

10-31-1881

Report of the Governor of New Mexico, 1881

Follow this and additional works at: <https://digitalcommons.law.ou.edu/indianserialset>

 Part of the [Indian and Aboriginal Law Commons](#)

Recommended Citation

H.R. Exec. Doc. No. 1, 47th Cong., 1st Sess. (1881)

This House Executive Document is brought to you for free and open access by University of Oklahoma College of Law Digital Commons. It has been accepted for inclusion in American Indian and Alaskan Native Documents in the Congressional Serial Set: 1817-1899 by an authorized administrator of University of Oklahoma College of Law Digital Commons. For more information, please contact darinfox@ou.edu.

REPORT
OF
THE GOVERNOR OF NEW MEXICO.

EXECUTIVE OFFICE,
Santa Fé, N. Mex., October 31, 1881.

In compliance with your letter under date September 19, 1881, I have the honor to submit the following report:

RAILWAYS.

During the year ending June 30, 1881, the Atchison, Topeka and Santa Fé Railroad was completed to Deming, in the southern part of New Mexico, and at that point connects with the Southern Pacific Railroad. At Rincon the former railroad has a track following the Rio Grande to El Paso, in the State of Texas. It also has a branch running to the city of Santa Fé. The entire length of road constructed by the said Atchison, Topeka and Santa Fé Railroad Company in this Territory is 557 miles.

The general direction of the road from the Colorado State line to Rincon is nearly south. From Rincon to Deming its direction is nearly west, and from Rincon to the Texas State line south-southeast.

The Southern Pacific Railroad extends entirely across the southwestern portion of the Territory, running almost due east from Stein's Pass, where it enters the Territory, having of track 155 miles.

The Atlantic and Pacific Railroad, beginning at Albuquerque on the Rio Grande, extends in a westerly direction to the western boundary of New Mexico into Arizona, a distance of 212 miles, and has the city of San Francisco, in the State of California, as its objective point.

The Denver and Rio Grande Railroad enters the Territory near Antonito. Of the San Juan Division of said road, running west, there are about 60 miles of track in this Territory. The New Mexico Division of that road extends from Head's Station to Española, 28 miles north of the city of Santa Fé, running nearly due south with 80 miles of track.

Of projected roads, either in course of construction or soon to be commenced, are the Texas Pacific Railroad, at present about 90 miles from the Territorial line. This road will, if constructed, run nearly parallel with the Southern Pacific Railroad to the western border of the Territory, according to the present survey.

The Texas, Santa Fé and Northern Railroad will connect with the Denver and Rio Grande Railroad at Española and run southeast through the city of Santa Fé to the Pecos River, and through the southeastern part of the Territory to a connection with some of the Texas railroads.

Roads are also projected and being chartered, from Trinidad, in the

State of Colorado, to Las Vegas and the Rio Grande, and from Socorro, on the Atchison, Topeka and Santa Fé Railroad, to the Black Range and the Mogollon mining camps.

The Texas, Galveston and Santa Fé Railroad is in course of construction from Galveston, and is expected to reach the city of Santa Fé in eighteen months.

The Atlantic and Pacific Railroad, from the Indian Territory west, will doubtless be built, and will strike the eastern boundary of the Territory near the Canadian River, with Albuquerque, on the Rio Grande, as its objective point.

THE OVERLAND TRADE

amounted in 1831 to \$15,000, in 1846 to \$1,752,250, and in 1876 to \$2,108,000. This trade has increased to a great extent, supplying now sufficient freight for four railroads, and will doubtless increase so as to render projected railroad enterprises profitable.

AREA AND BOUNDARIES.

The Territory has an average breadth of 335 miles; length of eastern boundary, 345 miles; length of western boundary, 390 miles; the whole covering an area of 121,201 square miles. By geographical divisions it is bounded on the north by the State of Colorado, on the east by the public domain and the State of Texas, on the south by the State of Texas and the Mexican States of Chihuahua and Sonora, and on the west by the Territory of Arizona.

The Territory is divided into twelve counties, as follows:

Northern tier.

Colfax, with Cimarron as county seat.

Taos, with Fernando de Taos as county seat.

Rio Arriba, with Tierra Amarilla as county seat.

Central tier.

Mora, with Mora as county seat.

San Miguel, with Las Vegas as county seat.

Santa Fé, with Santa Fé as county seat.

Bernalillo, with Bernalillo as county seat.

Valencia, with Los Lunas as county seat.

Socorro, with Socorro as county seat.

Southern tier.

Lincoln, with Lincoln as county seat.

Doña Aña, with La Mesilla as county seat.

Grant, with Silver City as county seat.

BUSINESS CENTERS.

Santa Fé, the capital of the Territory and military headquarters, the commercial, educational, religious, and political center; the thriving and growing towns of Las Vegas, Albuquerque, Silver City, Georgetown, Las Cruces, La Mesilla, Cimarron, Raton, Socorro, Los Lunas, Mora,

Tierra Amarilla, Lincoln, White Oak, Taos, and Watrous. These towns are all important business points and either on railroads or stage routes. They vary in population from 600 in Lincoln to 9,000 in Santa Fé.

The population of the Territory, with the recent increase, may be set down at 125,000, or a fraction above one person to the square mile.

THE PEOPLE.

The masses of the people are simple in their tastes and habits, peaceable and law-abiding. Small settlements are the rule, this mode of living having become necessary as a means of protection against hostile Indians. They are generally engaged in agriculture on a small scale, and in attending to herds and flocks. In a few instances agriculture is carried on quite extensively, and flocks of sheep and herds of cattle are very large. The people engaged in the mining industry are generally those who have come to the Territory recently.

