



## North American Cement Industry **2013 Annual Yearbook**

- Construction Facts
- Industry Trends
- Domestic & International Coverage

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# NORTH AMERICAN CEMENT INDUSTRY ANNUAL YEARBOOK 2013

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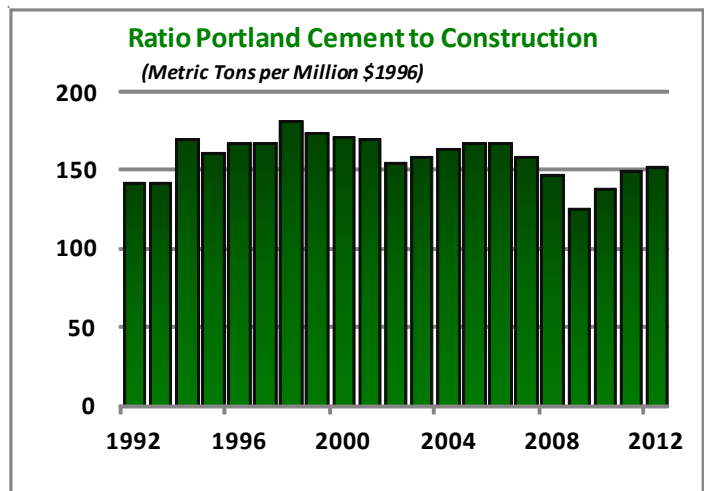
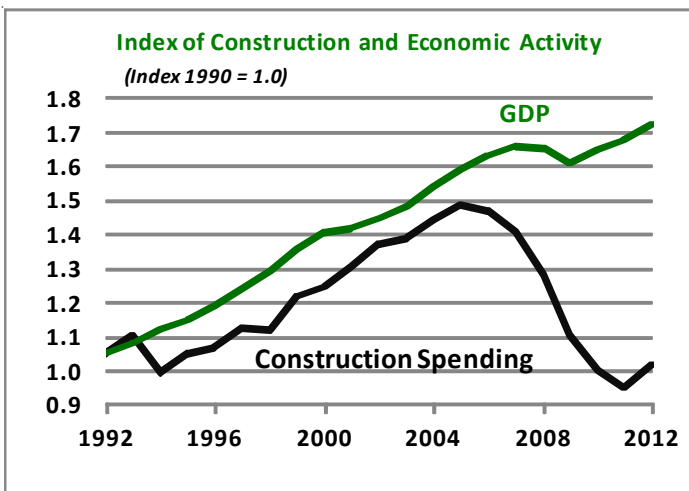
**Table 1**  
**Construction and Economic Activity**

Year	Construction (Billions 1996\$)	Real GDP (Billions Constant\$)	Ratio Construction % of GDP (Percent)	Ratio Portland Cement* to Construction (Metric Tons per \$Million)	Ratio Portland Cement* to GDP (Metric Tons per \$Million)
1992	533.3	9,257	5.8	142.6	7.92
1993	560.8	9,511	5.9	141.9	8.05
1994	503.7	9,895	5.1	169.6	8.30
1995	533.3	10,164	5.2	161.6	8.17
1996	544.3	10,549	5.2	167.3	8.31
1997	574.3	11,023	5.2	167.5	8.41
1998	570.2	11,513	5.0	181.1	8.61
1999	623.3	12,071	5.2	174.0	8.62
2000	639.3	12,565	5.1	171.3	8.37
2001	668.4	12,684	5.3	170.3	8.62
2002	706.0	12,910	5.5	154.9	8.13
2003	715.1	13,270	5.4	158.7	8.20
2004	741.0	13,774	5.4	163.7	8.43
2005	766.5	14,236	5.4	167.0	8.61
2006	758.3	14,615	5.2	167.8	8.34
2007	722.9	14,877	4.9	158.6	7.42
2008	657.0	14,834	4.4	147.1	6.31
2009	560.2	14,418	3.9	126.0	4.75
2010	507.1	14,779	3.4	138.7	4.63
2011	479.8	15,052	3.2	150.3	4.67
2012	516.5	15,471	3.3	151.9	4.95

\* Portland and Masonry

Note: Construction data for 1992 and prior on Dept of Commerce program basis

Source: U.S. Department of Commerce, Bureau of Economic Analysis, U.S. Geological Survey, PCA Market Intelligence





**Table 2**  
**Construction Put-in-Place**

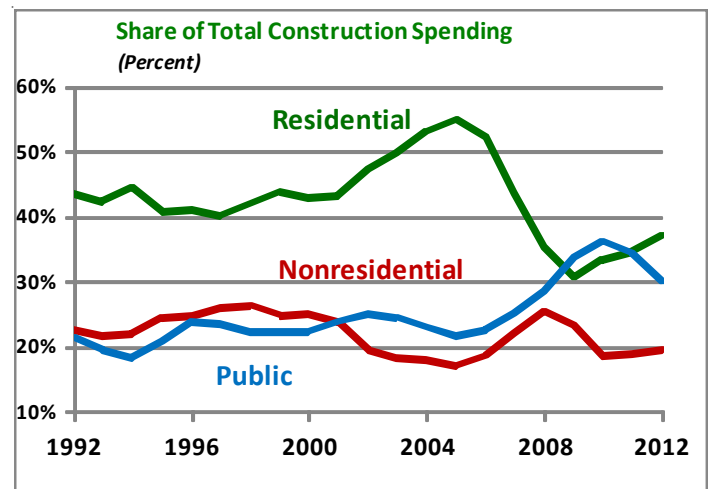
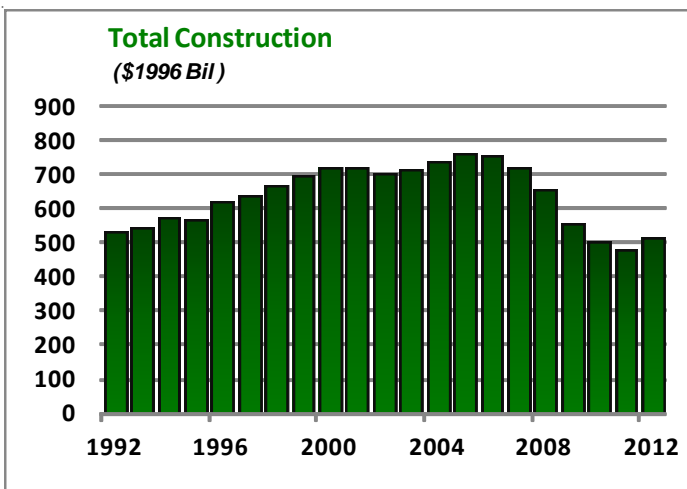
Year	Total	Share of Total		Share of Total		Share of Total		Share of Total	
		Residential	(%)	Nonresidential	(%)	Public	(%)	Other <sup>1</sup>	(%)
1992	533.3	232.1	43.5	120.9	22.7	114.6	21.5	65.6	12.3
1993	544.3	231.1	42.5	118.4	21.8	107.4	19.7	87.4	16.1
1994	574.3	256.2	44.6	127.4	22.2	104.9	18.3	85.8	14.9
1995	570.2	232.3	40.7	140.9	24.7	118.1	20.7	78.9	13.8
1996	623.3	257.5	41.3	155.2	24.9	148.3	23.8	62.3	10.0
1997	639.3	257.0	40.2	167.6	26.2	151.6	23.7	63.0	9.9
1998	668.4	280.4	42.0	176.1	26.4	148.9	22.3	62.9	9.4
1999	699.3	307.8	44.0	173.9	24.9	156.9	22.4	60.7	8.7
2000	724.6	312.6	43.1	181.4	25.0	161.5	22.3	69.1	9.5
2001	721.9	313.0	43.4	172.3	23.9	172.5	23.9	64.1	8.9
2002	706.0	333.1	47.2	139.1	19.7	178.4	25.3	55.4	7.9
2003	715.1	356.2	49.8	131.7	18.4	176.4	24.7	50.8	7.1
2004	741.0	392.9	53.0	133.7	18.0	170.1	22.9	44.3	6.0
2005	766.5	420.7	54.9	132.3	17.3	167.8	21.9	45.7	6.0
2006	758.3	396.5	52.3	141.6	18.7	171.7	22.6	48.5	6.4
2007	722.9	315.9	43.7	160.7	22.2	182.7	25.3	63.6	8.8
2008	657.0	232.6	35.4	167.3	25.5	186.9	28.5	70.1	10.7
2009	560.2	171.4	30.6	131.3	23.4	188.5	33.6	69.0	12.3
2010	507.1	169.6	33.4	94.6	18.7	183.0	36.1	59.8	11.8
2011	479.8	166.8	34.8	91.6	19.1	165.4	34.5	56.1	11.7
2012	516.5	192.3	37.2	100.7	19.5	156.1	30.2	67.4	13.0

**Percent Change**  
2012 / 2011    **7.6%**                      **15.3%**                      **10.0%**                      **-5.6%**                      **20.2%**

