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NEW MEXICO PROPERTY TAX STUDY: AGRICULTURAL, WORKING & NATURAL LANDS

Prepared for the New Mexico Legislature

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Executive Summary

In our evaluation of discrete data sources, we have found that the long-term trend of agricultural land, natural, and working land loss has progressed unmitigated in New Mexico. The most recent available data shows that New Mexico lost 5.1 million agricultural acres (-11%) over the last two decades (1997-2017). Pasture & Rangeland lost 4.6 million (-11%), Cropland lost 353,601 (-16%) and Irrigated land declined by 178,582 (-22%). At the local level, according to USDA NASS Agricultural Census data, four out of five New Mexico counties experienced shrinking agricultural landholdings; counties experiencing the largest declines were Bernalillo (-46%), Socorro (-40%), and Taos (-39%). Underlying demographic trends suggest agricultural land conversion will accelerate over the next 20 years as a large percentage of farmers will retire. This is evidenced by the fact that three out of four farmers and ranchers in New Mexico are 55 years of age or older and the average age of New Mexico farmers is 61. The retirement of these producers will cause large landholdings to shift into new ownership hands statewide.

BBER reviewed and attempted to assess Taxable Value trends over the last 10 years in the context of economic and population data and, yet, did not find a strong link between taxable property values and population, and economic growth for two-thirds of New Mexico counties. In fact, at least five counties experienced strong growth in taxable values with shrinking populations and shrinking economic growth as measured by real GDP. These counties were Mora, Rio Arriba, San Miguel, Chaves, and Union. Several counties exhibited negative Non-Residential Taxable Property growth over the last 10 years with no clear predictive explanation for this trend. These counties are Colfax, Sierra, San Juan, McKinley, Grant, and Harding. The increased demand for second homes demanded by people living outside New Mexico has contributed in part to robust sales price appreciation for real estate in New Mexico.

Broad economic and population trends suggest low to negative growth in contrast to rising real estate values. In New Mexico, over the last ten years, two out of three counties experienced negative population growth -- four out of five counties experienced either no growth or negative population growth. In the same time period, three out of five New Mexico counties experienced negative Real GDP growth. Moreover, weak Real Household Income growth and rising real estate values have contributed to deteriorating housing affordability, particularly in Taos, Santa Fe, San Miguel, Lincoln, Rio Arriba, Catron, Mora, and Sierra counties.

Agriculture and New Mexico's rural heritage make important contributions to the state, particularly at the local and regional levels. Statewide, agriculture accounts for \$2.72 billion in Gross Domestic Product, 28,000 in employment, and \$1.1 billion in wages and proprietor income. Agriculture is particularly important at the local and regional level in New Mexico where farm proprietor employment (as a percent of total proprietor employment) accounts for 20-60% in over half of New Mexico counties. Importantly, the national ratio for this metric is 3.8%. Along the same lines, whereas farm proprietor income (as a percentage of total proprietor income) nationally is 3%, the statewide ratio in New Mexico is 14% with half of New Mexico counties ranging between 20% to 81%.

Despite lagging other states in the U.S. when considering income and financial wealth, the land-based culture of New Mexico is an important asset for the state that lawmakers may consider worth preserving. With the second-highest poverty rate nationally and the third-lowest median household income, compared to other states in the country, New Mexico is among the poorest as measured by annual income. Nevertheless, New

Mexico ranks 12th among all states in the U.S. for percent of total land holdings being used for agriculture. The demographic data suggests this is particularly the case for Hispanics and Native Americans when we considered homeownership rates and the number of agricultural producers in New Mexico; Hispanics and Natives are more likely to be homeowners compared to their peers nationally by a margin of roughly 20% in both instances; one-third of farms in New Mexico have a Hispano producer and one-fourth have a Native American producer; this compares nationally to 2% and 4%, respectively; farming/ranching operations in New Mexico with a Hispanic or Native American operator on "owned" acres account for 18.2% and 9.9% of total agricultural acreage in the state; this compares to 3.95% and 1.9%, respectively, nationally.

Based on our review of available data and by developing our own estimates, we assess that land conversion will likely continue unmitigated in New Mexico under the current policy regime with specific economic and fiscal implications. Using USDA NASS data from the last 20 years, **the annual loss rate for Pasture and Rangeland, Irrigated Cropland, and Non-Irrigated Cropland is -0.6%, -1.1%, and -0.6%**, respectively. Based on these annualized rates, BBER estimates the potential annual agricultural acre loss has averaged 218,000 acres per year over the last 20 years. On a forward basis, if this average holds, and these converted acres are used primarily for residential development, BBER estimates that tax revenues would increase by \$10.1 million per year; however, removing these acres from agriculture will likely result in the **loss of agricultural production and job losses that we estimate to be \$3.5 million and 35 jobs**, respectively. We also estimated the added infrastructure cost needed to provide utilities and services to undeveloped acres at \$11.7 million and the ecosystem services cost of \$1.5 million, resulting in **a total economic and fiscal impact loss of \$6.8 million**.

Property tax is considered by some a blunt policy tool for affecting specific, targeted policy outcomes. No single policy can prevent or even effectively mitigate land conversion. Being that local governments and schools depend heavily on precious property tax revenues to provide basic services like education, it is critical that tax policy changes do not result in reduced revenues. Other states have employed combinations of various property tax policies and non-tax-related policies to protect and preserve agricultural, working, and natural lands. Some of these tools follow.

The New Mexico Legislature could change legislation allowing landowners who are producing on less than 1 acre of land to qualify for agricultural valuations. Many acequia members and young and beginning farmers that are operating on a smaller scale, fall into this category.

New Mexico could also provide more guidance on what is considered accepted practices that qualify for agricultural valuations. More guidance and resources could be provided to Assessors that reflects the need of landowners and land uses in New Mexico. Traditional and Indigenous cultivation practices – and includes permaculture -- may not easily be recognizable by assessor office staff. New Mexico State University (NMSU) publishes a periodic handbook for county assessors, which could detail these practices in order to help the landowners more easily qualify for agricultural exemptions. Accepted and established NRCS land use practices could be explicitly detailed in such guidance, including non-commercial forest thinning, brush control, wildlife habitat improvements, stream protectors. Along the same lines, Assessors could benefit from more guidance on the treatment of multi-use agricultural lands (e.g. cattle ranching operations that also have wind energy towers and land grants with cellular towers or affordable housing).

The NM Legislature could fund conservation easement programs to help more landowners qualify, while protecting these lands, and assisting landowners to qualify for federal and state tax credits/easement programs. "Circuit Breaker" tax credits could be implemented to give agricultural producers a credit on their

annual tax bill if they meet certain household income requirements. These credits do not necessarily offer property tax relief but they do have the merit of being well-targeted.

There are several related policies that could help to protect agricultural land from development while supporting the viability of producers. Enabling statutes that would allow municipalities to adopt urban agriculture ordinances could assist producers operating on small lots. These ordinances might incentivize landowners through tax abatements to utilize vacant lots or under-utilized vacant land. State funding could help more landowners qualify for and access federal conservation dollars (CSP, CRP, ACEP-ALE, RCPP). This might be run through a state conservation office that provides technical assistance and grants to landowners; matching funds and technical assistance needed to qualify for and access federal conservation dollars could be provided through the creation of an Ag and Natural Resources Trust. New Mexico should consider adopting and enforcing statewide land-use planning laws. This might include a statewide comprehensive land-use plan that prioritizes the protection of agricultural, working, and natural lands by incentivizing and focusing development in zones designated for growth that already have infrastructure and public services. These types of laws could help to limit infrastructure costs associated with developing agricultural and undeveloped lands.

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I. Introduction

A common critique of the New Mexico property tax code is that certain property owners take advantage by unfairly qualifying for lower agricultural property valuations when they do not actually qualify. In 2012-2013, this critique came to the surface when an investigative TV journalist ran stories about a \$7 million Los Ranchos de Albuquerque mansion, under the state's agricultural exemption, receiving a property tax bill for only \$25. The investigative story alluded to other "palatial estates" and "luxury homes" with "manicured gardens" on large acreages receiving agricultural exemptions, thus avoiding large property tax bills.¹

Following the controversy in the North Valley of Albuquerque, the newly appointed Bernalillo County Assessor stepped up efforts to review and re-appraise, as appropriate, all properties in the county. The plan involved an increase in the Assessor's budget of nearly \$1 million for the hiring of four permanent staff and 25 temporary workers to execute a plan to review "all" properties in Bernalillo County over the next four years. Included in the review were 4,100 properties receiving "agricultural exemptions."²

Around the same time, Taos County was undergoing a similar review. In December 2013, the Taos News reported that 630 parcels in Taos County lost their agricultural exemption (or 59% of the 1,000 agricultural properties reviewed) in the three-year period ending in 2014; three out of four properties undergoing review in 2014 lost their exemptions.³ Property owners in Northern New Mexico organized with community groups to provide support and technical assistance in challenging the new appraisals.

Media and political pressure in Bernalillo and a coordinated effort in Taos drove systematic "re-appraisals" of properties receiving agricultural exemptions. In both instances, the assessors for these two counties were exercising the authority granted to them by state statute. Under NMSA 1978 7-36-16, county assessors are required to maintain current and correct values. This issue was brought to the attention of the legislature and it requested that the University of New Mexico's Bureau of Business & Economic Research (BBER) gather relevant data, speak with stakeholders and relevant state agencies, and assess relevant existent as well as potential tax policies.

Given the nature of the data collected from the county assessors and the NM Tax & Revenues Department (TRD), BBER was not able to validate the question as to whether statewide systematic re-appraisals of agricultural land have directly resulted in landowners either losing their land or being forced to sell their lands as a result of higher valuations. However, the secondary data suggests that counties with rapidly developing communities within healthy watersheds are experiencing greater pressure on agricultural, working, and natural lands.

This study seeks to consider the following questions:

¹McKay, Dan, *Home Price: \$7 Million, Property Tax Bill: \$25*. Albuquerque Journal. November 11, 2012. (<https://www.abqjournal.com/145574/home-price-7-million-property-tax-bill-25.html>); KRQE News 13, *Tax rolls riddled with bogus farms*. July 8, 2013. (<https://www.krqe.com/news/tax-rolls-riddled-with-bogus-farms/>)

² McKay, Dan, *Assessment to cover all properties in the county*. Albuquerque Journal. June 27th, 2013.

³ Logan, J.R., *Continuing reassessment finds most Ag land in Taos County inactive*. Taos News. December 11, 2014.

- 1) Are agricultural, working, and natural lands in New Mexico being converted for development purposes?
- 2) What are the potential fiscal and economic impacts of land-use trends in the state (specifically the conversion of agricultural land for development purposes)?
- 3) What are some of the alternative tax policies being considered, and what are the potential impacts of some of these policies?⁴
- 4) What are the potential indirect costs of failing to protect and preserve agricultural, working, and natural lands in the state?
- 5) What other potential policies, other than tax, have been adopted by other states that New Mexico might consider?

To motivate the report, the following section discusses key pressure points. Namely, the economic and demographic backdrop of the state, and the nature and extent of the loss of agricultural land in New Mexico over the last several decades. The remainder of the report is structured as follows. The “Rural Heritage” section considers the natural assets and the important cultural assets that define the state and their linkages and intersections with the broader economy and what makes New Mexico distinctly New Mexico. The next section, “Topics Related to Fiscal & Economic Impacts” evaluates the importance of property taxes to local government, the role of federal and state lands in taxable values and property tax collections, and estimates the fiscal and economic impacts of agricultural land loss in the state. The following section, “Policies Designed to Preserve Agricultural & Rural Heritage”, explores and discusses various tax and non-tax related policies. This report concludes with recommendations related to property tax and the preservation and protection of agricultural, working, and natural lands.

II. Background

This section considers the regional and household economic, demographic, real estate, and agricultural land trends in New Mexico, which helps to frame and set important contexts for the property tax discussion in the state. Among New Mexico’s unique and defining characteristics is its rural heritage, which consists of an abundance of cultural, land, and natural resources. Given that much of New Mexico’s wealth is non-financial and non-monetary, it is important to not only acknowledge and highlight these often difficult to value assets but incorporate these in any and all policy discussions, tax-related or otherwise, because specific policies will often have very real direct and indirect impacts on the cultural, natural and environmental resources in the state.

A. Rising Real Estate Values, Zero Real Income Growth

Introducing equity and fairness into property tax policy is tricky in an economic environment where real incomes for New Mexicans have barely grown over the last decade. In sharp contrast, in the last year alone,

⁴ Where it is not possible to complete systematic, independent research of some of these policies, we consider the academic and applied literature as well as the experiences of other states in the U.S.

median home prices have grown by double digits in the state’s major markets. Year-over-year changes in Days on Market (DOM) and Inventory levels, indicators for relative supply-demand dynamics, show strong demand and declining supplies.

The following figure depicts year-over-year changes in sales prices, Days on Market (DOM), and available “Inventories” for important local markets in New Mexico. Figure 1 shows that median prices grew by double digits in Albuquerque, Santa Fe, Las Cruces, and Taos where prices increased 13.7%, 22.0%, 10.1% (average), and 29.8%, respectively. Angel Fire and Red River, in Colfax County, experienced even larger increases of 51.2% and 34.1%, respectively. Large decreases in DOM and even larger decreases in inventory suggest an imbalance in supply-demand, especially given that, on average, NM households experienced a greater loss of employment and are expected to experience lagging income growth relative to the national averages.

Figure 1. Housing Statistics for Single Family Homes in Select New Mexico Markets, 2020-2021

<u>Changes in Sales Prices (Px) and other Key Metrics, March 2020 to March 2021*</u>				
	<u>Median Px</u>	<u>Avg. Px</u>	<u>DOM</u>	<u>Inventory</u>
Albuquerque	13.7%	13.0%	-43.2%	-69.2%
Santa Fe	22.0%	-	-23.4%	-61.9%
Las Cruces	-	10.1%	-47.1%	-67.3%
Taos	29.8%	32.4%	-19.5%	-
Angel Fire	51.2%	84.3%	-40.3%	-
Red River	34.1%	20.6%	-21.4%	-

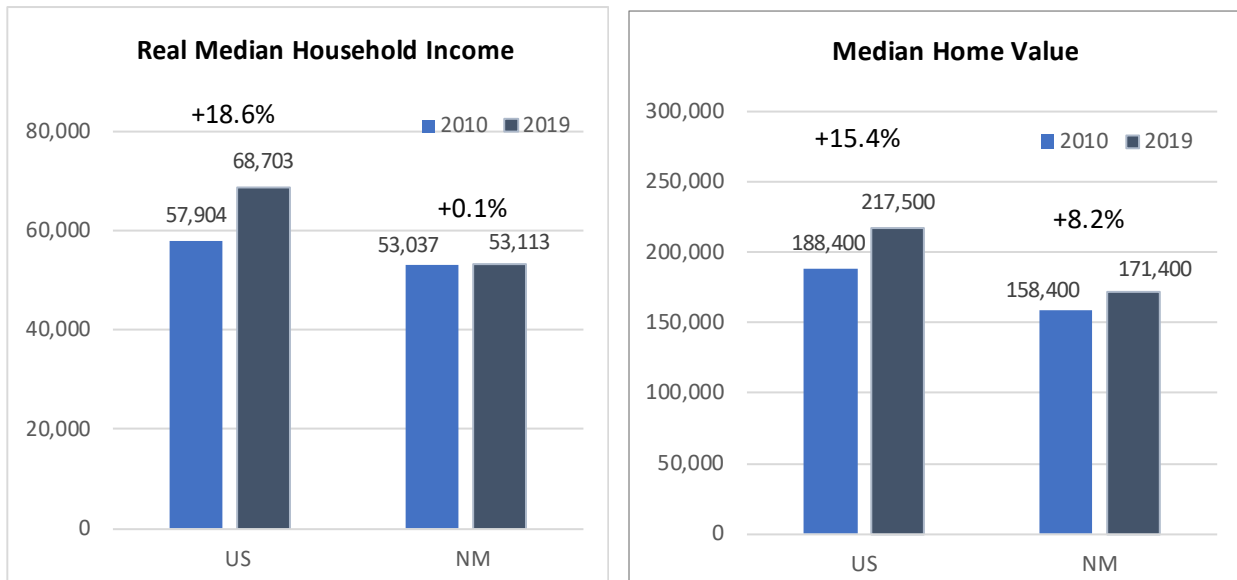
*Year-over-year Single Family, Days on Market (DOM).

Source: Association of Realtors for Albuquerque (GAAR), Santa Fe (SFAR), Las Cruces (LCAR), Taos (TCAR).

New Mexico employment declined -6.2% in 2020 and is expected to increase by 1.6% in 2021 and 2.1% in 2022. U.S. employment declined -5.7% in 2020 and is expected to recover faster with employment gains of 3.1% in both 2021 and 2022. Importantly, BBER does not forecast that NM will recover to pre-COVID employment levels until 2024. The U.S. is expected to recover to pre-COVID employment levels in 2022. According to IHS Markit projections, U.S. Personal Income (PI) advanced (due to the federal COVID stimulus transfers) 6.1% in 2020, is expected to grow by 5.6% in 2021, and will slow to 0.7% in 2022. BBER forecasts that NM Personal Income, although increasing by 6.2% and 6.3% in 2020 and 2021, respectively, is **expected to decline in the state by -5.5% in 2022** as stimulus transfers are withdrawn.

Taking a longer-term, historical perspective, the U.S. Bureau of Economic Analysis and U.S. Census data show that real incomes in New Mexico have been stagnant over the last decade. Whereas Real Median Household Income expanded by 18.6% for the U.S. over the last decade, the New Mexico Real Median Household Income was unchanged between 2010 and 2019. Still, median housing values continued to rise during this time period, increasing by over 8% in New Mexico. (Figure 2)

Figure 2. US & NM: Real Median Household Income (left) & Median Home Value (right), 2010 & 2019



Source: U.S. Bureau of Economic Analysis; U.S. Census, American Community Survey, 5-Year Estimates.

Overall, the data suggest that real estate is becoming more expensive and less affordable for New Mexicans relative to income growth. While this was certainly true during the COVID-19 pandemic when record levels of New Mexicans lost their jobs and were on unemployment, circumstances under which lenders would typically be reluctant to make loans, large declines in DOM and inventory levels suggest that the demand for housing was coming from buyers outside New Mexico. Yet, these conditions existed even before recent trends accelerated.

When considering the 10-year cumulative change in median housing values, we found that housing values in several counties appreciated significantly more than the national median, with some counties increasing by two to four times the national rate. These increases are depicted in the following table (Figure 3)

Figure 3. Median Home Value for NM Counties, NM, and US, 2010 & 2019

Geography	2010	2019	%Chg	Geography	2010	2019	%Chg
Eddy	90,700	155,900	71.9%	Quay	65,200	72,700	11.5%
Lea	87,500	133,100	52.1%	Valencia	129,900	142,600	9.8%
De Baca	71,100	106,300	49.5%	San Juan	184,400	200,900	8.9%
Harding	70,300	102,400	45.7%	NM	158,400	171,400	8.2%
Catron	129,400	175,400	35.5%	Otero	104,500	112,400	7.6%
Curry	98,500	125,000	26.9%	Dona Ana	137,200	147,400	7.4%
Sierra	92,800	117,400	26.5%	Bernalillo	188,800	199,300	5.6%
Chaves	86,200	108,700	26.1%	Mora	107,500	112,300	4.5%
Roosevelt	94,800	118,200	24.7%	Los Alamos	297,100	302,800	1.9%
Torrance	92,300	114,300	23.8%	Colfax	103,100	104,800	1.6%
Rio Arriba	136,300	167,300	22.7%	San Miguel	149,400	151,200	1.2%
Sandoval	112,200	135,000	20.3%	Grant	125,000	125,100	0.1%
Lincoln	166,600	193,900	16.4%	Santa Fe	291,700	291,800	0.0%
US	188,400	217,500	15.4%	Union	91,900	88,000	-4.2%
Socorro	108,400	124,100	14.5%	Luna	91,700	86,900	-5.2%
Guadalupe	74,500	85,000	14.1%	Hidalgo	90,800	86,000	-5.3%
Cibola	74,800	84,400	12.8%	McKinley	69,300	64,800	-6.5%
Taos	212,400	239,500	12.8%				

Source: U.S. Bureau of Economic Analysis

To assess the affordability of median single family housing values relative to median household income, BBER calculated affordability ratios by comparing home values relative to incomes (Median Home Values / Median Household Income). We found that New Mexicans living in several counties are more stretched to afford real estate where they live and work. At the top of the list, in terms of least affordable, are Taos, Santa Fe, San Miguel, Lincoln, Rio Arriba, and Catron counties. (Figure 4) With unemployment remaining elevated and personal incomes for residents that are employed by NM-based employers remaining below pre-2020 recession/pre-pandemic levels, housing affordability will likely continue to deteriorate as long as real estate values and income trends are out-of-step.

Figure 4. Home Affordability (Median Values) for NM Counties, NM, and US, 2010 & 2019

Geography	Home Val.	HH Income	Affordability	Geography	Home Val.	HH Income	Affordability
Taos	239,500	38,329	6.2	San Juan	151,200	50,518	3.0
Santa Fe	291,800	61,200	4.8	Luna	86,900	29,360	3.0
San Miguel	135,000	30,946	4.4	Socorro	124,100	42,083	2.9
Lincoln	193,900	46,216	4.2	Valencia	142,600	48,945	2.9
Rio Arriba	167,300	39,952	4.2	Colfax	104,800	36,302	2.9
Catron	175,400	41,910	4.2	Curry	125,000	45,092	2.8
Mora	112,300	28,446	3.9	Roosevelt	118,200	42,702	2.8
Sierra	117,400	29,755	3.9	Otero	112,400	41,988	2.7
Bernalillo	199,300	53,329	3.7	Chaves	108,700	43,359	2.5
Dona Ana	147,400	40,973	3.6	Quay	72,700	29,035	2.5
Harding	102,400	29,375	3.5	Los Alamos	302,800	121,324	2.5
United States	217,500	62,843	3.5	Union	88,000	35,884	2.5
New Mexico	171,400	49,754	3.4	Eddy	155,900	65,328	2.4
Guadalupe	85,000	24,798	3.4	Lea	133,100	60,546	2.2
De Baca	106,300	31,625	3.4	Cibola	84,400	39,413	2.1
Grant	125,100	37,843	3.3	Hidalgo	86,000	42,526	2.0
Torrance	114,300	36,120	3.2	McKinley	64,800	33,834	1.9
Sandoval	200,900	63,802	3.1				

Source: U.S. Census, American Community Survey, 5-Year Estimates, 2015-2019

B. Agricultural Land Loss

The property tax data we collected from the Assessors’ offices did not have consistent formatting and data types. Moreover, we were unable to collect data from some counties. Therefore, BBER was not able to utilize the Assessors’ data for determining clear trends in land-use types, specifically, whether or not agricultural acreage in the state is on the decline and if there have been systematic re-valuations at the individual county level. However, we were able to access several decades of data from secondary sources on land-use trends nationally as well as locally. We found a nuanced but clear trend showing the decline of agricultural acreage and increased residential development acreage. Specifically, agricultural lands that are considered the highest quality/most productive are experiencing the greatest pressure from other uses, where the national data suggests that agricultural and working lands are being converted for more intensive residential and commercial uses.

First, we consider that national data, according to the United States Department of Agriculture Economic Research Service (USDA ERS) “Major Uses of Land in the United States”, which dates back to 1945. The USDA ERS shows that the U.S. lost 59 million acres (-13%) of cropland between 1945 and 2012. Also, grassland

pasture and range declined by 4 million acres (-1%). In contrast, urban areas increased by 55 million acres or by a factor of 3.67.⁵

Residential development is the single greatest threat to agricultural lands. Utilizing National Resource Conservation Service (NRCS) data, a 2018 study by the American Farm Trust found that urban and low-density development caused 18 million and 13 million agricultural acres, respectively, to be converted between 1992 and 2012; moreover, over 70% of urban development and 54% of low-density development occurred on agricultural land.

The study also found that cropland (29%) was most likely to be converted for urban development, while forestland (42%) was most likely to be converted for low-density use. An additional layer to the land conversion is that the best land for intensive food and crop production (rich soils, appropriate micro-climates, long growing seasons, and abundant water availability, i.e. prime farmlands) are experiencing the greatest development pressure. The NRCS estimates that prime farmland was reduced by half in the U.S. between 1982 and 2012. This trend holds in New Mexico where the study found that of the agricultural acres converted due to urban development, 41% of cropland was converted. Low-density residential development also pressured cropland, pastureland, and woodland, with each declining by 34.5%, 34.5%, and 20.0%, respectively.

Turning to the New Mexico data collected by the USDA NASS, for the two decades ending in 2017, pastureland & rangeland declined by 4.6 million acres (-11%), cropland lost 353,601 acres (-16%), woodland lost 28,642 acres (-1%), and irrigated land declined by 178,582 acres or -22%. (Figure 5)

Figure 5. Change in New Mexico Agricultural Acres by Type over Last 20 Years

	1997	2017	Diff.	%Chg.
Total Acres	45,787,108	40,659,836	(5,127,272)	-11%
Pasture & Rangeland**	40,737,445	36,146,772	(4,590,673)	-11%
Cropland	2,179,428	1,825,827	(353,601)	-16%
Irrigated	804,616	626,034	(178,582)	-22%
Woodland	2,444,242	2,415,780	(28,462)	-1%

*Permanent pasture and rangeland, other than cropland and woodland pastured

Source: U.S. Department of Agriculture, National Agricultural Statistics Services, 1997, 2002, 2007, and 2017.

As a third-year young farmer, I have faced several challenges trying to get started in agriculture. In general, young and new farmers have trouble accessing affordable agricultural land, getting support restoring fallowed agricultural land for both acequia use and building healthy soil, and having resources to begin a commercial business. Many of us are growing on agricultural acreage that is less than 1 acre, which is below the threshold to qualify for agricultural valuations. If there could be more statutory and programmatic support for young and beginning farmers like myself, we could see the next generations getting a head start.

⁵ USDA ERS, *Major Uses of Land in the United States*. 2012

Property tax laws should make it possible for young producers, who are generally small operations, able to qualify for agricultural valuations. What assessors consider qualified agricultural practices are important especially because many young and beginning farmers are doing agriculture differently than older generations; for instance, we do not have 20 acres of alfalfa, we're growing small-scale variety crops. It is important that small-scale sustainable, permaculture, soil and water-focused practices are recognized by assessors as accepted and legitimate in order to qualify for agricultural valuations. I have invested in permaculture design work on my farm, which is only half an acre, that's focused on improving soil quality, water catchment for dryland crops, and an orchard that may not meet county guidelines for agriculture. And, yet, because the investments I have made will take several years before my agricultural production (fruit trees & edible shrubs) can be demonstrated, my farm will not qualify for agriculture in this period.

It would be helpful if there was programmatic, technical, and financial assistance to bring fallowed land back into production or generally stay maintained. Many acequias have been negatively impacted by fallowed agricultural lands and have become inactive. The work needed to restore surface water access can be formidable at best. In some cases, neighbors who own properties that were formerly agricultural with acequias can unknowingly block laterals to their neighbors downstream who are seeking to restore their surface water. This can happen when landowners build new structures, or fences, or simply refuse, or make it difficult, to allow the laterals to flow on their property or to be re-established on their property. It took me one whole year to be a good neighbor and build the trust needed to re-establish a lateral that had not been used for over 40 years; the neighbors had mixed feelings.

Land management practices have direct impacts and linkages on neighboring farms even if the landowner engaging in conservation practices is not herself engaging in agricultural production. This is why it is important that landowners not using their formerly agricultural land for agriculture not only consider conservation practices but also receive incentives, and technical and financial assistance because their conservation efforts directly impact their neighbors who are engaged in agriculture. This might involve preventing invasive plants and animals, restoring native species, supporting pollinators, abstaining from the use of pesticides and herbicides that are toxic to pollinators, or cooperating with neighbors seeking to restore acequia systems. The re-seeding of noxious weeds becomes very challenging, and pests become more rampant on untended parcels. Programmatic support for landowners to develop conservation management plans is a good idea. Families need this support, especially for younger generations who were not raised growing or ranching. It is overwhelming to see all the factors and pieces. In order to tend to the land, you need time, equipment, labor, and an understanding of the wildlife & ecology, and practices that are best for our valley; it is a lot of work. If families had a blueprint for how to manage property they've inherited or are currently on, we can see our valley well into the future. Perhaps less property sales would happen because we know our options and have incentives to keep land in the family; whether it's in commercial business or well-maintained or something in-between. This means we'll need more tax breaks, incentives, credits in general to make land management a priority, and consequently, ensuring surrounding farming, ranching & growers can be viable.