The people of the Territory have frequently given substantial evidence that they are a well disposed, patriotic, and liberty-loving people.

In illustration of their love of liberty and friendship for the government the following instances are mentioned:

General Kearney occupied the country in 1846 without meeting an armed force or material opposition of any kind, although a few months later, under gross misrepresentations by a few restless spirits, a speck of war was developed, which, however, was easily suppressed.

In the convention, called in October, 1846, to consider questions with respect to local self-government, the convention adopted unanimously a petition and resolutions, among which were the following as translated:

We, the people of New Mexico, respectfully petition Congress for the speedy organization by law of a Territorial civil government for us.

Then a resolution:

We do not desire to have domestic slavery within our borders, and until the time shall arrive for an admission into the Union as a State, we desire to be protected by Congress against their introduction amongst us.

The resolutions have the more force when it is remembered that the best citizens of the Territory were elected to and served in that convention, and that more than two-thirds of the members were born in the Territory.

From 1848 to 1860 militia and volunteers of the Territory, under the command of native officers, were engaged in several successful Indian campaigns, notably in 1854 and 1859.

In the same spirit and from like motives the Territory contributed to the Union armies over 6,000 volunteers during the war of the rebellion, who performed arduous, gallant, and effective service against rebels and hostile Indians, and notably at Apache Cañon, where the Confederate troops were so completely discomfited that they at once abandoned the Territory of New Mexico.

Thus at their homes, in legislation, and in the Army have the people given evidence of their love of liberty and fealty to the government placed over them by conquest.

The native population are not only law-abiding themselves, but are a reliable element to be employed in repelling Indian raids and suppressing domestic disorders; they are seldom guilty of heinous crimes. Most of the desperadoes who have recently infested the Territory, and those still at large within her borders, are adventurers from other localities.

IMMIGRATION,

since the advent of railroads, has been and now is rapidly on the increase. It is estimated as many as 10,000 people have come to the Territory for permanent settlement since the census of 1880. They are from every State and Territory in the Union, and a few from many of the foreign nations. As a body, they are, like the mass of those who came here from 1846 to 1880, intelligent, patriotic, energetic, economical, honest, and orderly.

The following table shows the distribution and locality of population, according to the census of 1880:

NEW MEXICO.

Counties.	Total.	Male.	Female.	Native.	Foreign.	White.	Colored.*
The Territory.....	119,565	64,496	55,069	111,515	8,051	108,721	10,844
Bernalillo.....	17,225	9,087	8,138	16,842	383	12,514	4,711
Colfax.....	3,398	1,973	1,425	3,144	254	3,375	23
Doña Ana.....	7,612	3,958	3,654	4,743	2,869	7,537	75
Grant.....	4,539	2,844	1,695	2,536	2,003	4,404	135
Lincoln.....	2,513	1,552	961	2,303	210	2,448	65
Mora.....	9,751	5,033	4,718	9,542	209	9,423	328
Rio Arriba.....	11,023	5,735	5,288	10,837	186	10,215	808
San Miguel.....	20,638	11,048	9,590	20,061	577	20,439	199
Santa Fé.....	10,867	6,023	4,844	10,209	658	10,388	479
Socorro.....	7,875	4,280	3,595	7,506	369	7,804	71
Taos.....	11,029	6,021	5,008	10,872	157	10,401	628
Valencia.....	13,095	6,942	6,153	12,919	176	9,773	3,322

*Including, in the Territory, 56 Chinese and 9,790 Indians and half-breeds; in Bernalillo County, 2 Chinese and 4,492 Indians and half-breeds; in Colfax County, 17 Indians and half-breeds; in Doña Ana County, 5 Chinese and 45 Indians and half-breeds; in Grant County, 40 Chinese and 9 Indians; in Lincoln County, 2 Chinese and 3 Indians; in Mora County, 86 Indians and half-breeds; in Rio Arriba County, 799 Indians and half-breeds; in San Miguel County, 5 Chinese and 96 Indians and half-breeds; in Santa Fé County, 2 Chinese and 359 Indians and half-breeds; in Taos county, 583 Indians and half-breeds; in Valencia County, 3,301 Indians and half-breeds.

FACE OF THE COUNTRY.

The surface is marked with mesa, valley, and mountains, foot-hills, bluffs, gorges, cañons, and mountain parks. The mountain ranges from north to south generally break into isolated ranges, spurs, and foot-hills, diminishing somewhat in altitude, and gradually becoming mesas or high table-lands. In the northern part of the Territory the Sangre de Cristo Range looms up with spurs and ranges, to the east as the Raton Mountains, to the south the Taos, Mora, and Santa Fé Mountains, to the west the Conejos and Tierra Amarilla ranges.

Southeast of the old city of Santa Fé and east of the Rio Grande a long line of ranges runs south, as the Placer Mountains, the Sandia, Manzana, Oscura, Jumanes, Fra Cristobal, Caballo, San Andres, and Organ ranges. To the east of the above a long series of high table-lands, reaching to the mesa, known as the Llano Estacado or Staked Plains, extend—broken by the following ranges: Gallinas, Jicarillas, Carrizo, Sierra Polanca, Guadalupe, Hueco, and Sacramento—to the southern border of the Territory.

