Economic Development

Communities throughout the state are working hard to attract capital investment and create more and better-paying jobs for their residents. To this end, the High Plains' government and economic leaders must promote their area's work force, the quality of the schools and infrastructure and the economic incentives they can offer to attract businesses.

Services are becoming increasingly important to the economy of the High Plains region, reflecting a broader economic environment of increased competition and technological change. The region has lagged behind the rest of the country in its progression toward a service-oriented economy, due to its traditional economic supports of agriculture and oil and gas. Most of tomorrow's jobs in the region, however, will provide services, from retail salespersons to nurses and teachers.

But the nature of the work, and the pay provided by service jobs, vary widely. If the High Plains is to capture its share of high-paying, high-skill service jobs, it must continue providing educational and training resources.

The Amarillo metro area will create jobs fastest through 2012, equalling statewide job growth.

Economic Trends

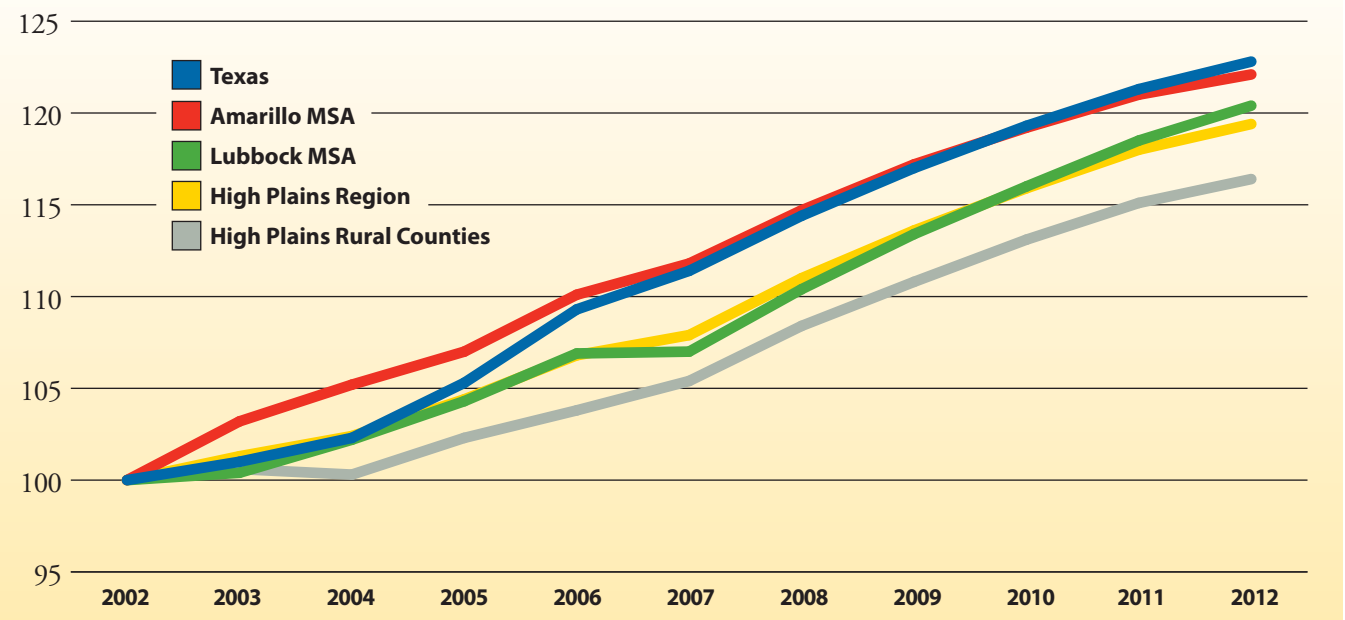
Exhibit 2 illustrates recent and expected employment growth for the High Plains region, and contrasts it with the state as a whole. These trend lines represent growth indices based on a value of 100 for 2002 annual employment.

PHOTO: Himar Cheese Company

Hilmar Cheese Company in Dalhart, Texas

Exhibit 2

High Plains Region: Employment Indicies, 2002-2012



Source: Economic Modeling Specialists Inc.

As the exhibit indicates, the Amarillo metro area will create jobs fastest through 2012 (22.1 percent), equalling statewide job growth (22.8 percent). The region as a whole (19.5 percent) will lag slightly behind state job growth, as will the Lubbock area (20.4 percent). The rural portions of the High Plains area will create jobs more slowly than either the state average or the region's urban areas (16.4 percent).

Exhibit 3 presents High Plains employment growth indices for 10 broad industry sectors, again assuming a value of 100 for 2002. Six industry sectors are growing more rapidly than the overall regional average (19.5 percent) and should remain relatively solid sources of employment growth through 2012; these include the construction (24.0 percent), professional and business services (36.1 percent), financial activities (34.4 percent), education and health services (27.8 percent), leisure and hospitality (20.3 percent) and government (19.8 percent). Note that three of these four industries are important components of the service sector.

Two of the region's industries, the natural resources sector and manufacturing, will fall short of overall regional employment growth. In these cases, however, a focus on employment as a measure of economic change understates their true outlook. Both industries incorporate technological and productivity-improving changes in their day-to-day operations. As such, their slow employment growth in part reflects productivity gains. The value of production in these sectors is rising much more quickly than their employment trends may indicate.

Economic Structure

A region's economic trends reflect its underlying economic structure. This structure, in turn, is a result of the region's competitive strengths in state, national and international marketplaces. Sometimes the underlying structure is a result of long-term factors and at other times it reflects more recent competitive strengths.

One method for revealing a region's longer-term competitive strengths is to examine *location quotients* for its industries. An industry's location quotient simply compares the share of a region's economy attributable to an industry to the share that same industry accounts for in the nation's economy. This comparison can be made based on employment shares or other economic factors.