~Corilia Ortega, Beginning Farmer, Taos, New Mexico

We also considered USDA NASS data at the county level for New Mexico, which shows that 27, or four out of five, counties saw their agricultural acreage decline between 2002 and 2017. Bernalillo (-46%), Socorro (-40%), and Taos (-39%) experienced the largest declines on a percentage basis. The average county loss was 133,600 acres or -9%.⁶ Four counties (Sandoval, San Miguel, Valencia, and San Juan) actually saw agricultural acreages increase, although we do not have sufficient data to identify the underlying factors contributing to the increase for these four counties.⁷

Figure 6. Change in New Mexico Agricultural Acres by County

County	2002	2017	Diff	%Chg	County	2002	2017	Diff	%Chg
Bernalillo	407,869	221,495	(186,374)	-46%	Chaves	2,515,660	2,318,143	(197,517)	-8%
Socorro	1,523,260	912,476	(610,784)	-40%	Colfax	2,216,306	2,073,125	(143,181)	-6%
Taos	466,254	285,130	(181,124)	-39%	Quay	1,651,616	1,548,435	(103,181)	-6%
Grant	1,218,119	893,980	(324,139)	-27%	Cibola	1,690,832	1,593,679	(97,153)	-6%
Sierra	1,362,866	1,012,233	(350,633)	-26%	Harding	991,940	938,460	(53,480)	-5%
Hidalgo	1,127,578	848,867	(278,711)	-25%	Rio Arriba	1,431,119	1,362,062	(69,057)	-5%
Catron	1,644,937	1,260,711	(384,226)	-23%	Mora	954,572	930,642	(23,930)	-3%
McKinley	3,169,857	2,569,810	(600,047)	-19%	Curry	916,320	902,165	(14,155)	-2%
Luna	709,518	575,844	(133,674)	-19%	Guadalupe	1,461,766	1,444,135	(17,631)	-1%
De Baca	1,409,434	1,182,224	(227,210)	-16%	Roosevelt	1,500,821	1,499,615	(1,206)	-0.1%
Union	2,243,404	1,886,887	(356,517)	-16%	Sandoval	763,197	783,724	20,527	3%
Otero	1,207,598	1,019,246	(188,352)	-16%	San Miguel	2,091,643	2,269,554	177,911	9%
Lea	2,258,353	1,938,321	(320,032)	-14%	Valencia	368,864	517,702	148,838	40%
Dona Ana	580,769	528,270	(52,499)	-9%	San Juan	1,756,624	2,551,470	794,846	45%
Lincoln	1,605,566	1,466,477	(139,089)	-9%	Los Alamos	9	D	D	D
Eddy	1,183,073	1,087,902	(95,171)	-8%	Santa Fe	683,508	D	D	D
Torrance	1,696,831	1,561,057	(135,774)	-8%	<i>New Mexico</i>	<i>44,810,083</i>	<i>40,659,836</i>	<i>(4,150,247)</i>	<i>-9%</i>

D=Data suppressed due to confidentiality.

Source: U.S. Department of Agriculture, National Agricultural Statistics Services, 2002 and 2017.

In a related study, the USDA ERS found that land conversion is not just occurring along the urban fringe but, rather, much of the conversion is occurring in the rural areas of the country. A seminal study by the USDA ERS showed that “most of the land being developed for housing is not urban...but occurs beyond the urban fringe in largely rural areas.” According to the ERS study, 94% of new housing in the U.S. for the study period were on lots of one acre or more, roughly 80% of the acreage used for new housing was located outside urban areas, and 57% were on lots of 10 acres or more.⁸

A related cause of agricultural land loss across the U.S. is the impending transition of land from aging farmers to, who control/own nearly all the agricultural land in the U.S., young and beginning farmers or other uses or landownership types. The USDA ERS estimates between 2015 and 2019, that 93 million acres, or 10.2% of total agricultural acreage in the U.S., will transfer to new owners with 37% expected to be placed in a trust, 12% will be transferred by will, 14% gifted, an estimated 14% will be sold to a relative, and 23% will likely be sold to a

⁶ With 2017 the most recent year for which NASS data is available.

⁷ Due to confidentiality reasons, the USDA NASS suppressed results for Los Alamos and Santa Fe.

⁸ USDA-ERS, *Development at the Urban Fringe and Beyond*. 2001. Similar results were found in Heimlich and Anderson, *Development at the Urban Fringe and Beyond: Impacts on Agricultural and Rural Land*. USDA Agricultural Economic Report. 2001.

non-relative. Nearly two-thirds will be transferred by some method other than an outright sale.⁹ The fact that the average age of farmers is 61 and three out of four farmers in New Mexico is 55 years or older, suggests that most agricultural land in the state will change hands in the next couple of decades.¹⁰ Importantly, nearly one-third of young farmers rely solely on rented land.¹¹

C. NM Demographic and Economic Overview

For the purpose of providing context in any analytical study, it is useful to review the demographic and economic data. Following the Great Recession of 2008 and during the slow recovery when it took New Mexico a decade to regain all the jobs lost, the state experienced a net outward migration. By 2019 the state had finally recovered all the jobs lost but managed to reverse the negative population growth albeit only slightly. According to U.S. Census population estimates, between 2010 and 2019 the total statewide population expanded by just over 32,000 people for an annualized increase of 0.2%. The Oil & Gas producing counties experienced the largest percent gains with San Juan, Lea, and Eddy each growing by roughly 1% per year. Los Alamos, Otero, Santa Fe, Dona Ana, and Bernalillo also saw increases. **Twenty-two (22) counties experienced negative growth and three counties saw no growth.** Counties experiencing the largest declines were Sierra (-1.1%), Union (-1.1%), Colfax (-1.4%), Hidalgo (-1.5%), and De Baca (-1.5%). (Figure 7)

⁹ Only 46% of cropland in the U.S. is owner-operated with more than half (54%) of cropland in the U.S. operated by lessee operators.

¹⁰ 2017 USDA NASS Agricultural Census.

¹¹ Ackoff, Sophie, et. al., *Building a Future with Farmers II*. National Young Farmers Coalition. 2017.

Figure 7. 10-Year Change in Population by County (annualized), 2010-2019

County	2010	2019	%Chg	County	2010	2019	%Chg
San Juan	132,431	146,748	1.0%	Luna	25,081	23,709	-0.6%
Lea	64,598	71,070	1.0%	Torrance	16,404	15,461	-0.6%
Eddy	53,909	58,460	0.8%	Catron	3,748	3,527	-0.6%
Los Alamos	17,994	19,369	0.7%	Socorro	17,791	16,637	-0.7%
Otero	64,403	67,490	0.5%	Sandoval	29,393	27,277	-0.7%
Santa Fe	144,522	150,358	0.4%	Roosevelt	20,018	18,500	-0.8%
Doña Ana	210,097	218,195	0.4%	Mora	4,893	4,521	-0.8%
Bernalillo	663,923	679,121	0.2%	Grant	29,383	26,998	-0.8%
Curry	48,971	48,954	0.0%	Guadalupe	4,695	4,300	-0.9%
Valencia	76,800	76,688	0.0%	Quay	9,064	8,253	-0.9%
McKinley	71,673	71,367	0.0%	Harding	690	625	-1.0%
Taos	32,895	32,723	-0.1%	Sierra	12,041	10,791	-1.1%
Chaves	65,720	64,615	-0.2%	Union	4,541	4,059	-1.1%
Cibola	27,315	26,675	-0.2%	Colfax	13,725	11,941	-1.4%
Rio Arriba	40,286	38,921	-0.3%	Hidalgo	4,864	4,198	-1.5%
Lincoln	20,450	19,572	-0.4%	De Baca	2,031	1,748	-1.5%
San Miguel	130,203	123,958	-0.5%	<i>New Mexico</i>	<i>2,064,552</i>	<i>2,096,829</i>	<i>0.2%</i>

Source: U.S. Census Population Estimates.

Considering NM Department for Workforce Solutions Quarterly Census of Employment and Wages (QCEW) data, we find that Health Care is the most important sector in terms of employment with 140,000 New Mexicans, roughly one in four, working in this sector. Other important sectors are Retail Trade, Accommodation and Food Services, and Educational Services with each of these employing roughly one in 10 people in the state, and half of the employed people working in one of these four sectors. (Figure 8)

Figure 8. NM Employment by Sector

Sector	Employment	Sector	Employment
Health Care and Social Assistance	139,512	Finance and Insurance	22,707
Retail Trade	87,398	Wholesale Trade	20,220
Accommodation and Food Services	76,593	Mining	20,006
Educational Services	71,151	Other Services, Ex. Public Admin	18,944
Professional and Technical Services	61,281	Arts, Entertainment, and Recreation	12,244
Public Administration	61,163	Ag, Forestry, Fishing & Hunting	10,763
Construction	52,238	Real Estate and Rental and Leasing	10,150
Administrative and Waste Services	43,706	Information	10,070
Manufacturing	27,227	Utilities	6,256
Transportation and Warehousing	24,417	Mgmt of Companies and Enterprises	5,561

Source: NM Department of Workforce Solutions, Quarterly Census of Employment and Wages.

The Bureau of Economic Analysis measures Gross Domestic Product at the state and county levels. GDP data registered a 1.3% annual rate of expansion statewide, however, at the county level, three in five counties experienced contracting economic growth. The fastest-growing counties were Eddy (9.5%) and Lea (7.6%) with De Baca (4%) and Torrance (3.3%) also experiencing strong growth. (Figure 9)

Figure 9. NM GDP by County, 2010-2019

County	2010	2019	\$Chg	%Chg	County	2010	2019	\$Chg	%Chg
<i>New Mexico</i>	87,053,802	98,765,726	11,711,924	1.3%	Sierra	291,950	306,064	14,114	0.5%
Eddy	4,292,628	10,669,709	6,377,081	9.5%	Chaves	2,064,984	2,150,307	85,323	0.4%
Lea	4,447,022	9,291,716	4,844,694	7.6%	Union	248,935	252,761	3,826	0.2%
De Baca	59,059	87,570	28,511	4.0%	Cibola	621,404	616,921	(4,483)	-0.1%
Torrance	290,759	400,641	109,882	3.3%	Otero	2,590,473	2,570,871	(19,602)	-0.1%
Grant	923,586	1,119,613	196,027	1.9%	Socorro	495,052	490,809	(4,243)	-0.1%
Guadalupe	119,286	143,684	24,398	1.9%	Dofia Ana	6,928,660	6,858,097	(70,563)	-0.1%
Valencia	1,190,735	1,382,748	192,013	1.5%	Santa Fe	6,080,182	5,977,058	(103,124)	-0.2%
Hidalgo	182,026	210,430	28,404	1.5%	Taos	946,087	927,558	(18,529)	-0.2%
Curry	2,541,076	2,931,973	390,897	1.4%	McKinley	2,581,582	2,442,637	(138,945)	-0.6%
Roosevelt	645,917	707,910	61,993	0.9%	Colfax	506,144	469,464	(36,680)	-0.7%
Catron	75,937	82,383	6,446	0.8%	Rio Arriba	1,535,542	1,411,689	(123,853)	-0.8%
Luna	744,590	807,091	62,501	0.8%	San Juan	6,529,361	5,907,349	(622,012)	-1.0%
Quay	275,665	296,499	20,834	0.7%	San Miguel	691,580	620,243	(71,337)	-1.1%
Bernalillo	32,182,043	34,271,103	2,089,060	0.6%	Sandoval	3,967,472	3,195,392	(772,080)	-2.1%
Lincoln	588,118	618,040	29,922	0.5%	Harding	139,585	104,726	(34,859)	-2.8%
Los Alamos	2,140,916	2,247,823	106,907	0.5%	Mora	169,268	102,207	(67,061)	-4.9%

Source: U.S. Bureau of Economic Analysis

We also calculated Location Quotients (LQs) using employment levels to assess the strength of the different economic sectors across the state as well as at the county level relative to national averages. Location Quotients are analytical statistics that measure a region’s industrial specialization to a larger geographic unit. LQ’s greater than 1.0 signify relative strength/specialization relative to the broader population (e.g. national averages); LQ’s < 1.0 indicate that the industry under question is less strong/developed. Statewide, based on our Location Quotient analysis, the Mining, Oil and Gas extraction (7.4) is the strongest sector relative to the U.S. averages followed by the Agriculture, Forestry, Fishing and Hunting (1.7) and the Utilities (1.5) sectors. Important takeaways are that Retail Trade, Accommodation and Food Services, and Utilities play an important role in most New Mexico counties. Agriculture, Forestry, Fishing and Hunting is a key sector for more than one in three counties; the over-sized Location Quotients for several counties indicates that employment in the Ag sector suggests that much of the employment in these counties are concentrated in the Agriculture sector: Chaves (7.4), Colfax (2.0), Curry (10.9), De Baca (13.4), Dona Ana (5.1), Harding (32.9), Luna (14.1), Quay (2.2), Roosevelt (22.6), and Union (10.0). Notably, data was suppressed in some geographies for confidentiality purposes. (Figure 10)

Figure 10. Location Quotient Analysis by NM County

NAICS	11	21	22	23	31-33	42	44-45	48-49	51	52	53	54	55	56	61	62	71	72	81
	Ag, forestry, fishing and hunting	Mining, oil and gas extraction	Utilities	Construction	Manufacturing	Wholesale trade	Retail trade	Transportation and warehousing	Information	Finance and insurance	Real estate and rental and leasing	Professional and technical services	Mgmt of companies and enterprises	Administrative and waste services	Educational services	Health care and social assistance	Arts, entertainment, and recreation	Accommodation and food services	Other services, except public admin
Bernalillo	0.1	0.1	0.8	1.3	0.5	0.9	1.0	0.6	0.9	0.9	1.0	1.5	0.7	1.1	0.8	1.2	0.9	1.2	0.9
Catron	0.0	0.0	0.0	0.7	0.7	0.0	1.9	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.9	0.6	0.0
Chaves	7.4	4.1	0.9	0.8	0.5	1.0	1.3	1.0	0.5	0.7	0.6	0.5	0.1	0.5	0.1	1.3	0.6	1.5	0.9
Cibola	0.0	0.0	3.5	0.4	0.2	0.6	1.3	0.2	0.1	0.4	0.3	0.2	0.1	1.4	0.0	0.0	0.2	1.2	0.4
Colfax	2.0	3.8	2.4	0.7	0.4	0.5	1.4	0.3	0.3	0.7	1.0	0.2	0.1	0.2	0.1	0.6	0.2	2.8	4.6
Curry	10.9	0.3	2.1	0.9	0.5	0.8	1.3	0.9	0.2	0.6	0.8	0.4	0.0	0.0	0.1	1.4	0.3	1.3	1.0
De Baca	13.4	-	0.0	0.0	0.0	1.8	1.9	0.0	0.0	0.0	0.0	0.0	-	-	-	1.1	0.0	0.0	0.0
Dofia Ana	5.1	0.2	1.5	1.1	0.5	0.5	1.1	0.8	0.5	0.6	0.8	0.9	0.1	0.9	0.5	1.7	0.9	1.2	0.6
Eddy	1.3	53.2	2.0	2.2	0.4	0.5	0.9	1.2	0.3	0.4	1.1	0.5	0.2	0.6	0.3	0.6	0.2	0.8	0.7
Grant	0.7	0.0	2.1	1.0	0.0	0.3	1.3	0.3	0.6	0.5	0.8	0.3	1.1	0.3	0.6	1.0	0.0	0.0	0.9
Guadalupe	0.0	-	0.0	0.0	0.0	0.0	2.2	0.6	0.0	0.0	0.0	0.0	-	0.0	-	0.9	-	2.9	0.7
Harding	32.9	-	-	0.0	0.0	0.0	0.0	-	-	-	-	0.0	-	-	-	0.0	0.0	0.0	-
Hidalgo	0.0	0.0	1.6	0.0	0.0	0.4	1.9	1.0	0.3	0.0	-	0.3	-	0.1	0.0	0.0	0.0	0.0	0.0
Lea	1.2	50.3	2.8	2.1	0.2	0.7	0.8	1.6	0.3	0.5	1.0	0.3	0.2	0.6	0.2	0.5	0.1	1.0	0.8
Lincoln	0.0	0.0	3.1	1.0	0.2	0.1	1.8	0.1	0.5	0.7	2.1	0.0	0.0	0.5	0.1	0.7	5.4	2.3	1.0
Los Alamos	0.0	-	-	0.2	0.0	0.0	0.2	0.0	0.1	0.2	0.3	0.0	0.0	0.7	0.2	0.4	0.3	0.3	0.5
Luna	14.1	0.4	2.2	0.9	1.6	0.4	1.3	0.6	0.0	0.4	0.4	0.0	0.0	0.2	0.0	0.0	0.6	1.1	0.0
McKinley	0.1	0.6	2.3	0.7	0.5	0.8	1.7	0.6	0.4	0.6	0.7	0.2	0.1	0.7	0.5	1.6	0.1	1.8	0.8
Mora	0.0	0.0	0.0	0.0	0.0	0.0	1.2	1.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	1.0
Otero	1.0	1.3	2.4	1.5	0.1	0.2	1.5	0.6	0.8	0.7	0.7	0.6	0.1	1.3	0.7	1.6	0.7	1.2	0.9
Quay	2.2	0.0	7.6	1.3	0.0	0.2	1.8	0.6	0.2	1.0	0.3	0.3	0.0	0.0	-	1.3	0.0	0.0	1.2
Rio Arriba	1.2	6.5	4.5	1.1	0.2	0.2	1.6	0.7	0.6	0.5	0.4	0.0	0.0	0.6	0.6	1.7	1.3	1.4	0.9
Roosevelt	22.6	0.5	3.1	0.8	1.0	0.4	1.2	1.9	0.0	0.5	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.5
San Juan	0.8	24.2	4.7	1.8	0.4	1.0	1.2	0.7	0.3	0.5	0.6	0.4	0.4	0.4	0.4	1.1	0.7	1.1	1.0
San Miguel	0.7	0.2	1.2	0.9	0.2	0.1	1.4	1.0	0.3	1.0	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.5
Sandoval	0.3	0.8	0.6	1.3	1.2	0.4	1.1	0.3	0.3	0.5	1.0	0.5	0.1	2.5	0.5	1.0	0.6	1.3	0.7
Santa Fe	0.7	0.3	0.6	1.0	0.2	0.5	1.4	0.3	0.8	0.7	1.0	0.8	0.3	0.6	1.3	1.2	1.8	1.9	1.6
Sierra	0.0	0.0	2.8	1.2	0.4	0.1	1.4	0.1	0.2	0.5	0.4	0.2	0.0	0.3	0.0	0.0	0.9	1.6	0.8
Socorro	0.0	0.0	0.0	0.3	0.3	0.0	1.1	0.5	0.1	0.6	0.2	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Taos	0.0	0.0	3.5	1.0	0.3	0.3	1.3	0.2	0.6	0.5	1.4	0.4	0.0	0.3	1.1	1.2	5.1	2.3	0.9
Torrance	0.0	0.0	0.0	1.2	0.4	1.5	2.0	0.0	0.4	0.0	0.0	0.3	-	1.0	0.0	0.0	0.0	0.0	0.5
Union	10.0	3.9	0.0	0.0	0.0	0.9	1.3	0.0	0.0	1.2	0.4	0.0	-	0.0	0.0	0.0	0.4	1.3	0.0
Valencia	0.0	0.0	1.0	2.6	0.7	0.3	1.8	1.8	0.4	0.5	0.7	0.3	0.3	0.3	0.4	1.1	0.3	1.3	0.6
NM	1.7	7.4	1.5	1.3	0.4	0.7	1.1	0.7	0.8	0.7	0.9	1.2	0.5	1.0	0.6	1.2	0.9	1.2	0.9

Source: U.S. Bureau of Labor Statistics

Some of the most concerning trends we see relate to low revenues being insufficient to pay for all the needs in the rural parts of the state and the pressure of the oil and gas industry on infrastructure, property values, and agricultural land and water use. We managed to get the law changed to allow Conservation Districts to increase taxes up to 5 mils, but many districts are conservative and do not want to raise taxes. The districts generally do not raise enough money to be able to pay for all the needs. There was the fire in Lincoln County that was largely tied to the poor health of forests. If forests were yielding water back into the aquifer, the recent fire would not have been as severe.

The Oil & Gas drilling in the southeast part of the state presents land use and fiscal challenges. Farmers and Ranchers are leasing their water rights for oil & gas drilling. Some ranchers and farmers are selling their land and water rights outright to water development companies. Because the prices paid for these assets are incredibly high, they are driving market values up for residential and commercial owners. At the same time, the stress placed on local infrastructure in the southeast part of the state by Oil & Gas contributes to the deterioration in roads and shoulders, and surface damage from pipelines. The need to repair and replace infrastructure far outstrips local tax revenues generated for updates and repairs.

Non-New Mexicans buying vacation homes here is also placing considerable pressure on values and pressure on infrastructure needs. In Ruidoso, for example, the majority of landowners are from Texas, and all the new subdivisions there are for people out of state.

~Debbie Hughes, Executive Director, NM Association of Conservation Districts

III. NM Rural Heritage

New Mexico's natural, cultural, and historical assets set the state apart from the rest of the country in many different ways. According to the 2017 U.S. Department of Agricultural Census, over half of statewide acreage is being used for agricultural production.¹² Only 11 other states have more agricultural lands, as a percent of the total statewide land acreage, than New Mexico. Statewide agriculture accounts for \$2.72 billion in Gross Domestic Product, 28,000 in employment, and \$1.1 billion in wages and proprietor income.¹³ The importance of the agricultural economy is especially integral to local and regional economies throughout the state. Reviewing the employment and income data at the county level, we find that farming employment, as a percent of total employment, exceeds the national average in all except for three counties in New Mexico (Bernalillo, Santa Fe, and Los Alamos). Specifically, as depicted in Figure 11, **farm employment** to total employment accounts for anywhere from one-in-ten to four-in-ten jobs for one-third of New Mexico's counties (blue highlight). The top five counties with the largest agricultural sectors relative to the total economy, as measured by farms to total employment, are Harding (43.3%), Mora (32.9%), De Baca (26.1%), Catron (21.8%), and finally, Union and

¹² 2017 USDA NASS Agricultural Census.

¹³ US Bureau of Economic Analysis.

Guadalupe are tied at 17.9%. Farm proprietor employment tells a similar story with farm proprietor employment (relative to total proprietor employment) ranging between one-in-five and three-out-of-five for over half of the counties in the state. (Figure 11)

Figure 11. Farm and Farm Proprietor Employment Relative to Total Employment/Total Proprietor Employment, 2019

County	Farm		County	Farm	
	Farm	Proprietor		Farm	Proprietor
Harding	43.3%	64.4%	Colfax	5.5%	14.2%
Guadalupe	17.9%	53.5%	Taos	5.2%	13.5%
Mora	32.9%	52.1%	Curry	4.5%	13.3%
De Baca	26.1%	45.0%	Grant	3.0%	11.8%
Quay	13.9%	39.8%	Luna	3.3%	8.9%
Union	17.9%	38.9%	Lincoln	3.5%	8.4%
Rio Arriba	12.1%	35.7%	Doña Ana	3.1%	8.0%
Catron	21.8%	32.2%	Chaves	4.4%	7.6%
Socorro	10.1%	32.1%	Otero	1.8%	7.1%
McKinley	7.4%	30.1%	Eddy	1.9%	7.1%
Torrance	12.2%	28.4%	Sandoval	1.9%	5.3%
Roosevelt	12.9%	28.3%	Lea	1.6%	4.8%
San Miguel	7.9%	27.7%	Santa Fe	0.8%	2.0%
Hidalgo	9.0%	27.5%	Bernalillo	0.2%	1.1%
Cibola	4.5%	21.4%	Los Alamos	0.0%	0.0%
San Juan	4.3%	20.8%	New Mexico	2.5%	8.8%
Valencia	6.9%	20.7%	United States	1.3%	3.8%
Sierra	6.6%	15.0%			

Source: U.S. Bureau of Economic Analysis

Similar conclusions can be drawn from the farm proprietor income data. Whereas **farm proprietor income** accounts for only 3% of total proprietor income nationally, in New Mexico it accounts for 14%; at the local level, half of the counties in the state derive between 20 to 81 percent of total proprietor income from farming (green highlight).¹⁴ (Figure 12)

¹⁴ **Farm** refers to all forms of agricultural production, including livestock operations. **Farm Employment** is the number of workers (full- and part-time) engaged in the production of agricultural commodities. It includes sole proprietors, partners, and hired laborers. **Total Employment** includes full- and part-time workers, wage and salary jobs (employees), and proprietors (the self-employed). Farm Proprietors are those who are self-employed (full- and part-time) as non-corporate farm operators. They can be sole proprietors or partners. **Non-Farm Employment** includes all full- and part-time non-farm wage and salary employment and non-farm self-employment.

Figure 12. Farm and Non-Farm Proprietor Income Relative to Total Proprietor Income, 2019

County	Farm	Non-Farm	Farm/		County	Farm	Non-Farm	Farm/	
			Total	Total				Total	Total
Harding	1,484	349	1,833	81%	San Miguel	4,594	28,576	33,170	14%
Roosevelt	100,794	29,445	130,239	77%	Grant	7,062	46,003	53,065	13%
Curry	167,504	66,822	234,326	71%	Cibola	3,755	24,769	28,524	13%
Mora	11,770	5,598	17,368	68%	Rio Arriba	5,218	41,442	46,660	11%
Socorro	27,093	14,574	41,667	65%	Doña Ana	91,180	748,067	839,247	11%
De Baca	14,676	8,540	23,216	63%	San Juan	10,833	122,929	133,762	8%
Guadalupe	4,766	3,446	8,212	58%	Lincoln	5,099	59,415	64,514	8%
Hidalgo	9,878	9,343	19,221	51%	Otero	5,501	97,141	102,642	5%
Torrance	22,926	23,058	45,984	50%	Valencia	4,580	104,458	109,038	4%
Union	10,775	11,692	22,467	48%	Sandoval	2,804	289,989	292,793	1%
Luna	35,287	39,283	74,570	47%	Taos	325	82,033	82,358	0%
Colfax	17,920	25,590	43,510	41%	McKinley	(2,583)	93,761	91,178	0%
Chaves	142,585	236,178	378,763	38%	Bernalillo	(1,139)	1,519,182	1,518,043	0%
Sierra	10,873	19,020	29,893	36%	Santa Fe	(2,899)	597,121	594,222	0%
Catron	2,932	7,487	10,419	28%	Los Alamos	-	57,107	57,107	*
Quay	6,865	25,170	32,035	21%	NM	830,592	4,967,958	5,798,550	14%
Lea	76,315	348,738	425,053	18%	US (\$1,000's)	56,722	1,608,019	1,664,741	3%
Eddy	31,819	181,632	213,451	15%					

Source: U.S. Bureau of Economic Analysis

We also used Location Quotients (LQs) to assess the strength of Agriculture in all 33 counties relative to national levels.¹⁵ We also considered Accommodation and Food Services, and Arts and Entertainment as a proxy for Tourism and found that Ag and/or Tourism is economically important for four out of five New Mexico counties. Importantly, data was suppressed for some counties. (Figure 13)

¹⁵ The Location Quotient is an analytical statistic that measures the degree of (relative) industrial specialization by county by key sectors. County level LQs are calculated relative to U.S. totals. An LQ is computed using an industry's share county level employment divided by the industry's share for the national total for the same statistic. When interpreting LQs, values larger than 1.0 indicates that the local sector is larger/more important than nationally. Additional sectors considered for our analysis are Arts, Entertainment, and Recreation (Arts), and Retail Trade.