On the west side of the Rio Grande, from the isolated peak known as San Antonio Mountain, ranges run south as follows: Petaca Valles, Jemes, San Mateo, Ladrones, Oso Madalenas, Socorros, Gallinas, Pueblo, Southern San Mateo, also including the extensive Miembres Mountain ranges, and the Florida Mountains, near the southern border.

Farther to the west and near the Arizona line appears the continent: 1

divide, composed of ranges as Tunicha, Chusca, Zuni, Datil, Escudrlla, Tularosa, Luera, San Francisco, Mogollon, Burro, Pyramid, Stein's, Hacheta, Animas, and Peloncille.

These different ranges, distributed as they are, furnish a large water supply, a great amount of timber, and are excellent shelter for stock during storms.

ALTITUDE.

The mesas and table-lands in the northern part of the Territory are generally about 6,000 to 6,500 feet above sea-level. In the central portion of the Territory the mesas attain an elevation of about 5,000 feet, and in the south of about 4,000 feet. The fall of the Rio Grande from the northern border of the Territory to the point where it cuts the New Mexico, Texas, and Chihuahua lines is about 3,500 feet. The ranges generally rise from 2,000 to 5,000 feet above the mesas and high table-lands. Mount Baldy, 18 miles from Santa Fé, is 12,202 feet high. Mount Taylor, in the Sierra San Mateo, is 11,200 feet high. Raton Pass, 7,893 feet; Costillo, 7,774 feet; Tierra Amarilla, 7,455 feet; Taos, 6,950 feet; Cimarron, 6,489 feet; Las Vegas, 6,452 feet; Santa Fé, 7,044 feet; Albuquerque, 4,918 feet; Fort Wingate, 7,037 feet; Socorro, 4,665 feet; Silver City, 5,946 feet; Fort Stanton, 5,800 feet; Las Cruces, 3,844 feet. Some of the mining camps are at an elevation of from 7,200 to 8,500 feet.

At Kansas City, 849 miles east of Santa Fé, the altitude is 763 feet.

WATER-COURSES AND EXTENT.

The Rio Grande del Norte, or Rio Bravo del Norte (the wild river of the north), is the main river of the Territory. It rises in Southwestern Colorado, at an elevation of 11,920 feet; it runs southerly and centrally through the Territory, through cañons and cotton lands. Its tributaries are from the west: the San Andres, the Chama, Jemes, Puerco of the East, Alamosa, Cuchillo Negro, Animas, Polomas; from the east: Costilla, San Cristobal, Hondo, Taos, Picieuris, Santa Cruz, Namlei, Santa Fé, Galisteo, Tuerto, and Alamilla.

The eastern portion of the Territory is drained by the Canadian River (Rio Colorado) emptying into the Arkansas River; its tributaries are: Cimarron, Mora, Sapello, Concha, Pajarito, Ute, Revuelto, and Trujillo.

The Pecos River rises in the Santa Fé range and drains the southeastern part of the Territory, emptying into the Rio Grande. Its principal tributaries are: Vaca, Tecolete, Gallinas, Salado, Yeso, Spring, Hondo, Feliz, Atrasco, Penasco, Seven Rivers, and Black.

The northwestern part of the Territory is drained by the Rio San Juan with tributaries as follows: Pinos, Navajo, Animas, La Plata, and Mancos. The Puerco of the West, the Zeun, Tularosa, and San Francisco rivers are in the Central West.

The Rio Miembres and Rio Gila are in the extreme southwest of the Territory.

Numerous small streams, arroyos, and springs are to be found all over the Territory.

MINERALS AND PRECIOUS STONES.

The resources of the Territory consist very largely of its mines of precious metals, also copper, lead, manganese, and iron; besides mica,

salt, coal, gypsum, soda, lime, kaoline, cement, sulphur, plumbago, mineral paints, marble, and building-stones. Precious stones, such as turquoise, garnets, moss agate, and emerald, are found. Valuable mines of gold, silver, and copper are found in every county.

Iron, lead, and coal are practically inexhaustible. The coal-fields at Raton, on the Maxwell grant, on the San Juan River, near the Tierra Amarilla grant; at the Cerrillos, near Santa Fé, on the Ortiz grant; near Bernalillo, on the line of the Atlantic and Pacific Railroad, and near San Antonio, on the Atchison, Topeka and Santa Fé Railroad, are reported to be immense deposits.

The following camps are mentioned, all in various stages of development: Moreno, Elizabeth Town, Ponil, and Raton, in Colfax County; Cienugilla, Rio Cristobal, Rio Colorado, Arroyo Hondo, and Picuris, in Taos County; Rio Arriba, Chama, and Tierra Amarilla, in Rio Arriba County; Mineral Hill, in San Miguel County; Cerrillos, Bonanza, San Pedro, Golden, Lone Pine, Gonzales, Old and New Placers, in Santa Fé County; Tejeras, Hell Cañon, and Nacimiento, in Bernalillo County. Camps in the Ladrenes, Oscuro, and Manzana ranges, in Valencia County; Madalena, Socorro, Gallinas, Pueblo, Water Cañon, Clairmount, Cooneys, Chloride, Grafton, Fairview, Robinson City, and Cuchillo Negro, in Socorro County; Hillsborough, Rincon, Lake Valley, Organs, Membrillo, San Andres, Upper and Lower Caballo, and Tierra Blanca, in Doña Aña County; Jicarillas, Sierra Blanca, White Oaks, and Nogal, in Lincoln County; Silver City, Georgetown, Santa Rita, Pinos Altos, Shakspeare, Gillespie, White Water, Central City, Cook's Range, Eureka, Victorio, Steeple Bock, Burro Mountains, Florida, and Stonewall, in Grant County.