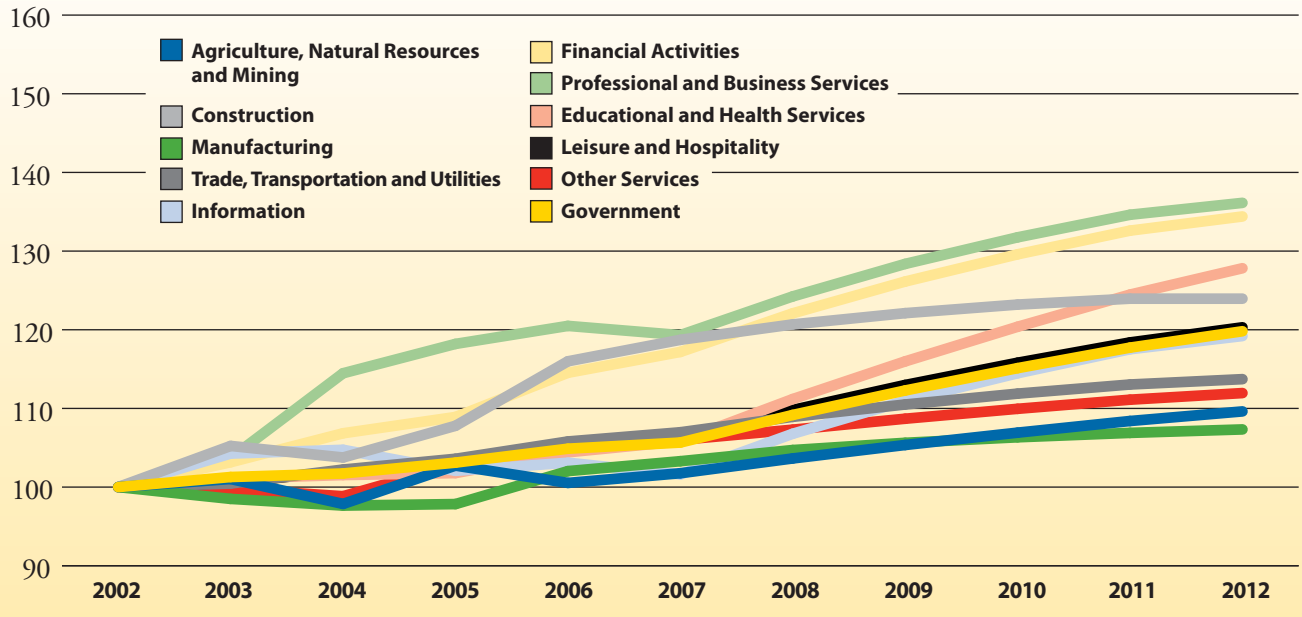
In essence, the share an industry accounts for in the national economy is seen as the "norm" for that industry, so comparing that norm with the share for a regional economy indicates whether that region tends to have "a lot" or "a little" of a particular industry.

Typically, a region will contain "a lot" of industries for which it has some natural or developed competitive advantage, based for instance on a local abundance of a particular resource, climate, an advantageous natural feature (such as proximity to a port, for instance), labor skills or some other factor. **Exhibit 4** presents the 50 industries with the highest location quotients, based on employment, in the High Plains region in 2007. Not surprisingly, the list contains many industries linked to agriculture and the oil and gas industry.

In 2007, the farm product warehousing and storage industry had the region's highest location quotient, at 20.96, meaning that this in-

Exhibit 3

High Plains Region: Employment by Industry Sector, 2002-2012



Source: Economic Modeling Specialists Inc.

Exhibit 4

Industry Location Quotients

Agriculture

NAICS Code*	Description	2007 Jobs	2007 National LQ
49313	Farm product warehousing and storage	588	20.96
31161	Animal slaughtering and processing	11,975	8.66
42459	Other farm product raw material merch. whls.	225	8.03
31121	Flour milling and malt manufacturing	369	7.48
31321	Broadwoven fabric mills	714	5.64
42452	Livestock merchant wholesalers	333	5.39
11511	Support activities for crop production	7,552	5.20
31611	Leather and hide tanning and finishing	97	4.80
42382	Farm and garden equip. merchant wholesalers	1,328	4.66
42451	Grain and field bean merchant wholesalers	574	4.64
11521	Support activities for animal production	1,018	4.55
31183	Tortilla manufacturing	212	4.27
42491	Farm supplies merchant wholesalers	1,217	3.97
11A00	Crop and animal production	27,400	3.46
31111	Animal food manufacturing	469	3.29
31122	Starch and vegetable oil manufacturing	227	2.97
33311	Agricultural implement manufacturing	592	2.74
31131	Sugar manufacturing	98	2.64
32531	Fertilizer manufacturing	147	2.25
31699	Other leather product manufacturing	100	2.15

Oil and Gas

NAICS Code*	Description	2007 Jobs	2007 National LQ
21111	Oil and gas extraction	9,685	9.32
21311	Support activities for mining	7,004	8.48
48611	Pipeline transportation of crude oil	136	6.48
32411	Petroleum refineries	1,127	5.73
33313	Mining and oil and gas field machinery mfg.	878	4.57
23712	Oil and gas pipeline construction	1,188	4.51
32511	Petrochemical manufacturing	251	3.25
42471	Petroleum bulk stations and terminals	268	2.89
48621	Pipeline transportation of natural gas	163	2.24
22121	Natural gas distribution	628	2.08
42472	Other petroleum merchant wholesalers	396	2.02

Other

NAICS Code*	Description	2007 Jobs	2007 National LQ
33141	Other nonferrous metal production	539	18.77
33651	Railroad rolling stock manufacturing	597	7.54
33299	All other fabricated metal product mfg.	3,298	6.04

Exhibit 4 (cont.)

Industry Location Quotients

NAICS Code*	Description	2007 Jobs	2007 National LQ
52592	Trusts, estates, and agency accounts	529	5.75
52591	Open-end investment funds	993	5.70
52391	Miscellaneous intermediation	1,510	4.23
42441	General line grocery merchant wholesalers	2,429	3.77
51721	Wireless telecommunications carriers	2,295	3.60
32512	Industrial gas manufacturing	153	3.04
48211	Rail transportation	1,827	2.49
23819	Other building exterior contractors	487	2.36
51521	Cable and other subscription programming	662	2.31
23621	Industrial building construction	1,291	2.29
33242	Metal tank, heavy gauge, manufacturing	191	2.23
51223	Music publishers	53	2.23
52314	Commodity contracts brokerage	187	2.21
32518	Other basic inorganic chemical manufacturing	240	2.07
32731	Cement manufacturing	100	2.07
32721	Glass and glass product manufacturing	605	2.06

*North American Industry Classification System
Source: Economic Modeling Specialists Inc.

dustry's share of regional employment is 20.96 times greater than its share of the nation's work force. Nineteen other agriculturally linked industries in the region rank among the top 50 based on location quotients, underlining the High Plains' dependence on agriculture.

The other clear structural pattern revealed in these location quotients is the oil and gas industry's importance in the region. Eleven of the region's top 50 industries are directly linked to oil and gas, either through drilling and exploration, production and transportation or processing.

The remaining 19 of these 50 industries are varied but do reflect some common themes. Transportation-linked industries reflect the region's long-established role as a transshipment center where major north-south routes cross major east-west routes. Some industries came into being and thrived on funding from either the oil and gas industry or agriculture.

Most Competitive Industries

While the location quotient is a useful way to examine the underlying structure of a region's economy, it does not necessarily reflect the sometimes more recent and always more dynamic trends revealed through employment changes.