Figure 13. Location Quotients by County for Key Sectors, 2019

County	Ag	Accom	Arts	County	Ag	Accom	Arts
Harding	32.87	-	-	Grant	0.71	-	-
Roosevelt	22.63	-	-	Sandoval	0.28	1.28	0.63
Luna	14.14	1.13	0.57	McKinley	0.11	1.82	0.08
De Baca	13.44	-	-	Bern	0.08	1.15	0.94
Curry	10.88	1.27	0.28	Guadalupe	-	2.92	-
Union	10.01	1.34	0.41	Lincoln	-	2.32	5.43
Chaves	7.41	1.52	0.57	Taos	-	2.28	5.11
Doña Ana	5.13	1.21	0.87	Sierra	-	1.57	0.94
Quay	2.19	-	-	Valencia	-	1.26	0.29
Colfax	2.02	2.76	0.22	Cibola	-	1.21	0.21
Eddy	1.25	0.75	0.17	Catron	-	0.59	0.88
Lea	1.19	1.03	0.12	Los Alamos	-	0.27	0.25
Rio Arriba	1.18	1.40	1.25	Hidalgo	-	-	-
Otero	1.04	1.21	0.68	Mora	-	-	-
San Juan	0.81	1.14	0.74	Socorro	-	-	-
Santa Fe	0.72	1.89	1.82	Torrance	-	-	-
San Miguel	0.72	-	-	New Mexico	1.67	1.21	0.86

Source: U.S. Bureau of Economic Analysis

The cultural and natural assets that make New Mexico unique attracts 38.2 million visitors per year for Tourism that spend \$7.5 billion (\$10.4 billion including indirect and induced) and directly employs 72,500 workers (96,000 direct and indirect).¹⁶ The cultures, the climate, and the natural environment are what draw many visitors to return year-after-year, and cause some to relocate and settle here permanently.

As a Tewa person, I am blessed to be on my ancestral land where I am still aligned with the ancestral energy of place. We are not separate and siloed from the land. We are the land. We are this place. Because we have been residing and interacting with the land for hundreds of years we have intimate knowledge of the natural world.

We believe that when we interact with land, we are "caregiving," not stewarding the land. Indigenous ways of knowing to recognize the water cycle in its entirety – surface, runoff, groundwater are not separate – but, rather, are the various stages of the water cycle -- that provide the state with this vital and precious resource. Even the ephemeral streams are vital to the water cycle. Implicit in the water cycle in New Mexico is forest health, which is imperative for water quality and abundance in the state because that is where our water comes from, where the water gets cleaned. In forest systems, nothing is wasted. Humans need to be humble enough to model our systems after natural systems, like forest systems where nothing is wasted and everything is used. And the plants and animals are our teachers.

¹⁶ Tourism Economics, 2019 Economic Impact of Visitors in New Mexico. Prepared for NM Department of Tourism.

Caring for the land and its many resources is a way of life and is part of traditional indigenous practices. Caring for the plant medicines, hunting, fishing, caring for natural springs and water systems, dryland farming practices, spiritual and cultural pathways are all related and intertwined.

The Las Conchas fire was devastating to the Pueblo. In the aftermath of the fires, agriculture was halted for several years in the Santa Clara and Abiquiu communities due to the river and stream water turning black with soot from the fire. It will take 300 years for the destroyed forests to regenerate. Because of these fires, my children will not know their cathedral.

~Beata Tsosie-Peña, Tewa Women United

A. State's Distinct Cultural Assets

The presence and influence of Native American cultures is a defining feature of New Mexico, making it distinct from all other states in the U.S. It is not a small thing that the pueblos, Navajo, and the Jicarilla and Mescalero and Apache cultures have inhabited and continuously interacted with the same lands as their ancestors, going back thousands of years. Native Americans account for 11% of the total New Mexico population. Only Alaska has a larger percentage of Native Americans, relative to the total population.

No other state in the U.S. has the diversity of indigenous communities inhabiting the same land continuously for several thousand years. The 19 pueblos and the Navajo, Jicarilla, and Apache nations each represent distinct cultures, customs, and traditions that are intact and represent continuous traditions. Feast days, rodeos, leisure & hospitality, gaming, and various other cultural attractions bring out-of-state visitors and dollars in the form of tourism and federal spending. For example, in 2019 the Gathering of Nations generated \$24 million in output, and the 19 pueblos created 11,500 jobs, generated \$449 million in labor income and nearly \$1 billion in total output, all from sources outside the state.^{17,18}

As one of six majority-minority states in the country, with Hispanics accounting for 49.3% of the population, New Mexico ranks first in the country for the number of Latinos as a percentage of a state's total population. In New Mexico, the Spanish and Mexican Land Grant and Acequia traditions constitute living, breathing cultures that have remained intact for hundreds of years. The communal lands of **active** Spanish and Mexican Land Grants in New Mexico encompass over 200,000 acres. Hispano families on and off the land grants have been living on and interacting with the same land as their ancestors for as far back as 400 years ago. New Mexico's unique Acequia culture, which has helped to sustain subsistence agriculture has kept Hispanos rooted and connected to the land over the last several centuries. As mixed-use residential and agricultural lands get

¹⁷ Jeffrey Mitchell, *The Economic Impact of the 19 Indian Pueblos in New Mexico*. University of New Mexico Bureau of Business and Economic Research. January 2019. Importantly, this study does not include Navajo, Jicarilla, or Apache impacts, which also make important contributions to the state economy.

¹⁸ Rohrer and Solis, *Gathering of Nations Economic and Fiscal Impact Study*. University of New Mexico Bureau of Business and Economic Research. June 2019.

converted for urban development purposes and as the value and scarcity of water in the state has resulted in greater demand for non-agricultural uses, some have pointed out that New Mexico's acequia culture is undergoing an existential crisis. Importantly, Hispanos in New Mexico are active in preserving traditions like the acequias and stewarding the wildlands in New Mexico that contribute to the cultural assets that attract visitors from outside the state who come to experience traditional customs and events like the Santa Fe Spanish Market and the Santa Fe Fiestas.

At the Flowering Tree Permaculture Institute, located at Santa Clara Pueblo, we talk about how we are called upon to engage intimately with our place. Coming from the community where I come from, we are called to engage in deep relationship with our place where Pueblo lands have been held in common for a long time. My people have been living 400-500 years in the current location. And 700 years ago, we were living a few miles up on the plateau at Puye, prior to which we journeyed from the north. Because we are not going anywhere, because this is our home, the center of the world for us, it behooves us to take care of the land so that we can pass it on to future generations.

When you look at old census records, people identified themselves by the community they came from, where they were born, herded, planted crops and fruit trees, maintained the acequias; where they shed blood, sweat, and tears that literally soaked into the ground themselves (la Chimayosa, el Taoseno, etc). They and the ground became one.

Also, we can choose not to engage in that intimate relationship with place.

Implicit in our beliefs of the communal nature of the land is that there is a public service requirement contributed toward the good of the community (e.g. ditch/acequia cleaning, trash pickup, eliminating weeds). Rather than paying property tax, contributing to public service work secures other privileges that are forfeited if public service is not completed (hunting, fishing, gathering resources of any kind). This eliminates freeloaders through the requirement that you need to give something to get something back. People not from Santa Clara Pueblo have married in and they have been doing the ditch work for decades. In this way, they are members of the community and contribute to the required service work.

Embedded in Santa Clara attitudes toward land are what might be described as conservation-oriented practices.

We are taught to always be improving the land, even if it does not belong to us personally, and with the understanding that improvements impact not just the specific property where the work is completed but neighboring properties as well. For example, when erosion control is completed on one property, the benefits are not just on that physical property but further downstream.

Santa Clara Pueblo culture is good about realizing that the valuing of resources occurs across generations—in this way intergenerational equity is highly valued. Passing the natural lands down to future generations is very much about our actions in the present time. In the past, if we came across a tree that needed pruning, we would do that so they grow better, we help to build water catchments, all the small things that improve the land with the expectation that we will not reap the benefits but rather these resources will be abundant and available to future generations.

Land held in common is nobody's land and everybody's land at the same time. To what extent do local communities have control over lands and engagement with those lands? I am a guest, but it is all of ours together that we are responsible for; and what are we doing to maintain that which is beneficial to all of us? Perhaps local control of land yields better outcomes given better alignment of interests.

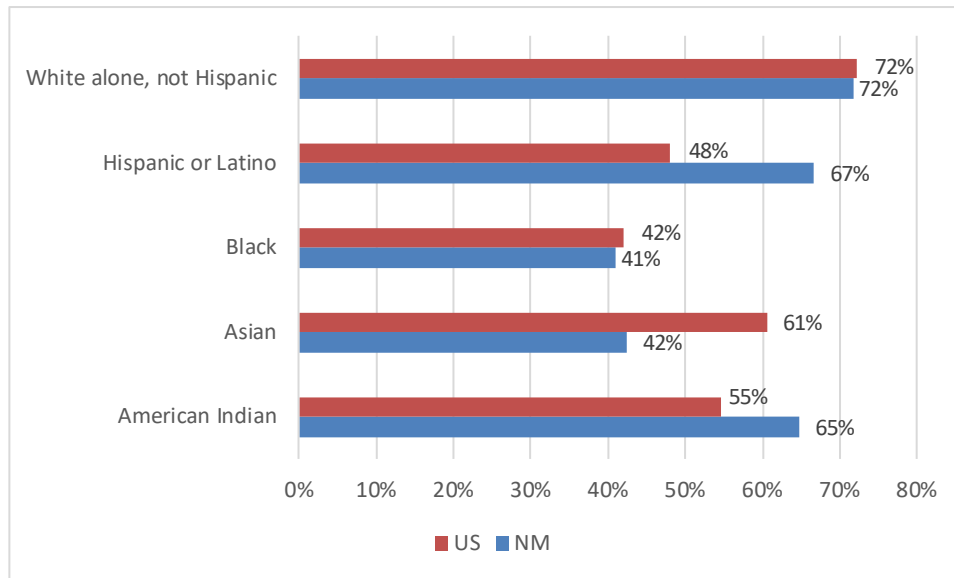
Visitors from all over the world come to procure Pueblo art. The natural environment is the source of the materials used for the creation of this art. For example, volcanic ash and clay used in pottery, in other fine arts produced by Pueblo artists and artisans pigments used in coloration all take from the natural environment.

~Dr. Porter Swentzell, Institute of the American Indian Arts (IAIA) Professor

B. Land-Rich, Cash-Poor

The view that New Mexican families are “land-rich and cash-poor” is an often-heard sentiment. The U.S. Census data certainly shows New Mexico to be one of the poorest states when it comes to the income and poverty statistics for which New Mexico ranks 47th and 48th, respectively, for Household Income and Per Capita Income; and 49th for Poverty. Although New Mexico is one of the poorest states when considering income, using homeownership as a proxy for land, more New Mexicans own their homes compared to the national average. Whereas 64% of households in the U.S. are owner-occupied, the homeownership rate is slightly higher in New Mexico at 67.7%. If we compare housing statistics for Native Americans and Hispanics/Latinos, we found that these households in New Mexico are much more likely to own their homes than the national averages; in New Mexico, 65% of Natives and 67% of Hispanics own their homes compared to 55% and 48% nationally, respectively. (Figure 14)

Figure 14. Home-ownership for US and NM, 2019



Source: U.S. Census, American Community Survey, 5-Year Estimates, 2015-2019

We also considered USDA NASS agricultural data and found that in New Mexico, Hispanics and Natives are more likely to have land and to be working these lands compared to national averages. Of the 25,044 farms in New Mexico, one in three have Hispanic/Latino producers and one in four have Native American producers. In contrast, nationally only 2% of farms have Native producers and 4% have Hispanic producers. In New Mexico, of the 40.66 million agricultural acres, operations with a producer who is Native American are operating on 7.4 million “owned” acres, which accounts for 18.2% of the total agricultural acres in the state. Operations with a Hispanic/Latino operator are operating on 4 million “owned” acres or 9.9% of the total agricultural acreage in New Mexico. The national statistics for farms with Native Americans and Hispanics/Latinos operated acres are 1.9% and 3.9%, respectively. The “land-rich and cash-poor,” phrase is accurately true for New Mexico but is particularly apt for the Native American and Hispanic populations.

Six years ago when Taos County became more active in re-assessing agricultural lands, people in northern New Mexico started being impacted by the re-valuations and loss of agricultural status. We had people share with us that field staff for Assessors who did not know a lot about agriculture, yet were expected to make strict determinations on what practices qualified and those that did not. For example, some people had orchards but the Assessor opined that if the trees were not lined up in rows or did not look “orderly”, then it does not qualify for agriculture. Regulations do not specify that orchards must be in straight lines, rather, the Assessor was exercising their discretion in these cases. Also, reportedly, the Assessor was requiring a strict delineation between the agricultural and residential acreage, yet many landowners were using areas around their homes for growing that was not being recognized by the Assessor. Because some families have land but lack monetary and financial resources, necessity dictates they use part of their agricultural acreage for home sites.

In response to the re-appraisals and their impacts on many families, the Acequia Association provided workshops for landowners. These were intended to help with education on Assessor regulations and the discretion afforded to them, to assist with challenging re-assessments, and assisting people with applying to regain their agricultural status. Assessors use their powers to maximize revenues but do not always consider their role in supporting local agriculture.

Not all acequia members engage in agriculture as their primary source of income, however, they are still contributing to the local economy and the local supply of fresh, organically-grown food by selling at the local growers market or contributing to local produce used in schools. For Acequia families, how they practice agriculture is not a "pastime," but, rather, it is a matter of keeping the culture and traditions alive; carrying for the land, and interacting with the land how they always have. We see some people buy second homes or vacation homes they live in only part of the year. These landowners are not typically really tied or connected to the community. It seems unfair to penalize people who are engaged in their communities, doing their part to preserve the culture and traditions.

Acequias contribute not only economically but also to the culture, history, green belt and aesthetics, and many other intangibles that contribute to the beauty of local communities. People are attracted to New Mexico's unique culture and traditions. The acequias and green areas running through urban and semi-urban areas on small acreages make New Mexico distinct. These traditions have persisted for hundreds of years. We need to do what we can to lift that up. We need to reflect on what our values are. Legislators ought to act accordingly if they desire to keep values, cultures, water, and land intact and allow people to interact with the land how they have for generations. Even people moving to Acequia communities from out of state that are attracted to land because of the acequias and want to do some form of agriculture. About 90% of the time, they become active participants and conform to the functioning and practices of the acequia traditions.

Preserving acequia traditions is a form of conservation. The simple act of cleaning ditches and keeping them functioning. The acequias and land grants help to take care of the land, water, traditions, and the natural environment. You engage in conservation by keeping people engaged in small-scale agriculture.

If there is a contribution that the property tax code can make, then we should make those changes. We should consider protecting acequias in the tax code if rights and practices can be verified (regardless of size or acreage).

-Enrique Romero, NM Acequia Association

C. Importance of Natural Resources to NM and Intersections with Climate/Environment and Rural Heritage

New Mexico's natural environment and natural resources also provide many measurable as well as difficult to measure goods and services. When discussing the state's natural resources, most of the attention gets focused on the Oil & Gas industry, which contributed nearly \$17 billion to NM GDP in 2020. And, also, healthy forests, healthy watersheds, and healthy soils all provide important benefits including a clean supply of water for its inhabitants, subsistence and for-profit agricultural production, a multitude of opportunities for outdoor activities that attract valuable tourism dollars, and of course the enjoyment of and the interaction with the natural environment experienced by all New Mexicans and visitors to the state. In terms of biodiversity, according to Bureau of Land Management data, New Mexico has the fourth-highest native species richness of any U.S. state and includes 90 known species that exist only in New Mexico ranking the state 11th among all others for rare animal and plant species.

The severity and frequency of large climate events occurring have a considerable impact on the natural resources of the state. For example, when a wildfire burns hundreds of thousands of forest acres, not only is valuable timber destroyed and grazing lands lost, but the recharge of the aquifer is impacted, recreational areas and scenic views are lost. Considerable work has been done to quantify the economic impacts every time one of these large natural disasters occurs.

In New Mexico, the greatest natural disaster risks are drought, wildfires, and severe weather. Natural disasters and climate events have real, tangible, and measurable impacts on local communities, including the loss of human life, cultural and historical sites, as well as the loss of property, capital, and assets. Some would argue that the destruction of ecological resources is the greatest loss due to the extinction of plant and animal species that only exist in New Mexico, the loss of biodiversity, and the fact that it takes hundreds of years to restore forests once they have been burned. Nevertheless, this section reviews at a high level available data and studies that focus on New Mexico that have sought to quantify and measure the economic impacts of natural disasters and major climate events in the State.

The National Oceanic and Atmospheric Association (NOAA) tracks climate data, natural disaster events and estimates the cost of these natural disasters occurring in all 50 states over the last 40 years. According to data tracked by NOAA, natural disaster events have become more frequent and the intensity increasingly costly. In the last 40 years, the number of natural disasters increased by a factor of 4.75X between the first decade that data was collected (the 1980s), and the most recent decade (2011-2020); the costliness of these events increased by nearly 600%. NOAA includes individual events if total costs exceeded \$1 billion. All estimates are inflation-adjusted according to CPI and the values reported in this report are the **median** estimated total costs.

NOAA recorded no large natural disasters for NM in the 1980s, and there were five events in the 1990s. In the decade from 2011-2020, the number of events increased by a factor of 2.5 to 13 events. Total costs for these "\$1 billion" events in New Mexico totaled \$750 million in the 1990s, increasing by a factor of 3.5 to \$2.625 billion from 2011-2020. Drought, the greatest natural disaster threat to New Mexico, resulted in \$2.625 billion in costs

with 14 major events since the 1990s. Second to droughts, there were nine severe wildfires in the last three decades, causing \$1.125 billion in economic loss in the state. (Figure 15)

Figure 15. Natural Disasters >\$1B by Type for U.S., NM (1981 – 2020)

<u>Natural Disaster Type</u>	<u>1981-1990</u>	<u>1991-2000</u>	<u>2001-2010</u>	<u>2011-2020</u>
United States				
Drought	64.2	30.5	48.5	84.4
Flooding	14.0	60.5	19.3	56.8
Freeze	21.4	4.1	4.5	1.1
Severe Storm	10.8	32.0	66.7	184.4
Tropical Cyclone	36.6	106.7	374.6	491.4
Wildfire	0.0	11.9	16.0	75.8
Winter Storm	5.4	33.8	1.0	11.2
All Disasters	152.4	279.5	530.6	905.1
No. of billion \$ disaster:	29	55	65	138
<u>Natural Disaster Type</u>	<u>1981-1990</u>	<u>1991-2000</u>	<u>2001-2010</u>	<u>2011-2020</u>
New Mexico				
Drought	-	0.375	0.750	1.500
Wildfire	-	0.375	0.375	0.375
Severe Storm	-	0.000	0.175	0.750
Other	-	-	0.375	-
All Disasters	-	0.750	1.675	2.625
No. of billion \$ disaster:	-	5	11	13

Source: National Oceanic and Atmospheric Association

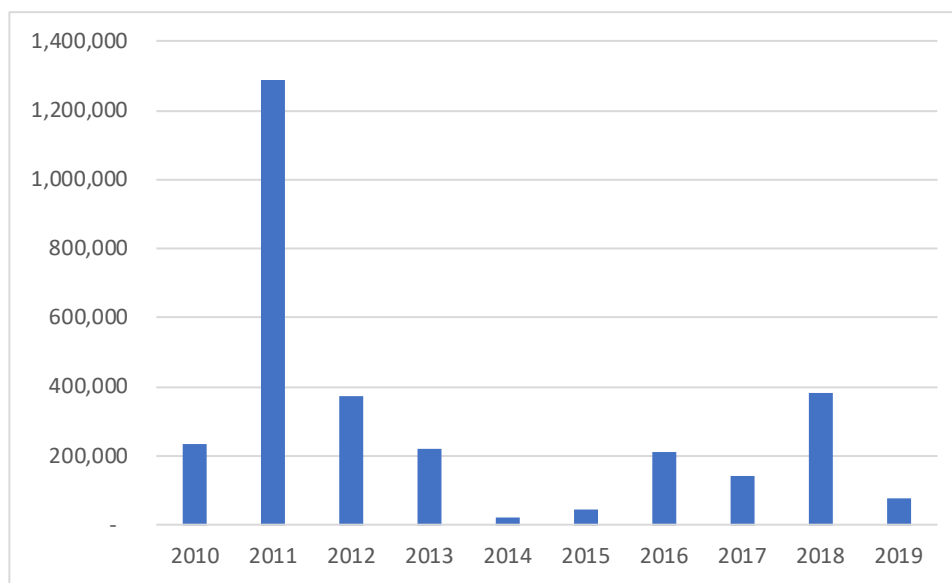
The economic impacts of drought are the most immediate and easily quantifiable since agricultural production declines measurably when there are water shortages. Hurd and Coonrod (2005) estimated that a 30% reduction in runoff results in a loss of \$300 million in total output per year. Relative to the \$3.5 billion annual Agricultural productions, this number is significant, albeit likely conservative. In another study by James Booker, et. al., the authors estimate that severe drought and large declines in runoff cause an average loss of \$100 per acre-foot of water supply reduction. By way of example, if the state’s annual allotment for the Rio Grande River was 400,000 acre-feet in a given year and was to decline by 10%, the local economy would experience a loss of over \$40 million.¹⁹ Both of these studies considered impacts to agricultural, municipal, and recreational users specifically. These studies use hypothetical models that are difficult to test in real life, however, they help

¹⁹ Brian H. Hurd and Julie Coonrod, *Climate Change and Its Implications for New Mexico’s Water Resources and Economic Opportunities*. New Mexico State University, Technical Report 45. James F. Booker, Ari M. Michelsen, Frank A. Ward, *Economic impact of alternative policy responses to prolonged and severe drought in the Rio Grande Basin*. *Water Resources Research*, Volume 41, Issue 2. February 2005.

policymakers to begin to put dollar amounts to economic costs of ecological and ecosystem changes and how the decisions they make can have real monetary consequences for New Mexico.

Wildfires also cause considerable destruction and loss in the state. According to USDA Forest Service data, approximately 3 million state and federal acres burned in New Mexico during the last decade (2010-2019). There is a large body of literature that has sought to measure the various aspects of loss stemming from wildfires. Some of these studies focused on job growth and loss across multiple sectors across time,²⁰ while others consider short-term and long-term changes in tourism and associated losses of revenues.²¹ There are also related studies focusing specifically on fires in New Mexico.

Figure 16. New Mexico Acres Burned by Wildfires (2010 - 2019)



Source: National Interagency Coordination Center

The 2000 Cerro Grande fire that erupted in Los Alamos County and consumed 42,875 acres was well documented. Utilizing existent administrative data, analysts hired to measure the impacts estimated that the total economic costs exceeded \$1 billion in direct costs for fire suppression, Federal Emergency Management Administration (FEMA) payments that included USDA Farm Service and NRCS Watershed conservation and protection program payments, Burn Area Emergency Response (BAER), and Los Alamos National Laboratory (LANL) restoration and rebuilding costs. The cost per acre came out to \$23,324, however, the per-acre cost

²⁰ Max Nielsen-Pincus, Cassandra Moseley, Krista Bebert, *Job growth and loss across sectors and time in the western US: The impact of large wildfires*. *Forest Policy and Economics*. Volume 38. 2014.

²¹ Brijesh Thapa, Ignatius Cahyanto, Stephen M. Holland, James D. Absher, *Wildfires and tourist behaviors in Florida*. *Tourism Management*. Volume 36. 2013.

exceeds estimates for other studies given much of the expenses were related to the rebuilding of LANL and the cost to replace destroyed personal property.²² All dollar amounts are reported in 2000 dollar values.²³

Following the Las Conchas forest fire in 2011 and the Whitewater-Baldy fire in 2012 when 156,593 and 297,845 acres, respectively, were burned, the state legislature commissioned a study to assess the economic impacts of those fires. The study period included four years of data for wildfires greater than 40,000 acres.²⁴ The study considered data for fires occurring in the years from 2009 to 2012, during which 2,116,803 acres were consumed by wildfires. The study, completed by Impact DataSource, estimated total costs to be between \$223,429,360 (low) and \$3,410,237,600 (high). Using the “Mid” estimate of 1,493,448,880 and the total acreage, the cost per acre burned was \$705. Types of costs this study considered were: Rehabilitation Costs (immediate and emergency), Indirect Costs (lost tax revenues), and Additional Costs (loss of human life).

A quick review of related literature that seeks to estimate other forest fires in the U.S. suggests that the Impact DataSource estimates are quite low. For example, a 1998 study estimated that the cost per acre from wildfires in Florida ranged between \$1,567 and \$2,090; these estimates are in 1998 un-adjusted dollars. Costs for this study included direct suppression costs like the Impact DataSource study, as well as losses in hotel revenues, tourist spending, and health care costs for people admitted to hospitals having respiratory difficulties in connection with smoke/air pollution from the fires, nevertheless, they only allowed for immediate/acute cases and not health care costs for people experiencing ongoing problems.²⁵

The cost of natural disasters is significant when compared to the annual tax revenues generated by property taxes in the state. For example, the \$1 billion Cerro Gordo fire is equivalent to roughly half of the annual property tax obligations in 2020. The \$1.5 billion in economic impacts for fires occurring between 2009 and 2012 was equivalent to over 70% of annual property tax revenues in the same year. Granted that the Federal government incurred most of the expenses in connection with these fires, the comparisons to property tax revenues help to put the costs in perspective. A persistent trend is that all these estimates are conservative, given that they do not include values for the ecosystem services and cultural value contained in these culturally important sites.

Importantly, the intensity of recent fires has changed the hydromorphic quality of soils. This has been documented by various reputable sources. The soil can no longer grow native plant species but also is unable to absorb runoff from snow and rain precipitation to recharge the soil and underlying aquifer that supplies water to all biological life. The effect is not that different from asphalt streets in the city during thunderstorms when the water runs straight down the middle of the street, failing to recharge soils and water tables, instead running directly into the surface water supply. In New Mexico, where we get basically 100% of our replenishing supplies of water from precipitation occurring in the mountains and forested areas of our state, wildfires will cause the

²² Morton, Roessing, Camp, and Tyrrell, *Assessing the Environmental, Social, and Economic Impacts of Wildfire*. Yale University Global Institute of Sustainable Forestry, GISF Research Paper 001. May 2003.

²³ Douglas C. Morton, Megan E. Roessing, Ann E. Camp, and Mary L. Tyrrell, *Assessing the Environmental, Social, and Economic Impacts of Wildfire*. Yale University Global Institute of Sustainable Forestry, GISF Research Paper 001. May 2003.

²⁴ Impact DataSource, *The Full Cost of New Mexico Wildfires*. January 24, 2013.

²⁵ David T. Butry, D. Evan Mercer, Jeffrey P. Prestmon, John M. Pye, and Thomas P. Holmes, *What is the Price of Catastrophic Wildfire?* *Journal of Forestry*. November 2001.

further reduction of water supplies stored underground causing New Mexico to be drier and less able to sustain all life forms, which are dependent on water in order to exist.

The Las Conchas fire was particularly devastating with more than 50% of the watershed destroyed in high-intensity fires. Over 60% of the fire that burned was consumed by severe fires. There were stands of trees that were 200-300 years old that were destroyed, replanting will take several generations and several hundred years to restore. Several million seedlings planted after Cerro Gordo were wiped out by Las Conchas.

*The earth was so severely burned, soils became **hydrophobic** [repels water]. It would have been so costly to replace scorched earth that we decided to not reseed and mulched dead standing trees instead to create a new layer of topsoil. Fences destroyed in fire have resulted in fragile and recovering areas being overrun by cattle. It took 5 years to stop the uncontrolled flooding with 17,000 structures on 28 tributaries needing to be rebuilt. The Pueblo lost revenues from fishing ponds, logging, and agriculture.*

Conservation has implications for wildfire prevention. Forest health was particularly poor in the last 100 years. They became over-grown in absence of active management, and insects and diseases also contribute to overall forest health. Invasive species, which use more water, choke out native species. Invasives soak up surface water, dry out surrounding lands. All these factors exacerbate drought and fire conditions and contribute to a lethal fire regime.

The Pueblo's songs, traditions, histories, and livelihoods center around the forest. Many young children have never seen the canyon prior to burning. The forest is infused with traditions. This is where plants and herbs are collected, songs and oral histories are rooted in the forest.