Among the mines of recognized value and deserving popular mention are the "76," Naiad Queen, Satisfaction, Blue Bell, McGregor, and Santa Rita, in Grant County; the Torrence, Merritt, Wall Street, Ivanhoe, Braxton, in Socorro County; the Lake Valley Group, Memphis, and Stephenson, in Doña Aña County; Delgado, San Pedro, and Bonanza, in Santa Fé County; Homestake, in Lincoln County, and Aztec, in Colfax County. The Taos, Hillsborough, Old and New Placers, and Jicarillas Gold Placers are also mentioned.

Reduction works, smelters, and mills have been erected in Grant, Socorro, and Santa Fé Counties.

Doubtless there are still other mines of special note, and works in course of construction, but recent developments have been so rapid and diffused so as to make it difficult to particularize in every instance.

The equable climate of New Mexico admits of the working of mines the year round. Mining, as a business in modern times, has developed within the past ten years. From a carefully prepared report for the year ending June 30, 1876, made by the governor of the Territory to the Director of the Mint, the total yield of precious metals was, of gold, \$282,861.35; silver, \$425,329.45; total, \$708,190.80. This amount, under recent developments, has been increased indefinitely.

POMOLOGY, AGRICULTURE, HORTICULTURE.

Agriculture is chiefly confined to the valleys, where irrigation can be made available. Some of the mountain parks produce the more hardy and short crops without irrigation.

There is sufficient agricultural land, if cultivated, to supply the home market.

In horticulture sufficient has been demonstrated by amateurs to show

the presence in various sections of the Territory of fruit trees in variety of twenty years' growth and less, that are thrifty, clean, and symmetrical in form, while their deep green foliage and prolific bearing give assurance of perfect health, and their superb flavor the highest adaptation of soil and temperature.

The range of fruits represented include those of Iowa, Illinois, and Ohio, while the southern portion of the Territory also includes some of the semi-tropical fruits. Experts in California fruits concede New Mexico to possess all the advantages of the latter in every essential of horticultural success. Especially is this a fact in the cultivation of the grape and in fruits indigenous to the Northern States. New Mexico possesses all the advantages of the moderate temperature of the States named, with none of the disadvantages of the rigorous cold climate incident to the latter.

Under proper attention in cultivation, as reported at the bureau of immigration, the yield per acre of wheat is from 15 to 50 bushels; corn, 40 to 60 bushels; oats from 35 to 45 bushels, and that of vegetables is simply enormous.

According to the census of 1880, the Territory yielded as follows during the year 1879:

	Barley.		Indian corn.		Oats.		Rye.		Wheat.	
	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.	Acres.	Bushels.
	2,548	50,053	41,449	633,786	9,237	156,527	17	240	51,230	706,641
Bernalillo.....	57	2,420	1,233	35,185	61	1,215	.....	.....	790	21,245
Colfax.....	.....	.....	376	8,230	519	10,578	.....	.....	92	1,533
Doña Ana.....	847	8,091	5,716	41,738	8	135	.....	.....	6,205	62,982
Grant.....	389	14,937	1,443	49,665	35	995	.....	.....	458	10,615
Lincoln.....	10	114	2,623	41,597	129	1,703	.....	.....	841	9,806
Mora.....	311	6,681	4,363	72,210	1,902	38,484	.....	.....	4,964	97,305
Río Arriba.....	75	889	3,808	42,862	1,096	10,188	10	120	4,673	53,323
San Miguel.....	5	20	7,032	108,490	587	18,670	7	120	7,813	87,041
Santa Fé.....	.....	.....	1,588	23,161	.....	.....	.....	.....	863	12,371
Socorro.....	813	15,975	3,329	51,300	10	170	.....	.....	4,590	93,853
Taos.....	41	926	7,874	115,044	4,890	74,389	.....	.....	18,002	226,715
Valencia.....	.....	.....	2,064	44,304	.....	.....	.....	.....	1,939	29,852

The amount of land susceptible of profitable cultivation is difficult to estimate. The soil is universally good, and only requires water to make the productions equal to those of the best lands in the country. A very large portion of the cultivable lands may be irrigated at a small cost, and undoubtedly will be when population becomes more dense and necessity imposes greater demands.

The present methods of cultivation are primeval and do not properly indicate the productiveness of the soil.

The Territory is capable of supplying a large population with all the more important and substantial articles of food, such as cereals and meats, and the more common fruits and vegetables, and many of the luxurious fruits known to the temperate and semi-tropical regions. It has everything necessary to supply the productions of the dairy to a limitless extent, and to furnish the raw materials for manufacture into clothing.

Wherever cultivation is intelligent and thorough, the yield is equal to that of any section of the United States. Where lands are irrigated they are not easily exhausted, and this is particularly true in a mountainous country abounding in all kinds of mineral fertilizers as well as much that is vegetable, for the water carries these fertilizing agents in suspension and solution to the lands irrigated, and supplies that which

is taken from the soil by the growth of the crops. In these particulars New Mexico is fortunate, for such minerals are abundant, and the mountain sides and mesas produce considerable vegetation, which decays annually. The rapid development of mining industry and the not improbable introduction of manufacturing at an early day, will create a great demand for all articles of food and make agriculture exceedingly profitable.

THE PRODUCTION OF WINE.