A region can display some competitive advantage in industries based on the change in the industry's presence in the region, rather than its relative size in the total employment mix. And a region can maintain a strong competitive advantage in a particular industry even when its presence in the region, in terms of its share of total employment, is declining.

Cheese Plant Bringing Jobs to Dalhart

Dalhart's Hilmar Cheese plant is bringing jobs and income to the High Plains region. The Hilmar Cheese Company has been producing cheese at its facility in California since 1985.[1] The $190 million Dalhart facility broke ground in March 2006, and began production in fall 2007. The facility employs 120 people at its 200,000-square-foot facility and can produce up to 500,000 pounds of cheese per day, using 250,000 gallons of milk. The Hilmar facility will produce cheddar, Colby and Monterey Jack cheeses, as well as whey protein concentrate. The cheese is produced in 40-pound blocks, which is shipped to processing facilities and wholesale customers. The facility received nearly $45 million in grants, tax credits and abatements from local and state economic development groups and grant programs.[2]

One method for uncovering the competitive dynamics of a regional economy is *shift-share analysis*. In this analysis, the *change* in an industry's presence in a region is divided into three components: that attributable to the industry's growth or decline above or below the national growth trend (the industry-mix effect); the portion attributable to the overall growth or decline in the nation's economy (the national growth effect); and that attributable to the region's competitiveness as a site for the industry (the regional competitiveness effect).

Exhibit 5 includes 50 industries in the High Plains region ranked by their competitive effect; it includes the other components of growth as well.

The first column of **Exhibit 5** indicates that, for example, the High Plain's general warehousing and storage industry added a total a 1,253 jobs from 2002 to 2007. Based on the level of employment in this sector in the High Plains in 2002 and the rate of growth of the nation's economy, this industry in the High Plains should have added only 6 jobs. But, since the general warehousing and storage industry nationally grew at a faster rate then all industries in the nation, in the High Plains another 16 jobs added during this time for a total expected job gain of 21. Since the job gain in the region actually was 1,253 and we can only attribute a gain of 21 to other sources, this implies that the competitive advantage of the High Plains region for this industry helped to "generate" the remaining job gain of 1,232.

With a little understanding of both regional and national growth trends, the reasons for some industries' appearance on this list become a little more apparent. Even though

Cheese Processor Comes to Amarillo

Pacific Cheese Company will become one of the Hilmar Cheese Company's largest clients when operations begin in one to two years.[3] The Pacific Cheese Company recently expanded its plans to build a facility to process cheese manufactured at the Hilmar plant from 40,000 square feet to 90,000 square feet. Pacific Cheese plans to build its $15.3 million facility just east of Amarillo. Planned employment had been 70 people, but will likely grow due to the planned expansion. The facility will shred the 40-pound blocks manufactured at Hilmar into 5-pound bags that will be sold to the food service industry. The facility received an incentive package from the Amarillo Economic Development Corporation valued at more than $15 million, with much of this set to be repaid by Pacific Cheese over a period of 20 years.[4]

Exhibit 5

Most Competitive Industries

Rank	NAICS Code*	Description	Job Change 2002-2007	Industry Effect	National Growth Effect	Expected Change	Competitive Effect
1	45211	Department stores	1,262	-407	236	-171	1,433
2	49311	General warehousing and storage	1,253	16	6	21	1,232
3	31161	Animal slaughtering and processing	837	-1,207	915	-292	1,129
4	55111	Management of companies and enterprises	1,074	-38	152	114	960
5	56111	Office administrative services	1,007	234	59	293	714
6	51711	Wired telecommunications carriers	39	-799	216	-583	622
7	54161	Management consulting services	854	159	100	259	595
8	56172	Janitorial services	973	119	301	420	552
9	52592	Trusts, estates, and agency accounts	517	7	1	8	509
10	49211	Couriers	561	11	57	67	494
11	21311	Support activities for mining	2,906	2,094	337	2,431	475
12	23621	Industrial building construction	427	-117	71	-46	473
13	72111	Hotels and motels, except casino hotels	594	-96	225	129	465
14	31321	Broadwoven fabric mills	188	-303	43	-259	447
15	62111	Offices of physicians	952	74	449	523	429
16	32721	Glass and glass product manufacturing	381	-55	18	-37	418
17	72241	Drinking places, alcoholic beverages	337	-175	97	-78	415
18	52393	Investment advice	561	113	36	150	412
19	52392	Portfolio management	540	52	85	137	403
20	45439	Other direct selling establishments	1,221	560	288	848	373
21	33651	Railroad rolling stock manufacturing	413	38	15	53	360
22	42399	All other durable goods merchant wholesalers	440	58	27	85	355
23	48211	Rail transportation	390	-46	118	72	318
24	23712	Oil and gas pipeline construction	454	76	60	136	318
25	52591	Open-end investment funds	303	-61	57	-4	307
26	53121	Offices of real estate agents and brokers	1,339	884	165	1,050	289

Exhibit 5 (cont.)

Most Competitive Industries

Rank	NAICS Code*	Description	Job Change 2002-2007	Industry Effect	National Growth Effect	Expected Change	Competitive Effect
27	33441	Semiconductor and electronic component manufacturing	239	-46	18	-27	267
28	56173	Landscaping services	667	269	132	401	265
29	23812	Steel and precast concrete contractors	318	32	24	56	262
30	52429	Other insurance related activities	437	70	111	181	256
31	62231	Other hospitals	252	3	2	4	247
32	33313	Mining and oil and gas field machinery manufacturing	349	58	43	101	247
33	52412	Direct insurers, except life and health	238	-68	73	5	233
34	23832	Painting and wall covering contractors	467	151	92	243	224
35	56149	Other business support services	266	11	31	42	224
36	11521	Support activities for animal production	24	-281	82	-200	223
37	51521	Cable and other subscription programming	243	-9	34	26	217
38	31111	Animal food manufacturing	208	-25	21	-3	211
39	53112	Lessors of nonresidential buildings	402	124	74	198	205
40	81411	Private households	2,040	1,340	495	1,836	204
41	23819	Other building exterior contractors	304	92	15	107	198
42	52211	Commercial banking	481	-112	397	285	196
43	62441	Child day care services	345	-183	333	150	195
44	48423	Other specialized trucking, long-distance	247	26	32	58	189
45	42383	Industrial machinery merchant wholesalers	183	-91	94	3	181
46	44812	Women's clothing stores	253	37	43	80	173
47	44814	Family clothing stores	387	131	86	216	171
48	44811	Men's clothing stores	172	-3	7	4	168
49	42452	Livestock merchant wholesalers	150	-28	15	-12	162
50	49313	Farm product warehousing and storage	192	0	33	32	160

*North American Industry Classification System
Note: Numbers may not total due to rounding.
Source: Economic Modeling Specialists Inc.

population growth in the High Plains region is not excessive by Texas standards, it is strong in comparison to the U.S. as a whole. This will tend to create a competitive shift toward any industry that grows with the population, such as construction, health care and even local government, because of the increased need for educational and other services.