~Daniel Denipah, Santa Clara Pueblo, Director of Forestry

IV. Topics Related to Fiscal & Economic Impacts

The following section considers the data collected from state agencies to assess recent trends. This is also the main quantitative section of the report where BBER seeks to develop its own fiscal and economic estimates. This section begins by reviewing trends in the taxable property values and property tax revenues at the statewide as well as at the county level. This discussion is important given the interaction between growth in taxable values and the raising of revenues needed to finance local government. We also seek to incorporate economic and population data in an attempt to inform the interpretation of taxable value trends at the county level. The second part of this section considers the impact of Federal and State holdings by county to help inform the counties' ability to fund the government given its private property taxable base. This is an important

feature of the property tax landscape given that some counties may always be constrained in their ability to levy property taxes depending on the extent of Federal and State ownership. In the third part of this section, we use the USDA NASS agricultural land loss rates to estimate the economic and fiscal impacts for the state. In the last part of this section, we estimate the economic and fiscal impacts of a potential Conservation Special Use Valuation that has been entertained and considered in the past.

A. Property Tax Revenues Vital to Local Government Financing & Review of Data

This sub-section motivates the broader property tax discussion as it illustrates the important role that property tax plays for local governments and schools. Additionally, exploring taxable property value trends at the county level allows us to consider broad statewide and county-level trends in the context of economic and population data, which economic theory predicts are the key drivers of real estate values. Whereas Residential and Non-Residential Taxable Values in New Mexico grew at a rate of 2.5% over the last decade, Real GDP and population growth rates were 1.3% and 0.3%, respectively. (All numbers annualized). Yet, apart from certain local markets, there is not overwhelming evidence for a link between taxable property values with economic and population growth since roughly four out of five New Mexico counties experienced negative population growth and four out of 10 counties experienced negative Real GDP growth. Moreover, shrinking populations, along with rising taxable values suggests that per capita tax burdens have risen for New Mexico counties in the last decade.

In 2020, property taxes generated \$2.089 billion in tax revenues. Statewide, these revenues are collected primarily by counties (31% of revenues), school districts (33%), and municipal governments (14%). Higher education also accounts for 8% of taxes levied/collected and conservancy districts account for less than 0.02%. The state government receives only a small portion, roughly 5%, of total property tax obligations for state debt servicing.²⁶

Figure 17. Property Tax Revenues by Beneficiary

Recipient	\$ Amount	Pct.%
State	95,848,626	5%
Total County	640,995,875	31%
Total Municipal	285,944,495	14%
Total School Dist	690,229,571	33%
Total Higher Ed	213,184,683	10%
Total Hospitals	162,980,305	8%
Conservancy Districts*	410,063	0.02%
Grand Total	2,089,593,619	

Source: Department of Finance Administration, Local Government Division, Property Tax Facts, 2020

²⁶ County Tax Assessor Abstracts; DFA Local Government Division.

Property taxes are vital to local governments and given the underlying low volatility of real property values, tax revenues are stable from year-to-year. Specifically, the Residential and Non-residential Taxable Values have exhibited average annual growth rates of 2.55% and 2.27%, respectively, from 2011-2020. The Residential values have grown at a faster rate than Non-Residential. Because counties do not report Commercial and Agricultural properties separately, it is not possible to assess the discrete growth rate of these distinct property types that are both classified as Non-residential. The highly cyclical nature of the Oil & Gas and mining markets cause large fluctuations in assessments for the Ad Valorem tax on Property and Equipment. Global commodity markets drive these valuations with annual percent changes in Net Taxable Values ranging from -40% to +20%; despite the volatility in valuations, Ad Valorem tax values grew at an annualized rate of 6.91%.²⁷ Notably, Residential and Nonresidential properties generate most of the property tax assessments, which account for 83% of obligations with the Ad Valorem tax on Property & Equipment contributing the balance.

Figure 18. Taxable Property Values, 2011 and 2020 (\$1,000's)

	2020	2011	\$Chg.	Cum. %Chg.	Annualized % Chg	%Total
Total	70,471,040	52,129,269	18,341,772	35.19%	3.06%	-
Res/NonRes Subtotal	58,791,328	46,143,067	12,648,261	27.41%	2.45%	83%
Residential	38,671,443	30,069,456	8,601,987	28.61%	2.55%	55%
NonResidential	20,119,885	16,073,611	4,046,274	25.17%	2.27%	29%
Ad Valorem Subtotal	11,679,712	5,986,201	5,693,511	95.11%	6.91%	17%
Production	9,569,180	5,001,034	4,568,146	91.34%	6.70%	14%
Equipment	2,110,532	985,168	1,125,365	114.23%	7.92%	3%

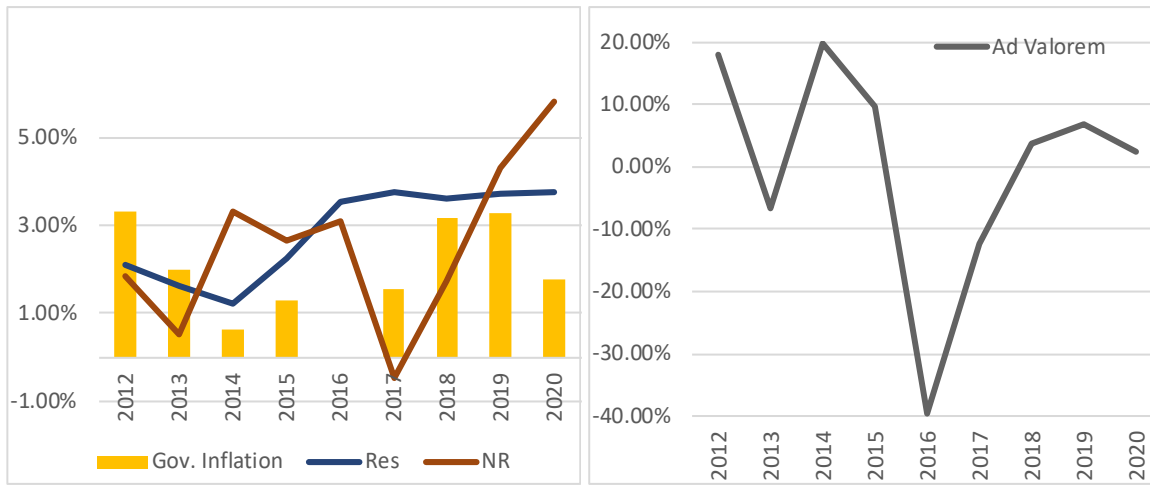
Source: Department of Finance Administration, Local Government Division, Property Tax Facts, 2020

The following charts depict the annual percent change in taxable valuations by type alongside the Government Inflation Rate the Department of Finance Administration Local Government Divisions (DFA LGD) uses to determine the annual tax rates by county, by tax district. The Government Inflation Rate is determined by the U.S. Bureau of Labor Statistics and reflects the estimated change in the cost of governmental services. As the chart on the left (next page) displays, Residential Valuations were stable and rising from 2011 to 2020, and well above the Government Inflation Rate. Changes in Non-Residential Values were more volatile, and even turning negative in 2017. Although the Ad Valorem changes in taxable values were positive in six out of 10 years, volatility in the energy markets causes large swings in these Taxable Values. The annual averages from 2011-2020 for Residential, Non-Residential, Ad Valorem, and the Governmental Inflation Rate were: 2.8%, 2.5%, 0.2%, and 1.9%, respectively. Although the Oil & Gas Ad Valorem values make an important positive contribution in most years, the volatility of the underlying markets necessitates large declines to be offset by higher tax rates as determined by DFA under the Yield Control Formula so as to ensure that sufficient revenues are collected to keep pace with the Governmental Inflation Rate.²⁸ (7-37-7.1 NMSA 1978)

²⁷ Department of Finance Administration, Property Tax Facts, 2012-2020.

²⁸ <https://www.nmdfa.state.nm.us/local-government/budget-finance-bureau/property-taxes/yield-control-formula/>

Figure 19. NM Percent Change in Annual Taxable Values by Property Type, 2012-2020



Source: Department of Finance Administration, Local Government Division, Property Tax Facts, 2012-2020

Next, we considered the change in Taxable Values from 2011 to 2020 for Residential, Non-Residential, and the Total (Residential and Non-Residential) at the county level. Lea and Eddy, the two counties with most of the state’s Oil & Gas production, experienced the largest increases in Taxable Values. Several counties experienced declining Non-Residential values. These were San Juan (-0.1%), Catron (-3.9%), Grant (-1.6%), and Harding (-1.9%) counties. (Figure 20)

Figure 20. Change in Taxable Property Values: \$ Change and % Change, 2011 and 2020 (\$1,000's)

	Res + NonRes		Residential		NonResidential	
	\$Change	% Chg	\$Change	% Chg	\$Change	% Chg
NM	12,648,260,991	2.5%	8,601,987,113	2.5%	4,046,273,878	2.3%
Eddy	1,629,580,000	7.9%	359,705,322	5.9%	1,269,874,678	8.8%
Lea	1,301,069,750	7.7%	277,775,233	5.4%	1,023,294,517	8.7%
De Baca	40,025,760	5.7%	5,688,145	3.9%	34,337,615	6.2%
Guadalupe	66,693,268	4.7%	8,498,813	2.7%	58,194,455	5.3%
Roosevelt	154,311,993	4.4%	58,503,574	3.9%	95,808,419	4.8%
Curry	280,892,956	3.5%	179,050,859	3.6%	101,842,097	3.3%
Mora	41,418,592	3.2%	20,216,133	2.9%	21,202,459	3.6%
Torrance	116,204,573	3.1%	31,248,535	1.9%	84,956,038	4.1%
Quay	58,576,331	3.0%	5,654,180	0.7%	52,922,151	4.7%
Otero	316,476,714	2.9%	204,117,137	2.8%	112,359,577	3.3%
Lincoln	310,124,386	2.6%	193,978,515	2.3%	116,145,871	3.4%
Rio Arriba	207,864,541	2.6%	95,559,129	2.0%	112,305,412	3.4%
Dona Ana	\$1,018,185,362	2.4%	825,914,051	2.9%	\$192,271,311	1.5%
Hidalgo	\$39,892,242	2.4%	5,749,167	2.5%	\$34,143,075	2.4%
San Miguel	\$138,009,928	2.4%	92,570,052	2.4%	\$45,439,876	2.4%
Valencia	\$328,476,320	2.4%	217,185,874	2.3%	\$111,290,446	2.6%
Chaves	\$260,867,635	2.4%	182,459,147	3.0%	\$78,408,488	1.6%
Union	\$34,325,208	2.4%	9,890,531	2.8%	\$24,434,677	2.2%
Bernalillo	\$3,439,963,145	2.2%	3,331,046,638	2.8%	\$108,916,507	0.3%
Luna	\$114,184,489	2.1%	40,891,282	1.7%	\$73,293,207	2.4%
Sandoval	\$711,886,388	2.0%	595,628,872	2.3%	\$116,257,516	1.3%
Taos	\$277,680,208	1.9%	170,294,188	1.9%	\$107,386,020	1.9%
Socorro	\$46,272,945	1.8%	26,303,128	1.9%	\$19,969,817	1.6%
Los Alamos	\$130,143,309	1.7%	112,182,270	1.7%	\$17,961,039	1.7%
Cibola	\$47,983,748	1.5%	46,071,703	3.7%	\$1,912,045	0.1%
Santa Fe	\$1,001,192,638	1.4%	987,822,301	1.8%	\$13,370,337	0.1%
Colfax	\$71,185,555	1.2%	63,255,065	1.7%	\$7,930,490	0.4%
Sierra	\$35,675,958	1.2%	20,185,920	1.1%	\$15,490,038	1.2%
San Juan	\$305,077,336	1.0%	313,538,524	2.3%	(\$8,461,188)	-0.1%
McKinley	\$75,168,336	1.0%	1,559,537	0.1%	\$73,608,799	1.4%
Catron	\$10,151,770	0.8%	33,555,342	5.2%	(\$23,403,572)	-3.9%
Grant	\$49,215,135	0.8%	84,570,681	2.0%	(\$35,355,546)	-1.6%
Harding	(\$10,515,528)	-1.6%	1,317,265	2.7%	(\$11,832,793)	-1.9%

Source: Department of Finance Administration, Local Government Division, Property Tax Facts, 2020

Counties experiencing robust economic activity and positive population growth ought to also experience the greatest appreciation in real estate values. The following table displays the 10-year annualized growth in Taxable Values for all counties. As the figure shows, Taxable Values for only one-third of the counties grew at a rate above the statewide average of 2.5%. They were Eddy (7.9%), Lea (7.7%), De Baca (5.7%), Guadalupe (4.7%), Roosevelt (4.4%), Curry (3.5%), Mora (3.2%), Torrance (3.1%), Quay (3.0%), Otero (2.9%), Lincoln (2.6%), and Rio Arriba (2.6%). Notably, all of those counties experienced negative population growth over this period except for Eddy, Lea, and Otero. This suggests a disconnect between population growth and property value growth (except for Eddy, Lea, and Otero). Real GDP growth above the **statewide average of 1.3%** for De Baca (4.0%), Guadalupe (1.9%), Curry (1.4%), and Torrance (3.3%) is supportive of higher property values. Also, Hidalgo and Valencia's Taxable Value growth of 2.4% was supported by above-average GDP growth of 1.5% for both of those counties.

One of our biggest concerns is that potential changes to agricultural property special valuation for tax purposes incentivize land being taken out of production. Sometimes in agricultural policy, agriculture and conservation are treated as exclusive. Rather, conservation is part of agriculture. By definition, the federal government considers conservation a qualified agricultural practice.

There are already non-property tax tools to help keep land in production. Among these are healthy soil programs, support, and funding for soil and conservation districts. There are programs addressing land transition issues with rapidly aging farmers in New Mexico, and programs that provide workforce development opportunities like apprenticeships and mentorships. The NMDA/NMSU Extension, NM Farm and Livestock Bureau, and NM Cattlegrowers all have young producer apprenticeship and mentorship programs. Other tools for addressing land transition are reduced interest loans (access to capital) from USDA.

It is in the public's best interest to use tax policies, primarily in the form of green belt laws, to encourage productive use. New Mexico is doing a good job. Current policy does incentivize landowners to manage their land for conservation.

~Marshal Wilson, Director of Biosecurity, New Mexico State University

The counties where there was not a strong link between Taxable Values with economic and population data were the counties exhibiting the lowest growth rates in Taxable Values. Specifically, the counties growing at less than half the state average for Total Taxable Values were Colfax (1.2%), Sierra (1.2%), San Juan (1.0%), McKinley (1.0%), Catron (0.8%), Grant (0.8%) and Harding (-1.6%). Exceedingly low Non-Residential growth rates appear to be the main culprit with four of these counties seeing decreases in Non-Residential values: Colfax (0.4%), Sierra (1.2%), San Juan (-0.1%), McKinley (1.4%), Catron (-3.9%), Grant (-1.6%), and Harding (-1.9%). A possible explanation is that these counties are undergoing a greater degree of agricultural land

conversion, which should reflect higher residential values, however, only Colfax saw a significantly higher Residential Taxable Values at 5.2%. Also, Harding experienced declines in both Residential (-1.6%) and Non-Residential (-1.9%) Taxable Values in the last decade.

Counties with below-average GDP growth and negative population growth, yet above average Taxable Value growth were Roosevelt, Quay, and Lincoln. A handful of counties experienced increases in Taxable Values roughly in line with the state average or higher despite contracting GDP and populations: Mora, Rio Arriba, San Miguel, Chaves, and Union; in other words, there was no apparent link between economic activity/population with higher property values for these two. We also considered population growth as a factor for above-average Taxable Value growth and found a positive relationship in Eddy, Lea, Otero, and Dona Ana counties. Counties, where the relationship between Taxable Values and Real GDP and Population Growth was weak, were Roosevelt, Mora, Quay, Lincoln, Rio Arriba, and San Miguel. For the counties experiencing taxable property value growth below the statewide average, three out of four of these counties experienced negative population growth. (Figure 21)

Figure 21. Economic & Population Linkages with Taxable Values

County	Taxable Value	Real GDP	Population	County	Taxable Value	Real GDP	Population
Eddy	7.9%	9.5%	0.8%	Chaves*	2.4%	0.4%	-0.2%
Lea	7.7%	7.6%	1.0%	Union	2.4%	0.2%	-1.1%
De Baca	5.7%	4.0%	-1.5%	Bernalillo*	2.2%	0.6%	0.2%
Guadalupe	4.7%	1.9%	-0.9%	Luna	2.1%	0.8%	-0.6%
Roosevelt*	4.4%	0.9%	-0.8%	Sandoval	2.0%	-2.1%	-0.7%
Curry	3.5%	1.4%	0.0%	Taos	1.9%	-0.2%	-0.1%
Mora	3.2%	-4.9%	-0.8%	Socorro	1.8%	-0.1%	-0.7%
Torrance	3.1%	3.3%	-0.6%	Los Alamos	1.7%	0.5%	0.7%
Quay	3.0%	0.7%	-0.9%	Cibola	1.5%	-0.1%	-0.2%
Otero	2.9%	-0.1%	0.5%	Santa Fe	1.4%	-0.2%	0.4%
Lincoln	2.6%	0.5%	-0.4%	Colfax	1.2%	-0.7%	-1.4%
Rio Arriba	2.6%	-0.8%	-0.3%	Sierra	1.2%	0.5%	-1.1%
New Mexico	2.5%	1.3%	0.2%	San Juan	1.0%	-1.0%	1.0%
Doña Ana*	2.4%	-0.1%	0.4%	McKinley	1.0%	-0.6%	0.0%
Hidalgo	2.4%	1.5%	-1.5%	Catron	0.8%	0.8%	-0.6%
San Miguel	2.4%	-1.1%	-0.5%	Grant	0.8%	1.9%	-0.8%
Valencia	2.4%	1.5%	0.0%	Harding	-1.6%	-2.8%	-1.0%

Source: Department of Finance Administration, Local Government Division, Property Tax Facts; U.S. Bureau of Economic Analysis; U.S. Census Population Estimates. *Robust new building permits.

We also considered new construction residential building permits for available counties in an attempt to explain Taxable Value trends and found strong explanative evidence for robust growth in Taxable Values for Bernalillo, Dona Ana, Chaves, and Roosevelt counties. Bernalillo and Dona Ana saw the greatest activity with the value of

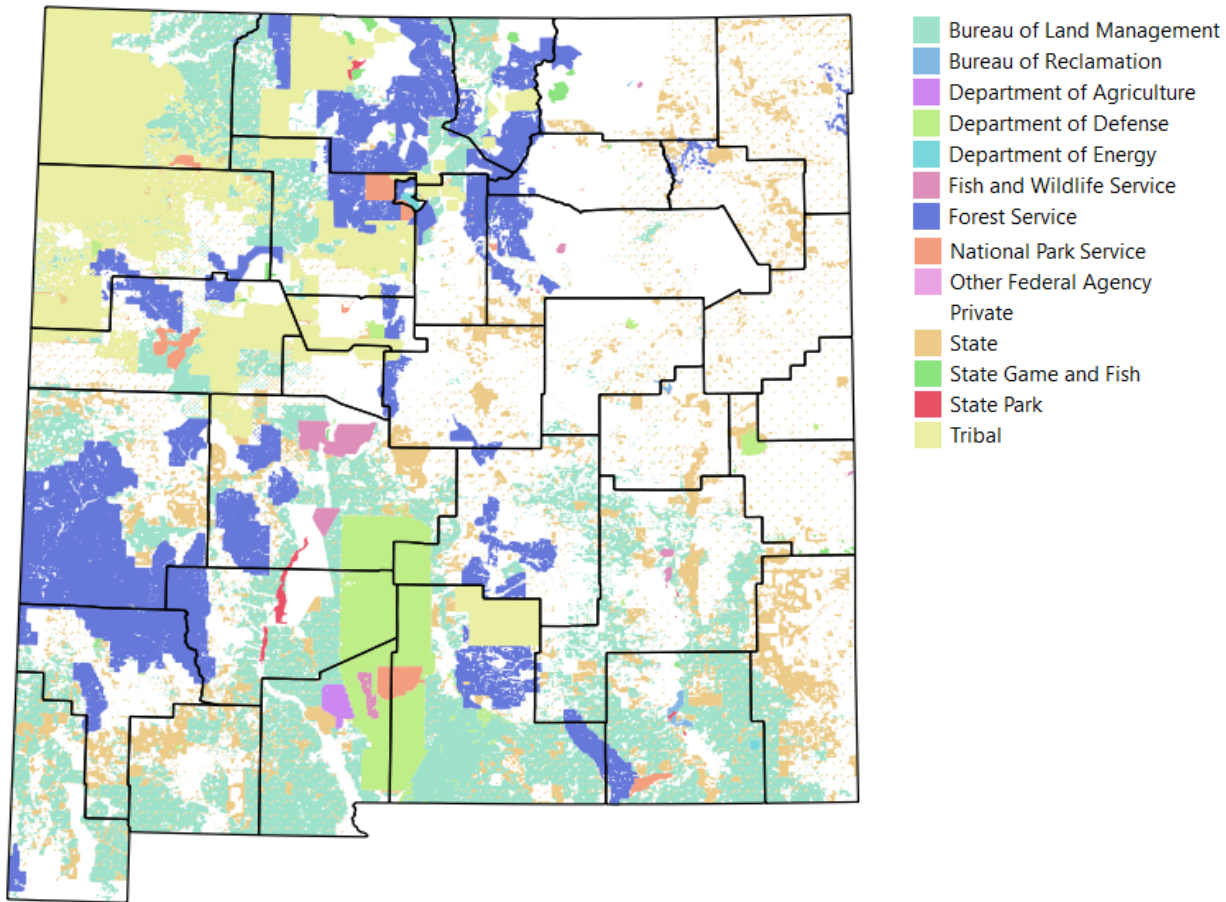
permits totaling \$4.33 billion and \$3.29 billion, respectively; in these counties, the Taxable Residential rates grew by 2.8% and 2.9%, respectively, which was above the state average of 2.5%. Also, Chaves and Roosevelt counties added \$209 million and \$81 million, respectively, which ostensibly support their Residential Taxable Value growth rates of 3.0% and 3.9%. Because new residential construction is subject to full market valuations, unlike existing properties that may increase by no more than 3% by NM statute, markets with robust activity in new construction will experience greater Taxable Value growth than geographies with low levels of activity.

A possible factor for rising real estate values is the purchase of property by people from outside the state with higher incomes. We calculated housing affordability ratios for the counties with available data using Median Home Values and Median Household Income and found that Lincoln (4.2), Mora (3.9), Rio Arriba, and San Miguel were higher than the state average of 3.4. All four of these counties exhibited average or above-average growth rates in Taxable Values despite below average to negative Real GDP and Population growth.

B. Role of Federal and State Lands in Taxable Values and Collections

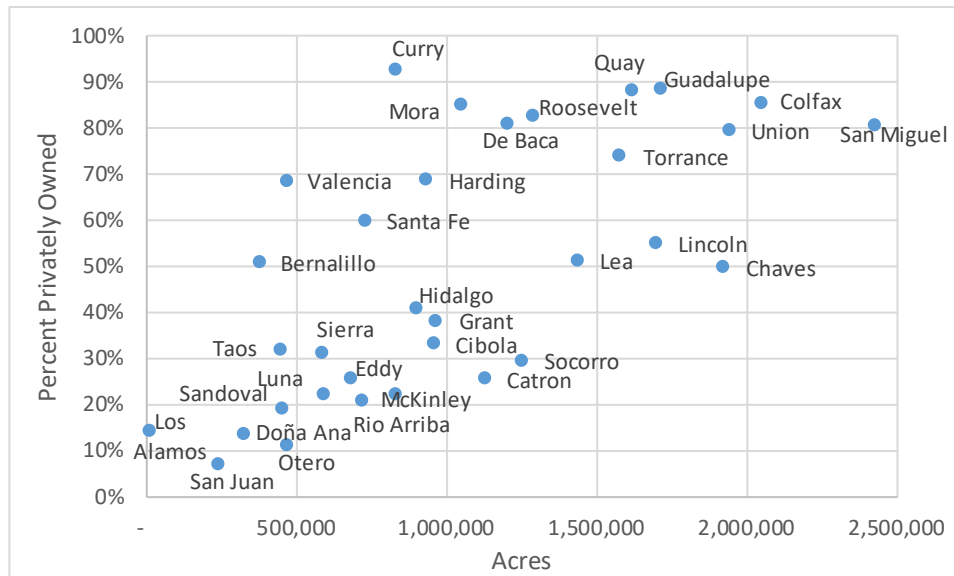
Large federal and state land holdings significantly constrain the private property tax base for New Mexico counties. Because federal and state lands account for over half of total land holdings in New Mexico, BBER estimated the total acreage by type, by county to understand the tax base as determined by total private holdings. Using GIS mapping driven by the U.S. Bureau of Land Management, U.S. Forest Service, Bureau of Indian Affairs, Department of Defense, and State Land Office data, we were able to visually represent land holdings by type by physical geography as depicted by the following map. Except for the Northeast portion of the state, for most counties in New Mexico, less than half of total county acreage is privately held.

Figure 22. Land by Ownership Type by County



Using Geographic Information System methods, BBER estimates that the private land ownership holdings, as a percent of total holding for all land types (USFA, SLO, Department of Defense, etc.) for more than half of New Mexico counties is 50% or less. Forty percent of counties have less than one-third of their total acreage in private hands; land areas for these counties are either dominated by the presence of the U.S. Forest Service, Bureau of Land Management, Department of Defense, or Native American reservations. The counties with private land of 75% or greater are all located in the Northeast quadrant of the state. Several counties have low total privately-owned acreages on an absolute basis as well. Counties with less than 500,000 privately owned acres are Los Alamos, San Juan, Dona Ana, Otero, Sandoval, Luna, Taos, and Bernalillo, Valencia. Importantly, counties in the greater Albuquerque Area and Dona Ana are among the most urban counties and have among the highest real estate values in the state. The following chart shows the percentage of privately owned acres on the y-axis and the total private acres on the x-axis. (Figure 23)

Figure 23. Estimated Percent of Land Acreage Privately Owned



Source: Estimates Developed by UNM BBER Using Federal and State Data.

Subject to Chapter 69, Title 31 of the United States Code, the Federal government recognizes the financial impact of the local government’s inability to collect property taxes on federally owned land, therefore makes payments to local governments that help to partially offset tax revenue losses due to the existence of nontaxable federal lands within their boundaries. The following figure details the PILT payments by county and federal acreages for which payments were received. Statewide, New Mexico received over \$41 million in 2020. These payments account for roughly 2% of the total property tax obligations (\$2.089 billion) generated in 2020. This is in strong contrast to the fact that federal holdings accounted for approximately one-third of total land holdings in the state. (Figure 24)

Figure 24. Payment In Lieu of Taxes (PILT) Made by Federal Government to NM Counties (2020)

County	\$ Payment	County	\$ Payment	County	\$ Payment
New Mexico	41,357,054	Taos	1,897,930	Bernalillo	228,158
Eddy	3,735,551	Socorro	1,506,873	Colfax	178,999
Otero	3,466,522	Sierra	1,266,753	Guadalupe	173,489
Chaves	3,375,473	Lea	1,183,659	Union	165,390
Doña Ana	3,334,673	McKinley	1,020,501	Harding	122,598
Rio Arriba	2,522,415	San Miguel	912,525	De Baca	119,091
San Juan	2,422,565	Santa Fe	805,449	Los Alamos	95,190
Sandoval	2,417,346	Hidalgo	741,033	Valencia	88,578
Grant	2,225,752	Catron	680,804	Roosevelt	30,308
Luna	2,094,135	Torrance	341,746	Quay	5,077
Cibola	1,997,440	Mora	270,831	Curry	-
Lincoln	1,930,200				

Source: Department of Interior.²⁹

Property tax questions need to be looked at from individual county perspectives because each county may have different issues. One fix may help one county but not necessarily other counties. We have not seen upward price pressure on agricultural land in Torrance except for a few outliers where the highest and best use for land is still agriculture in Torrance. Since I have been the Torrance Assessor, I have not seen a lot of commercial and residential conversion of agricultural land. One of highest usage of agricultural land in Torrance in NM. There are not a lot of property sales in Torrance County, thus there are not big movements in values in Torrance. There are maybe 10 sales in Torrance in a year compared to other markets experiencing high growth in sales. There were three ranches sold in excess of \$1 mm since 2014.