The soil and climate of the entire Territory are eminently adapted to grape culture; especially all that portion lying in the Rio Grande Valley from Algodones to El Paso. Grapes are in great variety and exquisite flavor. The wines are long-lived, inexpensively cultivated, free from trouble by insects, and prolific bearers. As yet, but little is done in the cultivation of the grape, yet enough experiments have been made to demonstrate that it is very profitable. It is the general opinion, with which I concur, that wine may be produced to an extent almost beyond calculation.

CATTLE AND SHEEP.

The mesas and mountain parks supply food for stock. The grasses grow plentifully on the mesas in the valleys and on the mountains, except in very dry seasons. The grasses, cured upon the ground in the fall in the dry atmosphere, retain their nutritious qualities and constitute the winter feed. The mildness of the winter admits of stock feeding on the ranges the year round.

The practicability of sinking wells in many places now destitute of water is well known, and admits of bringing many square miles into use that are now outside of the immediate presence of water. Other square miles, now monopolized by those essaying to be the sole owners of water, may in like manner be taken possession of by stockmen, who will be to the expense of sinking for water. Windmills for raising water are also valuable and available.

The Staked Plains, even, can be added to the grazing area by sinking wells and the use of windmills.

PROFITS OF STOCK RAISING.

The following statement by the commissioner of immigration for Colfax County, one of the best for stock raising, is valuable in this connection:

The principal industry of the county at present is raising cattle and sheep. The grazing lands of Colfax County are justly celebrated and are unrivaled in any section of the Rocky Mountains. No business has proved a more lucrative one here than stock raising. There are in Colfax County at present, it is estimated, 75,000 head of cattle, 200,000 head of sheep, and 7,000 head of horses and brood mares. The following table will not be out of place, as not only giving an estimate of the profits in the cattle business here—and it is indorsed by cattle-men hereabouts as a fair exhibit—but will also give current prices of common stock, with which it starts, and the price of the improved also.

Let us say the stock raiser makes a purchase in September of a herd composed of the following grade and class:

CAPITAL INVESTED IN STOCK.

150 young cows and calves, at \$25.....	\$2,250 00
100 two-year-old heifers, at \$12.....	1,200 00
100 two-year-old steers, at \$12.....	1,200 00
75 yearling heifers, at \$7.....	525 00
75 yearling steers, at \$7.....	525 00
10 high grade bulls, at \$75.....	750 00
	<hr/>
	6,450 50

CAPITAL INVESTED IN RANCH, ETC.

Ranch, corrals, &c	\$250 00
Horses and equipments	250 00
	500 00

Summary account for five years.

End of year.	No. of stock.	Value.	Sales—3-year-old steers.	Expenses.	Bank account.
First	530	\$7,140 00	100 at \$18. 00. \$1,800 ...	\$680 00	\$1,120 00
Second	655	8,465 00	75 at 18. 00. 1,350 ...	750 00	600 00
Third	855	11,200 00	60 at 18. 00. 1,080 ...	850 00	230 00
Fourth	1,063	14,620 00	100 at 22. 50. 2,250 ...	1,100 00	1,150 00
Fifth	1,321	18,477 50	130 at 22. 50. 2,925 ...	1,500 00	1,425 00
Total					4,525 00

Value of stock	\$18,477 50
Value of ranch, horses, &c	1,000 00
Bank account	4,525 00
	24,002 50
Capital invested	6,950 00
	17,052 50

In the above table we have added \$500 to the value of the ranch, horses, &c., at the end of the five years, which is a low estimate of the money charged to "expenses" which went for the purchase of additional horses. The increase of cattle has been reckoned at 85 per cent., allowing 5 per cent. of loss from natural causes in young stock. The improvement in the stock bred from fine bulls has been reckoned at 25 per cent.

While the cattle business is generally regarded as attended with less risk and more certain in its results, many claim for sheep raising a larger profit. Our observation—from fourteen years' residence in New Mexico and Colorado—is, that where it is desired to invest a large capital without giving a close personal attention to the business, cattle would be preferable, but where a man desires to invest a small or moderate capital in either business and give it his whole time, more money and quicker returns would be made by purchasing sheep. The annual wool clip is a timely, certain, and good income to those who wish to invest the larger part of their capital at once.

The present prices of sheep and wool are as follows:

Common Mexican ewes, young	\$1 50
Common Mexican wethers	1 25
Graded merino ewes, young	\$2 00 to 3 00
Graded wethers	2 00 to 3 00

It is difficult to give quotations of wool, as they are constantly varying; prices this year, however, have been from 15 cents per pound for the lowest grade of Mexican, to 24 cents for the choicest improved, unwashed. The wool clip varies from 2 to 6 pounds on flocks of ewes and wethers. The general average in this county on all flocks would be 3½ pounds. The net increase of sheep is 80 per cent.

The price of horses, broke to saddle or harness, varies from \$40 for the ordinary stock pony to \$50 for a good carriage horse.

The commissioner of immigration for Lincoln County writes, "the profits on stock raising are 50 per cent."

VEGETABLE YIELD.

The commissioner of immigration for Colfax County states as follows:

In the production of many vegetables this county excels, especially in onions, beets, and cabbage. Onions were grown here which were 7 inches in diameter and weighed 4 pounds each, and the delicacy of their flavor gives them peculiar excellence. Irish potatoes grow remarkably well throughout the mountains, 400 bushels to the acre having been frequently raised, and 200 bushels is an average crop; these potatoes are

very fine, and the amount of potato land is practically unlimited. Cabbages have been grown at Cimarron which weighed from 30 to 37 pounds. A pumpkin grown on the Vermejo weighed 80 pounds.