This population-driven competitive shift is well illustrated in the growth of department store employment (ranked 1st). Between 2002 and 2007, department stores in the region added 1,262 jobs. Based solely on national growth trends, the region should have added only 236 of these jobs. But nationwide employment in the department store industry actually declined from 2002 to 2007. So, based on industry trends, the High Plains region should have seen an actual decline in department store employment of 407 jobs, for an estimated overall loss of 171 jobs in the region based solely on national and industry trends. Since the region posted an increase in jobs, the competitive shift effect in this industry is actually substantially larger than the observed job gain.

Exhibit 5 also illustrates the High Plains region's shift to a service-dominated economy. Many of the region's most highly competitive industries provide services either to businesses or to consumers. This shift to services in part reflects stronger population growth in this region than the U.S.

Finally, the exhibit notes competitive growth in the telecommunication and investment industries. This reflects growth needed to service the growing population in the Southwest as well as the growth of these industries nationwide.

Good Jobs for the Future

Given the likely industry growth and demographic changes expected in the future, what job opportunities will be available to High Plains residents?

The first consideration is that of sheer numbers. In any economy, most occupations do not offer the highest wages. Highly paid occupations are relatively few and do not exist in most occupational categories.

For the most part, the 25 occupations in the High Plains region expected to have the most openings in 2012 are somewhat low paying and do not require a degree (**Exhibit 6**). Job openings represent the sum of new jobs created plus hiring needed to replace existing workers.

Only four of the top 25 occupations (elementary, middle, secondary and post-secondary teachers) require some sort of post-secondary education, compared to 27.4 percent for all occupations. The average annual wage paid to workers in these four occupations was $63,325 in 2007, a pay level nearly twice the regional average of $32,740.

Between 2002 and 2007, department stores in the region added 1,262 jobs.

The Texas Certified Capital Company Program

The Texas Certified Capital Company (CAPCO) program is administered by the Comptroller's office and the Texas Treasury Safekeeping Trust Company. The $200 million CAPCO program fosters economic development and works to create jobs and generate tax revenue by providing premium tax credits. In 2005, the Comptroller's office approved 10 venture capital companies to become CAPCOs.[5]

The 2007 Texas Legislature approved another $200 million for the CAPCO program. A second round of allocations have just been completed with these funds. Nine CAPCOs, eight renewals and one new group, received tax credits. That brings the total funding to $400 million.

Exhibit 6

The 25 Occupations with the Most Openings

Rank	Description	2007 Jobs	2012 Jobs	Total Job Openings	Growth	Replacement	Annual Earnings
1	Cashiers, except gaming	11,905	12,452	3,578	547	3,031	$18,200
2	Retail salespersons	14,168	15,361	3,374	1,193	2,181	$22,940
3	Waiters and waitresses	7,484	8,539	3,088	1,055	2,033	$14,660
4	Customer service representatives	7,732	9,489	2,834	1,757	1,077	$27,120
5	Elementary school teachers, except special education	9,183	10,653	2,473	1,470	1,003	$54,200
6	Registered nurses	7,728	9,373	2,283	1,645	638	$52,480
7	Combined food preparation and serving workers, including fast food	9,251	10,561	2,187	1,310	877	$14,580
8	Personal and home care aides	5,447	6,906	1,920	1,459	461	$13,420
9	Truck drivers, heavy and tractor-trailer	10,123	11,096	1,871	973	898	$31,380
10	Middle school teachers, except special and vocational education	3,782	5,223	1,854	1,441	413	$60,660
11	Janitors and cleaners, except maids and housekeeping cleaners	9,071	10,008	1,806	937	869	$13,940
12	Office clerks, general	9,133	10,055	1,760	922	838	$23,260
13	Slaughterers and meat packers	6,179	6,885	1,684	706	978	$18,620
14	Postsecondary teachers	5,292	6,448	1,598	1,156	442	$80,360
15	Maids and housekeeping cleaners	5,684	6,608	1,459	924	535	$13,280
16	Bookkeeping, accounting, and auditing clerks	8,892	9,648	1,452	756	696	$26,640
17	Child care workers	5,362	6,022	1,430	660	770	$8,440
18	Licensed practical and licensed vocational nurses	4,249	5,091	1,421	842	579	$32,500
19	Farmworkers and laborers, crop, nursery, and greenhouse	4,856	5,566	1,399	710	689	$13,440
20	Nursing aides, orderlies, and attendants	4,903	6,037	1,353	1,134	219	$20,060
21	Laborers and freight, stock, and material movers, hand	6,683	6,955	1,342	272	1,070	$24,140
22	Secondary school teachers, except special and vocational education	3,805	4,440	1,201	635	566	$58,080
23	General and operations managers	7,393	7,658	1,156	265	891	$69,580
24	Teacher assistants	4,939	5,684	1,147	745	402	$24,780
25	Real estate sales agents	3,865	4,690	1,134	825	309	$29,440

Source: Economic Modeling Specialists Inc.

Joint Effort Brings Helicopter Factory to Amarillo

In 1998, Bell Helicopter announced its decision to build a Tiltrotor helicopter factory in Amarillo. Several organizations worked together to encourage Bell to build in the area. The Amarillo Economic Development Corporation and the city of Amarillo assembled a package of financial incentives; Amarillo College developed a curriculum and training program for persons interested in working at Bell; and Atmos Energy, Xcel Energy and other companies provided telecommunications improvements and services and other additions to the area's infrastructure.

At this writing, Bell plans to double production at the Amarillo plant. By 2009, Bell expects it to employ more than 1,700 people, making the company one of the region's largest employers.[6]

A list of future "good" jobs, those with above average wages, however, presents a quite different picture. **Exhibit 7** presents occupations that are expected to see at least 77 job openings in the region from 2007 to 2012 and that pay above-average wages. The exhibit also includes the expected educational requirements for each of these occupations.

The average annual (unweighted) pay of these 77 "good" occupations is $52,595 — 60.6 percent higher than the average for all occupations. Forty of these occupations (51.9 percent) require post-secondary education, as do 75 percent of the occupations earning $45,000 or more annually. Clearly, education and earnings will go hand in hand in the High Plains region's job market.