I don't know if changing property tax code is the answer. For example, Tax lightning was created for residents of Santa Fe County and this law does not work for many counties. Torrance will never reach market value when properties are not selling. The number of properties in Torrance participating in the NRCS Conservation Reserve Program has been declining due to a lack of federal funding.

More frequent and detailed updates of handbooks and guidance to assist Assessors in doing their jobs would be helpful. New Mexico needs to become a disclosure state in order for Assessors to truly do their jobs. Current property tax code does not allow this.

~Jesse Lucero, Torrance County Assessor, Assessors Affiliate

²⁹ <https://www.doi.gov/pilt>.

What works in other states doesn't necessarily work in New Mexico. We have seen legislation implemented that is enacted to benefit a couple of counties ("Tax Lightening"), but that implementation has negatively affected other counties. Farmer and ranchers are most qualified to manage their land. We have had discussions with groups legislating to create a new special method of valuation for conservation. This is already being addressed and New Mexico already has mechanisms in place for protecting agricultural lands as well. The Assessors' goal is to value at fair & equitable and that means spreading the tax burden across all taxpayer classifications.

~Linda Gallegos, Torrance County Chief Deputy Assessor, Assessors Affiliate Chair

C. BBER Estimates for Fiscal and Economic Impacts of Land Conversion at Current Annual Rates

When crafting property tax policy, it is helpful to consider potential economic and fiscal impacts using available data. We first considered the fiscal and economic impacts of land conversion in the state. We modeled the economic and fiscal effects of an increase in the land market rate by agricultural type. Specifically, four elements were estimated:

- 1) Potential gains in property tax revenues;
- 2) Potential costs from infrastructure expenditures;
- 3) Potential economic loss from agriculture;
- 4) The estimated ecosystem services benefits provided by keeping land in agriculture;

In the absence of complete data, it is difficult to estimate land values by type (irrigated, grazing, vacant, etc.); however, BBER pulled price data from publicly available sources to derive a statewide average land price. Our statewide estimate for per acre market price is \$40,031 for irrigated acres and acres experiencing intensive development pressure; the estimate for pasture/grazing land and non-irrigated cropland is \$3,984.³⁰ Importantly, this estimate is for all land types (grazing, crop, vacant, developed, and undeveloped). The base case per acre prices we used in the development of our estimates were based on USDA NASS statewide estimates.³¹

³⁰ BBER utilized market price data from Zillow for all 33 counties. We considered statewide calculated a simple average based on total acreages for properties for sale with 40 acres or more for the pasture/grazing and dry crop land estimate; the irrigated acres estimate was a weighted estimate for properties under 40 acres.

³¹ USDA NASS *Agricultural Land Prices* published August 2020.

(https://www.nass.usda.gov/Publications/Todays_Reports/reports/lando820.pdf)

Figure 25. Per Acre Price: Agricultural Use and Fair Market (Development Use)

Land Type	Ag Use	Fair Market
Irrigated Cropland	4,370	40,031
Pasture/Grazing	420	3,984
Non-Irrigated Cropland	475	3,984

Sources: USDA NASS Agricultural Land Prices (August 2020); Zillow Market data.

We used USDA NASS Agricultural Census data to calculate the annual rate for agricultural acres lost by type. These estimates are necessary for estimating potential revenues under the two scenarios of “Ag Use” and “Fair Market.” Note, Year₀ is based on 2017 survey data.

Figure 26. Agricultural Land Loss by Type

Land Type	Year0	Year1	An. Loss Rt.	Ag Acre Loss
Pasture & Rangeland	36,146,772	35,943,104	-0.6%	(203,668)
Crop Land	1,825,827	1,811,243	-0.8%	(14,584)
Irrigated	626,034	619,087	-1.1%	(6,947)
Non-Irrigated	1,199,793	1,192,156	-0.6%	(7,637)
TOTAL	37,972,599	37,754,347	-0.6%	(218,252)

Source: Estimates developed by UNM BBER and based on USDA NASS Agricultural Census data.

The following figure displays BBER estimated Taxable Values and Tax Revenues by agricultural land type. Calculations include the “Ag Use” and the “Fair Market” estimated Taxable Values and Tax Revenues under these two scenarios. We used the statewide average Residential tax rate of 30.304 mills. Based on our calculations, we estimate a **net tax revenue gain of \$10,105,368 per year due to agricultural land conversion to Residential use.**

Figure 27. Estimated Annual Change in Tax Revenues Due to Agricultural Land Loss

Land Type	Taxable Value		Tax Revenues		\$Chg.
	Ag Use	Fair Market	Ag Use	Fair Market	
Irrigated Crop Land	10,119,921	92,702,066	306,674	2,809,243.42	2,502,569
Non-irrigated Crop Land	1,209,179	10,141,629	36,643	307,332	270,689
Pasture & Rangeland	28,513,474	270,465,335	864,072	8,196,182	7,332,109
TOTAL	39,842,574	373,309,031	1,207,389	11,312,757	10,105,368

Source: Estimates developed by UNM BBER and based on USDA NASS Agricultural Census data.

We also estimated the potential infrastructure cost of converting rural lands. Cost of Community Services (COCS) studies show that on average, compared to agricultural land use, **land used for residential development** requires higher infrastructure costs in connection with public services like sewer, water, utilities,

roads, schools.³² Therefore we incorporate potential infrastructure costs needed if agricultural land is converted for residential development. Using various reliable nationwide studies, the expenditures to revenues ratios we used were \$1.16 for residential development and \$0.37 for agriculture. In other words, the additional cost of providing infrastructure to the land being converted to residential development is \$1.16 for every \$1 of tax revenues generated.³³ If 218,252 agricultural acres converted to residential use generates an additional \$10,105,368, an increased infrastructure cost of \$1.16 would reduce these new revenues accordingly by:

$$- (\$10,105,368 \times \$1.16) = -\$11,722,226.$$

Beef cattle and crop farms in New Mexico on average are considered small operations. Compared to larger business operations like dairy, small businesses experience narrower profit margins and are at greater risk of business failure from year-to-year. Because dairy milk production in the state is occurring on a large commercial scale (average annual sales for milk cow production for the 152 farms is over \$8.3 million), this analysis focuses on livestock production and crop farming.

Because the conversion of agricultural land will remove acreage from farming and ranching production, we developed estimates for the loss of output and jobs. Using NMDA and USDA NASS price data, BBER developed average sales by agricultural land use type. For grazing/pastureland, we used the per-head price of beef of \$650, and an acres per animal unit of 103 to derive per acre annual sales for beef ranching: $\$650 / 103 = \6.30 . If 203,668 acres are lost to conversion, annual sales will decline by $\$6.30 \times 203,668 = \$1,285,281$. Also, 7,637 non-irrigated acres used for pasture generate \$109,000 in annual sales. Along the same lines, we developed estimates for the loss of irrigated cropland using USDA NASS data. Using 2017 statewide cropland sales of \$650,735,000 on 1,825,827 cropland acres, the annual sales per cropland acre we estimated to be: $\$650,735,000 / 1,825,827 = \356 . Thus, if 6,947 cropland acres were converted, the loss in annual sales would be: $6,947 \times \$356 = \$2,476,000$.

Using IMPLAN 3.0 to estimate the total direct, indirect, and induced impacts of the total loss in beef ranching sales of \$1,394,000 and crop sales of \$2,476,000, we estimate a total economic loss of \$7.06 million and 69 jobs.³⁴

Because much of the land being converted annually from agriculture to other uses is marginally productive, i.e. agricultural lands operating at a loss or that are only narrowly profitable, the economic impacts are likely more

³² Thomas Daniels and Deborah Bowers, *Holding Our Ground: Protecting American's Farms and Farmland*. 1997.

³³ Julia Freegood, *Cost of Community Services Studies*. American Farmland Trust. 2002; John Tibbetts, *Open Space Conservation: Investing in Your Community's Economic Health*. Lincoln Institute of Land Policy. 1998; American Farmland Trust, *Cost of Community Services Studies*. 2016. After reviewing the literature that estimates the cost of infrastructure for rural lands compared to urban developed lands, we decided to use the American Farmland Trust 2016 median estimates, which are based on over 150 communities across more than 25 states; the median values for Residential infrastructure costs are \$1.16: 1 and the Agriculture costs are \$0.37:1. In other words, for every \$1 dollar in revenues supported by these lands types, the cost of infrastructure is \$1.16 for Residential land uses and \$0.37 for Agriculture, and the difference is \$0.79.

³⁴ IMPLAN sector codes used for the analysis were 11-Beef cattle ranching; 5-Tree nut farming; 6-Greenhouse, nursery; 8-Cotton farming; 2-Grain farming; 3-Vegetable and melon farming; 10-All other crops. Shares were allocated on a percentage basis based on USDA NASS Market Value of Agricultural Products Sold by Commodity Group report (Table 2).

muted. Put another way, agricultural lands operating at or near their productive potential have a strong economic reason for staying in agriculture, thus the marginal lands coming out of agriculture are likely operating at significantly diminished capacities, therefore the total economic impacts are less than the 100% we estimated using the IMPLAN analysis. As a result, in our analysis we adjusted for the agricultural acreage being converted to other uses operating at 50% of productive capacity, which would reduce the economic impact estimates accordingly to **\$3.53 million and 35 jobs (lost)**.

Figure 28. IMPLAN Economic Loss From Land Conversion

(100% Productive Capacity)

Impact Type	Employment	Labor Income	Output
Direct Effect	42	1,702,918	3,869,937
Indirect Effect	15	459,406	1,634,572
Induced Effect	12	450,872	1,555,728
Total Effect	69	2,613,197	7,060,237
Multiplier	1.58	1.46	1.77

(50% Productive Capacity)

Impact Type	Employment	Labor Income	Output
Direct Effect	21	851,459	1,934,969
Indirect Effect	7.5	229,703	817,286
Induced Effect	6	225,436	777,864
Total Effect	34.5	1,306,599	3,530,119
Multiplier	1.58	1.46	1.77

Source: Estimates developed by UNM BBER using IMPLAN 3.0, and based on USDA NASS Agricultural Census and NMDA data.

Finally, and discussed further in section V(C), the loss of agricultural/natural lands to development would have an ecosystem impact that BBER quantified using estimates guided by the relevant academic and applied research literature. Substantiated by estimates from the academic literature we assumed the per acre ecosystem benefit for soil formation and stability would be \$7, which we believe to be a conservative assumption.³⁵ The ecosystem benefit/loss calculation follows, 218,252 agricultural acres are lost to residential development, and the ecosystem service loss is: $218,252 \times \$7 = \$1,527,763$.³⁶

As the following scenarios show, if New Mexico continues to lose agricultural acreage at historical rates to residential development, although property tax revenues may increase due to the land being valued at higher market rates, the economic loss combined with infrastructure costs and ecosystem services losses will more

³⁵ Zachary P. Taylor and Drew E. Bennett, *Ecosystem Service Valuation as an Opportunity for Inquiry Learning*. *Journal of Geoscience Education*, 64-3. 2016. Costanza et. al, *The Value of the World's Ecosystem Services and Natural Capital*. *Nature*. 1997;

³⁶

than offset the fiscal benefits. Specifically, a 0.6% loss of agricultural land might increase property tax collections by \$10.1 million, however, loss of agricultural output could cost the state over \$3.5 million (under the 50% production capacity of marginal lands scenario). In this scenario, BBER estimates that the Infrastructure and Ecosystem Services losses will exceed more than \$13.2 million, bringing the **total net loss to \$6.67 million and 35 jobs**. *For the remainder of our analysis, the base scenario we use is the 50% production capacity of marginal lands scenario.*

Figure 29. Total Fiscal & Economic Impacts Land Conversion

Activity	Base (Full Production)	Marginal (50% Production)
Agricultural Acres Lost by Type		
Irrigated Crops	(6,947)	(6,947)
Non-irrigated Crops	(7,637)	(7,637)
Pasture & Grazing	(203,668)	(203,668)
TOTAL	(218,252)	(218,252)
Economic & Fiscal Impacts (Property Tax)		
Fiscal Gains (Loss)	10,105,368	10,105,368
Agricultural Economic Gains (Loss)	(7,060,237)	(3,530,119)
Infrastructure Costs	(11,722,226)	(11,722,226)
Ecosystem Services Gains (Loss)	(1,527,763)	(1,527,763)
TOTAL	(10,204,859)	(6,674,741)
Agricultural Job Gains (Loss)	(69)	(35)

Source: Estimates developed by UNM BBER using IMPLAN 3.0 and based on U.S. Department of Agriculture, National Agricultural Statistics Services and New Mexico Department of Agriculture.

D. Analysis of Proposed New Mexico Conservation Special Use Valuation (SUV)

The New Mexico Legislature has considered a Special Use Valuation (SUV) for Conservation management in the past. The BBER analysis uses the key features of House Bill 332 from the 2019 session, which would have allowed for a new valuation type for agricultural, working, and natural land use. This section seeks to estimate the total economic and fiscal impacts associated with such a tax change contemplated (for a fuller discussion of SUVs, see section V (A)). The proposed SUV for conservation assumes that the valuation rate for the conservation use would be higher than the agricultural use rate. In the absence of complete primary data, this analysis uses the USDA agricultural census data and related sources to build hypothetical scenarios for the economic and fiscal impacts of the proposed special use method of valuation for conservation.

The economic, fiscal, and ecosystem portions of this analysis use the same assumptions as the previous section. Our analysis excludes the infrastructure costs portion of the base case analysis given the assumption the Conservation SUV (CSUV) will keep these lands from being developed and will instead be preserved as open space, thus not requiring infrastructure development. Figure 30 shows our estimates for acreages moving from agriculture to the Conservation SUV valuation and Figure 31 displays the estimated change in tax revenues connected to these changes.

Figure 30. Land Moving from Agricultural to Conservation Use

Land Type	Year0	Year1	An. Loss Rt.	Ag Acre Loss
Pasture & Rangeland	36,146,772	35,943,104	-0.6%	(203,668)
Crop Land	1,825,827	1,811,243	-0.8%	(14,584)
Irrigated	626,034	619,087	-1.1%	(6,947)
Non-Irrigated	1,199,793	1,192,156	-0.6%	(7,637)
TOTAL	37,972,599	37,754,347	-0.6%	(218,252)

Source: Estimates developed by UNM BBER and based on USDA NASS Agricultural Census data.

Figure 31. Estimated Annual Change in Tax Revenues Due to Land Moving to Conservation SUV (25% FMV)

Land Type	Taxable Value		Tax Revenues		\$Chg.
	Ag Use	Consv Use	Ag Use	Consv Use	
Irrigated Crop Land	10,119,921	23,175,517	306,674	702,311	395,637
Non-irrigated Crop Land	1,209,179	2,535,407	36,643	76,833	40,190
Pasture & Rangeland	28,513,474	67,616,334	864,072	2,049,045	1,184,973
TOTAL	39,842,574	93,327,258	1,207,389	2,828,189	1,620,800

Source: Estimates developed by UNM BBER and based on USDA NASS Agricultural Census and market data.

This analysis uses key assumptions discussed in the following section, which also include features of House Bill 332. Although this legislation did not advance, elements of this bill provide important parameters that serve to constrain BBER’s analysis. For example, HB332 specified that lands being used for conservation ought to be appraised at 25% of Fair Market Value. We also ran the analysis using a scenario where the CSUV would use a 40% FMV threshold. Additionally, the bill would have required that the historical use of participating land must be agriculture use for five years prior to enrollment in the conservation program.

For estimating the number of acres that could potentially participate in a new Conservation Special Use Valuation (CSUV) land status, we assume 0.6% of agricultural acres will elect to enroll in the CSUV, which is in line with the average annual decline in agricultural land over the last 20 years in New Mexico. BBER postulates that this is the appropriate participation rate given that the landowners most likely to enroll in the CSUV are holders of lands that are marginally productive agricultural lands, or agricultural lands that are in the process of being converted to other uses (i.e. the natural rate of agricultural land conversion over the last 20 years). Moreover, it is our assessment that agricultural land that is engaged in profitable agricultural production in New Mexico has no economic incentive to move from the lowest tax rate to a higher conservation tax rate, thus these lands will not move to the CSUV but will remain engaged in ranching/farming, thus retaining their agricultural exemption status.

Additionally, we think that the 0.6% participation rate is conservative given that conversion for much of these lands is inevitable and will not be stopped as some landowners and developers seek to maximize and monetize their wealth by converting these lands for residential and commercial uses. In other words, the participation in a potential CSUV program is likely less than 0.6% (of the total eligible agricultural lands in NM). Moreover, it is our assessment that the CSUV will not cause the conversion of agricultural lands to other uses to accelerate

but, rather, could serve to give landowners an option to use their lands for conservation, thus mitigating the natural rate of agricultural land conversion to residential or commercial (non-agricultural) that the state has been experiencing for the last several decades.

This analysis also assumes that owners of vacant land will not pursue enrollment in the hypothetical Conservation SUV program given the significantly high barrier to entry of five years of agriculture historical use required by HB332. In addition, if these landowners are willing to go to the lengths required to achieve 5 years of constant agricultural use, they will either keep their land in agriculture to receive the lower valuation or they will seek to qualify for the USDA/NRCS Conservation Reserve Program (CRP) where, under New Mexico state law, CRP participants receive agricultural land status.

Here we focus specifically on Cropland and Pasture & Rangeland -- the two main land types that might be impacted by a Conservation SUV. In this scenario, we add the economic impact of conservation activities using the NRCS conservation cost schedules for New Mexico.³⁷ The treatments used to estimate these activities employ improved grazing management (E528K) estimated to be \$7.05 per acre,³⁸ and the cost of soil health crop rotation (E328E) estimated at \$4.88 per acre.^{39,40}

As the following figure shows, if all agricultural lands being converted to other uses on an annual basis (0.6% conversion rate) were to instead be enrolled in the a Conservation Special Use Valuation, annual property tax revenues would increase by \$1.6 million (25% FMV) in the first year of the program (\$3.3 million under the 40% FMV scenario). BBER estimates the agricultural economic impact of these acres coming completely out of production would be a loss of \$3.5 million and a loss of 35 jobs. We also assessed the economic impacts that would occur in connection with conservation investment that would occur if the lands analyzed were then enrolled in the CSUV. The economic gain from conservation spending would be \$2.2 million, with job gains of 36 under the conservative spending scenario. Running the same calculations assuming that a half of the grazing and pastureland will be used for wildlife habitat management ("Mixed"), which we think is a likely scenario, the economic impacts would be \$3.5 million and 56 jobs.

Our final analysis shows that the Conservation SUV would result in a net combined fiscal, economic, and ecosystem impact of:

- \$1.85 million and no change in employment under the 25% FMV scenario "Conservative";
- Under the "Conservative" 40% FMV scenario we estimate total impacts of \$3.5 million with no change in employment;
- Under the "Mixed"/25% FMV scenario we estimated net impacts of \$3.1 million and 22 jobs;

³⁷ USDA NRCS, Regional Conservation Partnership Program Payment Schedule for New Mexico, Fiscal Year 2021. (<https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/financial/?cid=nrcseprd1328253>)

³⁸ Crop rotation treatments range from \$1.10 to \$78 per acre with a mid-point of \$4.88.

³⁹ Range management and grazing treatments range from \$2.70 to \$2,979 per acre, with a mid-point value of \$28.34. We think our estimates are conservative given that we used the mid-point in the case of Crop rotation and a below mid-point treatment for Range management & grazing.

⁴⁰ IMPLAN sectors used to model the conservation activities impacts were (2) Grain farming and (19) Support activities for agriculture and forestry.

- The “Mixed”/40 FMV scenario yields \$4.8 million in impacts and an increase of 22 jobs.

Important considerations are that conservation and agriculture are not mutually exclusive; therefore many farmers and ranchers will continue production on their lands with only a percentage being used for conservation. Additionally, this analysis does not capture potential externalities of conservation activities, including climate (natural disaster) mitigation, and the positive benefits of tourism.

Figure 31. Total Fiscal & Economic Impacts Land Conversion (25% & 40% Conservation SUV)

Activity	25% of FV		40% of FV	
	Conservative*	Mixed**	Conservative*	Mixed**
Economic & Fiscal Impacts (Property Tax)				
Fiscal Gains (Loss)	1,620,800	1,620,800	3,317,713	3,317,713
Agricultural Economic Gains (Loss)	(3,530,119)	(3,530,119)	(3,530,119)	(3,530,119)
Conservation Economic Gains (Loss)	2,236,760	3,498,044	2,236,760	3,498,044
Infrastructure Costs	-	-	-	-
Ecosystem Services Gains (Loss)	1,527,763	1,527,763	1,527,763	1,527,763
TOTAL	1,855,205	3,116,489	3,552,118	4,813,402
Job Gains (Loss)				
Agricultural	(35)	(35)	(35)	(35)
Conservation	36	56	36	56
TOTAL	1	22	1	22

*Crop rotation & managed grazing.

**Adds wildlife habitat management.

Source: Estimates developed by UNM BBER using IMPLAN 3.0 and based on U.S. Department of Agriculture, National Agricultural Statistics Services and New Mexico Department of Agriculture.

What we have been seeing is Ag land going away; economies in rural areas are drying up and jobs are going away. Rural Ag people are leaving the state because there are no jobs. The future seems to be more bleak. There needs to be more support for private lands, private businesses, rural areas of the state, and privately-owned agriculture and families that help support rural economies and counties.

The four big meatpacking companies are getting rich while ranchers are making pennies on the dollar. Legislative support for local, small, homegrown processing plants and consumer support for locally raised beef would help cattlegrowers to pencil. The NM Livestock Bureau voted to reinstate in-state inspections.

Ag owns large amounts of land, which preserves large amounts of land but also it is important that ranchers stay on their land for the sake of wildlife. Conservation easements are great and grand but the main focus should be to keep ranchers and Ag on land because they are providing food and paying jobs. We have to try to protect the rural tax base, tax structure, and current tax rates. If these go away or go up, it will be more difficult to sustain. It is in everybody's benefit to keep ranchers on the land. It is better for the land, counties, consumers, economy if ranchers stay on land.

In western New Mexico and statewide, it's increasingly difficult for young ranchers to get a loan and get a start to build. In the past, if a young producer worked hard and ran a good business he could make it pencil, but not anymore with too many upfront costs and at current land prices. Ag land is going away because ranching families are becoming extinct because it is becoming harder to make a living. Some of these lands are being purchased and used for hunting. When I was on the school board in Magdalena there were 440 students and now there are half that. Rural schools are losing funding because they use student counts for funding.

—Randall Major, Rancher in Magdalena, President of NM Cattlegrowers Association

V. Policies Designed to Preserve Agriculture & Rural Heritage

This section considers the Federal and State initiatives designed to prevent and slow down the loss of vital agricultural and working lands. Providing technical assistance and financial support to private landowners to participate in Federal programs is an important practice for promoting the preservation of agricultural, working, and natural lands. Academic and applied research provides evidence that preservation programs can be effective in slowing farmland and working land loss. Various studies show that land conversion can be slowed measurably when preservation initiatives are employed; this is achieved by providing incentives but also by managing land-use types.⁴¹ Among the literature are studies that show that the preservation of agricultural,

⁴¹ Sokolow, A.D., *A National View of Agricultural Easement Programs: Measuring Success in Protecting Farmland*. American Farmland Trust. 2006; Lynch, Lori, *Do Agricultural Preservation Programs and Preferential Property Tax Programs Affect Farmland Conversion?* Agricultural and Applied Economics Association Conference Paper. 2003.

working, and natural lands can also contribute to higher real estate values for residential properties adjacent to agricultural, working, and natural lands.⁴²

The primary tools used by state and local governments to protect rural and working lands are: Special Use Valuations; ecosystem services market approaches; conservation easements; executive orders or state statutes prioritizing the protection of agricultural, working, and natural lands; better state and local funding and supports for landowners; and better statewide land use planning. The following section reviews the academic literature but also details specific municipal and state programs.

A. Special Use Valuation (SUV)

Special Use Valuation bases the appraisal values of real property for taxation on the agricultural income-earning potential of a property rather than the fair market value. Fair market value is the highest alternative use-value, which is typically residential or commercial development.

Beginning in the 1950s, different states began to adopt Use Value Assessments in order to slow the loss of rural land resulting from development in both urban and rural areas and rising land values relative to farm income. The state of Maryland, undergoing intensive development of rural lands for urban and suburban development, was the first state to enact a use-value assessment program for its rural lands. By the end of the 1960s, more than one-third of state governments adopted some form of Special Use Valuation (SUV) laws.

Urban development spreading into adjacent rural and natural lands caused even more states to move toward preferential assessment of rural and agricultural lands between the 1960s and 1980s. The key arguments were that allowing metropolitan areas to expand unabated threatened the economic viability of agricultural producers and prioritized development over the environment. To the first point, if agricultural land is valued at the highest use (residential and commercial development), farming is no longer viable with escalating property tax bills.⁴³ Related studies showed that residential development caused property taxes for agricultural land in areas adjacent to cities and suburbs to rise at a faster rate than non-urban areas post-1945.⁴⁴

Special Use Value laws have been critiqued for being broad and blunt policy tools that may allow landowners who are not legitimate farmers to qualify for the lower agricultural valuations, thus causing taxing entities to forego revenues. Nevertheless, differential special use valuations are popular among farmers, rural landowners, and anyone that values the preservation of working and natural lands. A recent review of SUV programs

⁴² Geoghegan, et. al., *Capitalization of Open Spaces into Housing Values and the Residential Property Tax Revenue Impacts of Agricultural Easement Programs*. Agricultural and Resource Economics Review. Volume 32, Issue 1. Irwin, Roe, Morrow-Jones, *The Effects of Farmland, Farmland Preservation and Other Neighborhood Amenities on Proximate Housing Values: Results of a Conjoint Analysis of Housing Choice*. American Economic Association. 2002; 2003. Sengupta and Osgood, *The value of remoteness: a hedonic estimation of ranchette prices*. Ecological Economics. Volume 44, Issue 1. 2003. Ready and Abdalla, *The Amenity and Disamenity Impacts of Agriculture: Estimates from a Hedonic Pricing Model*. American Journal of Agricultural Economics. Volume 87, Issue 2. 2005.

⁴³ Gloudemans, Robert J. *Use Value farmland assessments: Theory, practice, and impact*. International association of Assessing Officials. 1974

⁴⁴ Blasé and Staub, *Real Property Taxes in the Rural-Urban Fringe*. Land Economics, Vol. 47, No. 2. May 1971.

provides diverse evidence in favor of and against the efficacy of SUV programs. Results include that SUV programs are successful in slowing land conversion from agricultural/natural lands to developed and that these programs mostly delay and cannot completely prevent development.⁴⁵

Other critiques of Special Use Valuation laws are that they erode the legal and constitutional principle of uniformity of taxation and that it shifts the local tax burden to other property owners, i.e. residential household property owners and commercial property owners. In response to the first point, proponents often point to exemptions and lower tax liabilities for low-income property owners, senior citizens, those with disabilities, and veterans. Along similar lines, residential property owners point out that commercial property owners are able to depreciate the value of their real and tangible properties while homeowners are unable to successfully challenge values on a similar basis. In practice, there are variations in tax code that may not and will not always conform to the strict principles of uniformity and the even distribution of tax burdens across all property and owner types. Academic and applied research and experience suggest that the elimination of differential taxation for agricultural land would accelerate the conversion and loss of agricultural lands if agricultural land was valued at Fair Market Value.⁴⁶

New Mexico enacted its Green Belt law in 1967, allowing agricultural land to be assessed based on its agricultural use. Currently, all states in the U.S. have Special Use Valuation assessment laws for which agricultural values are determined using the production value of the land.⁴⁷ Agricultural land located on the fringes of metropolitan areas in the U.S. has experienced more pressure on land prices than other agricultural lands.⁴⁸ In New Mexico, where water is more scarce than other parts of the country, there is demand for land for development purposes anywhere there is a watershed, therefore the availability of fresh water suitable for human consumption.

