Appendix A

Operator Data by Size Class

Operator Data by Size Class

To remain competitive in the domestic oil and gas industry, companies have to reduce costs and look for areas of profitable growth. Over the past few years, we have seen companies restructure to focus on their core areas of profit. This restructuring has taken many forms, for example, mega-mergers, laying off employees, early retirements and buyouts, flattening management structure, selective sales of marginally profitable properties, and acquisitions. Documenting some of these changes is important.

Appendix A is a series of tables of the proved reserves and production by production size class for the years 1995 through 2000 for oil and gas well operators. The tables show the volumetric change and percent change from the previous year and from 1995. In addition they show the 2000 average per operator in each class. All companies that reported to EIA were ranked by production size for each of the 6 years. We computed company production size classes as the sum of the barrel oil equivalent of the crude oil production, lease condensate production, and wet gas production for each operator. The companies were then placed in the following production size classes: 1–10, 11–20, 21–100, 101–500, and all “other” oil and gas operators. The “other” category contains 22,102 small operators. We estimate production and reserves for small operators each year from a sample of approximately 6 percent or less of these operators.

Class 1–10 contains the 10 highest producing companies each year on a barrel oil equivalent basis. These companies are not necessarily the same 10 companies each year.

We also include statistics for operator Category sizes at the bottom portion of tables in this appendix. These are the categories used by EIA in processing and assessing reserves surveys and are presented here as additional perspective. For further explanation of categories sizes see definitions and descriptions in Appendix E.

Natural Gas

Proved Reserves

The wet natural gas proved reserves reported for 1995 through 2000 have changed from 173,476 billion cubic feet to 186,510 billion cubic feet (Table A1). These proved reserves are highly concentrated in the larger companies. In 2000, the top 20 operators (Class 1–10 and Class 11–20) producing companies had 56 percent of the proved reserves of natural gas. The next two size classes contain 80 and 400 companies and account for 26 and 12 percent of the U.S. natural gas proved reserves, respectively. The top 20 operators had an increase of 4 percent in their natural gas proved reserves from 1995 to 2000. While the rest of the operators in (Class 21–100, Class 101–500, and Class Other) had an increase of 13 percent in their reserves. In 2000, the top 20 operators’ natural gas reserves increased by 17 percent from 1999.

Production

Wet natural gas production has increased from 19,856 billion cubic feet in 1999 to 20,164 billion cubic feet in 2000 (Table A2). In 2000, the top 20 producing companies had 56 percent of the proved reserves and production of wet natural gas. The next two size classes have 25 and 14 percent of the wet natural gas production, respectively. The top 20 operators had an increase of 11 percent in their wet natural gas production from 1995 to 2000. The rest of the operators had an increase of 2 percent from 1995 to 2000. The top 20 operators’ wet natural gas production had a increase of 9 percent in 2000 from 1999.

Crude Oil

Proved Reserves

Proved reserves of crude oil are more highly concentrated in a few companies than those of natural gas. The 20 largest oil and gas producing companies in 2000 had 70 percent of U.S. proved reserves of crude oil (Table A3), in contrast to wet natural gas where these same companies operated 56 percent of the total proved reserves.

U.S. proved reserves of crude oil increased 1.3 percent in 2000. The top 20 producing companies proved reserves of crude oil during 2000 increased 13 percent. The top 20 class had a decline of 5 percent in their crude oil proved reserves from 1995 to 2000.

Production

Crude oil production reported for 1995 to 2000 has decreased from 2,213 million barrels to 1,880 million barrels (Table A4). The 20 largest oil and gas producing companies had 67 percent of U.S. production of crude oil in 2000. In 1995 they also accounted for 67 percent of production. This is in contrast to wet natural gas where these same companies produced only 56 percent of the total. U.S. production of crude oil declined by 15 percent from 1995 to 2000. The top 20 operators had a decline of 15 percent in their oil production during the same period. U.S. production of crude oil declined by 4 percent from 1999 to 2000, while the top 20 operators production decreased by 4 percent.

Fields

The number of fields in which Category I and Category II operators were active dropped during the 1995–2000 period (Table A5). From 1995-2000, the number of fields in which the top 20 operators were active in dropped by 518 (9 percent), while in 2000 the number increased by 1,294 (32 percent) from 1999.