<sup>1</sup> Public Utility, Farm/Nonresidential

Note: Construction data for 1992 and prior on Dept. of Commerce program basis

Source: U.S. Department of Commerce





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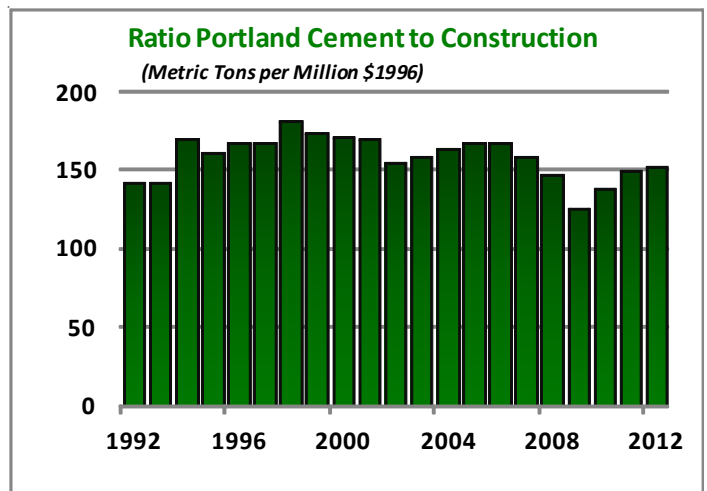
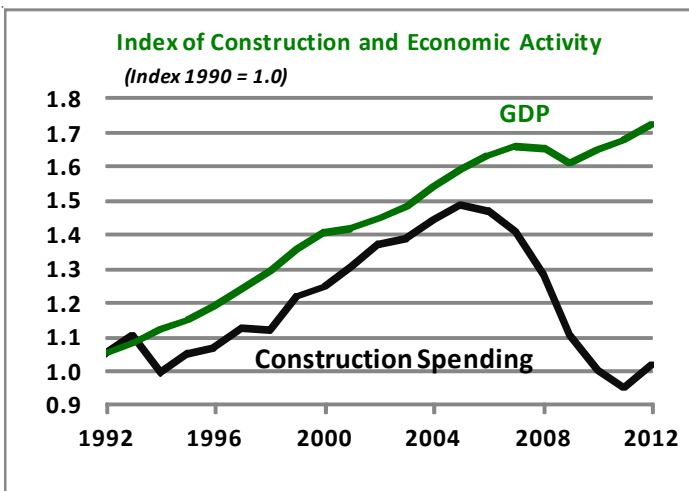
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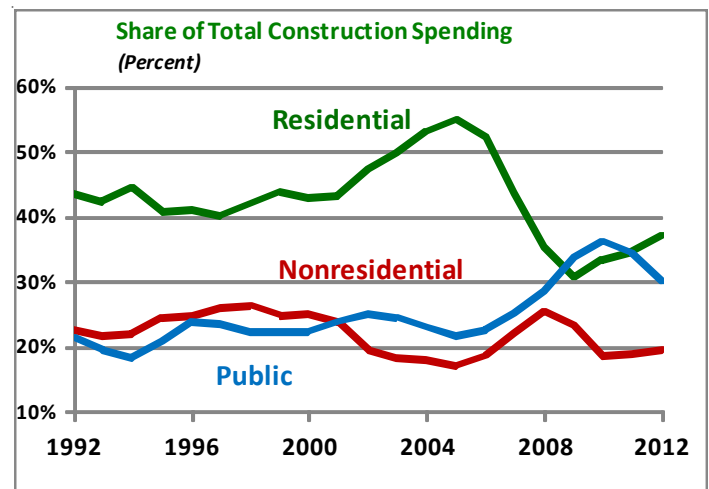
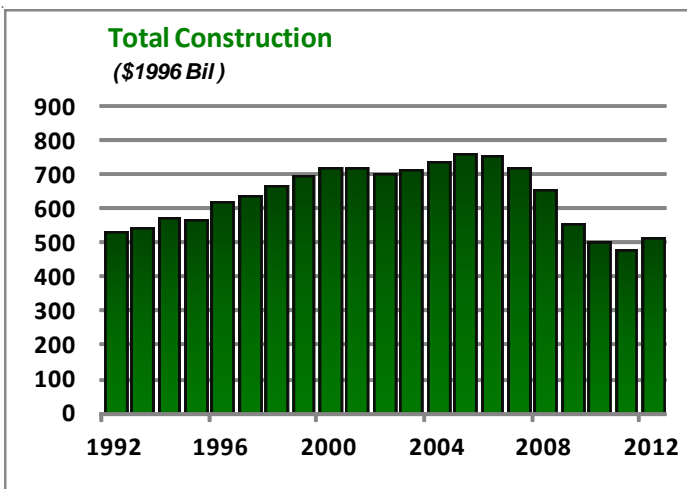
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2009	560.2	171.4	30.6	131.3	23.4	188.5	33.6	69.0	12.3
2010	507.1	169.6	33.4	94.6	18.7	183.0	36.1	59.8	11.8
2011	479.8	166.8	34.8	91.6	19.1	165.4	34.5	56.1	11.7
2012	516.5	192.3	37.2	100.7	19.5	156.1	30.2	67.4	13.0

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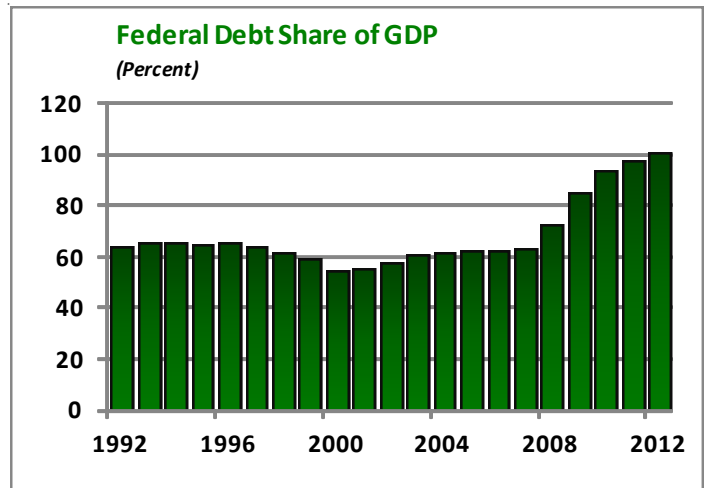
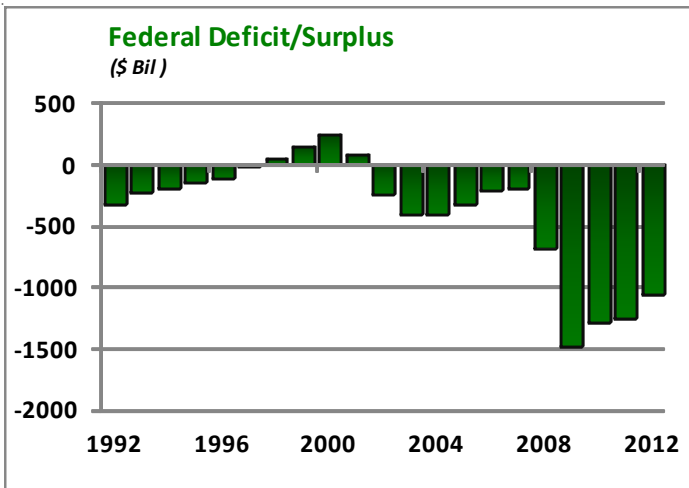




**Table 3**  
**Government Deficits**

Year	Federal Debt (\$ Bil )	Federal Deficit/Surplus (\$ Bil )	State Deficit/Surplus (\$ Bil )	Federal Deficit Share of GDP (%)	Federal Debt Share of GDP (%)	Long-Term Interest Rate (%)	Nominal GDP (\$ Bil )
1992	4,177	-327.0	-1.4	5.0	63.9	7.67	6,539
1993	4,536	-226.3	-1.0	3.3	65.9	6.60	6,879
1994	4,800	-185.0	8.2	2.5	65.7	7.37	7,309
1995	4,989	-146.5	9.2	1.9	65.1	6.88	7,664
1996	5,323	-110.9	23.0	1.4	65.7	6.70	8,100
1997	5,502	-2.4	36.3	0.0	63.9	6.61	8,608
1998	5,614	54.4	46.9	0.6	61.8	5.58	9,089
1999	5,776	158.6	41.8	1.6	59.8	5.87	9,666
2000	5,662	254.8	41.3	2.5	55.0	5.94	10,290
2001	5,943	94.3	-15.9	0.9	55.9	5.49	10,625
2002	6,406	-230.7	-54.1	2.1	58.3	5.42	10,980
2003	6,998	-399.1	-38.8	3.5	60.8	5.05	11,512
2004	7,596	-399.0	-8.4	3.3	61.9	5.11	12,277
2005	8,170	-321.8	25.9	2.5	62.4	4.56	13,095
2006	8,680	-209.2	51.0	1.5	62.6	4.87	13,858
2007	9,229	-187.9	12.2	1.3	63.7	4.83	14,480
2008	10,700	-680.5	-72.3	4.6	72.7	4.28	14,720
2009	12,311	-1,471.3	-72.3	10.2	85.4	4.07	14,418
2010	14,025	-1,275.1	-25.3	8.5	93.8	4.25	14,958
2011	15,223	-1,249.6	-65.5	8.0	98.0	3.91	15,534
2012	16,433	-1,060.8	-	6.5	101.2	2.92	16,245

Source: United States Department of Treasury, United States Federal Reserve

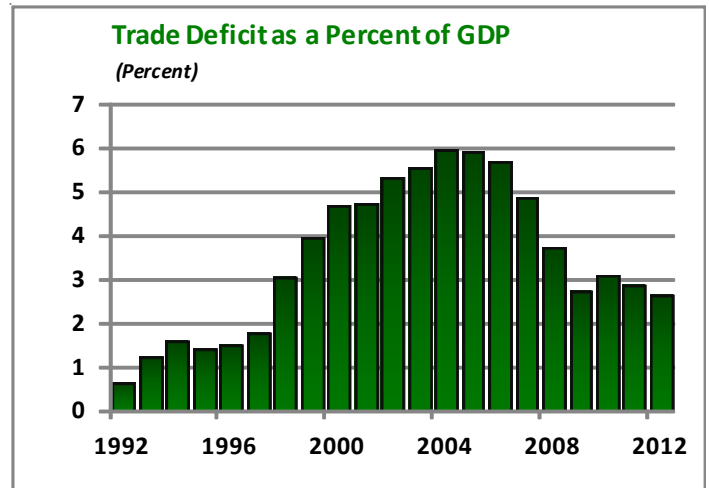
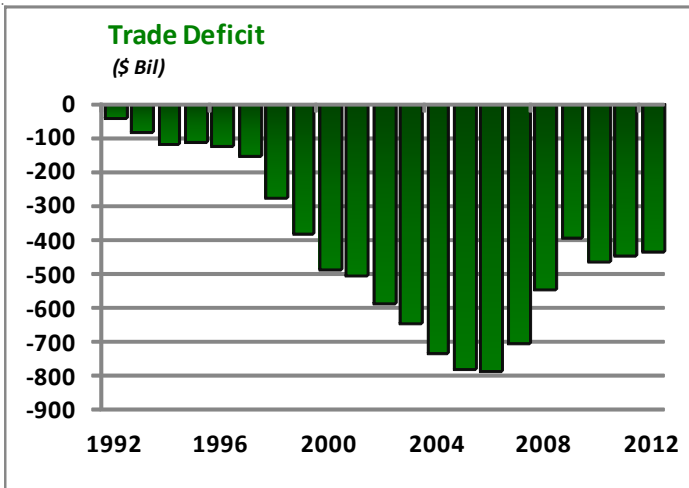