The above may be taken as applicable to the whole Territory, except as to potatoes, which are generally confined to mountain parks.

FRUITS AND SHADE TREES.

The commissioner of immigration for Bernalillo County, says:

Until within a few years but slight attention has been paid in this part of the valley to the culture of fine tree fruits. Small July and October apples, red (wild) plums, fair pears, good peaches, excellent apricots, and enormous quinces have been raised successfully by the descendants of the Spaniards from time immemorial; also by the Indians of several of the pueblos. Experience has proven that the finest apples and pears can be raised in this locality by grafting into the native stock; and my advice, were it worth anything, would be to any one contemplating the planting of an orchard to set out the stock where it is to remain, and the second year cut off near the ground and graft into it with scions from fruit-bearing trees of the varieties desired.

In this way fruit-bearing trees can be secured much sooner than by planting the standard or dwarf tree from the eastern nurseries. Trees grafted as stated, need tying to stakes for the first two years, to protect them from the high winds prevailing in the spring months; and all fruit trees on account of these winds should be pruned down and the branches kept as near the ground as possible. I have known trees grafted near the ground in April to 7 seven feet in height by the fall of the leaf the same year, and the stem just above the graft bulb to increase from the ordinary size of an apple scion to 1½ inches in diameter. All fruit trees are healthy in this valley if properly cared for, and yield enormously. The apricot and peach, blossoming so early in the season, are uncertain crops, but the other tree fruits of the temperate zone are almost sure. In the lower valley the fig and almond do well, and as far north as Valencia I have known fair crops to be raised.

NURSERIES AND SHADE TREES.

Nurseries are needed in this portion of the valley, and no legitimate business would yield better financial results. In them should be raised for sale, not only fruit trees of all kinds and shrubs, but also a good assortment of evergreen and deciduous trees for shade purposes. Though but few countries need shade trees more than New Mexico, scarcely any have less. Its chief reliance is the cottonwood, which, though a rapid grower, is not desirable near a residence at the season of the year when the inevitable caterpillar breeds in its branches. The ailantus does well and I should suppose the catalpa and silver-leaved maple would also.

THE FRUIT-TREE BELT.

In this belt may be included, not only the valleys of the Rio Grande and Pecos, but also the higher lands on either side, and an extensive range to the north of this county. I remember that when the peach crop failed in the Rio Grande valley (in 1869, I think) the only peaches we got that year were from the Indian pueblo of Jemes, which has an altitude several thousand feet greater than Albuquerque and is about 40 miles farther north. Most excellent apples are raised at Santa Fé, and could be, I have no doubt, in many of the valleys in the mountains to the east, west, and north of us.

WOOL AND CATTLE PRODUCTS.

In a careful estimate based upon railway shipments, and from inquiries made at the centers of the wool trade in 1879, by Maj. T. B. Brooks, the yield of wool amounted to 10,500,000 pounds, produced by 5,000,000 sheep, being an average of a trifle over 2 pounds to the head. The value of the wool in local markets is from 10 to 20 cents per pound. The yield from native sheep is placed at 1 pound per head, and from thence through half-breed blooded stock and up to fine Californian merinos, at 6 pounds per head. The annual increase in sheep will average 80 per cent., worth on the ground from \$1.50 to \$1.75.

The number of cattle in the Territory is estimated at 500,000 head, yielding for market about 90,000 head annually, worth on the ground from \$12 to \$20 per head.

The marginal value on stock during the past year, by reasons of abundant rains and good pasturage, may with safety be placed at 20 per cent. advance on above figures.

The improvement of the breeds of cattle and sheep will greatly enhance the profits, and this fact has become so apparent that it is believed in a short time the cattle and sheep will equal those of the best grazing regions of the United States.

HORSES.

Horses in New Mexico are strong and healthy. Though small in size, they are better adapted to the uneven surface of the country than large ones. The grasses are nutritious, and horses thrive on them as well or better than they do upon the blue grass of Kentucky. They are numerous throughout all portions of the Territory, but I have no sufficient data from which to estimate their number; the proportion of horses to the number of people is much larger than in other countries. They can be cheaply raised, as they can subsist the entire year by grazing.

THE PUBLIC LANDS.

The laws of the United States, relating to the disposition of public lands are well adapted in a country like New Mexico to place in the hands of a few men a monopoly in stock raising. The Territory suffers most from a want of permanent water. There are in many places small streams and springs, which supply water to large numbers of stock. These are located under the homestead laws, or otherwise obtained, and the lands for miles around are valueless to others. The owners of the water have the benefit of the pasturage of large tracts, which belong to the government, without cost. If the policy were so changed, that larger bodies of land, which include water, could be disposed of, the government might derive some revenue, and a monopoly of mammoth proportions would be prevented.

The existing laws thwart their own purpose (which is to distribute lands among the people to the fullest extent possible) in all this dry and mountainous region. Their practical operation is to reinstate the Spanish and Mexican land grant system—those manorial estates which have excluded the poor from the possession of landed property, and cursed so many countries.

TIMBER.

Timber abounds in sufficient quantities for local purposes, and with care in the prevention of forest fires and the cutting of timber by railroad companies and others, the supply for home consumption would hold out indefinitely. The timber consists of pine, cedar, and piñon; the latter specially valuable for fire-wood. Ash, oak, maple, and black walnut are found in sections.

A SANITARIUM.

That the Territory has superior sanitary advantages as represented in high altitude, equable temperature, dry atmosphere, generous sunshine, and mineral and hot springs is apparent.