Table A1. Natural Gas Proved Reserves, Wet After Lease Separation, by Operator Production Size Class, 1995–2000

(Billion Cubic Feet at 14.73 psia and 60° Fahrenheit)

Size Class	1995	1996	1997	1998	1999	2000	1999–2000 Volume and Percent Change	1995–2000 Volume and Percent Change	2000 Average Reserves per Operator
Class 1–10	75,856	72,606	68,876	64,336	64,320	81,437	17,117	5,581	8,143.703
Percent of Total	43.7%	41.5%	39.2%	37.3%	36.5%	43.7%	26.6%	7.4%	
Class 11–20	24,648	25,416	27,705	28,338	24,925	22,590	-2,335	-2,058	2,259.034
Percent of Total	14.2%	14.5%	15.8%	16.4%	14.1%	12.1%	-9.4%	-8.3%	
Class 21–100	42,604	43,300	45,593	47,009	52,160	48,832	-3,328	6,228	610.402
Percent of Total	24.6%	24.7%	25.9%	27.3%	29.6%	26.2%	-6.4%	14.6%	
Class 101–500	20,150	22,483	23,338	24,471	25,967	22,620	-3,347	2,470	56.551
Percent of Total	11.6%	12.8%	13.3%	14.2%	14.7%	12.1%	-12.9%	12.3%	
Class Other (22,102)	10,218	11,342	10,209	8,289	8,787	11,030	2,243	812	0.513
Percent of Total	5.9%	6.5%	5.8%	4.8%	5.0%	5.9%	25.5%	7.9%	
Category I (175)	148,233	146,601	147,491	146,458	145,922	162,144	16,222	13,911	926.535
Percent of Total	85.4%	83.7%	83.9%	84.9%	82.8%	86.9%	11.1%	9.4%	
Category II (436)	15,828	18,382	17,764	18,033	21,979	13,123	-8,856	-2,705	30.100
Percent of Total	9.1%	10.5%	10.1%	10.5%	12.5%	7.0%	-40.3%	-17.1%	
Category III (21,491)	9,416	10,164	10,466	7,952	8,257	10,817	2,560	1,401	0.503
Percent of Total	5.4%	5.8%	6.0%	4.6%	4.7%	5.8%	24.7%	14.9%	
Total Published	**173,476**	**175,147**	**175,721**	**172,443**	**176,159**	**186,510**	**10,351**	**13,034**	**8.439**
Percent of Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.00%**	**100.00%**	**5.9%**	**7.5%**	

Note: There were 21,491 active Category III operators in the 2000 sample frame. The reserves and production of Category III operators were estimated from an adjusted sample of 2,035 Category III operators (Table E2). The "other" size class represents 21,602 operators in the 2000 frame (22,102 active operators minus the 500 largest operators).

Source: Energy Information Administration, Office of Oil and Gas.

Table A2. Natural Gas Production, Wet After Lease Separation, by Operator Production Size Class, 1995–2000
(Billion Cubic Feet at 14.73 psia and 60° Fahrenheit)

Size Class	1995	1996	1997	1998	1999	2000	1999–2000 Volume and Percent Change	1995–2000 Volume and Percent Change	2000 Average Production per Operator
Class 1–10	7,174	7,448	7,178	6,954	6,881	8,495	1,614	1,321	849.466
Percent of Total	38.0%	37.5%	35.7%	35.4%	34.7%	42.1%	23.5%	18.4%	
Class 11–20	3,101	3,002	3,286	3,317	3,560	2,886	-674	-215	288.587
Percent of Total	16.4%	15.1%	16.3%	16.9%	17.9%	14.3%	-18.9%	-6.9%	
Class 21–100	4,871	5,316	5,729	5,595	5,523	4,965	-558	94	62.063
Percent of Total	25.8%	26.7%	28.4%	28.5%	27.8%	24.6%	-10.1%	1.9%	
Class 101–500	2,477	2,623	2,665	2,721	2,793	2,780	-13	303	6.951
Percent of Total	13.1%	13.2%	13.2%	13.9%	14.1%	13.8%	-0.5%	12.2%	
Class Other (22,102)	1,251	1,484	1,276	1,035	1,099	1,038	-61	-213	0.048
Percent of Total	6.6%	7.5%	6.3%	5.3%	5.5%	5.1%	-5.5%	-17.0%	
Category I (175)	15,800	16,381	16,897	16,619	16,248	17,096	848	1,296	97.689
Percent of Total	83.7%	82.4%	83.9%	84.7%	81.8%	84.8%	5.2%	8.2%	
Category II (436)	1,923	2,128	1,979	2,019	2,556	1,921	-635	-2	4.407
Percent of Total	10.2%	10.7%	9.8%	10.3%	12.9%	9.5%	-24.8%	-0.1%	
Category III (21,491)	1,151	1,364	1,258	984	1,052	929	-123	-222	0.043
Percent of Total	6.1%	6.9%	6.2%	5.0%	5.3%	4.6%	-39.8%	-19.3%	
Total Published	**18,874**	**19,873**	**20,134**	**19,622**	**19,856**	**20,164**	**308**	**1,290**	**0.912**
Percent of Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**1.6%**	**6.8%**	