**Table 4**  
**Foreign Trade**

Year	Value of Exports (\$ Bil )	Value of Imports (\$ Bil )	Trade Deficit (\$ Bil )	Trade Deficit as a % of GDP (%)
1992	731	773	-42	0.6
1993	755	839	-84	1.2
1994	821	939	-118	1.6
1995	906	1,015	-109	1.4
1996	980	1,103	-123	1.5
1997	1,097	1,251	-155	1.8
1998	1,122	1,398	-275	3.0
1999	1,174	1,556	-382	4.0
2000	1,272	1,755	-483	4.7
2001	1,201	1,705	-504	4.7
2002	1,178	1,763	-585	5.3
2003	1,197	1,839	-642	5.6
2004	1,309	2,041	-732	6.0
2005	1,388	2,166	-777	5.9
2006	1,512	2,299	-786	5.7
2007	1,647	2,351	-704	4.9
2008	1,742	2,289	-547	3.7
2009	1,584	1,976	-392	2.7
2010	1,766	2,228	-463	3.1
2011	1,891	2,336	-446	2.9
2012	1,957	2,388	-431	2.7

Source: Bureau of Economic Analysis



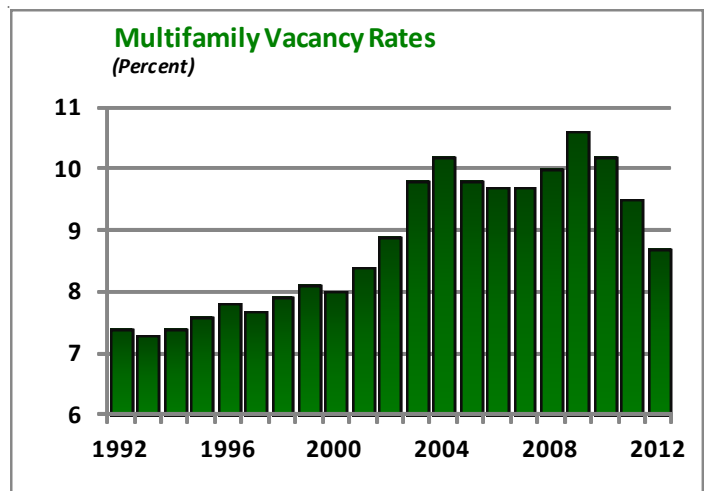
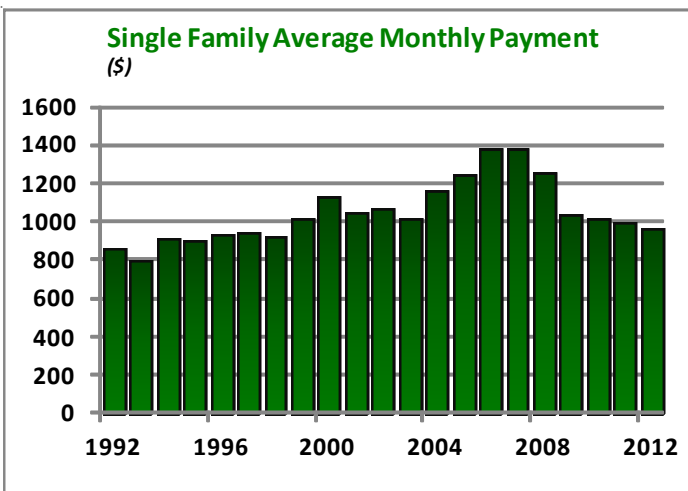


**Table 5**  
**Residential Drivers**

Year	Single Family				Multifamily			Home Improvement	
	Mortgage Rate (%)	Median Home Price (\$000)	Average Monthly Payment (\$)	1 <sup>st</sup> Time Home Buyers* (000)	Median Rent (\$)	Mortgage To Rent Ratio	Vacancy Rate (%)	Apartment Age Population* (000)	Housing Stock (000)
1992	8.40	121	857	43,678	411	2.1	7.4	39,690	104,503
1993	7.33	126	797	44,309	431	1.8	7.3	39,058	105,514
1994	8.36	130	918	44,724	428	2.1	7.4	38,395	106,793
1995	7.95	133	901	44,863	434	2.1	7.6	37,980	108,200
1996	7.81	140	929	44,730	443	2.1	7.8	37,740	109,600
1997	7.60	145	943	44,349	443	2.1	7.7	37,808	111,033
1998	6.95	152	921	43,878	460	2.0	7.9	37,970	112,501
1999	7.43	160	1,021	43,485	460	2.2	8.1	38,166	114,185
2000	8.06	167	1,137	43,175	480	2.4	8.0	38,397	115,760
2001	6.97	173	1,049	42,888	510	2.1	8.4	38,577	117,560
2002	6.54	185	1,070	42,410	568	1.9	8.9	38,935	119,038
2003	5.83	191	1,018	41,736	589	1.7	9.8	39,363	120,590
2004	5.84	218	1,160	41,034	615	1.9	10.2	39,953	121,949
2005	5.86	234	1,251	40,523	605	2.1	9.8	40,495	123,650
2006	6.41	243	1,385	40,226	641	2.2	9.7	41,146	124,941
2007	6.34	244	1,378	40,135	665	2.1	9.7	41,621	125,831
2008	6.04	230	1,257	40,122	697	1.8	10.0	42,083	126,401
2009	5.04	215	1,034	40,153	709	1.5	10.6	42,462	126,660
2010	4.69	221	1,018	40,146	699	1.5	10.2	42,846	127,063
2011	4.46	224	1,002	40,110	695	1.4	9.5	43,440	127,361
2012	3.66	242	968	40,399	717	1.4	8.7	43,982	127,861

\* Estimated

Source: U.S. Census Bureau, Freddie Mac



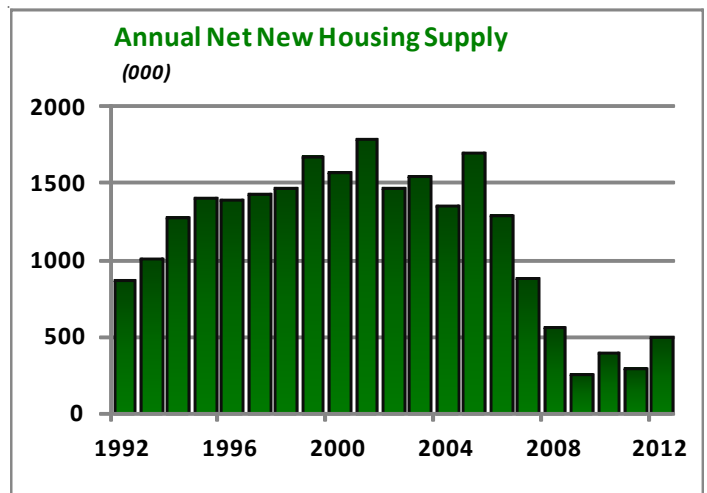
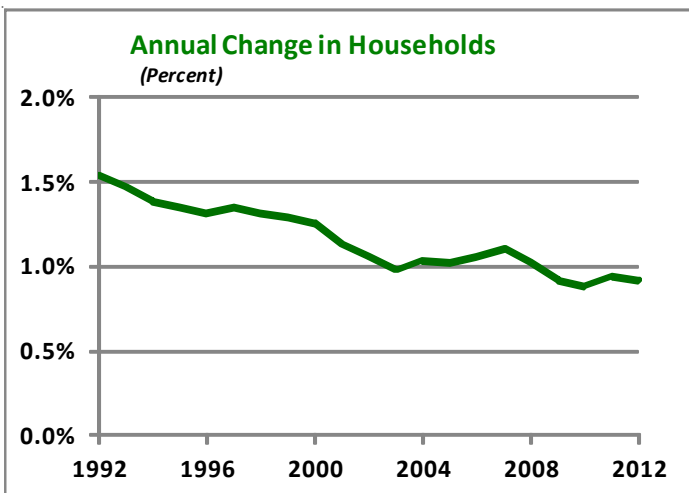


**Table 6**  
**Net Residential Balance**

Year	Households (000)	Annual Change In Households (000)	Single Family Starts (000)	Multifamily Starts (000)	Manufactured		New Net Supply (000)
					Home Placements (000)	Demolition *	
1992	95,089	1,437	1,030	169	212	534	878
1993	96,487	1,398	1,126	162	243	519	1,011
1994	97,817	1,330	1,198	259	291	468	1,279
1995	99,131	1,314	1,076	278	319	267	1,407
1996	100,432	1,301	1,161	316	338	414	1,400
1997	101,782	1,350	1,134	340	336	377	1,433
1998	103,116	1,333	1,271	346	374	523	1,468
1999	104,445	1,329	1,303	339	338	296	1,683
2000	105,756	1,311	1,231	338	281	274	1,576
2001	106,945	1,189	1,273	330	196	251	1,799
2002	108,069	1,124	1,359	347	174	401	1,478
2003	109,120	1,051	1,499	349	140	435	1,553
2004	110,250	1,130	1,610	345	124	721	1,359
2005	111,380	1,130	1,716	352	123	490	1,701
2006	112,560	1,180	1,465	336	112	623	1,290
2007	113,796	1,236	1,046	309	95	560	890
2008	114,962	1,166	622	283	81	415	571
2009	116,012	1,050	445	109	55	350	259
2010	117,031	1,019	471	116	50	234	403
2011	118,130 *	1,099	431	178	47	358	298
2012	119,205 *	1,075	535	245	52	333	500