Pulmonary sufferers generally experience speedy relief, if the disease is not too far advanced when the patient seeks the benefits. Frequently even aggravated cases in consumption have received relief and cure. The journey from the Missouri River should be by easy approaches, and plenty of outdoor exercise should be taken, as the advantages of open air on the plains, as experienced in travel and camp life, are plain.

Asthma, as a rule, is not benefited, although, when dependent on derangement of the stomach, it is sometimes cured.

Rheumatism, cutaneous, and venereal diseases experience speedy relief by bathing in the hot springs, or drinking their waters.

Sunstroke, it is said, was never known in the Territory; this by reason of the extreme dryness of the atmosphere.

Heart diseases and nervous complaints, would be out of place in this rarefied atmosphere. In the mountainous and more humid sections, rheumatism is aggravated; the lower and sunny regions benefit that complaint.

Along the Lower Rio Grande malarial diseases have appeared periodically. The first known was in 1821, and since respectively in 1857, 1877, and again in a milder form during the past year.

COMPARATIVE DEATH-RATE.

The comparative death-rate as given in the census reports of 1860 and 1870, makes New England 25 to Minnesota 14, the Southern States 6, and New Mexico 3.

Medical statistics of the United States Army from 1849 to 1854, show the following as to diseases of respiratory system: New York, New England, and the regions about the great lakes exhibit the largest ratio, and Florida, Texas, and New Mexico the smallest, being in the ratio of cases per 1,000 of mean strength, New England, 4.8; New York Harbor, 5.9; Great Lakes, 4.5; Atlantic coast of Florida, 2.3; Gulf coast of Florida, 6.9; Texas, southern frontier, 4.0; Texas, western frontier, 3.9; New Mexico, 1.3.

Surgeon-General Hammond says "New Mexico is by far the most favorable residence in the United States for those predisposed to or affected with phthisis."

The extreme purity of the atmosphere is due to a large amount of ozone and the altitude above sea-level. In spite of the absence of any system of artificial sewerage, the people are extremely healthy; the purity of the atmosphere, good natural drainage, and the cleansing occasioned by heavy and copious showers in the rainy season, will not allow diseases to gain strength and spread.

CLIMATE.

The relative humidity ranges a large percentage below that of the Atlantic or Middle States. The climate is equable, sudden thermometrical changes not often occurring. The rainy season extends from about the 15th of July to the middle of October. Snow falls mostly in December, February, and March. Winds do not attain the velocity or pressure of those prevalent in the Atlantic and Middle States. The percentage of cloudy and rainy days is small when compared with almost any other portion of the United States.

The year ending June 30, 1875, is cited as an average year.

	Rainfall in inches.
Sante Fé.....	16.68
Denver.....	15.24
Salt Lake City.....	20.24
San Francisco.....	21.54
Colorado Springs.....	15.24
Galveston.....	46.44
New Orleans.....	74.98

TEMPERATURE

	Maximum.	Minimum.
Santa Fé.....	89° August 2.....	2° February 24.....
Denver.....	102° July 4.....	-29° January 9.....
Colorado Springs.....	98° July 11.....	-25° January 13.....
Salt Lake City.....	98° July 1.....	-5° January 16.....

— below zero.

Meteorological summary for Santa Fé for seven years.

[Compiled from the records of the United States Signal Station.]

Year.	Mean barometer.	Thermometer.			Wind.		Rainfall.	Number of rainy or snowy days.
		Mean.	Maximum.	Minimum.	Prevailing direction.	Velocity per hour.		
1874.....	29.756	48.9	89	0	E. & SW.....	Miles. 42	Inches. 19.83	97
1875.....	29.753	48.6	90	2	SW.....	50	7.58	96
1876.....	29.796	48.1	89	1	SW.....	38	15.07	109
1877.....	29.809	48.3	90.5	2	SW & NW.....	43	11.10	109
1878.....	29.799	49.6	93	2	N.....	38	19.55	103
1879.....	29.843	50.6	95	13	E.....	32	11.44	87
1880.....	29.810	46.6	88	11	NW.....	32	9.89	88

Thus far the amount of rain for the year 1881 (nine months) has been at Santa Fé 16.45 inches, which is much above the average, and at that ratio the rainfall for the year will exceed 21 inches. These copious rains have benefited agriculture and pastoral interests materially.

HOT SPRINGS

are numerous. The Jemes Hot Springs, in Bernalillo County, are considered the most valuable, and are easily reached from Santa Fé or Bernalillo. Joseph's Hot Springs, in Rio Arriba County, are easily reached from Santa Fé by rail and coach.

The hot springs in San Miguel County, are 5 miles from Las Vegas.

The Ojos Caliente, in Socorro County, are 65 miles from Fort Craig.

Hudson's Hot Springs, in Grant County, are 25 miles from Deming, on the Atchison, Topeka and Santa Fé Railroad. All these springs have a high reputation for their medicinal properties, and are entitled to rank among the best upon the continent.

RELIGION.

The following is from the pamphlet of the Hon. W. G. Ritch, secretary of New Mexico, "on the resources of New Mexico":

RELIGION.

The prevailing religion is largely Roman Catholic. The Territory, with the State of Colorado and the Territory of Arizona, constitute an archepiscopal see or province of

this faith, with Santa Fé as the metropolis, and his grace, the Most Rev. John B. Lamy as primate. The Jesuits as an organization are represented in considerable force, having a provincial of the order on the ground. The Christian Brothers, the Sisters of Lorretto, and Sisters of Charity are likewise represented in considerable force. In addition there is a large force of priests. Protestant denominations are represented by the Episcopalians in a new missionary jurisdiction including New Mexico and Arizona, with the Right Rev. George Kelly Dunlop as primate, residing at Santa Fé and having three clergymen in the jurisdiction.