Comptroller Assistance

The Texas Comptroller's office provides economic development information to local governments and other groups, as well as analysis of demographics, labor force and other factors that affect local economic growth. The agency runs economic models and provides analyses that identify occupational and industry trends

Revitalization of Downtown Canadian

In the past 10 years, this Hemphill County town of about 2,500 has seen major revitalization efforts. With help from the local economic development council, state and federal grants and private donations, downtown Canadian has been restored, adding 180 jobs and increasing tax revenues. Salem Abraham, a Canadian native and owner of the Abraham Trading Company (ATC) in downtown Canadian, began this trend by buying and renovating the Palace Theatre. This led to many other buildings being renovated and occupied by local businesses. Ecotourism also has emerged, with tourists coming to enjoy outdoor activities such as bird watching, kayaking, fishing, hiking and swimming.[7]

ATC, located in the Moody Building on Main Street, employs 11 people in a 10,000-square-foot office. Organized in 1990, ATC conducts financial research and provides professional money management consultation services.[8]

Exhibit 7

"Good Jobs" for the High Plains Region's Future

Description	2007 Jobs	2012 Jobs	Job Openings	Annual Earnings	Education Level
Physicians and surgeons	1,294	1,464	287	$139,840	First professional degree
Petroleum pump system operators, refinery operators, and gaugers	768	818	208	97,540	Long-term on-the-job training
Pharmacists	658	767	166	92,220	First professional degree
Petroleum engineers	589	652	139	87,460	Bachelor's degree
Geoscientists, except hydrologists and geographers	510	582	138	82,660	Master's degree
Postsecondary teachers	5,292	6,448	1,598	80,360	Doctoral degree
Education administrators, elementary and secondary school	818	918	214	77,820	Degree plus work experience
Medical and health services managers	670	786	179	71,140	Degree plus work experience
Special education teachers, preschool, kindergarten, and elementary school	512	585	130	70,520	Bachelor's degree
General and operations managers	7,393	7,658	1,156	69,580	Degree plus work experience
Chemical plant and system operators	378	447	150	68,880	Long-term on-the-job training
Geological and petroleum technicians	305	349	102	68,720	Associate's degree
Sales representatives, wholesale and manufacturing, technical and scientific products	745	800	137	67,440	Moderate-term on-the-job training
Lawyers	1,068	1,184	217	67,300	First professional degree
Physical therapists	473	576	131	64,300	Master's degree
Loan officers	850	941	137	63,240	Bachelor's degree
Administrative services managers	589	646	135	61,620	Degree plus work experience
Flight attendants	215	315	119	61,580	Long-term on-the-job training
Sales managers	786	861	162	60,940	Degree plus work experience
Middle school teachers, except special and vocational education	3,782	5,223	1,854	60,660	Bachelor's degree
Financial managers	1,273	1,433	253	59,800	Degree plus work experience
Secondary school teachers, except special and vocational education	3,805	4,440	1,201	58,080	Bachelor's degree
Computer programmers	715	728	102	55,900	Bachelor's degree
Network systems and data communications analysts	344	436	127	54,940	Bachelor's degree
Electrical power-line installers and repairers	502	534	111	54,600	Long-term on-the-job training
Elementary school teachers, except special education	9,183	10,653	2,473	54,200	Bachelor's degree
First-line supervisors/managers of production and operating workers	2,551	2,676	400	53,920	Work experience in a related field
Network and computer systems administrators	664	767	179	53,700	Bachelor's degree
Kindergarten teachers, except special education	721	820	159	53,320	Bachelor's degree
Securities, commodities, and financial services sales agents	964	1,163	323	53,180	Bachelor's degree
Wellhead pumpers	883	850	195	52,820	Moderate-term on-the-job training
Registered nurses	7,728	9,373	2,283	52,480	Associate's degree
Chief executives	1,707	1,802	329	52,320	Degree plus work experience
Business operation specialists, all other	1,295	1,503	277	51,740	Bachelor's degree
Computer systems analysts	626	730	187	51,640	Bachelor's degree
First-line supervisors/managers of mechanics, installers, and repairers	1,647	1,753	299	50,120	Work experience in a related field
Medical and clinical laboratory technologists	464	553	124	48,980	Bachelor's degree

Exhibit 7 (cont.)

"Good Jobs" for the High Plains Region's Future

Description	2007 Jobs	2012 Jobs	Job Openings	Annual Earnings	Education Level
Medical scientists, except epidemiologists	368	441	130	48,960	Doctoral degree
Radiologic technologists and technicians	607	720	154	48,400	Associate's degree
Team assemblers	1,130	1,199	186	48,280	Moderate-term on-the-job training
First-line supervisors/managers of non-retail sales workers	1,006	1,117	183	47,560	Work experience in a related field
Industrial machinery mechanics	1,403	1,568	282	47,260	Long-term on-the-job training
Management analysts	1,562	1,806	377	46,480	Degree plus work experience
Educational, vocational, and school counselors	930	1,037	199	45,900	Master's degree
Sales representatives, wholesale and manufacturing, except technical and scientific products	4,049	4,325	723	45,320	Moderate-term on-the-job training
Postal service mail carriers	790	804	130	44,260	Short-term on-the-job training
Accountants and auditors	4,482	4,863	775	43,900	Bachelor's degree
First-line supervisors/managers of transportation and material-moving machine and vehicle operators	996	1,061	167	43,840	Work experience in a related field
Inspectors, testers, sorters, samplers, and weighers	1,275	1,265	129	43,700	Moderate-term on-the-job training
Production, planning, and expediting clerks	550	588	113	43,380	Short-term on-the-job training
First-line supervisors/managers of construction trades and extraction workers	2,940	3,088	353	42,980	Work experience in a related field
Construction managers	2,087	2,179	254	42,740	Bachelor's degree
Managers, all other	925	990	157	42,560	Work experience in a related field
Instructional coordinators	627	735	151	42,300	Master's degree
Sales representatives, services, all other	1,212	1,392	323	41,080	Moderate-term on-the-job training
Automotive body and related repairers	578	633	124	41,000	Long-term on-the-job training
Financial analysts	824	1,056	255	39,400	Bachelor's degree
Police and sheriff's patrol officers	2,086	2,416	609	39,020	Long-term on-the-job training
Meat, poultry, and fish cutters and trimmers	495	535	118	39,000	Short-term on-the-job training
Food service managers	631	696	139	38,900	Work experience in a related field
First-line supervisors/managers of office and administrative support workers	4,830	5,171	839	38,560	Work experience in a related field
Roustabouts, oil and gas	1,880	1,951	380	38,500	Moderate-term on-the-job training
Welders, cutters, solderers, and brazers	1,710	1,858	329	38,340	Long-term on-the-job training
Computer support specialists	1,055	1,189	297	38,140	Associate's degree
Automotive service technicians and mechanics	2,161	2,332	388	37,860	Postsecondary vocational award
Mobile heavy equipment mechanics, except engines	691	757	133	37,420	Postsecondary vocational award
Medical secretaries	948	1,056	183	37,400	Postsecondary vocational award
Fire fighters	1,003	1,161	341	37,020	Long-term on-the-job training
Electricians	1,980	2,136	411	36,820	Long-term on-the-job training
Plumbers, pipefitters, and steamfitters	1,161	1,273	232	36,460	Long-term on-the-job training
Medical assistants	1,121	1,370	319	36,160	Moderate-term on-the-job training
Carpenters	3,464	3,609	379	36,000	Long-term on-the-job training
Medical records and health information technicians	432	504	131	34,280	Associate's degree
Mixing and blending machine setters, operators, and tenders	893	971	174	34,240	Moderate-term on-the-job training
Bus and truck mechanics and diesel engine specialists	1,102	1,177	195	34,180	Postsecondary vocational award
Insurance sales agents	3,074	3,499	759	33,860	Bachelor's degree
Dispatchers, except police, fire, and ambulance	728	751	115	32,760	Moderate-term on-the-job training