Source: U.S. Census Bureau

\* Estimated







**Table 7**  
**Nonresidential Drivers**

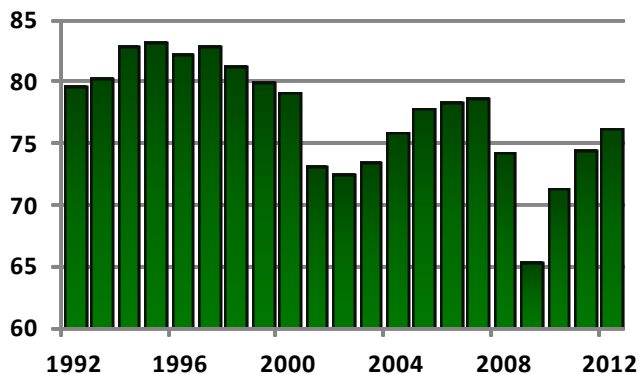
Year	Commercial				Institutional			
	Manufacturing Capacity Utilization (%)	Office Vacancy Rate (%)	Retail Sales Growth <sup>1</sup> (%)	Air Travel Growth (%)	Change in Population 5 - 19 (%)	Student Teacher Ratio <sup>2</sup>	Healthcare Expenditure Share of GDP (%)	Pop 65+ Share of Total Pop (%)
1992	79.6	18.9	5.1	5.0	1.2	17.2	9.4	12.6
1993	80.3	17.7	6.9	3.0	1.7	17.3	9.4	12.7
1994	82.9	16.1	8.2	8.0	1.9	17.1	9.3	12.7
1995	83.2	14.6	5.2	3.6	2.0	17.1	9.4	12.7
1996	82.3	13.0	6.3	6.1	2.1	16.9	9.3	12.7
1997	82.9	10.8	4.7	3.1	1.8	16.6	9.2	12.6
1998	81.3	9.1	4.7	2.5	1.6	16.3	9.2	12.5
1999	80.0	9.5	8.2	3.9	1.2	15.9	8.9	12.5
2000	79.3	8.0	6.5	4.9	0.8	15.9	8.9	12.4
2001	73.2	11.1	2.8	-6.6	0.3	15.7	9.4	12.4
2002	72.5	14.9	2.4	-1.4	0.2	15.7	9.9	12.4
2003	73.5	16.6	4.4	5.1	0.1	15.7	10.0	12.4
2004	75.9	16.4	6.5	8.7	0.2	15.5	10.1	12.4
2005	77.9	14.6	6.2	5.0	0.2	15.4	10.1	12.4
2006	78.3	13.3	5.1	0.8	0.5	15.3	10.1	12.5
2007	78.7	12.7	3.4	3.3	0.4	15.2	10.2	12.6
2008	74.3	13.9	-0.9	-3.4	0.4	15.0	10.6	12.8
2009	65.4	15.7	-7.3	-5.3	0.3	15.0	11.3	12.9
2010	71.4	18.1	5.5	2.4	-0.1	15.5	11.3	13.1
2011	74.4	17.5	7.5	1.4	-0.5	14.9	11.4	13.3
2012	76.3	15.7	5.4	0.8	-0.3	14.8	11.4	13.7

<sup>1</sup> Years prior to 1992 on SIC basis

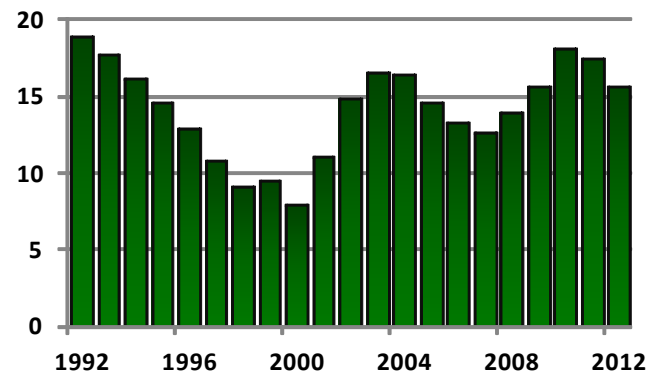
<sup>2</sup> 2010 and 2011 are National Center for Education Statistics estimates

Sources: U.S. Census Bureau, U.S. Department of Transportation, CB Commercial, U.S. National Center for Education Statistics, U.S. Department of Health, Bureau of Economic Analysis, Centers for Medicare and Medicaid Services, Federal Reserve Board

**Manufacturing Capacity Utilization**  
(Percent)



**Office Vacancy Rate**  
(Percent)





**Table 8**  
**Public Drivers**

Year	State/Local Share of Total Public Construction <sup>1</sup> (%)	State Deficit/ Surplus <sup>1</sup> (\$ Bil )	State Government Revenues <sup>1</sup> (\$ Bil )	State Deficit/ Surplus Share of Total Rev <sup>1</sup> (%)	State Revenue Per Capita <sup>1</sup> (\$)	Municipal Bond Rate (%)	Real Public Construction Spending Per Capita (1996\$)
1992	88.3	-1.4	836	-0.2	3,257	6.48	447
1993	88.6	-1.0	877	-0.1	3,374	5.83	413
1994	88.8	8.2	934	0.9	3,550	6.18	399
1995	88.7	9.2	980	0.9	3,680	6.08	444
1996	89.5	23.0	1,033	2.2	3,833	5.83	550
1997	90.8	36.3	1,086	3.3	3,983	5.50	556
1998	90.7	46.9	1,149	4.1	4,164	5.15	540
1999	91.7	41.8	1,222	3.4	4,379	5.70	562
2000	92.2	41.3	1,303	3.2	4,618	6.18	572
2001	92.5	-15.9	1,353	-1.2	4,747	5.74	605
2002	92.2	-54.1	1,388	-3.9	4,827	5.64	620
2003	91.7	-38.8	1,475	-2.6	5,083	5.21	608
2004	91.7	-8.4	1,575	-0.5	5,379	5.11	581
2005	92.6	25.9	1,709	1.5	5,782	4.86	568
2006	93.1	51.0	1,811	2.8	6,069	4.71	575
2007	92.9	12.2	1,901	0.6	6,309	4.60	607
2008	92.3	-72.3	1,909	-3.8	6,278	5.66	615
2009	90.9	-72.3	1,919	-3.8	6,256	6.34	614
2010	89.8	-25.3	1,999	-1.3	6,461	5.60	592
2011	89.0	-65.5	2,030	-3.2	6,515	5.95	531
2012	90.1	-	2,039	-	6,497	4.79	497

<sup>1</sup> Based on nominal values

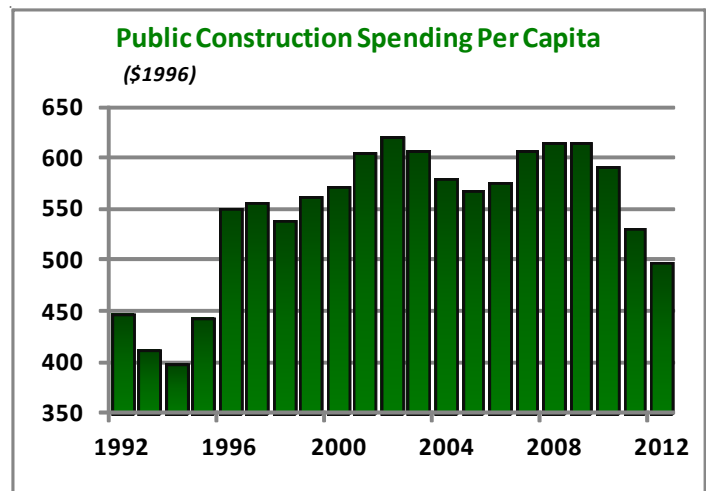
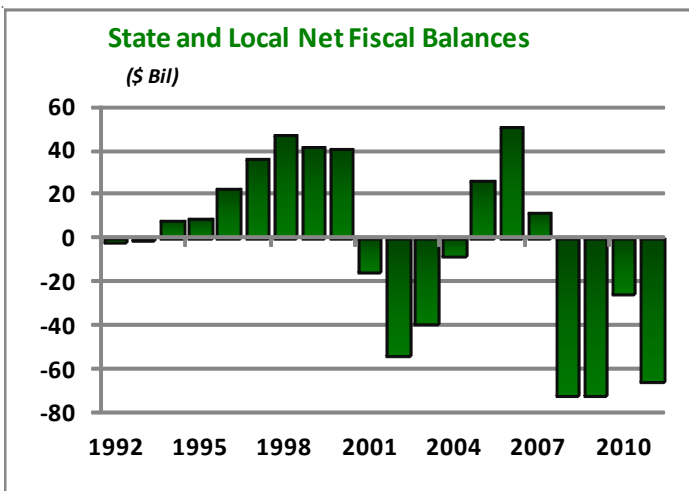




Table 9

## U.S. Cement Industry Consumption - Exports - Imports - Shipments

(Thousands of Metric Tons)

Year	Consumption*			Cement Exports	Cement Imports	Change In Stocks	Total Shipments By Domestic Producers
	Portland Cement	Masonry Cement	Total				
1992	73,354	2,704	76,058	754	6,159	-737	69,916
1993	76,575	3,014	79,589	618	7,056	-484	72,667
1994	82,154	3,267	85,420	646	11,302	-87	74,677
1995	83,017	3,160	86,176	761	13,848	1,113	74,203
1996	87,639	3,399	91,037	807	14,154	-326	77,365
1997	92,725	3,460	96,184	809	17,596	296	79,693
1998	99,153	4,101	103,254	763	24,085	-391	79,541
1999	104,074	4,352	108,427	736	29,321	974	80,816
2000	105,195	4,333	109,527	777	28,684	1,199	82,819
2001	109,318	4,482	113,800	785	25,861	-966	87,758
2002	104,950	4,436	109,387	874	24,169	1,080	87,171
2003	108,749	4,745	113,494	889	23,241	-1,070	90,071
2004	116,100	5,172	121,272	880	27,305	-3,965	90,882
2005	122,546	5,489	128,035	824	33,652	710	95,916
2006	121,850	5,401	127,251	723	35,896	1,930	94,008
2007	110,341	4,281	114,622	886	22,729	-490	92,289
2008	93,612	3,046	96,658	823	11,519	-530	85,432
2009	68,417	2,149	70,566	884	6,894	-2,280	62,275
2010	68,408	1,915	70,323	1,178	6,781	90	64,810
2011	70,292	1,836	72,127	1,414	6,543	100	67,099
2012	76,511	1,947	78,458	1,800	7,037	-2,070 **	71,151

\* Excludes Alaska and Puerto Rico

\*\* USGS Estimate

Note: Domestic shipments include cement shipments from domestic manufacturers and cement shipments ground from imported clinker, but exclude finished cement imports.