Use-value methods, including New Mexico's, typically use income-earnings approaches whereby the general formula calculates the product of Yield per Acre and Net Income divided by the discount rate.⁴⁹

⁴⁵ Anderson and England, *Use-Value Assessment of Rural Land in the United States*. Lincoln Institute of Land Policy. 2014.

⁴⁶ Blewett and Lane, *Development Rights and the Differential Assessment of Agricultural Land: Fractional Valuation of Farmland is Ineffective for Preserving Open Space and Subsidizes Speculation*. *American Journal of Economics and Sociology*. Volume 47, No. 2. 1988; U.S. Council on Environmental Quality, *Untaxing Open Space: An Evaluation of the Effectiveness of Differential Assessment of Farms and Open Space*. 1976; Lopez, et. al., *Amenity Benefits and the Optimal Allocation of Land*. *Land Economics*. Volume 70, No. 1. 1994. Morris, Adele C., *Property Tax Treatment of Farmland: Does Tax Relief Delay Land Development?* Chapter from Halen F. Ladd (ed.), *Local Government Tax and Land Use Policies in the United States*. 1998.

⁴⁷ Wunderlich, Gene. *Property In, Taxes On, Agricultural Land*. *University of Wisconsin-Madison Land Tenure Center Working Papers*. 1995.

⁴⁸ Gloudemans, Robert J. *Use Value farmland assessments: Theory, practice, and impact*. *International association of Assessing Officials*. 1974; Blasé and Staub, 1971. Blasé and Staub, *Real Property Taxes in the Rural-Urban Fringe*. *Land Economics*, Vol. 47, No. 2. May 1971.

⁴⁹ Yield Per Acre x Net Income (Price of Good Sold – Expenses) / Discount Rate.

Pursuing policies and laws that help Land Grant members to stay on their land is not only good for conservation and best land management practices, but it helps to keep the local communities and culture intact. Embedded in Land Grant values is the desire to preserve, practice, maintain and transmit land-based cultural practices. Moreover, traditional use practices are strongly aligned with conservation practices given that one of the core values of the Land Grants and Tribal communities is to ensure that working lands, and the many resources they offer, are healthy and abundant for future generations.

By supporting policies and laws that benefit local communities and cultures, the state indirectly supports the health and stewardship of the land and natural resources in the state. Because federal lands are under-resourced and suffer from the lack of active stewardship, these lands do not receive the same attention and care as lands that are managed under local control by local communities. For example, prescribed burning and the clearing of forest understories that cause wildfires to burn hotter and faster are not properly managed. Local communities are better aligned because they live in close proximity, thus are positioned to more regularly interact with the land but also have direct incentives to ensure proper management. For example, forest health is of great importance given potential impacts when wildfires occur. In contrast, the beneficiaries of lands under federal control may not have the same physical proximity, nor immediate urgency to maintain, preserve, and protect the health of the natural surroundings.

Land Grant communities have had to evolve and be creative in order to retain their land while meeting tax obligations but also keeping people on the land and the culture intact. For example, some Land Grant communities have sought to invest in affordable housing. These developments are not intended as for-profit but, rather, to give people an inexpensive place to live on their land in the community where their families have been living for many generations. The question has been raised about whether affordable housing should be assessed using market 'comparables' that are full fair market values (for profit). Also important is that only small tracts are being used for commercial purposes, and the remaining communal lands still intact should be assessed accordingly.

Just like most agricultural operations in the U.S., Land Grants have had to diversify revenue streams in order to be viable and to be able to continue to pay tax assessments. Some communities have sought to install billboards, cellular towers, wind energy, or other alternative energy technologies. These diverse land uses also raise specific tax implications. For example, because Land Grants are primarily focused on preserving their culture and land, and are not in the business of capitalist production, land holdings must be assessed as such. Another facet is that Land Grants are often pressured to prove that cattle ranching is occurring in order to qualify for agricultural rates. However, there are many traditional uses and interactions of land that the state should take into account when determining valuations. For example, Land Grants harvest wood, gather various organic products, including medicinal herbs, food, fiber, and other natural products.

Finally, another major concern for Land Grants is that communal lands in close proximity to areas experiencing intense residential and commercial development are also experiencing marked upward pressure on values, thus are at risk of being lost and converted.

~Arturo Archuleta, Program Manager, NM Land Grants Council

B. Special Use Valuation for Preservation and Protection of Working and Natural Lands

Some states have sought to incentivize environmental preservation and conservation activities directly through preferential assessment programs for property tax. The most widely accepted conservation use is the preservation of forests with roughly half of the states in the U.S. with programs that allow lower land valuations for forest land.⁵⁰ A handful of states allow preferential valuations for broader land-use activities in order to accomplish natural and working land preservation goals. Among the qualified practices for these programs are habitat, soil, open space, water and watershed, and fire prevention practices. Roughly three in five states in the U.S. have working land preservation Special Use Value programs. The following lists the states and their program types. Although, the efficacy of Special Use Valuation programs seeking to protect natural and working lands has not been widely researched. This section reviews known state programs that offer Special Use Valuations for conservation-oriented land management practices.⁵¹

⁵⁰ Kilgore et. al., *USDA Report, State Property Tax Incentives for Promoting Ecosystem Goods and Services from Private Forest Land in the United States*. 2017. Specific states with programs that allow the lower valuation of forest land are: DE, GA, ID, ME, MI, NH, NJ, NY, OH, OR, RI, SC, TN, TX, UT, WA, WV, WY.

⁵¹A study by J. Sundberg found "mixed" results on the efficacy and cost of these programs. Sundberg, Jeffrey O., *Preferential Assessment for Open Space*. Lincoln Land Institute. 2012.

Figure 325. States with Special Use Valuation for Preservation and Protection of Natural Lands by Type

	CA	CT	DE	FL*	GA	ID	IL	MA	MD	ME	MI	MN	NH	NJ	NV	NY	OH	OR	PA	RI	SC	TN	TX	UT	VT	VA	WA	WV	WY
Forest		X	X		X	X	X			X	X		X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X
Open Space		X	X				X			X	X	X			X		X	X		X		X					X	X	
Conservation				X	X		X					X						X							X				
Recreational, Park or Scenic								X				X											X						
Wildlife																		X					X						
Environmentally Endangered				X																									

Source: Information compiled by UNM BBER.

The State of **Oregon** has statutes that provide for reduced valuations for Open Space, Wildlife Habitat, and Conservation; these programs were enacted by state law in 1971 (308A.300), 1993 (308A.415), and 2007 (Statute 308A.456), respectively. Applicants must submit conservation management plans with approved properties receiving agricultural special assessments. Counties are not mandated to participate, but rather they may “opt-in.” The Oregon Tax and Revenue Department provides detailed reporting of the cost of different Special Use Value programs, estimating a loss/cost of \$1.5 million for its Open Space, \$1.7 million for the Wildlife Habitat, and \$1.1 million for Conservation programs; the estimated shift in tax burden (to other property types) are \$300,000 for Wildlife and Open Space, and \$200,000 for Conservation.

Figure 336. Fiscal Impact and Related Statistics of Conservation Special Use Valuation for Oregon (\$1,000s)

	Revenue Impact	Shift	Reduction in Taxable Values	Acres Enrolled	Numbr of participants	Counties participating
Wildlife Habitat	1,700	300	67,000	73,477	376	15
Open Space	1,500	300	54,000	-	400	18
Conservation	1,100	200	34,000	-	316	15

Source: State of Oregon Tax Expenditure Report, 2021-2023

In order to preserve and protect forests and open space, under the 1970 Open Space Taxation Act, **Washington** State allows property owners of open space and timberlands to be valued at “current use” rather than the highest best use. The stated purpose of the program is to conserve and enhance natural or scenic resources, protect streams or water supply, preserve historic sites, promote conservation of soil and wetlands. The minimum acreage is lower for lands inside urban areas. Washington uses a Public Benefit Rating System (PBRs) for scoring the value of the land both for determining whether the property qualifies but also for the valuation of the land. For counties without PBRs, the per-acre value can be no less than the lowest per-acre value of farm and agricultural land in the county. The Washington Department of Revenues sets the timber land values. Designations last for 10 years and the minimum acreage size is 10 acres. If an applicant withdraws early from the program, the property must repay the higher tax that would have been paid for the number of years that the benefit was received.

Texas voters decided to amend the constitution in 1995 to allow lands managed for wildlife habitat to qualify for agricultural special use valuations. The purpose of the program is to promote wildlife management by

enabling the propagation, migration, and wintering of wild indigenous animals. Approved methods include habitat control, erosion control, predator control, supplemental supplies of water and food, shelters, and completing census counts. The program is intended to be revenue-neutral with approved applicants receiving valuations at least equal to previous agricultural use. Applicants are required to submit wildlife management plans.⁵² Texas voters approved a constitutional amendment in 1978 to permit the appraisal of forest lands to be appraised based on productive capacity or “productivity value” of timberland as determined by the chief appraiser and the Comptroller’s office. Reforesting, seedling plantings, or managed natural regeneration may also qualify as accepted uses. The historical use requirement dictates that land must have been used in five of the last seven years for timber or agriculture.

The **Georgia** State statutes allow property owners to apply for conservation status for timber and environmentally sensitive land. Included in this designation are wetlands, habitats, watersheds, and areas with significant groundwater recharge. The preferential assessment is limited to the first 2,000 acres. The Department of Natural Resources must certify the property. The assessed value is 40% of the “use value.” The term of the designation is 10 years with a penalty up to twice the savings amount if the contract is terminated early. Given the high boundaries to participate, there are not many properties enrolled in the program.

Minnesota tax laws allow special use valuations for green belt preservation (green acres and rural preserve), open space, and forest lands (managed and sustainable). The green acre and rural preserve program provides tax relief for agricultural land and vacant agricultural lands. The open space program is intended for qualifying owners of open space in areas where development pressures can jeopardize outdoor, recreational, open space, and parklands; this program is largely delegated to local counties. The forest program requires a minimum of 20 contiguous acres, an approved management plan by the Department of Natural Resources, and a 10-year commitment. If the land is removed from the program before the term of the contract expires, the landowner must pay back the deferred tax plus interest.

The **Illinois** Conservation Stewardship Program has been in existence since 2007 and specifically seeks to restore native species, reduce the impacts of invasive species, reduce forest fragmentation, and particularly seeks to support species in greatest need of conservation.⁵³ Management goals promoted by Illinois include prescribed burning, native prairie plantings, restoration of open woodlands free of invasive species, and reduced mowing. Landowners applying for participation in the program must submit a management plan for their property in order to qualify. Properties qualified for recreational land use may qualify for a valuation of 33.3% of Fair Market Value (FMV). Properties approved for qualified conservation uses receive valuations of 5% of FMV. The minimum acreage is five acres.

⁵² Habit control and erosion control activities include: grazing management, prescribed burning, range enhancement, brush management, forest management, riparian management, wetland improvements, managing native species, pond construction, establishing native plants, water diversion.

⁵³ The statute enacting this program is Public Act 095-0653.
(<https://www.ilga.gov/legislation/publicacts/fulltext.asp?Name=095-0633>)

With over 95% of land in Illinois privately owned, the program administrators estimate that 10-12% of properties are in the program. There are a total of 117,137 acres enrolled and 4,925 individual landowners. According to the program administration staff, the program is unfunded, which results in staff being under-resourced, and there is a need for more monitoring, more pre-inspections and site checks, and a need for reviews to occur at least every two years. An implicit expectation of program administrators is that tax break savings are reinvested into land management activities.

It is my impression that state agencies work with agriculture and conservation. Some programs could be better resourced to run programs they are tasked with. And some state agencies do a good job collaborating (Energy, Minerals, Natural Resources Department, State Land Office, State Engineer). Conservation efforts would benefit if collaboration was deepened among state agencies and with shared vision development. Previously, I served on the board of an NM land trust and I got the sense there may be issues with getting smaller parcels approved for conservation tax credits. There may be opportunities to do more education on what constitutes conservation.

Counties are heavily reliant on property tax revenues, and they are strained to pursue conservation planning and long-term planning; unfortunately, these activities are at odds with paying for government services. This creates a total contradiction where a county has to choose between pressing issues and immediate budget needs and long-term sustainability. There needs to be some bridge-building as it relates to property tax and conservation. All the stakeholders need to be invited to the table. For example, the Assessor Affiliates need to be a part of conservation discussions.

We need to get creative as it relates to conservation work in the areas of the state that are experiencing the greatest development pressure. For example, Taos, Albuquerque, Las Cruces. Land in Bernalillo County is next to impossible for someone to purchase at current market rates and make a living in agriculture; leasing from agricultural landowners is the only economical option for those looking to enter the market. The Bernalillo County agriculture/wildlife mill levy could be a model program for other municipalities. Conservation easements seem to make properties more accessible for farmers and ranchers to use land. The State Land Office is also a leader when it comes to leasing state lands for conservation purposes.

~Sarah Wentzel-Fisher, Executive Director, Quivira Coalition

C. Ecosystem Services

There is a large body of literature that discusses the importance of natural environments and the measurable and unmeasurable benefits of well-functioning natural environments. The body of work is commonly referred to as Ecosystem Services, which, generally, refers to the benefits humans receive directly or indirectly from ecosystems. More specifically, they are the “conditions and processes through which natural ecosystems, and the species that make them up, sustain and fulfill human life.” They provide biodiversity and goods, such as timber, biomass fuels, natural fiber, and inputs for pharmaceuticals and industrial processes. The use of ecosystem goods are familiar inputs that go into generating production in the economy. There are also the

“life-support functions, such as cleansing, recycling, and renewal, and they confer many intangible aesthetic and cultural benefits as well.” These benefits are indirect and often are not factored into policymaking. Examples of these Ecosystem Services are water and air purification, drought and flood mitigation, conservation of soil, wetlands, ground cover, planting of perennial grasses, trees and shrubs, and other perennial growth, preservation of historic sites.⁵⁴

The theoretical roots of Ecosystem Services date back to over 25 years ago when early research was first being published and the growing body of research eventually led to the founding of the *Ecosystem Services Journal*. Robert Costanza and a team of researchers were among the first to argue that commercial markets do not capture or adequately quantify ecosystem services that are comparable with manufactured capital and that “they are often given too little weight in policy decisions”⁵⁵ because modern neoclassical economic theory focuses on financial/monetary capital, human capital, and physical capital (machinery, etc.) as the primary inputs to economic production, often “falling outside” the equation and can be “invisible” in economic studies and analysis.⁵⁶ From another perspective, Ecosystem Services include natural capital in economic development work and policy assessments.⁵⁷ Failure to account for the intrinsic value of ecosystem services in economic, market, and policy decisions can lead to misuse of natural resources.⁵⁸

The basic capitalist model employs financial, manufactured, and human capital. The ecosystem services model adds natural capital. Stocks of these types of capital are necessary inputs for capitalist production. Built upon the utilitarian neoclassical economic framework that goods and services are valued to the extent that people want them, thus market participants assign values based on their willingness to pay for a given good or service. Regarding environmental issues, people voice moral, ethical, and cultural principles and judgments. For example, one might believe that it is society’s duty to ensure that there is an ample supply of quality, healthy drinking water for future generations. Another market participant might be primarily concerned with acquiring inexpensive water as an important input to given manufacturing or natural resource extraction process.⁵⁹

By way of example, some studies using Ecosystem Services approaches have considered the benefits of open space, including the preservation of scenic views, outdoor recreation, and education, air and water quality,

⁵⁴ Gretchen Cara Daily (ed.), *Nature’s Services: Societal Dependence on Natural Ecosystems*. Island Press. February 1997.

⁵⁵ Costanza, d’Arge, de Groot, Farber, Grasso, Hannon, Limburg, Naeem, O’Neill, Paruelo, Raskin, Sutton, van den Belt, *The value of the world’s ecosystem services and natural capital*. *Nature*. Volume 3, No. 87 (1997).

⁵⁶ Ibid.

⁵⁷ Giuseppe Munda, *Conceptualising and Responding to Complexity. Environmental Valuation in Europe, Policy Research Brief No. 2*, Cambridge Research for the Environment (2000).

⁵⁸ David Pearce, *Auditing the Earth: The Value of the World’s Ecosystem Services and Natural Capital*. *Environment*, Volume 40, Issue 2 (1998); Howarth and Farber, *Accounting for the value of ecosystem services*. *Ecological Economics*. Volume 41, Issue 3 (June 2002).

⁵⁹ Yung En Chee does a good job exploring the principal techniques for the monetary valuation of environmental goods and services. These are market-based, surrogate market, and simulated market. The approaches are Production, Revealed preference, and Stated preference, respectively. The techniques for analysis are Production function analysis (PF) and replacement or restoration cost (RC), Travel cost method (TCM), Hedonic pricing (HP), Travel cost method (TCM); hedonic pricing (HP), Contingent valuation (CV). Yung En Chee, *An ecological perspective on the valuation of ecosystem services*. *Biological Conservation*, Volume 120. 2004.

carbon sequestration, flood control.⁶⁰ Others have considered the benefits of forested ecosystems provide for the movement and cycling of water through the landscape, streams, and rivers, modeling and estimating the economic values of these activities.⁶¹ Costanza (1997) thoroughly categorizes the different ecosystem service types, their functions, and provides examples.

Figure 347. Ecosystem service, Ecosystem functions, and Examples

#	Ecosystem service*	Ecosystem functions	Examples
1	Gas regulation	Regulation of atmospheric chemical composition	CO ₂ /O ₂ balance, O ₃ for UVB protection, and SO _x levels
2	Climate regulation	Regulation of global temperature, precipitation, and other biologically mediated climatic processes at global or local levels	Green-house gas regulation, DMS production affecting cloud formation
3	Disturbance regulation	Capacitance, damping, and integrity of ecosystem response to environmental fluctuations	Storm protection, flood control, drought recovery, and other aspects of habitat response to environmental variability mainly controlled by vegetation structure
4	Water regulation	Regulation of hydrological flows	Provisioning of water for agricultural (e.g., irrigation) or industrial (e.g., milling) processes or transportation
5	Water supply	Storage and retention of water	Provisioning of water by watersheds, reservoirs, and aquifers
6	Erosion control and sediment retention	Retention of soil within an ecosystem	Prevention of loss of soil by wind, runoff, or other removal processes, storage of silt in lakes and wetlands
7	Soil formation	Soil formation processes	Weathering of rock and the accumulation of organic material
8	Nutrient cycling	Storage, internal cycling, processing, and acquisition of nutrients	Nitrogen fixation, N, P, and other elemental or nutrient cycles
9	Waste treatment	Recovery of mobile nutrients and removal or breakdown of excess or xenic nutrients and compounds	Waste treatment, pollution control, detoxification
10	Pollination	Movement of floral gametes	Provisioning of pollinators for the reproduction of plant populations
11	Biological control	Trophic-dynamic regulations of populations	Keystone predator control of prey species, reduction of herbivory by top predators
12	Refugia	Habitat for resident and transient populations	Nurseries, habitat for migratory species, regional habitats for locally harvested species, or over wintering grounds
13	Food production	That portion of gross primary production extractable as food	Production of fish, game, crops, nuts, fruits by hunting, gathering, subsistence farming, or fishing
14	Raw materials	That portion of gross primary production extractable as raw materials	The production of lumber, fuel, or fodder
15	Genetic resources	Sources of unique biological materials and products	Medicine, products for materials science, genes for resistance to plant pathogens and crop pests, ornamental species (pets and horticultural varieties of plants)
16	Recreation	Providing opportunities for recreational activities	Eco-tourism, sport fishing, and other outdoor recreational activities
17	Cultural	Providing opportunities for non-commercial uses	Aesthetic, artistic, educational, spiritual, and/or scientific values of ecosystems

Source: Costanza, et. al., 1997

One critique of the approach is that Ecosystem Services narrowly focus on the monetary benefits and well-being that humans derive, and do not consider the total system benefits gained by all constituents, including the non-human. Additionally, narrowly focused studies often do not evaluate overlapping externalities. For example, studies focusing on watershed protection, improved air quality, wildlife habitat, and recreational access may not also capture or quantify the enjoyment of scenic views. And others have critiqued that the Ecosystem Services framework has not been widely adopted by policymakers. However, there is evidence that there has been progress.⁶²

One of the earliest examples of collaboration between scientists and policymakers to adopt Ecosystem Services frameworks was the United Nation’s Millennium Ecosystems Assessment of 2005 (MEA) and The Economics of

⁶⁰ Elena G. Irwin, *The Effects of Open Space on Residential Property Values*, Land Economics, Volume 78, No. 4. 2002.

⁶¹ Zhongwei Guo, Xiangming Xiao, Dianmo Li, *An assessment of ecosystem services: Water flow regulation and hydroelectric power production*. Ecological Applications, Volume 10. 2000.

⁶² Another critique of ecosystem services is that it is an anthropocentric and utilitarian view of nature and the environment. For example, see Thompson and Barton, Ecocentric and anthropocentric attitudes toward the environment. Journal of Environment and Psychology. Volume 14, No. 2. 1994; McCauley, Selling out on nature. Nature. Number 443.

Ecosystems and Biodiversity in 2010 (TEEB). Although these frameworks were initially theoretical frameworks, Irene Bouwma, et. al. assess how the EU has already taken actions to embed the ecosystem services concept in EU policies.⁶³ Examples given of these policies are the Biodiversity Strategy 2020 and the Invasive Alien Species Regulation, and Intergovernmental Panel on Biodiversity and Ecosystem Services 2012 (IPBES). Actions were taken to require that member states adopt and adhere to their own governance, and institutions include the Common International Classification of Ecosystem Services (CICES) and the Mapping and Assessment of Ecosystem Services (MAES), with the UK and Spain already having completed systematic national ecosystem assessments. Ecosystem services are not easily commodified to be bought and using market mechanisms. However, there are examples of successful commodification and exchange-traded services. These include clean air incentives, fishing quote permit systems, saline water discharges. Some research has argued persuasively for adopting quantitative methods for estimating costs and foregone benefits to be used to make policy and natural resource and ecosystem management decisions.⁶⁴

D. Payments for Ecosystem Services (PEFS)

The emergence of Payments for Ecosystem Services (PEFS) has emerged as an increasingly recognized way to protect and enhance ecosystems by linking beneficiaries and providers through various payment options and voluntary supply arrangements. In these market arrangements, suppliers of ecosystem services receive compensation for their provision.

Costa Rica, Mexico, and China have national programs that provide direct payments to landowners for management practices that, in concept, increase the provision on ecosystem services (hydrological services, prevent erosion, sequester carbon, conserve biodiversity, maintain scenic or landscape characteristics). The size of the PES market is \$36-42 billion in annual transactions and 550 PES programs.⁶⁵

In the US, there are pilot PEFS market programs. The Ecosystems Services Market Consortium (ESMC) is a good example. The ESMC is a non-profit that seeks to reduce greenhouse gases, improve water quality, and facilitate other ecosystem services by working with farmers and ranchers striving to improve the environment by adopting agricultural best practices. The market mechanism is compensating participant farmers and ranchers. The ESMC has several pilot programs throughout the county, including in Oregon, Texas, Nebraska, Missouri, Minnesota, Illinois, Ohio, and Kansas. The ESMC focuses on soil health and carbon sequestration and facilitates the purchase of these services usually by companies seeking to offset other environmental impacts.

⁶³ Irene Bouwma, *Adoption of the ecosystem services concept in EU policies*, Ecosystem Services, Volume 29 (2018).

⁶⁴ Aylward, Bruce and Barbier, Edward B., *Valuing environmental functions in developing countries*. Biodiversity & Conservation. 1992; Armsworth, Paul R. and Roughgarden, Joan E., *An invitation to ecological economics*. Trends in Ecology & Evolution. Volume 16, Issue 5. May 2001.

⁶⁵ James Salzman, et. al., *The global status and trends of payments for ecosystem services*. Nature Sustainability. Volume 1. March 2018.

E. Conservation Easements

An important tool with demonstrated evidence of efficacy is Conservation Easements. The Land Trust Alliance defines a “conservation easement” as “a legal agreement between a land trust or government agency that permanently limits uses of land in order to protect its conservation values.”⁶⁶ Conservation easements can be used to keep land in private ownership, often in private use, while preventing those types of development that harm the conservation values. Generally, easements limit land to specific agricultural or conservation uses, protecting the land from development. These legal agreements are forged between private landowners (grantors), land trusts, government agencies. Grantors may receive federal tax benefits. Grantees are responsible for monitoring and enforcing land. Easements are usually permanent while some have a specific term. If an easement is terminated, owners must repay the difference between the agricultural value and the fair market value. Land remains on the tax rolls and the CE’s are privately owned and managed. (American Farm Trust)

State and local governments can create programs to purchase easements (commonly known as Purchase of Agricultural Conservation Easements) and provide funding to support these programs. All states in the U.S. have conservation easements, including New Mexico, which does not provide funding to pay for these. Funding sources for these programs may entail lottery proceeds, state or municipal bonds, cigarette taxes, state or local government appropriations, real estate transfer taxes, property tax increment, special agricultural taxes, sales taxes). Active states providing regular funding include Connecticut, Maryland, Massachusetts, New Jersey, Pennsylvania, and Vermont. Other active programs: Maine, New Hampshire, Rhode Island, California, Colorado, Delaware, Kentucky, Michigan, New York. According to AFT, there is high demand for these programs among farmers. The federal government may have programs to help state and local governments through matching to purchase easements (e.g. Agricultural Improvement and Reform Act). These programs give landowners cash to re-invest in their businesses.

Depending on the program, landowners may receive monetary compensation in exchange for the development rights of their land. Also, owners may agree to the limits without receiving any direct compensation for the decrease in property rights, instead of qualifying for a tax-deductible donation. Proponents of conservation easements point to the environmental benefits and the ecological goods and services (e.g. wildlife habitat, water recharge, open space).

There are many non-market benefits and ecosystem services provided by conservation easements. The benefit of privately owned land with conservation easements is that these lands can still provide public benefits (scenic views, health watersheds, forested lands), while still being used as working lands (timber, ranches, farms, homesites). These benefits, often referred to as “conservation benefits”, may exceed the public benefit from developing a property for other uses, such as residential or commercial. A 2008 study by Wallace, et. al. detected a strong relationship between the conservation of private land and wildlife habitat and corridor

⁶⁶ <https://www.landtrustalliance.org/what-you-can-do/conserve-your-land/benefits-landowners>

protection, scenic views, and/or amenity values. The study found evidence of conservation benefits, including favorable forest cover, the protection of wetlands, watersheds, and water quality.⁶⁷

One study by Jeffrey Sundberg sought to assess the efficacy of conservation easements in protecting land from development. Using sample data for states with conservation easements and tax credit programs, the study found strong positive statistical results showing that tax credits do increase easement acreage, particularly when the credits are transferable and/or credits are \$100,000 or greater. Although only a few states have their own locally supported conservation programs, roughly half of states in the U.S. have incentives in place for taxable owners of Open Space.⁶⁸ Moreover, related studies have found evidence that open spaces can elevate the values of surrounding properties, particularly in the case of long-term and permanent easements.⁶⁹

There are several states with conservation easement programs. The Virginia Office of Land Conservation, Division of Natural Heritage, and the Office of Planning and Recreation Resources oversee programs that work with landowners on managing and protecting working lands; the Department of Agriculture also works with local governments to establish their own programs to purchase development rights; this includes technical assistance and guidance on farmland preservation policies, etc. Utah State's conservation easement program and Grazing Improvement Program seek to improve the productivity and sustainability of rangelands and watersheds. Tennessee has a state agricultural land department that helps farmers with conservation easements. Through the Department of Agriculture, the Transaction Assistance Fund assists farmers with project costs (attorney fees, survey fees, appraisals, and stewardship donations) in connection with putting conservation agreements into place.

Many landowners participate in Federal conservation easement programs, including **the Agricultural Conservation Easement Program (ACEP)** and the Farm and Ranch Lands Participation Program (FRPP) through the USDA NRCS. The ACEP provides matching funds to buy conservation easements on farmland and rangeland in the form of a voluntary deed restriction on development, keeping the land available for farming. This program allows farmers to free up capital without having to sell their land outright, which can be used to expand or invest in farm operations. This program protects agricultural land, improves agricultural viability, encourages on-farm conservation, and helps farmers gain access to land.⁷⁰

⁶⁷ Wallace, Theobald, Ernst and King, *Assessing the Ecological and Social Benefits of Private Land Conservation in Colorado*. *Conservation Biology*, Volume 22, No. 2. 2008.