Source: Economic Modeling Specialists Inc.

Going Shopping

Businesses in the High Plains region had more than $36 billion in gross sales in 2006, the most recent data available. Of that amount, about 19.5 percent or more than $7 billion was subject to state and local sales taxes. State sales taxes levied in the region amounted to $440 million in 2006.

Gross Sales and Sales Tax, High Plains, 2006

County	Gross Sales	Amount Subject to Tax	Sales Tax
Lubbock	$9,705,886,060	$2,681,860,435	$167,616,277
Moore	7,915,227,483	87,953,061	5,497,066
Potter	6,814,497,797	1,905,858,606	119,116,163
Hale	2,727,289,221	145,344,311	9,084,019
Randall	2,124,003,856	480,745,328	30,046,583
Other	6,770,378,642	1,740,990,473	108,811,905
TOTAL	**$36,057,283,059**	**$7,042,752,214**	**$440,172,013**

Source: Texas Comptroller of Public Accounts.

The High Plains region had more than 40,000 retail employees in 2005 and 2006, with total wages totaling nearly $900,000 annually. Lubbock County had the highest number of retail jobs, followed by Potter and Randall counties. The annual average salary of the region's retail employees was $21,791 in 2005 and $22,037 in 2006, an increase of just over 1 percent.

Retail Employees and Wages, High Plains, 2005 and 2006

County	Employees 2005	Total Wages 2005	Employees 2006	Total Wages 2006
Lubbock	15,215	$348,040,379	15,419	$349,265,950
Potter	9,240	204,522,626	9,154	210,652,159
Randall	4,377	104,226,709	4,619	110,112,742
Hale	1,840	41,828,326	1,464	27,510,088
Gray	1,207	22,753,085	1,069	21,649,522
Other	8,446	157,348,895	8,313	163,118,866
TOTAL	**40,325**	**$878,720,020**	**40,038**	**$882,309,327**

Source: Texas Comptroller of Public Accounts.

The South Plains Mall in Lubbock is the region's largest mall, with 1.14 million square feet and more than 150 stores. The South Plains Mall has more than 10 million shopper visits each year and a trade area population of more than 273,000 people. (A trade area is the geographical area from which shoppers originate.) The mall has five anchor stores: Dillard's, JC Penney, Bealls, Sears and Mervyns.[9]

Amarillo's 900,000-square-foot Westgate Mall has more than 100 stores. The mall has a trade area of more than 235,000 people with an average household income of more than $55,500. The Westgate Mall has four anchor stores: Dillard's, Sears, JC Penney and Bealls.[10]

and their effects on the regional economy via its Texas EDGE (Economic Data for Growth and Expansion) Program.

Since August 2007, the Comptroller's office has responded to more than 150 Texas EDGE requests. Many of these came from private businesses, city and county government officials, economic development corporations and members of the media. Information requests have included demographics, economic development, economic modeling and taxes. This office also identifies business clusters and provides maps of regional infrastructure such as highways, railroads and other public facilities. For assistance, please visit www.window.state.tx.us/texasedge or e-mail texas.edge@cpa.state.tx.us

The Comptroller's office also identifies opportunities for local governments to raise funds for economic development efforts through property, sales and franchise tax revenues, exemptions and credits. It also provides information on special assessments and other opportunities related to disaster relief.

The Comptroller's Local Government Assistance and Economic Development Division provides free risk assessments to local governments. These give local officials reasonable assurance that risks to local objectives have been identified and show the controls and mitigating factors associated with each.

Finally, the Comptroller's State Energy Conservation Office (SECO) offers free preliminary energy audits for local governments. These audits provide recommendations for reducing electricity consumption by improving the efficiency of heating, air conditioning and lighting systems. SECO can help Texas reduce state and local government energy costs and promote cost-effective clean energy technologies. See Appendix for a list of federal and state assistance programs.

Agriculture is King in Deaf Smith County

Deaf Smith is home to over 550,000 head of cattle.[11] And the biggest economic changes that have occurred in Hereford in recent years have come from dairies, biofuels and related service industries. Today, 13 dairies call this West Texas community home. Attracted by lower land prices and high quality of life, new generations of young dairy owners and their children have sold their California and Idaho land and resettled in West Texas. With an average of 5,000 head of cattle and 50 employees per dairy, this industry provides more than 650 jobs in the region.[12]

Spinoff industries have followed the dairy companies to Hereford. The city is home to an animal feed supplement manufacturer, the 7,000-head Tul's Cattle Company ranch, the Cavness meat packing plant and an oilfield and feed mill equipment manufacturer. The equipment manufacturer, Ferrall Ross, originally promised the community 12 to 15 jobs but now employs more than 100 workers. A local milk hauling company has increased its truck count from six to 100 units in less than four years.[13]

The city of Hereford has found a beneficial use for the waste these cows leave behind — fueling an ethanol plant with cow manure. Panda Ethanol Inc. began building the plant in Hereford in 2006. Local feedlot owners agreed to give the ethanol plant manure for free as long as the plant owners collect it.

Panda Ethanol will extract methane from the manure and burn it to generate steam that will be used to process corn into ethanol. Hereford is using funds from the Texas Department of Agriculture to improve its water and wastewater system capacity for the ethanol plant's uses. Panda Ethanol predicts its plant will begin operating in early 2008. The facility will create 61 new jobs.[14]

Industry Profile – Agriculture

Economic regions often are supported by industries for which they have a competitive advantage, due to an abundance of a particular resource, certain climate conditions or special labor skills. Today, as it has been for decades, much of the High Plains economy is driven by agriculture.