Sources: U.S. Geological Survey, Department of Commerce - Foreign Trade Division, PCA Market Intelligence

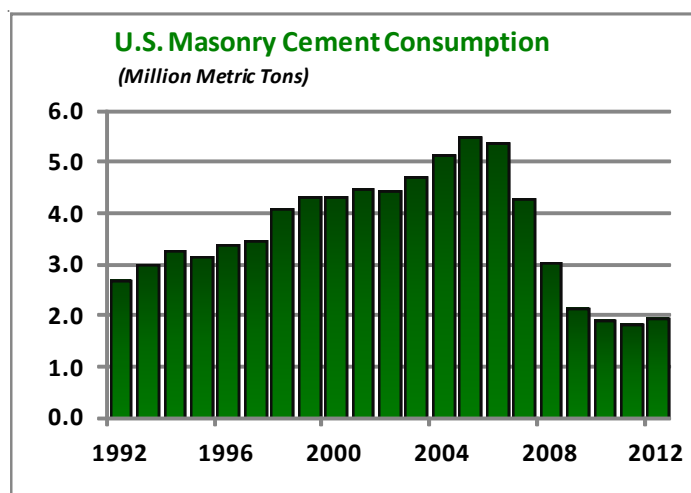
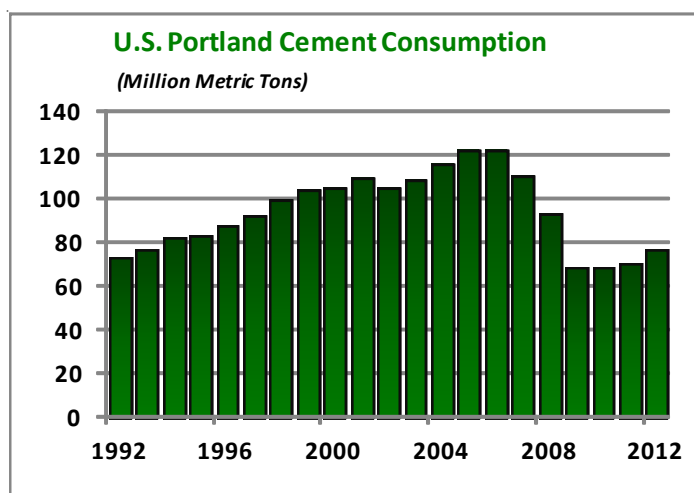




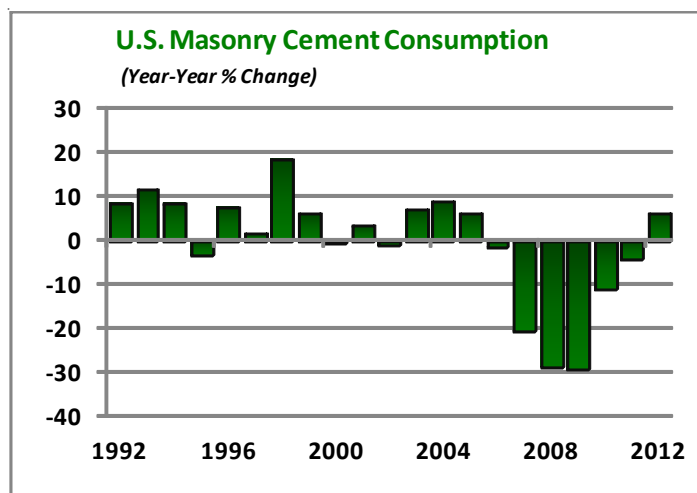
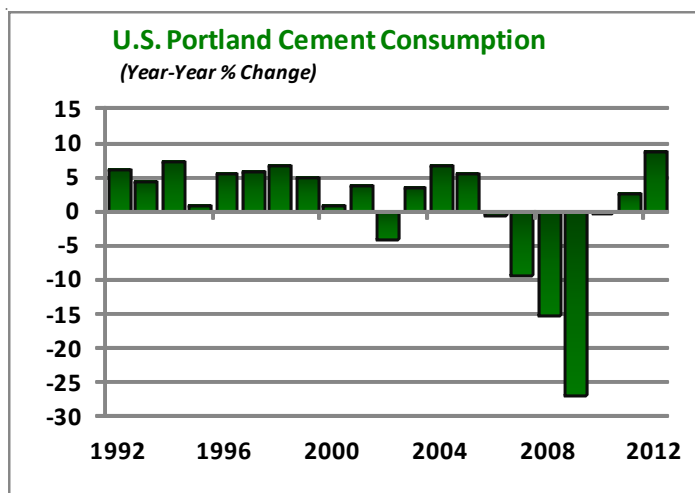
Table 10

## U.S. Cement Industry Consumption - Exports - Imports - Shipments

(Year-Year % Change)

Year	Consumption			Cement & Clinker Exports	Cement Imports	Total Shipments By Domestic Producers
	Portland Cement	Masonry Cement	Total			
1992	6.2	8.4	6.2	19.1	-20.9	7.9
1993	4.4	11.5	4.6	-18.0	14.6	3.9
1994	7.3	8.4	7.3	4.5	60.2	2.8
1995	1.1	-3.3	0.9	17.8	22.5	-0.6
1996	5.6	7.6	5.6	6.1	2.2	4.3
1997	5.8	1.8	5.7	0.2	24.3	3.0
1998	6.9	18.5	7.3	-5.7	36.9	-0.2
1999	5.0	6.1	5.0	-3.5	21.7	1.6
2000	1.1	-0.5	1.0	5.5	-2.2	2.5
2001	3.9	3.5	3.9	1.0	-9.8	6.0
2002	-4.0	-1.0	-3.9	11.3	-6.5	-0.7
2003	3.6	7.0	3.8	1.7	-3.8	3.3
2004	6.8	9.0	6.9	-0.9	17.5	0.9
2005	5.6	6.1	5.6	-6.5	23.2	5.5
2006	-0.6	-1.6	-0.6	-12.2	6.7	-2.0
2007	-9.4	-20.7	-9.9	22.5	-36.7	-1.8
2008	-15.2	-28.8	-15.7	-7.1	-49.3	-7.4
2009	-26.9	-29.5	-27.0	7.4	-40.1	-27.1
2010	0.0	-10.9	-0.3	33.3	-1.6	4.1
2011	2.8	-4.1	2.6	20.0	-3.5	3.5
2012	8.8	6.1	8.8	27.3	7.6	6.0

Source: Calculated from Table 9





**Table 11**  
**Apparent Use of Portland Cement by Market<sup>1</sup>**

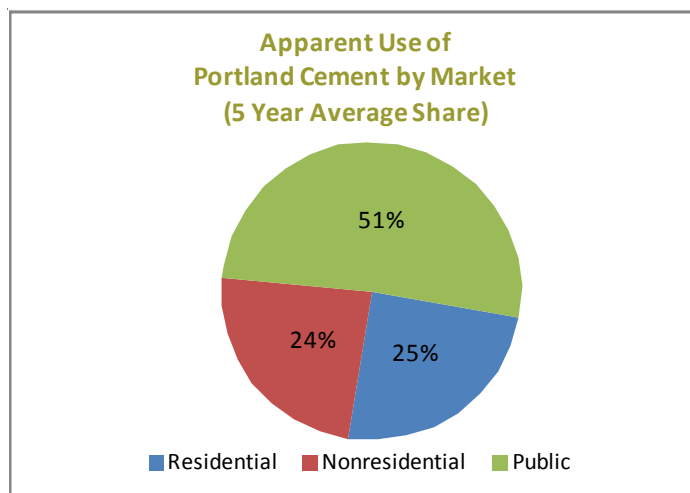
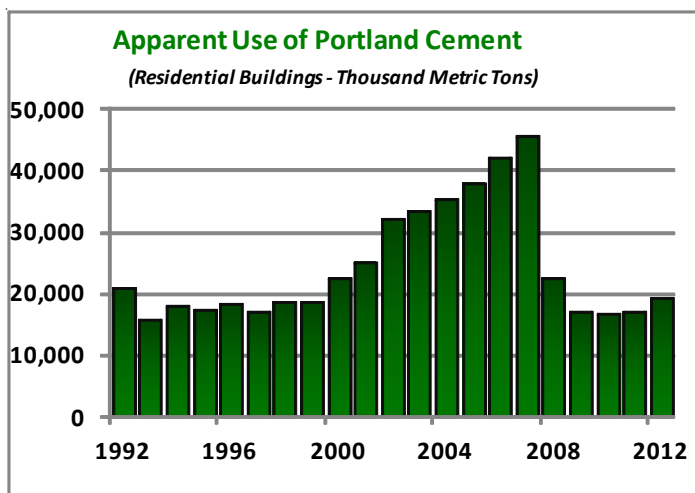
(Thousands of Metric Tons)