Note: There were 21,491 active Category III operators in the 2000 sample frame. The reserves and production of Category III operators were estimated from an adjusted sample of 2,035 Category III operators (Table E2). The "other" size class represents 21,602 operators in the 2000 frame (22,102 active operators minus the 500 largest operators).

Source: Energy Information Administration, Office of Oil and Gas.

Table A3. Crude Oil Proved Reserves by Operator Production Size Class, 1995–2000
(Million Barrels of 42 U.S. Gallons)

Size Class	1995	1996	1997	1998	1999	2000	1999–2000 Volume and Percent Change	1995–2000 Volume and Percent Change	2000 Average Reserves per Operator
Class 1–10	13,891	13,362	11,434	11,501	11,121	12,367	1,246	-1,524	1,236.692
Percent of Total	62.1%	60.7%	50.7%	54.7%	51.1%	56.1%	11.2%	-11.0%	
Class 11–20	2,422	2,013	2,977	2,894	2,585	3,172	587	750	317.172
Percent of Total	10.8%	9.1%	13.2%	13.8%	11.9%	14.4%	22.7%	31.0%	
Class 21–100	2,623	3,155	4,384	3,677	4,338	2,505	-1,833	-118	31.312
Percent of Total	11.7%	14.3%	19.4%	17.50%	19.9%	11.4%	-42.3%	-4.5%	
Class 101–500	1,793	1,838	2,111	1,754	2,379	2,286	-93	493	5.714
Percent of Total	8.0%	8.3%	9.4%	8.3%	10.9%	10.4%	-3.9%	27.5%	
Class Other (22,102)	1,622	1,649	1,640	1,208	1,342	1,716	374	94	0.080
Percent of Total	7.3%	7.5%	7.3%	5.7%	6.2%	7.8%	27.9%	5.8%	
Category I (175)	19,647	19,312	19,461	18,819	18,952	19,421	469	-226	110.979
Percent of Total	87.9%	87.7%	86.3	89.5%	87.1%	88.1%	2.5%	-1.1%	
Category II (436)	1,103	1,117	1,400	1,018	1,521	873	-648	-230	2.001
Percent of Total	4.9%	5.1%	6.2	4.8%	7.0%	4.0%	-42.6%	-20.9%	
Category III (21,491)	1,600	1,588	1,685	1,197	1,293	1,680	387	80	0.078
Percent of Total	7.2%	7.2%	7.5	5.7%	5.9%	7.6%	138.3%	5.0%	
Total Published	**22,351**	**22,017**	**22,546**	**21,034**	**21,765**	**22,045**	**280**	**-306**	**0.997**
Percent of Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**1.3%**	**-1.4%**	

Note: There were 21,491 active Category III operators in the 2000 sample frame. The reserves and production of Category III operators were estimated from an adjusted sample of 2,035 Category III operators (Table E2). The "other" size class represents 21,602 operators in the 2000 frame (22,102 active operators minus the 500 largest operators).
Source: Energy Information Administration, Office of Oil and Gas.