Cattle, cotton and grain crops dominate the region's agriculture and account for a significant share of the state's total production. Crop and animal production provided more than 28,000 jobs in the region in 2006.[15] Farmland in the High Plains accounted for 17.5 percent of all Texas farmland in 2002. Deaf Smith and Oldham counties have the most acreage, with 964,347 and 936,390 acres respectively.

Cattle

Texas is the national leader in cattle, ranking first among states in a number of measures. Texas has more than twice as many head of cattle and calves (14 million) than Nebraska (6.7 million), the second ranked state. Likewise, Texas leads the nation in the number of cattle operations with 149,000, followed by Missouri in a distant second with 64,000. Finally, Texas ranks first in the total value of all cattle and calves with more than $11 billion at the beginning of 2007, far outpacing second place California with $6.3 billion.[16]

The High Plains, in turn, is the state's leading cattle region, with nearly a third (30.1 percent) of all cattle in the state or more than 4.2 million head in 2007.[17] If the High Plains were a state, it would have had the seventh-largest population of cattle in the U.S. in 2007 (**Exhibit 8**).[18]

In fact, the eight largest cattle counties in the state are found in the High Plains region. Deaf Smith County has the largest number of cattle and calves with 552,000 or 3.9 percent of the state's total head.[19]

Texas ranchers have seen the price paid for beef increase since 2002. The average price per pound paid for beef cattle in 2002 was $0.67. By 2006, the average price increased 31.3 percent to $0.88.[20]

Exhibit 8

Head of Cattle, 2007 (In Millions)

State	Head of Cattle	Percent of U.S.
Texas	14.0	14.4%
Nebraska	6.7	6.9
Kansas	6.4	6.6
California	5.5	5.7
Oklahoma	5.3	5.5
Missouri	4.5	4.6
High Plains	4.2	4.3

Source: U.S. Department of Agriculture.

Cotton

In 2000, cotton was the state's leading cash crop, generating $1.6 billion for farmers and a $5.2 billion impact on the economy. Texas is the nation's largest producer of cotton, and the High Plains produces the majority of the state's cotton.[21]

The region's farmers produced more than 3.5 million bales of upland cotton in 2006, or about 61.7 percent of the state total. The region also had more than half (57.6 percent) of the state's harvested acres of cotton, or nearly 2.4 million acres. Hale and Lamb counties were the region's largest cotton producers (**Exhibit 9**).[22]

Exhibit 9

Region's Largest Producers of Upland Cotton High Plains, 2006

County	Planted Acres	Harvested Acres	Produced Bales
Hale	282,400	262,100	483,000
Lamb	207,200	193,000	339,500
Hockley	261,000	212,000	279,700
Floyd	187,200	164,000	254,400
Lubbock	266,800	193,500	247,800

Source: U.S. Department of Agriculture.

Wheat

Nearly half of all Texas wheat harvested in 2006 (47.8 percent, or more than 16 million bushels) came from the High Plains. The region had 46.2 percent of all Texas harvested acres of wheat in that year. Dallam and Castro counties each produced nearly 2 million bushels of wheat, accounting for a quarter (24.8 percent) of the region's wheat crop (**Exhibit 10**).[23]

Exhibit 10

Region's Largest Producers of Wheat
High Plains, 2006

County	Planted Acres	Harvested Acres	Produced Bushels
Dallam	122,400	58,500	1,994,000
Castro	169,200	51,800	1,986,000
Ochiltree	180,300	66,500	1,419,000
Parmer	187,700	48,100	1,398,000
Hansford	223,000	54,400	1,130,000

Source: U.S. Department of Agriculture.

Corn for Grain

The High Plains region is also the state's largest producer of corn for grain. The region produced 107.4 million bushels, or 61.2 percent of the state's share in 2006. The region's 562,000 acres harvested accounted for 38.8 percent of the state total. Dallam and Hartley counties alone produced nearly a quarter (24.4 percent) of the state's corn for grain (**Exhibit 11**).[24]

Exhibit 11

Region's Largest Producers of Corn for Grain
High Plains, 2006

County	Planted Acres	Harvested Acres	Produced Bushels
Dallam	130,300	124,400	22,680,000
Hartley	110,000	96,300	20,063,000
Castro	78,600	63,200	12,819,000
Sherman	68,400	61,400	12,131,000
Moore	50,700	48,100	9,502,000

Source: U.S. Department of Agriculture.

Sorghum for Grain

High Plains farmers harvested more than 18.7 million bushels of sorghum for grain in 2006, 30.0 percent of the state total. Ochiltree County was the region's largest producer, with nearly 2 million bushels, followed by Deaf Smith County (**Exhibit 12**). In all, nearly 400,000 acres of sorghum were harvested in the region in 2006.[25]

Exhibit 12

Region's Largest Producers of Grain Sorghum
High Plains, 2006

County	Planted Acres	Harvested Acres	Produced Bushels
Ochiltree	51,800	36,200	1,974,000
Deaf Smith	85,900	44,700	1,655,000
Moore	31,200	17,850	1,435,000
Hansford	36,400	27,300	1,420,000
Carson	40,200	28,500	1,325,000

Source: U.S. Department of Agriculture.

Biofuels

The emergence of biofuels such as ethanol and biodiesel is opening new markets to the region's farmers and ranchers. Its rich resources of corn, sorghum and animal fat make the region a natural area for these emerging energy industries. **Exhibit 13** highlights ethanol and biodiesel plants in the High Plains.

The 2007 federal energy bill set a goal that the U.S. will annually produce 15.2 billion gallons of renewable fuels, including ethanol and biodiesel, by 2012, and 36 billion gallons by 2022.[26] Also, the federal government provides subsidies for ethanol and biodiesel production and consumption.