Market	2008	2009	2010	2011	2012 *	5 Year Average	5 Year Average Share (%)
<b>Total</b>	<b>93,612</b>	<b>68,417</b>	<b>68,408</b>	<b>70,292</b>	<b>76,600</b>	<b>75,466</b>	
<b>Residential Buildings</b>	<b>22,606</b>	<b>17,142</b>	<b>16,893</b>	<b>17,002</b>	<b>19,455</b>	<b>18,619</b>	<b>24.7</b>
New Housing	13,953	9,560	9,729	9,109	11,378	10,746	14.2
Single Family	11,914	8,523	9,052	8,358	10,350	9,639	12.8
Multi Family	2,038	1,037	677	751	1,028	1,126	1.5
Improvements	8,653	7,582	7,164	7,893	8,077	8,295	11.0
<b>Nonresidential Buildings</b>	<b>12,181</b>	<b>5,877</b>	<b>4,243</b>	<b>4,401</b>	<b>6,208</b>	<b>6,582</b>	<b>8.7</b>
Manufacturing	773	358	258	338	586	463	0.6
Office	1,553	595	290	312	500	650	0.9
Lodging	725	247	98	94	225	278	0.4
Health Care	990	638	469	459	619	635	0.8
Religious	173	116	81	58	59	97	0.1
Educational	1,784	1,183	945	846	1,165	1,185	1.6
Commercial	4,638	1,724	1,107	1,254	1,935	2,132	2.8
Miscellaneous	1,544	1,016	995	1,040	1,119	1,143	1.5
<b>Public Utility &amp; Other</b>	<b>3,513</b>	<b>3,118</b>	<b>2,745</b>	<b>2,105</b>	<b>2,427</b>	<b>2,782</b>	<b>3.7</b>
<b>Farm Nonresidential</b>	<b>4,787</b>	<b>4,355</b>	<b>4,936</b>	<b>6,917</b>	<b>6,952</b>	<b>5,590</b>	<b>7.4</b>
<b>Oil &amp; Gas Wells</b>	<b>3,720</b>	<b>2,349</b>	<b>2,342</b>	<b>3,675</b>	<b>3,713</b>	<b>3,160</b>	<b>4.2</b>
<b>Public Construction</b>	<b>46,804</b>	<b>35,576</b>	<b>37,249</b>	<b>36,192</b>	<b>37,845</b>	<b>38,733</b>	<b>51.3</b>
Buildings	3,050	1,949	1,623	1,425	1,424	1,894	2.5
Highways & Streets	31,904	24,791	26,631	26,521	28,285	27,626	36.6
Public Safety	174	193	190	134	131	164	0.2
Conservation	1,368	1,297	1,596	1,541	1,422	1,445	1.9
Sewage & Waste Disposal	3,768	2,662	2,610	2,426	2,532	2,800	3.7
Water Supply Systems	3,689	2,661	2,467	2,188	2,029	2,607	3.5
Miscellaneous	2,851	2,023	2,130	1,957	2,021	2,196	2.9

Source: PCA Market Research: Apparent Use of Portland Cement by State and Market

<sup>1</sup> PCA is engaged in an extensive remodeling of its Apparent Use model. These numbers could be subject to significant revisions in 2014

\* Preliminary Estimates

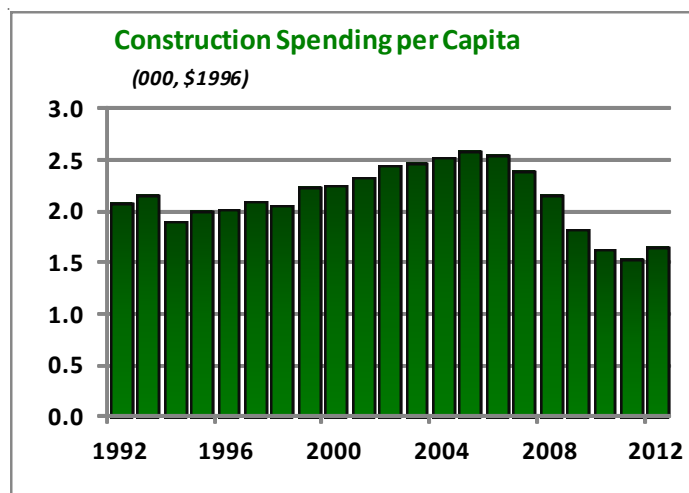
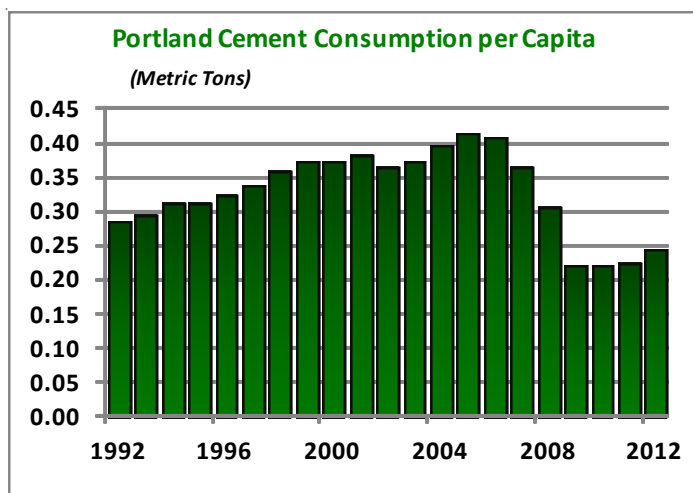




**Table 12**  
**Alternative Measures of Cement Usage Intensity**

Year	Real Construction \$ per Capita (000, \$1996)	Portland Cement Consumption per Capita (Metric Tons)	Portland Cement Consumption per Thousand Construction \$ (Metric Tons)	Portland Cement Consumption per Construction Worker (Metric Tons)
1992	2.079	0.286	0.138	15.92
1993	2.158	0.295	0.137	16.02
1994	1.914	0.312	0.163	16.12
1995	2.003	0.312	0.156	15.74
1996	2.020	0.325	0.161	15.83
1997	2.106	0.340	0.161	15.95
1998	2.067	0.359	0.174	16.12
1999	2.234	0.373	0.167	15.90
2000	2.266	0.373	0.165	15.50
2001	2.345	0.384	0.164	16.02
2002	2.455	0.365	0.149	15.63
2003	2.465	0.375	0.152	16.15
2004	2.531	0.397	0.157	16.64
2005	2.594	0.415	0.160	16.70
2006	2.541	0.408	0.161	15.84
2007	2.400	0.366	0.153	14.46
2008	2.161	0.308	0.142	13.07
2009	1.826	0.223	0.122	11.37
2010	1.640	0.221	0.135	12.40
2011	1.540	0.226	0.146	12.70
2012	1.645	0.244	0.148	13.56
20 Year Average	2.146	0.331	0.154	15.09
10 Year Average	2.134	0.318	0.148	14.29
5 Year Average	1.762	0.244	0.139	12.62

Note: Construction data for 1992 and prior on Dept of Commerce program basis  
Sources: U.S. Dept. of Labor, U.S. Dept. of Commerce, PCA





**Table 13**  
**Single Family Construction**

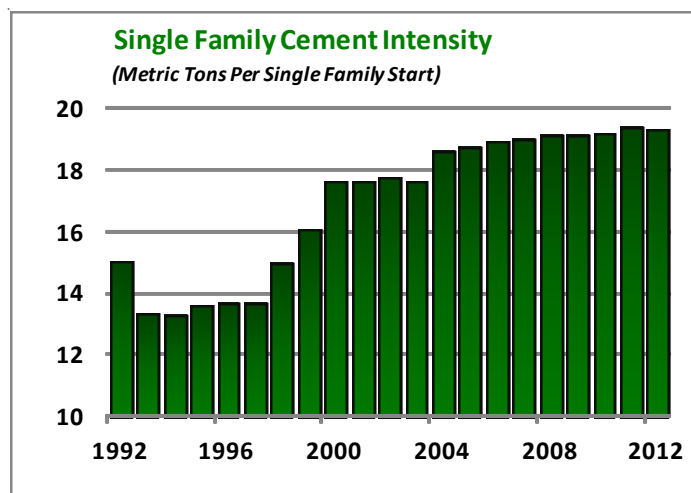
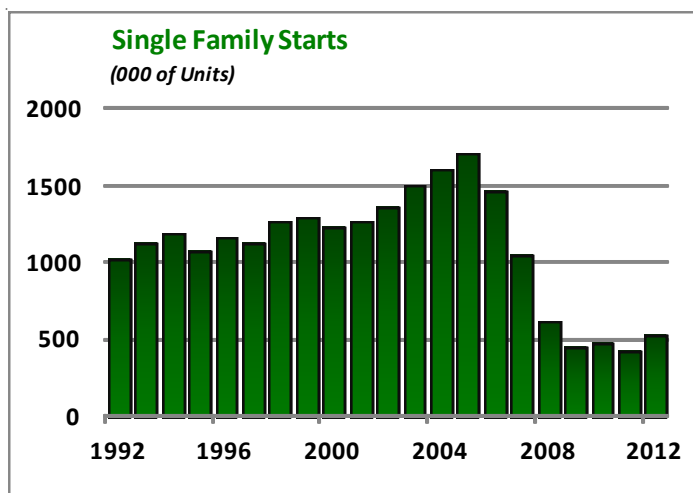
Year	Single Family Starts (000)	Mortgage Rate (%)	Affordability Index (% Change)	1st Time Home Buyers <sup>1</sup> (000)	Home Ownership Rate (%)	Single Family Cement <sup>2</sup> (000 MT)	Cement Tons per SF Start (Metric Tons)
1992	1,030	8.40	10.05	43,678	64.1	15,540	15.1
1993	1,126	7.33	7.55	44,309	64.0	15,011	13.3
1994	1,198	8.36	-2.20	44,724	64.0	15,944	13.3
1995	1,076	7.95	-1.81	44,863	64.7	14,657	13.6
1996	1,161	7.81	0.29	44,730	65.4	15,910	13.7
1997	1,134	7.60	0.55	44,349	65.7	15,551	13.7
1998	1,271	6.95	5.37	43,878	66.3	19,081	15.0
1999	1,303	7.43	-1.46	43,485	66.8	20,988	16.1
2000	1,231	8.06	-7.19	43,175	67.4	21,714	17.6
2001	1,273	6.97	5.86	42,888	67.8	22,446	17.6
2002	1,359	6.54	-1.67	42,410	67.9	24,200	17.8
2003	1,499	5.83	3.44	41,736	68.3	26,438	17.6
2004	1,610	5.84	-4.88	41,034	69.0	29,990	18.6
2005	1,716	5.86	-9.57	40,523	68.9	32,166	18.7
2006	1,465	6.41	-5.30	40,226	68.8	27,795	19.0
2007	1,046	6.34	8.63	40,135	68.1	19,880	19.0
2008	622	6.04	18.82	40,122	67.8	11,914	19.2
2009	445	5.04	23.96	40,153	67.4	8,523	19.2
2010	471	4.69	0.16	40,146	66.9	9,052	19.2
2011	431	4.46	8.93	40,110	66.1	8,358	19.4
2012	535	3.66	4.29	40,399	65.4	10,350 *	19.3