⁶⁸ CA, CO, CT, FL, GA, ID, IL, MA, MD, ME, MI, MN, NH, NV, OH, OR, PA, RI, TN, TX, VT, WA.

⁶⁹ Soren T. Anderson and Sarah E. West, *Open space, residential property values, and spatial context*. *Regional Science and Urban Economics*, Volume 36, Issue 6. November 2006. Rosalind Bark-Hodgins and Bonnie G. Colby, *An Economic Assessment of the Sonoran Desert Conservation Plan*. *Natural Resources Journal*, Vol. 46, No 3. Summer 2006. Elena G. Irwin, *The Effects of Open Space on Residential Property Values*. *Land Economics*, Volume 92. 2002. Virginia McConnell and Margaret Walls, *The Value of Open Space: Evidence from Studies of Nonmarket Benefits*. 2005. King, J. and C. Anderson, *Marginal Property Tax Effects of Conservation Easements: A Vermont Case Study*, *American Journal of Agricultural Economics*, Volume 86, No. 4. 2004. Geoghegan, J. *The Value of Open Spaces in Residential Land Use*. *Land Use Policy*. Volume 19, No. 1. 2002. U.S. Natural Resource Conservation Services.

⁷⁰ Esseks, J. Dixon; Schilling, Brian J.; and Hahn, Alexander, *Impacts of the Federal Farm and Ranch Lands Protection Program: An*

Through the **Farm and Ranch Lands Protection Program (FRPP)**, the NRCS provides matching funds to help purchase development rights to keep productive farm and rangeland in agricultural uses by partnering with State, tribal, or local governments and non-governmental organizations to acquire conservation easements or other interests in land from landowners. This program provides up to 50 percent of the fair market easement value of the conservation easement.⁷¹ Survey data collected by Esseks and Schilling suggests that the FRPP is effective in preventing the conversion of agricultural land for other uses. They found that roughly half of the respondents indicated that their land would likely (34%) or eventually (15%) be converted out of agricultural production and sold to non-farmers. And 35% of respondents indicated that the FRPP program benefitted them as Young or Beginning Farmers. Roughly two in three respondents indicated that the FRPP caused purchased protected land to be either much lower (39%) or somewhat lower (26%); only two respondents indicated that protected land caused purchase to be higher.⁷²

There are several conservation-oriented programs in New Mexico that make use of easements. Through the NRCS, the USDA provides funding and technical support to landowners for soil, watershed, and forest management activities. According to NRCS data, there are **62,508 acres enrolled** in one of three programs. The Farm and Ranch Lands Protection Program (FRPP) and the Grasslands Reserve Programs (GRP) account for the most acreage at 24,924 (40%) and 23,297 (37%), respectively. There are 13,719 (22%) acres in the Agricultural Conservation Easements Program – Agricultural Land Easements (ACEP-ALE) and the balance, 568 (1%) are enrolled in the Wetland Reserve Program (WRP). The counties of Roosevelt (17,162; 27%), Mora (15,433; 25%), Colfax (9,968; 16%), and Catron (8,982; 14%) account for four out of five acres enrolled under easements with the NRCS. As a percent of total agricultural acres (40.66 million) in the state, these easements account for less than 0.2% of total agricultural acreage in the state.

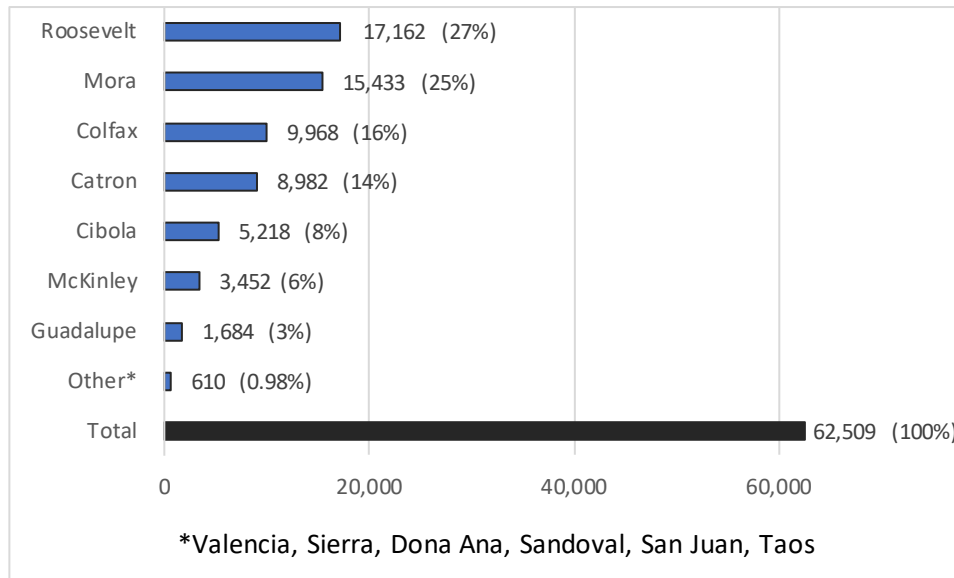
Assessment Based on Interviews with Participating Landowners. Center for Great Plains Studies: Staff and Fellows Publications. 2013. (<http://digitalcommons.unl.edu/greatplainsfellows/3>)

⁷¹ (USDA, Natural Resources Conservation Service, *Farm and Ranch Lands Protection Program*

(https://www.nrcs.usda.gov/wps/portal/nrcs/detail/null/?cid=nrcs141p2_018768 [accessed April 21, 2021]). Survey data collected by Esseks and Schilling suggests that the program is effective in preserving agricultural lands with 48% of respondents indicating that all land was engaged in ag production with another 22% indicating that 75%-99% was being used for Ag; only 4% indicated that none was being used for ag production.

⁷² Esseks, J. Dixon; Schilling, Brian J.; and Hahn, Alexander, "Impacts of the Federal Farm and Ranch Lands Protection Program: An Assessment Based on Interviews with Participating Landowners" (2013). *Center for Great Plains Studies: Staff and Fellows Publications.* 3. <http://digitalcommons.unl.edu/greatplainsfellows/3> Over 2/3rds of respondents indicated their Motives for program participation were to save land for agriculture (68%); 28% participated to obtain money for financial needs; nearly all (94%) of respondents felt that their goals had been met either "to a great extent" (72%) or to a "moderate extent" (22%). Nearly all respondents (96%) were either "very satisfied" (58%) or "satisfied" (38%).

Figure 358. Acreage of NRCS Conservation Lands in New Mexico by County (2020)



Source: U.S. Natural Resource Conservation Services, 2021

Because there are other types of conservation easements not affiliated with the NRCS programs discussed above, we also considered the 2017 USDA NASS data. According to these data, there were 377 farms with 500,203 acres under conservation easements in New Mexico. This number includes those enrolled in NRCS programs as well as those separate from these federal programs. Importantly, given that the USDA NASS data has not been refreshed since 2017, other conservation easements have been enacted in the last several years.

The **Land Conservation Incentives** legislation (75-9-1 to 75-9-6) seeks to encourage private land conservation by allowing landowners to donate land, or the development interests of land, in the form of conservation easements to public or private conservation agencies. The 2003 law allows an income tax credit of 50% of the fair market value of land or interest in land that is conveyed for open space, natural resource or biodiversity conservation, agricultural preservation, or watershed or historic preservation to a public or private conservation agency. Credit may not exceed \$250,000 per individual donor.⁷³

By year-end 2020, there were **233,826 in the program with 180 individual landowners** across 22 counties. The certified credit amount total is roughly \$31 million. Participating properties range from three to over 30,000 acres with a median and average property sizes of 159 and 1,299, respectively. More than half of acreage (60%) is in one of five counties: Mora (20.6%), Roosevelt/De Baca (13%), Colfax (10.3%), and Socorro (15.7%). Five counties account for nearly two-thirds of program participants: Santa Fe (41), Socorro (21), Taos (19), Sierra (15), and San Miguel (12). There were 11 counties that did not have any participating properties.

⁷³ Source: Ch. 75, art. 9 NMSA 1978, <<https://nmonesource.com/nmos/nmsa/en/item/4421/index.do#!b/aq>>, retrieved on 04/28/2021.

Figure 36. Acreage and Tax Credit Value for Lands Participating in NM Land Conservation Tax Credit Program (2020)

County	Acre	Pct. %	Credit Value	Credit/Acre
Mora	48,095	20.6%	2,482,950	52
Socorro	36,803	15.7%	2,477,643	67
Roosevelt/De Baca	30,493	13.0%	500,000	16
Colfax	24,032	10.3%	1,500,000	62
Lincoln	17,774	7.6%	692,500	39
Cibola	12,591	5.4%	1,131,500	90
Catron	10,960	4.7%	1,741,500	159
Grant	10,380	4.4%	1,102,675	106
Santa Fe	9,977	4.3%	7,097,789	711
Sierra	8,952	3.8%	1,456,600	163
Torrance	6,055	2.6%	383,000	63
Guadalupe	5,141	2.2%	250,000	49
San Miguel	3,294	1.4%	1,975,380	600
Luna	3,220	1.4%	326,000	101
Rio Arriba	2,269	1.0%	2,118,400	934
Hidalgo	1,760	0.8%	29,000	16
Taos	1,154	0.5%	3,705,500	3,212
Sandoval	817	0.3%	708,500	867
Bernalillo	35	0.0%	1,191,250	34,036
Valencia	18	0.0%	76,600	4,256
San Juan	7	0.0%	42,500	6,071
TOTAL	233,826	-	31,145,787	-

Source: NM Energy Minerals Natural Resources Department.

The **Forest Legacy Program (FLP)**, housed under the EMNRD Forestry Division, accesses federal funding to purchase conservation easements from private landowners. The program keeps the land under forest cover while “landowners continue to own, control access, manage, and use their lands and natural resources.” The program supports sound forest management practices and sustainable natural resource use while preventing these lands from becoming subdivided, fragmented, and converted to developed uses. There are a total of three properties that have been finalized as part of the Forest Legacy program. According to Carol Bada, the EMNRD manager of the program, because federal funds are part of a nationally competitive process receiving approval typically takes two years and can take up to six or seven years. Given the time it takes to finalize and receive approval, it can be challenging to get landowners to apply for the program. EMNRD advises landowners interested in applying for the program to work with land trusts to help get expenses paid for but also to help facilitate and guide the process. Although the New Mexico Forest Legacy program has the ability to acquire land, most landowners are only interested in retaining ownership while selling the development rights. Applicants may also qualify for tax credits. Another possible deterrent for would-be participants is that although it is possible to make changes to easements, the process is complicated and may require various

approvals (state, federal, etc.). Also, if extinguished, the fees/penalties can be formidable, requiring the repayment of the federal government.

F. Circuit Breaker Tax Relief Offering

Some states offer tax credits to offset real property tax bills. Tax credit amounts are based on the real property tax bill and property owner's income. Among these states that use tax credits are Michigan, Wisconsin, New York, and Iowa. By way of example, Michigan allows tax credits equivalent to the amount of the property owner's tax liability in excess of a certain percentage of total household income. For example, if the rate is 5% and Household income is \$25,000, then the farmer can take a credit for any property taxes exceeding \$1,250 per year (5% x \$25,000). If the property tax bill is for \$1,500, then they would receive a \$250 credit.

G. Land-Use Planning

Land-Use Planning at the state and regional level is an effective approach to preserving and protecting agricultural, working, and natural lands from being converted for development. Strong land-use practices help to ensure that development does not spread unchecked. According to a recent national analysis completed by the American Farm and Trust, poor land-use planning resulted in five times as much agricultural and open space lands being converted.⁷⁴

One important characteristic of states with strong land-use planning is the existence of a statewide plan that requires local governments to create comprehensive planning and adopt zoning. The requirement that local plans are consistent, or "concurrent", with statewide plans, is an important feature. Florida's Local Government Comprehensive Planning and Land Development Regulation Act requires municipalities to prepare and adopt plans consistent with the goals and policies of the state plan. Local plans that do not consider the sufficiency of infrastructure (sewer, water, roads, etc.) may not receive approval. In 1985, Florida adopted the Local Government Comprehensive Planning and Land Development Regulation Act (Chapter 163, Part II), which requires municipalities to prepare and adopt plans consistent with the goals and policies of the state plan. Washington has one of the most articulated land-use planning regimes created by the Growth Management Act (RCW 36.70A), which seeks to balance economic growth and unplanned and uncoordinated development with environmental goals through a multi-stakeholder process. An important feature is that local plans that do not consider the sufficiency of infrastructure (sewer, water, roads, etc.) may not receive approval.

Another important component of state land-use planning laws and regulations is that they can provide a land-use framework for municipalities to adopt specific local zoning ordinances that better help to guide development. For example, by explicitly prioritizing and incentivizing the protection and preservation of agricultural, working and natural lands, zoning ordinances can also be used to discourage the development of prime agricultural lands. This can be accomplished by creating specific agricultural zones. Zoning can also direct new sewer and water investment to areas located inside designated development areas for future growth.

⁷⁴ Freedgood, Julia, et. al., *Farms Under Threat: The State of the States*. [American Farmland Trust](#). 2020.

By statutory authority, Maryland funds and maintains a statewide Economic Growth, Resource Protection, and Planning Policy that promotes economic growth while seeking to direct development to concentrated and suitable areas; protect sensitive areas; direct growth in rural areas to existing population centers while protecting resource areas. Maryland seeks to accommodate future growth while prioritizing the preservation and protection of farming, working, and natural lands. In their recent land-use visioning process, one stated goal was to reduce agricultural/rural lands conversion by 75% (relative to the forecasted trend) over a 25-year period.⁷⁵

Usually, in connection with statutory authority and funding, most states have departments that are responsible for statewide land use and urban and regional development planning. This may involve overseeing, maintaining, and updating statewide comprehensive plans and providing technical assistance and support to local governments on various land-use and development-related activities. Several states only provide basic supports, among which Colorado, Delaware, and Florida fall.⁷⁶

Other states integrate agricultural, working, and natural lands protection with land use planning and comprehensive planning process. For example, Rhode Island's Statewide Planning Office encompasses Economic Development, Transportation, Local Comprehensive Planning, Land Use and Natural Resources, and Climate Change and Resilience.⁷⁷ By an act of law in Vermont, conservation commissions at the county and municipal levels must complete inventories of natural resources, including air, surface and groundwater, soils, watersheds, scenic and recreation lands, and prime agricultural and forest lands. These inventories roll up to and enable the statewide planning process.⁷⁸ Oregon's Department of Land Conservation and Development works directly with local governments on land use planning efforts with a particular focus on farm and forest protection, natural resources, rural planning, climate change, and local and regional comprehensive planning.⁷⁹ Pennsylvania seeks to actively coordinate statewide land-use policies and plans, specifically considering statewide water resources plans, sewage planning, and agricultural use through the Department of Environmental Protection.⁸⁰

Hawaii takes a unique approach with the Office of State Planning (OSP) coordinating the development and planning statewide. The OSP seeks to balance adverse environmental impacts with economic development. The OSP is responsible for overseeing all land-use matters and planning. All land in the state is classified into four types of uses: urban, rural, agricultural, and conservation. Of the 4,112,388 acres of land in Hawaii, 48 percent is designated as conservation, 47 percent is agricultural, 5 percent is urban, and less than ½ a percent is designated as rural. With only 5% designated as urban, if landowners wish to expand boundaries for the purpose of commercial, industrial, residential, resort, or other types of development, they must secure county

⁷⁵ Maryland Department of Planning, Plan Maryland: A sustainable growth plan for the 21st Century. Publication No. 2011-017. 2011. (<https://planning.maryland.gov/Documents/OurProducts/Archive/72195/state-development-plan.pdf>)

⁷⁶ <https://cdola.colorado.gov/local-government>; <https://stateplanning.delaware.gov/>;
<https://floridadep.gov/oip/oip/content/comprehensive-plan>.

⁷⁷ <http://www.planning.ri.gov/>.

⁷⁸ <https://dec.vermont.gov/>.

⁷⁹ <https://www.oregon.gov/lcd/Pages/index.aspx>.

⁸⁰ <https://www.dep.pa.gov/Pages/default.aspx>.

support and involvement before submitting to the OSP. The decision-making criteria considered by the OSP include whether the proposed project complies with the Hawaii state plan. The state will not provide state funds, grants, loans, and guarantees, insurance unless the project is consistent with the comprehensive plan.⁸¹

I can recall when the area located between the northwest edge of the Village of Taos and the airport, down to the gorge was all grazing lands. These lands were once part of the San Antonio land grant. My family's holdings totaled thousands of acres at one point, with some of these lands lost to people filing quiet title and thousands lost due to a surveyor exploiting loopholes and discrepancies in tax rolls. There were as many as 12-15 shepherders working the area at one time. Much of the area was converted to residential development in the last 35 years, accelerating in the last 10-15 years. All these homes are on wells and septic systems. As agricultural land in the Taos area has been acquired for development, landowners are no longer managing these lands. When people stop farming, the Siberian Elms, Salt Cedar, Russian Olives, and other invasive species begin taking over. Acequias and the ability to get water to land are lost. Recent developments have resulted in the loss of compuertas (diversion) and linderos (lateral ditches). Without access to water agricultural assets are at risk of being lost permanently. There are 100-year-old heirloom apple trees that don't have access to water. Once this occurs, properties require much work and resources to get back into production.

When I retired 17 years ago, it took me 10 years to get a handle on the weeds. Some of the matty weeds are all but impossible to eradicate. In order to keep the land, it is not a one-time thing, you have to stay with it. Many people give up. Unattended lands turn into Siberian Elm forests. My 6 brothers and I all had our land in tip-top shape because it was ingrained in us. And now the younger generations need to get involved.

The Taos Soil and Water Conservancy District, Taos City Council, Taos County Commission, and Rio Arriba County have done work to address and support efforts to eradicate destructive non-native species, including the formation of an invasive species board.

~Toby Martinez, Taos Landowner

New Mexico does not have a state government office responsible for statewide comprehensive urban/rural planning and/or a designated department responsible for overseeing and coordinating statewide land use. The Community Planning Division in the Department of Finance Administration provides some support for local governments, primarily with Community Development Block Grant applications, but also assisted with local comprehensive plans in the past. Chapter 3 Municipalities Article 19 Planning and Platting states that municipalities "may" establish a planning commission, however, it does not specify what should be in a comprehensive plan but, rather, delegates this to the planning commission. There is no requirement for internal consistency. Chapter 3 Article 56 ("Regional Planning Act") allows for counties and municipalities to form combined planning authority. Again, the language states that they "may" do so and are not required. NMAC 4-57 enables counties to form Planning Commissions. 4-58 ("Planning District Act") enables the

⁸¹ <http://planning.hawaii.gov/>

formation of planning districts and “Recognized regional councils.” Importantly, the New Mexico statute does not provide any guidance on the contents of comprehensive plans, lacks its own statewide comprehensive plan, and does not provide statewide guidance or a vision for land-use priorities.

Larger municipalities in New Mexico have the resources to complete and maintain their own comprehensive urban/regional development plans. The seven regional councils of government work with municipalities in their areas, however, the Councils primarily provide assistance with economic development and transportation efforts. The Mid-Region Council of Government (MRCOG), which includes the Greater Albuquerque area is situated to work with governments on other activities like long-term urban and regional planning.

H. State-Funded Conservation Programs

Other states approach land use and planning by creating state-funded programs through acts of law that are explicitly charged with a variety of land use, natural resource, and conservation activities. Oklahoma’s state-funded and supported Conservation Commission provides support to the state’s conservation districts with land use planning, and natural resource technical support.⁸² The Utah Department of Agriculture provides technical assistance and grants to landowners of working lands to develop management plans to preserve soil, watersheds, habitats, etc. Utah also has a conservation easement program and Grazing Improvement Program that seeks to improve the productivity and sustainability of rangelands and watersheds.⁸³ Wisconsin’s Bureau of Land and Water Resource Management takes a unique approach by acting as a bridge between landowners, local governments, federal and state agencies while providing technical and financial assistance on soil conservation, erosion, and preserving farmland, including the development of county land and water plans.⁸⁴ By Washington State statute, conservation districts actively engage private landowners to voluntarily preserve and restore working lands and natural resources. Services include habitat, ecosystem health (forest, soil, and rangeland), livestock management, and urban agriculture.⁸⁵

The New Mexico Legislature authorized the formation of soil and water conservation districts (SWCDs) as independent subdivisions of state government (Soil and Water Conservation District Act, 73-20-25 to 48) to conserve and develop the natural resources of the state, provide flood control, preserve wildlife, and protect the tax base. There are 47 conservation districts in the state. Recent legislation authorized tax rates up to 5 mills, however, many districts seek to exercise to keep taxes low, resulting in very little in revenues for individual districts to fund projects and conservation activities.

By a 2019 act of law, the **Healthy Soil Program** was created “to promote and support farming and ranching systems and other forms of land management that increase soil organic matter, aggregate stability, microbiology, and water retention to improve the health, yield, and profitability. Tribes, land grants, acequias,

⁸² <https://www.ok.gov/conservation/>

⁸³ <https://ag.utah.gov/farmers/conservation-division/>

⁸⁴ https://datcp.wi.gov/Pages/Programs_Services/LWCOverview.aspx

⁸⁵ <https://www.scc.wa.gov/>

Soil and Water Conservation Districts (SWCD), and the NMSU Cooperative Extension Service are eligible to apply for grants up to \$25,000. The program requires a 25% in-kind matching contribution from applicants.

I. Farmland Conversion Statutes/Executive Order

State Governors can also enact **executive orders** to compel the protection and preservation of agricultural and working lands. This may involve the research and documentation of the economic and environmental importance of agriculture and working lands. Governors may direct state agencies to prioritize funding and programs that support the protection of working lands. These orders can help to foster institutional support and to raise public attention around these issues.

States may also pass legislation to specifically address and accomplish farmland/working land prevention conversion objectives. These may take the shape of Growth management laws and comprehensive approaches to residential and commercial development. For example, statutes may incentivize development inside designated areas while de-incentivizing areas outside designated development zones. Statutes may also compel local governments to identify high-value resource areas to protect them. Nearly one in four states in the U.S. have sought to address farmland/working land conversion through statutes, including Oregon, Vermont, Washington, New Jersey, Maryland, and Hawaii.⁸⁶

Assessors are mandated by State Statute 7-36-2-A. (paraphrased) and are responsible and have the authority for the discovery and valuation of all property subject to valuation for property taxation purposes in a county, except the property specified as B and C. This is to ensure that values are "current and correct" and fair and equitable. IAAO (International Association of Assessing Officers) standards state that Assessors should complete a physical inspection of all properties and re-value them at least every 4 to 6 years. In New Mexico, 1% of all property tax collected in their respective county is placed in a special fund referred to as the Property Valuation Fund, to be used to conduct a reassessment. Larger counties and counties with higher market activity generate larger tax bases like Bernalillo, Santa Fe, and Taos.

⁸⁶ Hawaii also has a statewide food security and self-sufficiency laws and a plan that sets forth objectives, policies and actions to increase the amount of locally grown food consumed by Hawaii's residents and to generate economic growth and development in the agricultural sector. This plan identifies several specific policies and actions to achieve: 1. Increase demand for and access to locally grown foods; 2. Increase production of locally grown foods; 3. Provide policy and organizational support to meet food self-sufficiency needs. In 2019, Governor Michelle Lujan-Grisham requested that the NM Department of Agriculture provide an updated strategic plan. The document seems to focus on metrics for measuring NMDA's promotion and marketing efforts, food safety and livestock disease activities, inspections and regulatory compliance, and invasive and noxious weed management and soil health efforts. Notably, a group of philanthropic foundations sponsored the compelling *Resilience in New Mexico Agriculture Strategic Plan*⁸⁶ (https://www.thornburgfoundation.org/wp-content/uploads/2019/02/Final_NM-Ag-Plan_Nov-2017.pdf) that enlisted input from statewide stakeholders, however, the recommendations and findings are have not been backed through funding or institutionalization. Importantly, BBER was not able to locate a New Mexico state government documentation of a comprehensive planning process as it relates to agriculture and food security.

In 2014, while I was still Taos County Assessor, a physical inspection of all properties (reassessment plan) was initiated, thereby, identifying many structures not in the records and property use changes. This was done by creating teams to re-appraise all types of properties, including agricultural. Full-time staff along with locally hired temps, was deemed necessary to achieve our reassessment goals, in conjunction with GIS mapping technology. Through our work, we identified 6,375 properties that were classified as agricultural properties. Of the 1,011 agricultural classified properties reviewed (visited), 637 were removed from agricultural status and assessed at market value. Several properties, were in fact reinstated to an agricultural classification once the property owner was able to establish agricultural use. I termed out in 2014 and since then I cannot say what occurred with respect to the completion of that particular reassessment or any other reassessment, thereafter.

I would offer that one common misconception I encountered was that reassessment of once classified agricultural lands resulted in higher revenues for counties. When an agricultural classification (special method of valuation) is removed the valuation of the property does in fact increase significantly since the value is then based on market values within the area, which is much higher than agricultural values. However, it does not generate additional revenue for the counties. Although it increases the tax base, the increase is recognized as maintenance and maintenance that increases in a county can affect the tax rate positively downward if the increase in the county's tax base is substantial. The lower the tax rate the lower the tax bill.

In addition, the Yield Control formula (Section 7-37-7.1 NMSA 1978) commonly referred to as "yield control statute" reduces certain property tax rates, because it limits revenue yields that result when property values are increased due to reassessment. It is applied separately to residential and non-residential properties. No increase in revenue is allowed for any addition to values attributed to valuation maintenance or reappraisal programs. When tax rates reach the allotted maximum, counties start losing actual dollars. Making New Mexico a full-disclosure state would also help improve the assessment process and assist in providing fair and equitable values.

Another aspect of regulation worth noting in regards to residential reappraised properties is the limitation of increases in the valuation of no more than 3% per year, and that increase in value is only if the prior value is lower than market value, only then can a residential property owner expect to see an increase in their residential values, thus increasing the tax bill amount.

Using our property valuation system as a conservation tool can only be okay if property owners are aware and are accepting of how lands in a conservation program not used agriculturally can potentially impact non-residential property owners, by shifting the tax burden onto them. Therefore, I'm not totally convinced that agricultural property tax laws are the best tool for achieving conservation objectives. There are other effective areas that should be considered to support and protect vacant lands like investing in Land-link services, food hubs, securing funding for local-level food systems, and investing in young and new producers.

~Darlene Vigil, Former Taos County Assessor

J. Support for Farm Viability, Particularly Among Young and Beginning Farmers

An important component of ensuring agricultural lands remain in production is supporting the viability and access to land for young and beginning farmers and ranchers. This entails funding and programmatic support for young and beginning farmers; support in accessing federal programs, including the purchase of land; state-supported and funded loan programs that provide direct support for the purchase of land. Local governments may also facilitate access to land by making publicly owned agricultural land available to young and beginning farmers. There are the local governments and nonprofits in New Mexico working in these areas, including Bernalillo County (Grow The Growers), NM Acequia Association, Alianza Agri-Cultura de Taos, and Quivira Coalition.

New York state law makes allowances for small acreage farms and startup farms. This enables young and beginning farmers to qualify for agricultural valuations, thus making their farming operations more viable. Specifically, the New York statute allows small-scale agricultural producers to qualify for agricultural valuations if their farming acreage is below the minimum threshold but their annual agricultural sales exceed a specific level. Applying this example, if New Mexico legislators valued the need to enact legislation to better support young, beginning, and small-scale producers, they could allow producers to qualify for agricultural valuations even if their farms were under one acre as long as they meet certain minimum thresholds for agricultural sales. This might look like less than 1.0 acre of production qualifying for agricultural valuation if annual sales exceed \$5,000 per year.⁸⁷

K. Urban Agriculture Enabling Statutes and Ordinances

A handful of states have passed enabling legislation allowing municipalities to adopt ordinances that provide incentives to support local urban agriculture. Among these are Missouri (Urban Agriculture Zone Act), Maryland (Urban Agriculture Incentives Zones Act), New Jersey, Utah, District of Columbia, and California (Urban Agriculture Incentive Zones Act).⁸⁸ Most of these state statutes include clawbacks, which are the full repayment of the incentives if the applicant fails to use the land/lot in line with agricultural use guidelines. The Maryland statute includes environmental mitigation as a qualified agricultural use. An important strength of these statutes is that they give local control to municipalities to grant credits, abatements, incentives and empower the local governments to administer these programs.