Ethanol (ethyl or grain alcohol) is a renewable fuel used to power vehicles and is made from feedstock crops such as corn, sugarcane and other materials that can be converted into sugar. Almost all of U.S. ethanol is made from corn.[27] One bushel of corn (56 pounds) can produce up to 2.8 gallons of ethanol.[28]

Many proponents are touting ethanol as a step toward national energy independence that also

Exhibit 13

High Plains Region

ETHANOL PLANTS

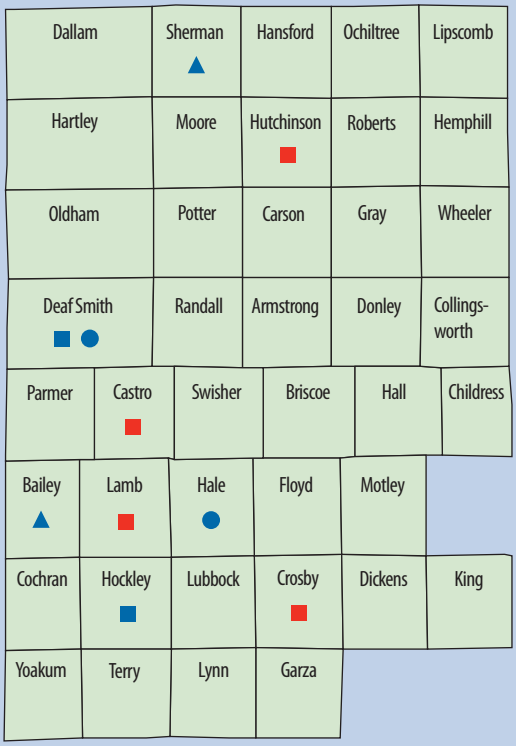
Operating Plants:
Deaf Smith County
Hockley County

Plants Under Construction:
Deaf Smith County
Hale County

Planned Plants:
Sherman County
Bailey County

BIODIESEL PLANTS

Operating Plants:
Hutchinson County
Crosby County
Castro County
Lamb County



Source: Texas Comptroller of Public Accounts.

benefits the nation's farmers and creates jobs. According to one recent estimate, a Texas ethanol plant producing 100 million gallons per year could create about 1,600 new jobs.[29]

U.S. ethanol production has increased dramatically over the past several years (**Exhibit 14**).

Ethanol has critics as well as boosters. Some argue that increased corn production for ethanol is pushing up the price of foods, animal feed and other commodities while draining precious water resources. The amount of water corn-based ethanol requires, mostly for crop irrigation, varies depending on climate, from 2,500 to 29,000 gallons of water per million Btu of energy produced. In 2002, water use at ethanol plants averaged 4.7 gallons per gallon of ethanol produced.[30]

The High Plains region is the center for this new industry in Texas. Every ethanol plant either opened or under construction in Texas is located in the High Plains region, with the first large-scale plant opening in Hereford, Texas, in January 2008.

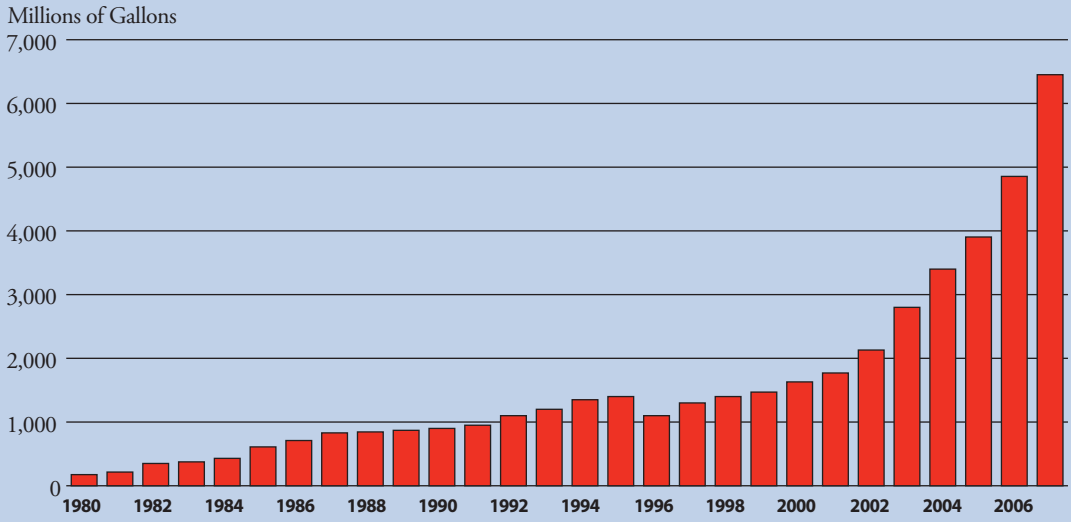
White Energy, Inc.'s Hereford ethanol plant is expected to produce 100 million gallons of ethanol annually from corn and milo. Much of this grain will come from local farmers. The byproducts of ethanol production will be used as cattle feed, partially offsetting the loss of corn feed. The plant's owners estimate that the facility will provide about 40 jobs and have an economic impact of about $100 million annually.[31]

White Energy also has a plant under construction in Plainview that the company says will produce similar amounts of ethanol and create a similar number of jobs. The plant also will provide hundreds of construction jobs.[32]

Panda Ethanol, Inc., is building an ethanol plant in Hereford and planning another for Sherman County. Each plant will produce about 115 million gallons of ethanol per year from about 40 million

Exhibit 14

U.S. Ethanol Production, 1980-2007



Sources: Texas Comptroller of Public Accounts and Renewable Fuels Association.

bushels of corn. Interestingly, Panda will gasify up to one billion pounds of cow manure annually instead of using natural gas to operate each plant. Gasifying or burning manure is a way to avoid the monetary and environmental costs of its disposal. Producers usually are not paid for manure used as fuel; for example, cattle producers are planning to supply the manure to the Hereford ethanol plant for free to avoid disposal costs. Using cattle manure to produce ethanol, which in turn produces a byproduct that can be used as cattle feed, creates a unique fuel cycle.

The Hereford plant under construction is expected to employ 61, the planned Sherman plant should also create 61 jobs.[33] Panda also has plans to build a plant in Muleshoe.

Biodiesel is another alternative fuel, used either as a blend with petroleum-based diesel or as a full substitute. The most common sources of biodiesel are plants (soybeans, peanuts, palm, sorghum and others), animal fats and recycled grease from cooking oils.

Texas is the country's largest producer of biodiesel. Of 148 commercial biodiesel production plants operating in the U.S. in August 2007, 15 were in Texas, more than in any other state.[34] The state produced 72.9 million gallons in 2007.[35]

In 2008, Tyson Foods and ConocoPhillips are partnering to produce biodiesel from beef fat. Tyson ships tallow from its Amarillo plant to a biodiesel facility in Borger. This facility is part of a strategic alliance between the two companies that is expected to produce 175 million gallons per year nationwide.[36]

Also using animal fat to produce biodiesel is Greenlight Biofuels, located in Littlefield in Lamb County. The Greenlight facility, opened in summer 2007, employs five people and can produce 5 million gallons of biodiesel per year. The plant also produces glycerin as a co-product.[37]

Brownfield Biodiesel in Ralls in Crosby County can produce 6.5 million gallons of biodiesel annually from feedstocks including canola, soybean and cottonseed. The facility also produces glycerin as a co-product that it sells to soap companies. The biodiesel itself is sold to wholesale buyers, mostly in Texas.[38]

These plants will boost the High Plains economy by providing new markets for its traditional industries. Local communities and business owners already have benefited from the construction of these plants.

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