<sup>1</sup> Ages 30-39

<sup>2</sup> PCA is engaged in an extensive remodeling of its Apparent Use model. These numbers could be subject to significant revisions in 2014

\* Preliminary Estimate

Sources: PCA Market Research/Market Intelligence Departments, U.S. Geological Survey, U.S. Census Bureau





**Table 14**  
**Multifamily Construction**

Year	Multifamily Starts (000)	Vacancy Rate (%)	Mortgage To Rent Ratio (%)	Apartment Age Population <sup>1</sup> (000)	Retirement Age Population <sup>2</sup> (000)	Multifamily Cement <sup>3</sup> (000 MT)	Cement Tons per MF Start (Metric Tons)
1992	169.5	9.4	2.1	39,690	32,355	1,077	6.4
1993	162.1	9.4	1.8	39,058	32,901	967	6.0
1994	258.6	9.0	2.1	38,395	33,330	1,058	4.1
1995	277.9	9.0	2.1	37,980	33,769	1,264	4.5
1996	315.9	9.2	2.1	37,740	34,142	1,329	4.2
1997	340.4	9.0	2.1	37,808	34,401	1,571	4.6
1998	345.6	9.0	2.0	37,970	34,619	2,006	5.8
1999	338.7	8.7	2.2	38,166	34,797	2,392	7.1
2000	337.7	8.6	2.4	38,397	35,070	2,390	7.1
2001	329.7	8.8	2.1	38,577	35,290	2,431	7.4
2002	346.5	9.7	1.9	38,935	35,522	2,341	6.8
2003	348.6	10.8	1.7	39,363	35,864	2,496	7.2
2004	345.1	10.9	1.9	39,953	36,203	2,738	7.9
2005	352.3	10.0	2.1	40,495	36,650	3,045	8.6
2006	335.6	9.9	2.2	41,146	37,164	3,312	9.9
2007	309.0	10.0	2.1	41,621	37,826	2,797	9.1
2008	283.5	10.5	1.8	42,083	38,778	2,038	7.2
2009	108.9	11.3	1.5	42,462	39,623	1,037	9.5
2010	115.8	10.8	1.5	42,846	40,477	677	5.8
2011	178.3	10.0	1.4	43,440	41,373	751	4.2
2012	245.3	9.0	1.4	43,982	43,145	1,028 *	4.2

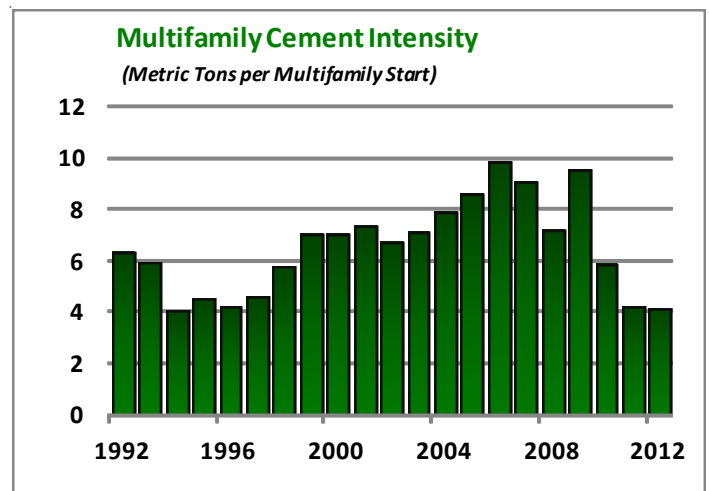
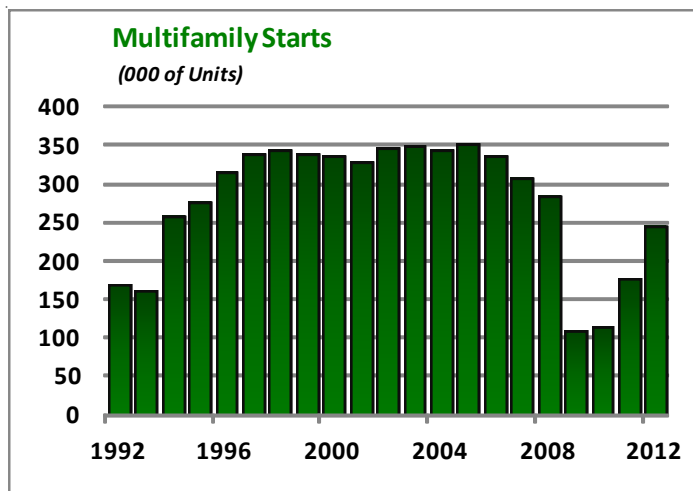
<sup>1</sup> Ages 20-29

<sup>2</sup> Ages 65 and older

<sup>3</sup> PCA is engaged in an extensive remodeling of its Apparent Use model. These numbers could be subject to significant revisions in 2014

\* Preliminary Estimate

Sources: PCA Market Research/Market Intelligence Departments, U.S. Geological Survey, U.S. Census Bureau







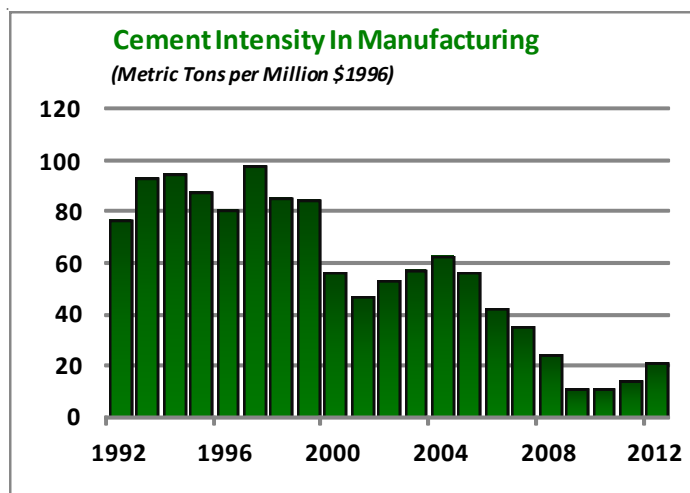
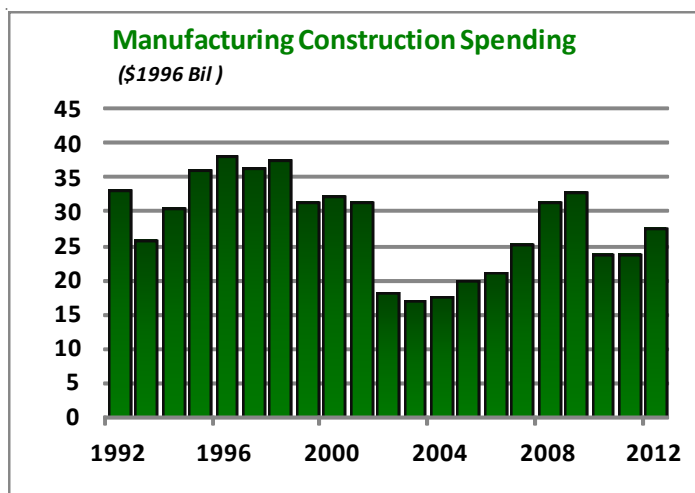
**Table 15**  
**Manufacturing Construction**

Year	Manufacturing Construction (\$1996 Bil)	Industrial Production Index (2007=100)	Manufacturing Capacity Utilization (%)	Change in Manufacturing Employment (000)	Industrial Vacancy Rate (%)	Manufacturing Cement <sup>1</sup> (000 MT)	Cement Tons Per Million \$ (Metric Tons)
1992	33.2	63	79.6	-270	8.7	2,563	77.2
1993	25.8	65	80.3	-25	8.5	2,397	92.9
1994	30.7	69	82.9	247	7.7	2,909	94.8
1995	36.2	72	83.2	221	7.1	3,169	87.6
1996	38.1	75	82.3	-4	7.6	3,073	80.7
1997	36.5	80	82.9	183	8.2	3,573	98.0
1998	37.7	85	81.3	140	8.4	3,209	85.2
1999	31.4	89	80.0	-238	8.3	2,654	84.5
2000	32.4	92	79.3	-59	7.7	1,834	56.6
2001	31.5	89	73.2	-822	9.1	1,495	47.5
2002	18.4	89	72.5	-1,183	11.2	977	53.2
2003	17.0	90	73.5	-749	11.6	971	57.0
2004	17.6	92	75.9	-194	11.2	1,101	62.7
2005	19.9	95	77.9	-89	10.2	1,129	56.6
2006	21.3	98	78.3	-71	9.6	902	42.4
2007	25.2	100	78.7	-276	9.9	897	35.6
2008	31.4	97	74.3	-473	10.5	773	24.6
2009	32.9	86	65.4	-1,559	13.4	358	10.9
2010	23.8	91	71.4	-319	13.4	258	10.8
2011	23.9	94	74.4	198	13.8	338	14.2
2012	27.6	97	76.3	192	13.1	586 *	21.2