The Presbyterians and Methodists are represented in the principal towns by a dozen or more clergymen each and communicants to the number of 300 each, and probably five times as many more in sympathy with them if not all attendants at church. The Baptists and Congregationalists have each a couple of clergymen on the ground, and bid fair to become permanent. The Mormons have also gained a foothold on its domain.

EDUCATION AND SCHOOLS.

In a country where population is sparse it is not unusual that schools are neglected. This Territory, until within the last twelve months, has been remote from the densely populated and highly developed sections of the United States in consequence of the absence of the means of rapid transit by railroad. The masses of the people have been poor, and only the few have been enabled to send their children away for instruction. Education therefore has been partial, and the absence of libraries and newspapers has left the masses of the people less intelligent than those in other parts of the nation, who have been favored with better advantages.

From time to time the legislature has passed acts relating to this subject, and from them can be drawn by a person disposed to liberally construe statutes in favor of schools a respectable system. There are a good many defects, however, to be remedied, and yet there are some excellent features.

Education is compulsory for five months of the year, and the law contemplates that schools shall be open for all children, without regard to religious creed, nativity, or condition.

One-fourth of the taxes raised in the several counties is set apart for school purposes. The machinery of the school system is not very complete, but the chief trouble lies in neglect to execute the law. In some localities it is not executed at all, and in others but indifferently, although more or less money is collected for school purposes in every locality. There are some difficulties in the way of prosperous schools very hard to overcome; they are, scattered population, except in the towns, and the prevalence of two languages among the people. Only a few of the natives can understand or speak the English language, and the same is true as to the bulk of those who have immigrated since the acquisition of the country in regard to the Spanish language. It is desirable that in every nation there should be homogeneity of language, and it may be wise to require the teaching of the prevailing language in all the schools. Yet, to adopt such a rule here, would prevent a majority of the children from being educated in the public schools. The disposition to encourage education is creditable, as judged by the laws on the subject, from the fact that there are a good many flourishing private schools in the Territory and from the general sentiment of the people. This feeling is rapidly growing, and the influx of intelligent and enterprising people will give it a greater impetus. Intelligence is becoming more general through the agency of newspapers, which are now established in all the principal towns, and many of them are entitled to great respect for ability and enterprise. As a Territory is in a condition of pupilage, preparatory to assuming the position of a State, it may be wise for Congress to deal with the subject of schools so far as to

see that the true American idea, that the system shall give ample and equal advantages to all classes, be carried out, and that such system be maintained, whenever necessity seems to demand it, by contributions from the national resources or the imposition of a sufficient tax upon the property of the Territory.

LAND GRANTS.

New Mexico seems to have been well covered with grants of land, real or pretended, while under the dominion of the Spanish and Mexican governments. The lands embraced in these, having been withdrawn from entry and sale, are effectually in mortmain until the questions as to their validity are finally settled. Title to these lands is uncertain, and their settlement and development are prevented to a great extent. Quite a number of these claims are unconfirmed, and little or no effort has been made to procure their confirmation. Charges of fraud and crime are made as to some that are confirmed, such as forgery of papers, perjury, subornation of perjury, and false and erroneous surveys. This fact and the lapse of time challenge the utmost scrutiny into those which may be presented in the future. It would be the greatest blessing if an early day could be set when the land-grant incubus should be entirely removed from this Territory. It seems to me that it would not violate the stipulations of the treaty of Guadalupe Hidalgo if a time were fixed within which applications for confirmations should be made, and if not made within such period, that they be forever prescribed.

I respectfully suggest that the period be short and follow the precedent of the last act relating to the confirmation of grants in Louisiana and Missouri, which was three years.

ROUTES OF TRAVEL.

New Mexico is easily reached from the Missouri River by the Atchison, Topeka and Santa Fé Railroad through Kansas, Colorado, and Raton Pass, by the Kansas, Pacific and Denver and Rio Grande railroads to Trinidad, there connecting with the Atchison, Topeka and Santa Fé Railroad, or to Conejos, continuing on the Denver and Rio Grande Railroad.

The Southern Pacific and Atchison, Topeka and Santa Fé railroads enable the California travel to reach New Mexico from the West. From Rincon the Atchison, Topeka and Santa Fé Railroad transports passengers and freights to Texas. Within three months people from the South will be able to reach this Territory through Texas and Louisiana in three days over the Texas and Pacific Railroad. The Atlantic and Pacific Railroad should be taken to Fort Wingate or Northeastern Arizona.

The Territory is also easily reached by the Union Pacific, Denver Pacific, and Denver and Rio Grande railroads via Omaha, Cheyenne, Denver, Pueblo, and Antonio.

Before concluding this report I wish to acknowledge my obligations to the Hon. William G. Rich, secretary of the Territory, for furnishing much of the data for it, and for valuable suggestions, and to Capt. Max Frost, adjutant-general of the Territory, for important aid. These gentlemen have been long residents, and have made themselves familiar with the subjects embraced herein.

I have the honor to be, very respectfully, your obedient servant,

LIONEL A. SHELDON,
Governor of New Mexico.

Hon. S. J. KIRKWOOD,
Secretary of the Interior, Washington, D. C.