Table A4. Crude Oil Production by Operator Production Size Class, 1995–2000
(Million Barrels of 42 U.S. Gallons)

Size Class	1995	1996	1997	1998	1999	2000	1999–2000 Volume and Percent Change	1995–2000 Volume and Percent Change	2000 Average Production per Operator
Class 1–10	1,270	1,220	1,047	1,025	974	961	-13	-309	96.102
Percent of Total	57.4%	56.1%	49.0%	51.5%	49.9%	51.1%	-1.3%	-24.3%	
Class 11–20	221	185	262	255	241	304	63	83	30.450
Percent of Total	10.0%	8.5%	12.3%	12.8%	12.3%	16.2%	26.3%	37.8%	
Class 21–100	276	307	373	342	350	214	-136	-62	2.673
Percent of Total	12.5%	14.1%	17.4%	17.2%	17.9%	11.4%	-38.9%	-22.5%	
Class 101–500	214	213	237	206	208	211	3	-3	0.527
Percent of Total	9.7%	9.8%	11.1%	10.3%	10.7%	11.2%	1.3%	-1.5%	
Class Other (22,102	232	248	219	163	179	190	11	-42	0.009
Percent of Total%	10.5%	11.4%	10.2%	8.2%	9.2%	10.1%	6.1%	-18.2%	
Category I (175)	1,844	1,791	1,760	1,714	1,617	1,572	-45	-272	8.982
Percent of Total	83.3%	82.4%	82.3%	86.1%	82.8%	83.6%	-2.8%	-14.8%	
Category II (436)	139	143	157	118	160	111	-49	-28	0.254
Percent of Total	6.3%	6.6%	7.3%	5.9%	8.2%	5.9%	-30.7%	-20.3%	
Category III (21,491)	230	239	221	159	175	182	7	-48	0.008
Percent of Total	10.4%	11.0%	10.3%	8.0%	9.0%	9.7%	-10.2%	-20.7%	
Total Published	**2,213**	**2,173**	**2,138**	**1,991**	**1,952**	**1,880**	**-72**	**-333**	**0.085**
Percent of Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**-3.7%**	**-15.0%**	

Note: There were 21,491 active Category III operators in the 2000 sample frame. The reserves and production of Category III operators were estimated from an adjusted sample of 2,035 Category III operators (Table E2). The "other" size class represents 21,602 operators in the 2000 frame (22,102 active operators minus the 500 largest operators).

Source: Energy Information Administration, Office of Oil and Gas.

Table A5. Operator Field Count by Operator Production Size Class, 1995–2000

Size Class	1995	1996	1997	1998	1999	2000	1999–2000 Number and Percent Change	1995–2000 Number and Percent Change	2000 Average Number of Fields per Operator
Class 1–10	3,113	2,800	2,566	2,475	2,559	3,444	885	331	344.400
Percent of Total	11.9%	10.7%	10.4%	9.5%	10.0%	13.0%	34.6%	10.6%	
Class 11–20	2,772	2,441	2,257	1,822	1,514	1,923	409	-849	192.300
Percent of Total	10.6%	9.3%	9.1%	7.0%	5.9%	7.2%	27.0%	-30.6%	
Class 21–100	7,569	7,526	7,159	7,526	8,180	7,084	-1,096	-485	88.550
Percent of Total	28.9%	28.7%	28.9%	29.0%	32.0%	26.7%	-13.4%	-6.4%	
Class 101–500	11,886	12,492	12,878	12,817	12,344	12,580	236	694	31.450
Percent of Total	45.4%	47.7%	52.0%	49.4%	48.2%	47.4%	1.9%	5.8%	
Rest	1,601	[a]952	1,332	1,524	1,287	1,529	242	-72	6.397
Percent of Total	6.1%	[a]3.6%	5.4%	5.9%	5.0%	5.8%	18.8%	-4.5%	
Category I	16,256	15,635	15,232	15,666	15,120	16,174	1,054	-82	92.423
Percent of Total	62.1%	59.7%	58.2%	60.4%	59.1%	60.9%	7.0%	-0.5%	
Category II	9,939	10,576	R9,530	10,271	10,467	10,146	-321	207	23.271
Percent of Total	37.9%	40.3%	41.8%	39.6%	40.9%	38.2%	-3.1%	2.1%	
Total Reported	**26,195**	**26,211**	**R24,762**	**25,937**	**25,587**	**26,560**	**973**	**365**	**40.717**
Percent Change	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**3.8%**	**1.4%**	

[a]The reduced 1996 survey had fewer operators and fields in the “rest” class.
R = Revised
Note: Includes only data from Category I and Category II operators. In 2000, there were 175 Category I operators and 436 Category II operators. The “rest” size class had 239 operators in 2000.
Source: Energy Information Administration, Office of Oil and Gas.