⁸⁷ New York also allows producers to combine acreage to qualify for the standard minimum of 7 acres (and \$10,000 in annual agricultural sales) needed to qualify for agricultural valuations.

⁸⁸ California Legislative Information, Assembly Bill No. 551, Local government: urban agriculture incentive zones. (https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB551); District of Columbia, Department of Energy & Environment. (<https://doee.dc.gov/service/urban-agriculture>); Prince George's Soil Conservation District, Urban Agriculture Property Tax Credits. (<https://www.pgscd.org/urban-agricultural-conservation/urban-ag-property-tax-credit/>); Los Angeles County Ordinance No. 2016-0023; Montgomery County, Maryland Ordinance, Section 52-11D, Urban Agricultural Tax Credit. (https://www.montgomerycountymd.gov/COUNCIL/Resources/Files/bill/2016/20170307_31-16.pdf)

Statewide enabling legislation serves to prioritize urban agriculture and give local governments the ability to enact their own ordinances to manage programs, however, not all cities will wait for state legislation to pursue their own ordinances. Municipalities that have adopted urban agriculture ordinances are: Chicago (IL), Seattle (WA), Cleveland (OH) San Diego County (CA), Los Angeles County (CA), Baltimore (MD), Prince George County (MD), Montgomery County (MD), Detroit (MI), Portland (OR), and Berkeley (CA). These ordinances help to support small operations, combat urban blight, create urban greenspaces on otherwise vacant land and lots. Additionally, in connection with the 2018 Farm Bill's creation of the USDA Office of Urban Agriculture and Innovative Production, the NRCS offered \$3 million in grants for urban agriculture beginning in 2020.

An analog for the functioning of these programs is the state authorization of tax abatements for the Metropolitan Redevelopment of blighted urban areas. (1978 NMSA 3-60A)⁸⁹

There needs to be more incentives and tools for landowners to hold on to land, and not have to sell because of increased pressures and higher taxes. The NM legislature, working with the New Mexico Acequia Association, created a legal means for each acequia to establish a water bank, which allows participants who are not using their water, to not lose it through forfeiture or abandonment. Banked water can be distributed throughout the acequia. There should be a legal counterpart to a water bank - a legal incentive, such as maintaining lower taxes for agricultural land that is fallow, but which could be used in the future for farming. After that, initiatives to link landowners to farmers and return land to production should be considered and funded.

Real estate pressures, second homes, and a tight real estate market drive up prices and values, and also drive up taxes. Former agricultural lands and land which could be used for future agriculture and farming in the future should be given a special tax classification, and not be subjected to the same real estate pressures and rising prices and taxes. Once developed, those lands are lost to the future of feeding local communities and helping with sustainable practices in the face of a changing climate.

~Peggy Nelson, Retired District Court Judge, Taos

⁸⁹ Although an urban agriculture enabling statute would need to exist in independence, referencing the Metropolitan Redevelopment statute serves to demonstrate there is a precedence for giving municipalities the authority to work with private landowners and Assessors to incentivize private landowners with lower property value assessments in order to manage land for the public good. The City of Albuquerque has used this program extensively by incentivizing developers and large commercial employers by providing tax abatements. The City works with the Assessor's office to determine appropriate assessments but also the special treatment of these properties for tax assessment and valuation purposes. The tax abatement that the property owners receive incentivizes to develop and maintain otherwise neglected, under-utilized, or vacant properties.

L. Increase Landowner Participation in Existing Federal Conservation Programs

Increasing participation in federal conservation programs is an important component of increasing preserved agricultural, working, and natural lands in New Mexico. There are several federal programs that help to incentivize landowners to engage and maintain conservation activities. For example, the **Conservation Stewardship Program (CSP)** provides financial assistance to private and Tribal agricultural landowners for the conservation of agricultural lands, cropland, grassland, pastureland, rangeland, nonindustrial private forest land. Funds are available for new investment as well as maintaining and improving existing conservation activities and with higher payments made to higher performing conservation efforts.⁹⁰

The **Conservation Reserve Program (CRP)** provides technical and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner. The program seeks to reduce soil erosion, protects the Nation's ability to produce food and fiber, reduces sedimentation in streams and lakes, improves water quality, establishes wildlife habitat, and enhances forest and wetland resources. It encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as tame or native grasses, wildlife plantings, trees, or riparian buffers. Farmers receive an annual rental payment for the term of the multi-year contract. Cost sharing is provided to establish the vegetative cover practices.

Notably, private lands enrolled in the NRCS Conservation Reserve Program automatically qualify for lower agricultural land valuations in New Mexico. Providing local support for New Mexico landowners to participate in federal conservation programs is an important component of increasing preserved agricultural, working, and natural lands in New Mexico. Importantly, the national process is highly competitive and funding is limited, resulting in greater demand than available dollars for this and other federal programs.

Other federal programs are the Conservation Partnership Program (RCPP), Agricultural Conservation Easement Program-Agricultural Land Easements (ACEP-ALE), and the National Fish and Wildlife Foundation.

Many states have formed and funded trusts to help facilitate the protection of lands. The purpose of these programs ranges from agricultural, working lands, natural resource, conservation (habitat and species protection), and recreation preservation and protection. Beneficiaries of these programs range from private landowners, local governments and state agencies, and nonprofits. Uses of funds can be used by those seeking technical and financial support, support for access and participation in federal funding, and acquisition of land and/or development rights. Importantly, states can multiply investments in agricultural, wild and natural land

⁹⁰ The NRCS tracks soil data to assess the efficacy of conservation efforts at the state-by-state level, for example, the NRCS findings show that land enrolled in the CRP program has been successful in reducing annual wind erosion with NM land in the CRP program experiencing annual wind erosion of 12.76 compared to 22.82 for cropland. (Note: Erosion measured in tons per acre. NRCS, *National Resource Inventory Summary Report*, August 2015, Table 16, p. 5-61). Other federal programs are: US Bureau of Land Management Federal Land Transaction Facilitation Act; US Fish & Wildlife Service (USFWS) North American Wetlands Conservation Act (NAWCA); USFWS Section 6 Grant; USFS – Forest Legacy Program; US National Park Service (USNPS) Land and Water Conservation Fund (LWCF) Stateside; US Natural Resources Conservation Service (NRCS) Grasslands Reserve Program (GRP).

protections by using dollars from these Trusts to provide non-federal matching funds required by most federal programs.

The Wyoming Natural Resource Trust provides funding for a wide variety of projects. These projects include grassland restoration, prescribed fire, treatment of invasive plants, wildlife habitat. The Wyoming Trust also through the acquisition of development rights, contractual obligations, and other means. Funding can also be used for projects completed by other state agencies.⁹¹ The Michigan Natural Resources Trust Fund (MNRTF) seeks to make \$15-20 million in grants per year to fund state, local governments, and certain political subdivisions for the purpose of natural resource protection and outdoor recreation. Grant sizes range from \$15,000 to \$300,000. North Carolina has an Agricultural Development and Farmland Preservation Trust Fund used to fund the purchase of agricultural conservation easements but also public and private programs seeking to promote and support profitable and sustainable farms through primarily technical assistance.

M. Direct Purchase of Lands for Open Space, Wildlife Habitat, Protection of Sensitive Areas

Most state governments in the U.S. have programs to protect natural lands. Most of these programs provide funding to local entities, nonprofits, and land trusts to either purchase lands or to purchase development rights. Many states buy and manage lands directly as part of their open space, state parks, and natural resource and environment departments. Through direct acquisitions state, local or county referenda may elect to fund the protection of land for the public good. Land trusts engage in these activities as well by accepting donated land or by using donated or borrowed funds to purchase properties.

The Massachusetts Landscape Partnership Grant Program seeks to protect large blocks of conservation land by working with local, state, and federal government agencies, and nonprofit groups, providing reimbursements up to 50% for the purchase of conservation easements, watershed easements, or the fee simple purchase of land. The Local Acquisition for Natural Diversity (LAND) Grant Program helps cities and towns acquire land for conservation and recreation purposes (fee simple and development easements) with reimbursements of up to 70%.⁹² Maine protects its natural resources and natural lands through the Land for Maine's Future (LMF). Grant recipients are land trusts, local governments, foundations, state agencies. Funds can be used for the acquisition of land or land interests for recreation, "supporting vital ecological or conservation functions and values," protecting habitat and native species, and for conserving farmland.⁹³

Maryland's Rural Legacy Act seeks to preserve agriculture, forest, and natural resource land in contiguous blocks, corridors, or greenways by providing funds for local governments and/or land trusts to purchase development rights on properties in rural areas threatened by development. The Rural Legacy Program has protected, preserved, and conserved nearly 1 million acres. The Maryland Agricultural Land Preservation Foundation purchases agricultural preservation easements that forever restrict development on prime

⁹¹ <https://www.nrt.wyo.gov/projects/project-types>

⁹² <https://www.mass.gov/service-details/local-acquisitions-for-natural-diversity-land-grant-program>

⁹³ <https://www.maine.gov/dacf/lmf/applying.shtml>

farmland and woodland and has permanently preserved 301,000 acres on 2,218 properties.⁹⁴ The Maryland Historical Trust employs technical assistance, easements, grants, loans, and other tools to protect the state’s historical and cultural resources.⁹⁵ Hawaii’s Legacy Land Conservation Program provides grants to state agencies and other governmental agencies, counties, nonprofit land conservation organizations, community organizations that strive to purchase and protect the land “that shelters exceptional, unique, threatened, and endangered resources.” This program uses revenues from real estate conveyances taxes – also debt instruments such as bonds – to finance the program. Qualifying land uses are agricultural, cultural/historical, habitat, open space, recreation/hunting, and watershed.⁹⁶

The Illinois Natural Areas Acquisition Fund provides grants administered by the Department of Natural Resources for the acquisition, protection, and stewardship of natural areas.⁹⁷ Indiana Natural Resources Department works with local governments and nonprofits to acquire land and water resources for the purpose of natural resource protection. There are a couple of discrete funds and programs.⁹⁸ Other state programs are Arizona, Colorado, Connecticut, Georgia, and Kentucky.⁹⁹

New Mexico has state laws authorizing the protection of working lands and open space lands, however, these laws are largely unfunded. For example, the **Natural Heritage Conservation Program (NHCP)** made a one-time allocation of \$4.8 million to “protect the state’s natural heritage, customs and culture *by funding conservation and agricultural easements and by funding land restoration* to protect the land and water available for forests and watersheds, natural areas, wildlife and wildlife habitat, agricultural production on working farms and ranches, outdoor recreation and trails and land and habitat and management.”¹⁰⁰ The Natural Heritage Conservation Program is located in the Energy Minerals Natural Resources Department and has not been active in the last several years since the one-time allocation was completely used.

The **Natural Lands Protection Program (NLPP)**¹⁰¹ created a committee intended to recommend lands for acquisition “subject to appropriation for such purpose by the legislature” for the payment of “the state’s share” of acquisition costs. The NLPP requires that a corporation jointly acquire lands with the state, and the

⁹⁴ <https://mda.maryland.gov/malpf/pages/default.aspx>

⁹⁵ <https://mht.maryland.gov/aboutMHT.shtml>

⁹⁶ <https://dlnr.hawaii.gov/ecosystems/lcpl/>

⁹⁷ <https://www.in.gov/dnr/>

⁹⁸ <https://www.in.gov/dnr/land-acquisition/>

⁹⁹ <https://www.azgfd.com/wildlife/heritagefund/program/>; <https://agriculture.az.gov/about-us/divisions/>; <https://cdola.colorado.gov/funding-programs/conservation-trust-fund-ctf>; <http://www.goco.org/>; <https://portal.ct.gov/DEEP/Open-Space/Land-and-Water-Conservation-Fund-Grant-Program>; <https://portal.ct.gov/DEEP/Open-Space/Open-Space-and-Watershed-Land-Acquisition-Grant-Program>; <https://portal.ct.gov/DEEP/Open-Space/The-Recreation-and-Natural-Heritage-Trust-Program>; https://eec.ky.gov/Nature-Preserves/conserving_natural_areas/KHLCF/Pages/heritage-land-conservation-fund.aspx.

¹⁰⁰ Source: Ch. 75, art. 7 NMSA 1978, <<https://nmonesource.com/nmos/nmsa/en/item/4421/index.do#!b/a7>>, retrieved on 04/28/2021.

¹⁰¹ Source: Ch. 75, art. 10 NMSA 1978, <<https://nmonesource.com/nmos/nmsa/en/item/4421/index.do#!b/a10>>, retrieved on 07/19/2021.

corporation must acquire the undivided interest of at least 10%. Titles are held jointly in the name of the state of New Mexico and the corporation.

The **NM Department of Game and Fish (NMDGF)** and the **NM State Parks (NMSP)** may also acquire and lease lands. By statute, NMDGF can acquire land for the purposes of “propagation, preservation, protection, and management of” game and wildlife.¹⁰² The funding mechanism for the NMDGF is general fund appropriations from nongame tax check-offs on income tax forms and state bonds that have been used in the past to acquire and lease lands for wildlife game management areas. Funding for NMSP acquisitions occurs through capital outlay requests and through donations.

VI. Discussion & Recommendations

The clear trend for agricultural, working, and natural lands suggest that these lands are being converted for development. The unmitigated loss of these lands does have implications for New Mexico’s economy and the rural heritage in the form of agriculture, the natural environment, and New Mexico’s land-based cultures. Historical experience captured through recent studies specific to New Mexico and testimonies from stakeholder groups depicts much of the environmental, economic, and social impacts. The academic and applied research also shows that the loss of these lands has environmental and ecological consequences that also have measurable and quantifiable consequences.

This study has sought to assess the measurable economic and fiscal contributions of the rural and agricultural sectors, and the land-based cultures in New Mexico, as captured by employment, incomes, and economic contribution modeling. These analyses demonstrate that these contributions are significant and important statewide and particularly in the state’s rural counties. This study has also sought to explore, evaluate and quantify the economic and fiscal implications of land conversion. As the results of our analysis show, although the conversion of agricultural lands results in more tax revenues, the agricultural economic loss, infrastructure costs, and ecosystem benefits likely more than offset property tax revenue gains. For this reason, we think it makes sense to enact laws that help to preserve and protect New Mexico’s unique rural and cultural heritages.

Providing private landowners with tools and incentives to steward these lands can help to mitigate land conversion. Specifically, policies that enact laws and fund programs that help landowners (ranchers, farmers, and those engaged in conservation) stay on their land. Also, those policies support and provide funding to local communities to better manage land and natural resources, given their close proximity and more frequent interaction with lands and their more directly-linked incentives. In the body of this report, we have discussed various tax-related policies used by other states. The following are the policy tools and recommendations that may have the most impact in New Mexico given the state’s specific demographics, historical and social contexts, and overall needs.

Property Tax-Related Policy Tool Recommendations:

¹⁰² Source: Section 17-4-1 NMSA 1978, <<https://nmonesource.com/nmos/nmsa/en/item/4341/index.do#!b/17-4-1>>, retrieved on 04/28/2021.

- Enact legislation that supports and improves the viability of young and beginning farmers. As it relates to tax policy this means, because many producers matching these demographics are operating on a smaller scale, **allowing properties engaged in agricultural production on lots less than an acre to qualify for agricultural valuations** (currently the state minimum qualifying acreage is one acre). New York State has enacted a law along these lines;
- Provide **more guidance on what constitutes agriculture**. NMSU publishes a handbook for county assessors. Guidance should detail established Natural Resources Conservation Service practices like non-commercial forest thinning, brush control, wildlife habitat improvements, stream protectors. Additionally, traditional agricultural methods and indigenous practices should be detailed so as to be easily recognized by the Assessors' staff. Guidance might clearly recognize permaculture design, traditional uses like firewood harvesting, foraging for wild and organic goods (medicinal herbs and plants, food, and fiber), and other naturally occurring products;
- Whether through statute or administrative guidance, the state could **better articulate the property tax assessment and treatment of mixed land uses**; increasingly, landowners must diversify operations in order to generate sufficient revenues to remain profitable and to be able to afford property taxes; for example, a rancher or land grant community may enter leases for billboards or cellular towers, install alternative energy equipment (solar or wind), engage in affordable housing developments while properties are still primarily agricultural use, thus treatment of these properties as such are important to help ensure the viability of these operations; by way of example, guidance could be provided to Assessors to value lands as agriculture for ranchers installing wind turbines on ranching land provided the primary use of these lands are for agriculture;
- NM Legislature should consider **funding conservation easements in the state**. Many of these may include federal and state tax credit components. Many property owners have trouble qualifying for federal conservation programs;
- Consider **"Circuit Breaker" tax credits on their income taxes** that give agricultural producers a credit on their annual tax bill if they meet certain household income requirements. These credits do not necessarily offer property tax relief but they do have the merit of being well-targeted;
- Consider merits of **law that freezes the valuation of agricultural lands owned by senior citizens** (e.g. 65 and older) in order to ease and allow the succession and transition of land to individuals and family members interested in continuing agricultural use and/or land trusts and other preservation-oriented structures. Such a law could help to ease the succession process while keeping agricultural, natural and working land holdings intact. Legislation could be more targeted by including a maximum income level;
- **Reconsider merits of Conservation Special Use Valuation legislation**. Given the historical loss of agricultural land to other uses like residential development, such a policy might mitigate agricultural land conversion by giving landowners an additional tool to keep lands in agriculture/conservation status. The quantitative evidence does not support the notion that a Conservation SUV will create a disincentive to take land out of agricultural production. Rather, profitable agricultural operations will not enroll in a CSUV because the economics do not make sense, given that they would have to pay a higher tax rates while foregoing agricultural production income. Because only marginally productive agricultural lands will participate, we expect participation to be muted. Also, the barriers to entry/participation contained in previously proposed legislation (5-years of historical agricultural use, the requirement of state-approved conservation plans, and roll-backs) will likely deter most landowners who are not serious about conserving and protecting lands.

Related Policy Tool Recommendations:

- Enable municipalities to encourage and support **urban agriculture ordinances**. This could take the shape of enabling municipalities to grant property tax abatements to landowners who themselves use vacant land or lease their properties for the use of agriculture. This is particularly effective if the property is less than an acre and would not qualify for the one acre minimum for agricultural valuations. States with these types of statutes include Missouri, Maryland, New Jersey, Utah, District of Columbia, and California. Municipalities with urban agriculture ordinances are Chicago, Seattle, Cleveland, San Diego County, Detroit, Portland, and Berkeley;
- Provide state funding to **help landowners access federal conservation dollars**. This might take the shape of a state conservation office that can provide technical assistance and grants to help landowners qualify for federal programs and the creation and funding of a Natural Resource Trust. Federal programs in which landowners might benefit from technical assistance and matching dollars include the Agricultural Conservation Easement Program-Agricultural Land Easements (ACEP-ALE), Regional Conservation Partnership Program (RCPP), National Fish and Wildlife Foundation (NFWF), Conservation Reserve Program (CRP), and the Conservation Stewardship Program (CSP). Natural Resource Trusts are an important tool for facilitating this. Examples of these in other states are Wyoming’s Natural Resource Trust, Michigan Natural Resources Trust Fund, and the North Carolina Agricultural Development and Farmland Preservation Trust Fund. States can multiply investments in agricultural, wild and natural land protections by using dollars from these Trusts to provide non-federal matching funds required by most federal programs;
- Provide more **funding for state Conservation Easement programs**. New Mexico already has several private land trusts in the state working with landowners to protect agricultural and natural lands by protecting these properties from future development in the form of Conservation Easements. New Mexico has enabling legislation to allow the state government to assist with Conservation Easements, however, these programs are largely unfunded. There are federal and state tax components if landowners decide to donate the easement rather than receiving cash payments for the development rights of their land;
- **Fund programs already enabled to work with landowners to preserve agricultural, working, and natural lands**. The Natural Heritage Conservation Act and the Natural Lands Protection Act are two examples of existing statutes that are intended to assist landowners but are limited to do so by lack of funding.¹⁰³ State funding could either be used to provide technical support with the development of conservation plans, legal advisory and costs, or for third-party appraisals. The Natural Heritage Conservation Act is specifically intended to “fund conservation and agricultural easements” and to preserve and restore lands, however, it is only a program in name absent funding to implement;
- **Statewide land-use planning legislation** that seeks to prioritize the preservation and protection of agricultural, working, and natural lands. Many states require local and regional governments to maintain comprehensive plans that include a land-use planning dimension that specifically seeks to preserve and protect agricultural, working, and natural lands. One feature of this type of legislation

¹⁰³ Source: Ch. 75, art. 7 NMSA 1978, <<https://nmonesource.com/nmos/nmsa/en/item/4421/index.do#!b/a7>>, retrieved on 04/28/2021.

may also seek to be fiscally responsible by focusing development in areas designated for future growth that already have sewer, water, and necessary utilities. States with statewide land-use legislation and land-use planning processes typically have a department to provide technical assistance and support to local governments developing their own plans and seeking to adhere to statewide plans and requirements; some of these departments also serve to ensure statewide compliance. States that seek to particularly prioritize agricultural land, working land, and natural lands are Rhode Island, Vermont, Oregon, and Pennsylvania. Legislators might seek to mitigate agricultural, working, and natural land loss by enacting statutes specifically aimed at incentivizing local governments to prevent unmitigated development of rural lands while providing support to identify and protect high-value resource areas;

- Consider whether state statutes can be modified to better enable municipalities to adopt **ordinances that will help better protect and preserve traditional land-based communities** through local zoning and ordinances;
- Consider participating in and developing **Payment for Ecosystem Services** markets in New Mexico. The Quivira Coalition is a local example with its Carbon sequestration initiative. New Mexico could consider participating in national pilot programs or developing their own markets or pathways to national and international markets;
- State should consider **investing in Ecological-economic models** that can be used for estimating the full range of ecosystem services and management options that would be helpful for policymakers. This process may include a statewide effort to complete a Natural Resource Inventory;
- Continue to enact and support legislation that **strengthens the agricultural viability of operators (particularly young and beginning farmers and ranchers) and help to support the local food system**. This might include ensuring that access to land is affordable so as to ensure that the economics of ranching and farming is viable (i.e. property tax laws that create and support conditions that are conducive to growing young and beginning farming operations and that are supportive of the viability of traditional land-based cultures). Other examples are expanding and funding programs that facilitate land transition to young and beginning producers (loan and grant programs, technical assistance, apprenticeship, and mentorship programs); this may also take the shape of continued investment in building and growing local agriculture supply chain (NM-based meat processing facilities, and processing and packaging enterprises like NM Fresh Foods);
- Continue to **convene stakeholders** to better articulate what would be helpful from landowners perspectives and needs but also the issues and needs of Assessors; a productive series of discussions might consider non-tax policy needs and solutions as well;
- **Facilitate cross-state agency and cross-county collaboration** on land use, natural resource management, and policy issues generally. For example, evaluate whether there are any advantages in collaborating across counties to more effectively negotiate PILT payments. State agency coordination might involve collaboration on natural resources, land use, property tax (TRD, EMNRD, SOE, DGF, DFA, NMDA);
- Continue to **deepen the collection and aggregation of detailed property data** from Assessors in order to more effectively analyze current and potential tax policies and their statewide impact but also down to the county level. For example, detailed data down to acreage totals by type over time would be helpful in assessing why taxable values are decreasing (or growing at low rates) while other counties are experiencing higher rates of growth. Also, these data might help facilitate the evaluation of the yield control formula to assess its efficacy and impact on the individual county level;

- Because New Mexico is a non-disclosure state, meaning sale prices are not considered public information, thus sellers/buyers cannot be compelled to share this information; **changing laws to allow for the disclosure of purchase prices** would reduce the burden on Assessors while improving the accuracy of property assessments.

VII. Data Sources & Methodology

For this study, we attempted to secure data directly from the county assessors including acreage by type and tax rates by type. We sought to gather a 100% sample; however, only one-third of counties were responsive to our request for parcel-level information, making it impossible to rely only on data provided by the counties. Acquiring data to the parcel level proved challenging for most counties, especially those that are unable to query their own databases and depend on the third party software provider to store data and run these queries (for which the provider typically charges fees). In addition, there were also data limitations for the counties that actually did provide data included missing information on acreage and land use type. As part of our goal in this analysis was to understand the varying land rates by type at the county level, often incomplete assessors' prevented this analysis.

BBER was able to secure non-specific data, which is at the highest level of aggregation from a handful of counties. Most counties either do not report (or suppress) Agricultural Values and aggregated these with the county reporting of total Nonresidential Values. We also utilized all publicly available Taxable Value and Mil Rate information contained in the Department of Finance Administration (DFA) Local Government Division reports; however, the level of reporting for these data was also at the highest aggregate levels.

BBER accessed several secondary sources to assess demographic questions, including the assessment of agricultural landholding trends. For agricultural information, the U.S. Department of Agriculture data (USDA), both the National Agriculture Statistics Service (NASS) and the National Resource Conservation Service (NRCS), proved helpful for understanding land use and agricultural trends.

This study also utilized various sources for demographic data (population, housing, etc.), including data from the U.S. Census Bureau. For Economic data (employment, GDP, personal income, and employment) BBER utilized data from the Bureau of Labor Statistics (BLS), Bureau of Economic Analysis (BEA), as well as the NM Department for Workforce Solutions (DWS).

Our assessment includes the review of private land values by county, as well as obligations by county and statewide totals. In addition to assessing whether agricultural and working lands are being lost, we also seek to understand the various mechanisms at play. We begin with available county assessor data; however, for any gaps, we will draw upon secondary sources to evaluate this question. Where possible, we also strive to assess which counties, if any, are experiencing the greatest pressure on agricultural lands and those areas that are experiencing the greatest loss of these lands to conversion.

This study seeks to assess the direct and indirect costs of specific property tax policies but also the costs in the absence of potential policy action. This may include fiscal and economic assessments that directly and

indirectly address specific tax policy changes. As far as data is available and complete, we strive to assess the efficacy of current property tax policy as it relates to agricultural lands. Where data are incomplete and a thorough analysis of primary data is not possible, we will strive to review relevant secondary sources and studies to illuminate the discourse.

As part of our research, we conducted interviews with stakeholders. These interviews were structured and semi-structured and focused on those who participated in the Rural Heritage Task Force hearings of 2019. These interviews contribute valuable data we think are vital to understanding the issues surrounding important tax questions. As directly relevant, we have incorporated content from these interviews directly in the narrative of this report.

VIII. Data Sources

Source	URL
Greater Association of Realtors for Albuquerque	https://www.gaar.com/
Las Cruces Association of Realtors	https://www.lascrucesassociationofrealtors.com/
National Interagency Coordination Center	https://www.predictiveservices.nifc.gov/ https://www.nifc.gov/nicc/
National Oceanic and Atmospheric Association	https://www.noaa.gov/
NM Department of Finance Administration, Property Tax Facts	https://www.nmdfa.state.nm.us/local-government/budget-finance-bureau/property-taxes/property-tax-facts/
NM Department for Workforce Solutions	https://www.dws.state.nm.us/en-us/
NM Energy Minerals Natural Resources Department	http://www.emnrd.state.nm.us/
NM State Land Office	https://www.nmstatelands.org/
NM Tax & Revenue Department County Assessor Abstract Data	https://www.tax.newmexico.gov/businesses/geographic-information-system-gis/data-download/
Santa Fe Association of Realtors	https://sfar.com/
Taos County Association of Realtors	https://taoscountyassociationofrealtors.com/
U.S. Bureau of Economic Analysis	https://www.bea.gov/
U.S. Bureau of Labor Statistics	https://www.bls.gov/
U.S. Census, American Community Survey, 5-Year Estimates	https://www.census.gov/programs-surveys/acs/data.html
U.S. Census Population Estimates	https://www.census.gov/programs-surveys/popest.html

U.S. Department of Agriculture, National Agricultural Statistics Services	https://www.nass.usda.gov/
U.S. Department of Interior	https://www.doi.gov/
U.S. Natural Resources Conservation Services	https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/

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