or prevented entirely through primary care.[59] While that proportion cannot be derived from these data, otitis media, diabetes, depression and anxiety, and many causes of fever, chest and other pain, and gastrointestinal distress are amenable to primary care prevention or intervention. New Braunfels' Texas MedClinic provides walk-in care until 11 p.m. nearly every day of the year. But insurance plans may not cover these urgent care services and low-income and uninsured patients are unlikely to be able to pay the full charge for the visit, without which the provider will not see the patient. Emergency departments, on the other hand, can redirect a patient to an immediately accessible (e.g., adjacent and open) primary care clinic, but cannot by law turn a patient away entirely.

As a final note on access to primary medical care, in June 2008 the Texas Department of State Health Services announced the results of an evaluation of preventable hospitalizations, an indicator of access to primary care services. The conditions that are monitored are those that if diagnosed and treated early in the course of the disease, the worsening can be controlled and a subsequent hospitalization avoided. In 2002 and 2005, adult residents of Comal County had significantly fewer hospitalizations than did residents of Texas for the following conditions: (1) pneumonia; (2) urinary tract infection; (3) congestive heart failure; (4) chronic obstructive pulmonary disease; and (5) diabetes long-term complications. These findings suggest that Comal County residents' access to primary care is better than access statewide. TDSHS valued the preventable hospitalizations avoided in 2005 at over six million dollars.[60]

Awareness of Health and Human Service Resources

When asked whether Comal County has sufficient resources like day care, Head Start programs, Sullivan Learning Centers, etc., 38.4 percent of 73 respondents answered in the affirmative and only 16.4 percent said no. However, 45.2 percent responded "don't know", indicating uncertainty about the degree of need, about services available, or both. Similarly, as noted on page 50 of this document, about half of Household Survey respondents believed that Comal County has sufficient affordable housing and 29 percent did not know.

Forty-nine percent of 152 respondents to a question asking whether they would know where to get disability accommodations like a wheelchair or shower handles indicated that they would. Of 502 respondents, only 42 percent answered that they knew where to get information about services

[59] See for example Wilson M., Shin P., Regenstein M., Jones K. (2004). *An Assessment of the Safety Net in San Antonio, Texas.* Washington, DC: GWU School of Public Health and Health Services; and Task Force for Access to Health Care.

[60] Texas Department of State Health Services, Preventable Hospitalizations: County Profiles: Comal County, 2008

available in Comal county. Among that 42 percent (n=211), the source of information varied greatly as shown in the figure at right.

Figure 129. Household Survey results: where do you go for information on services?

Source	Percent
City or local govt. agency	38%
Media	26%
Family	24%
Friends	22%
Church/minister	17%
Family physician	10%
United Way or other non-profit	5%
Other	29%
Don't know	0%

Clearly, local government is viewed as the primary source of information about available services in Comal County. Although not specifically mentioned by respondents, the New Braunfels Housing Authority compiles and publishes the *Interagency Directory* each year, with more than 100 public, private, and nonprofit listings in 2007. The United Way of San Antonio and Bexar County also maintains an information and referral helpline available 24 hours a day, seven days a week, but it appears to be rarely used by Comal County residents. In the "other" category, 5.2 percent of respondents indicated that they use the internet. The phone book, Chamber of Commerce, and senior center were resources used by several respondents.

A better understanding is needed of how many Comal County residents have difficulty accessing needed primary care services or go without care entirely, understanding that a person who has never had easy access may define "need" very differently than would an insured person accustomed to engaging routine preventive and primary care. Comal County's health and human service providers need to do more to raise community awareness of services that are already available, utilizing a wide variety of venues to reach different subgroups of the community.

Index

E

F

G

H

I

J

K

L

M

N

P

Q

R

S

T

U

V

W

Y