\* Preliminary Estimate

<sup>1</sup> PCA is engaged in an extensive remodeling of its Apparent Use model. These numbers could be subject to significant revisions in 2014

Sources: PCA Market Research/Market Intelligence Depts., U.S. Geological Survey, U.S. Census Bureau, CB Commercial and Bureau of Labor Statistics





**Table 16**  
**Office Construction**

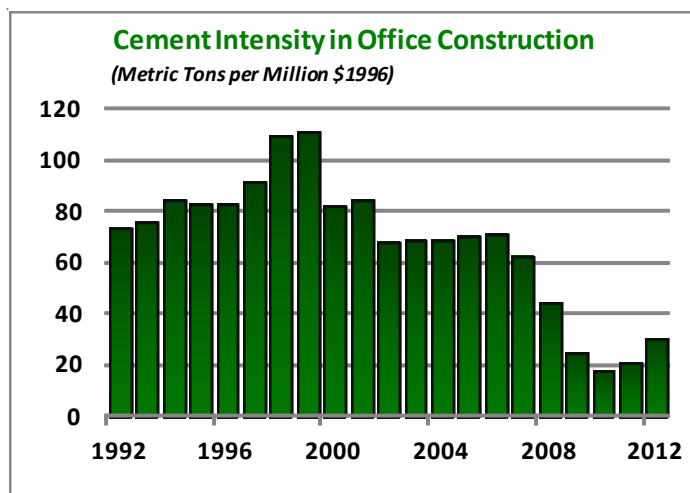
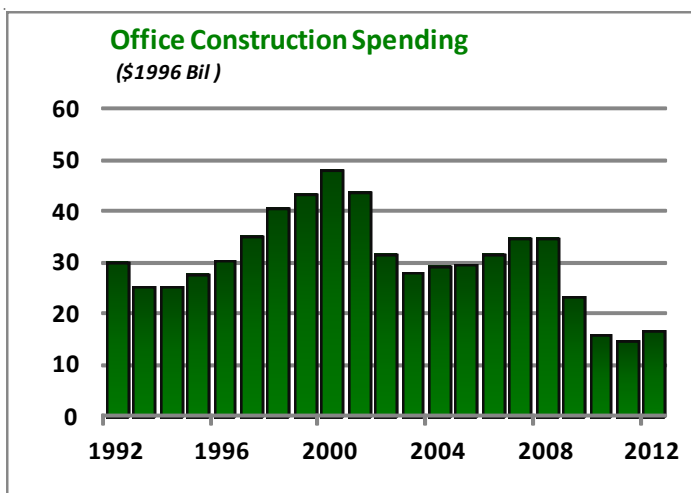
Year	Office Construction (\$1996 Bil )	Office Employment (000)	Change in Office Employment (000)	Estimated Office Capacity <sup>1</sup> (000)	Office Vacancy Rate (%)	Office Cement <sup>2</sup> (000 MT)	Cement Tons Per Million \$ (Metric Tons)
1992	30.1	20,170	217	24,885	18.9	2,218	73.6
1993	25.2	20,904	735	25,789	17.7	1,907	75.6
1994	25.4	21,822	917	26,523	16.1	2,148	84.7
1995	27.7	22,553	732	26,889	14.6	2,282	82.5
1996	30.3	23,420	867	27,408	13.0	2,507	82.9
1997	35.3	24,674	1,253	28,344	10.8	3,213	91.0
1998	40.5	25,930	1,257	29,062	9.1	4,422	109.1
1999	43.4	27,128	1,198	29,859	9.5	4,802	110.7
2000	47.9	28,080	952	31,019	8.0	3,940	82.2
2001	43.9	28,006	-74	30,449	11.1	3,699	84.2
2002	31.7	27,326	-679	30,747	14.9	2,167	68.2
2003	28.1	27,253	-74	32,015	16.6	1,927	68.5
2004	29.3	27,618	365	33,125	16.4	2,020	69.0
2005	29.6	28,211	594	33,756	14.6	2,091	70.6
2006	31.5	28,971	759	33,933	13.3	2,239	71.0
2007	34.7	29,322	352	33,811	12.7	2,171	62.6
2008	34.9	28,925	-398	33,133	13.9	1,553	44.5
2009	23.6	27,220	-1,705	31,615	15.7	595	25.2
2010	16.0	27,130	-91	32,182	18.1	290	18.1
2011	14.7	27,702	572	33,836	17.5	312	21.2
2012	16.6	28,394	693	34,398	15.7	500 *	30.2

\* Preliminary Estimate

<sup>1</sup> Employment Based

<sup>2</sup> PCA is engaged in an extensive remodeling of its Apparent Use model. These numbers could be subject to significant revisions in 2014

Sources: PCA Market Research/Market Intelligence Depts., U.S. Geological Survey, U.S. Census Bureau, CB Commercial and Bureau of Labor Statistics





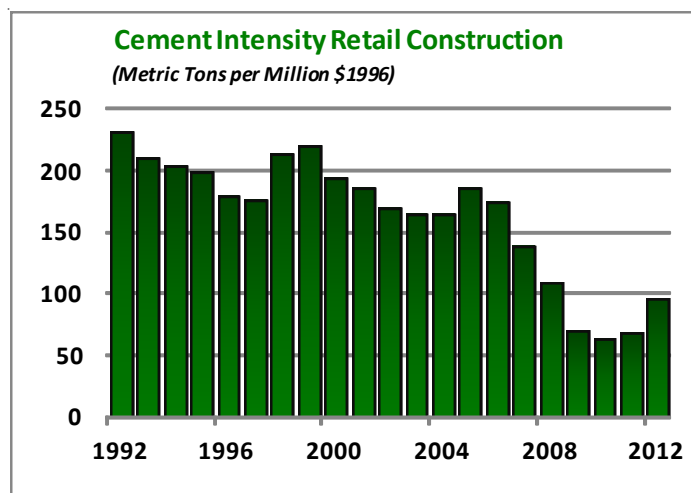
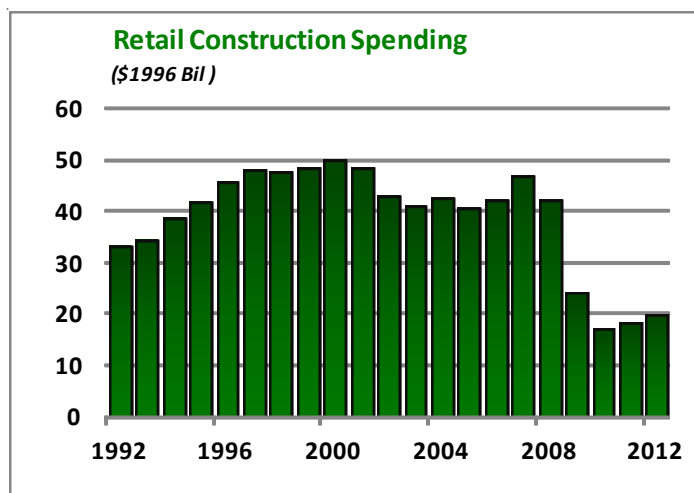
**Table 17**  
**Retail Construction**

Year	Retail Construction (\$1996 Bil )	Real Consumer Spending Growth (%)	Change in Retail Employment (000)	Consumer Sentiment Index ( 1985=100)	Retail Cement <sup>1</sup> (000 MT)	Cement Tons Per Million \$ (Metric Tons)
1992	33.4	3.7	-68	62	7,749	232.0
1993	34.3	3.5	190	66	7,239	211.0
1994	38.7	3.9	467	91	7,890	203.9
1995	42.0	3.0	409	100	8,367	199.1
1996	45.7	3.5	246	105	8,203	179.4
1997	48.0	3.8	249	125	8,489	176.8
1998	47.9	5.3	220	132	10,205	213.1
1999	48.7	5.5	361	135	10,712	219.8
2000	50.2	5.1	308	139	9,719	193.6
2001	48.7	2.5	-39	107	9,050	185.8
2002	43.1	2.5	-212	97	7,307	169.7
2003	41.2	3.1	-110	80	6,808	165.4
2004	42.5	3.8	143	96	7,001	164.6
2005	40.9	3.5	220	100	7,585	185.5
2006	42.3	3.0	75	106	7,364	174.0
2007	47.2	2.2	161	103	6,536	138.6
2008	42.2	-0.4	-232	58	4,638	110.0
2009	24.3	-1.6	-764	45	1,724	70.9
2010	17.4	2.0	-76	54	1,107	63.5
2011	18.5	2.5	227	58	1,254	67.8
2012	20.0	2.2	198	67	1,935 *	96.9

\* Preliminary Estimate

<sup>1</sup> PCA is engaged in an extensive remodeling of its Apparent Use model. These numbers could be subject to significant revisions in 2014

Sources: PCA Market Research/Market Intelligence Depts., U.S. Geological Survey, U.S. Census Bureau, CB Commercial and Bureau of Labor Statistics





**Table 18**  
**Total Public Construction**

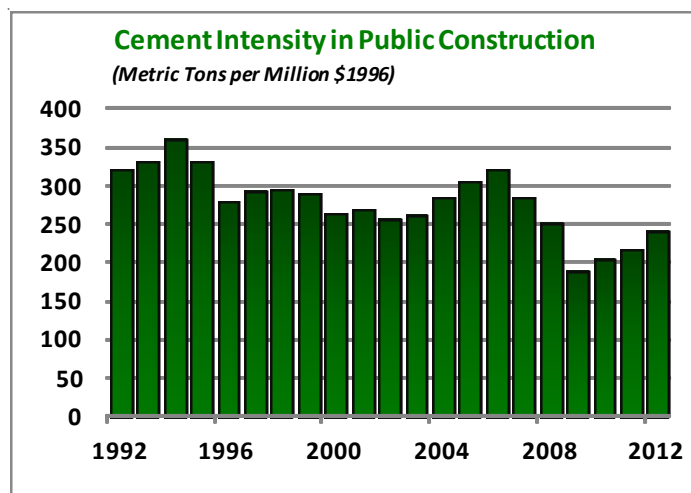
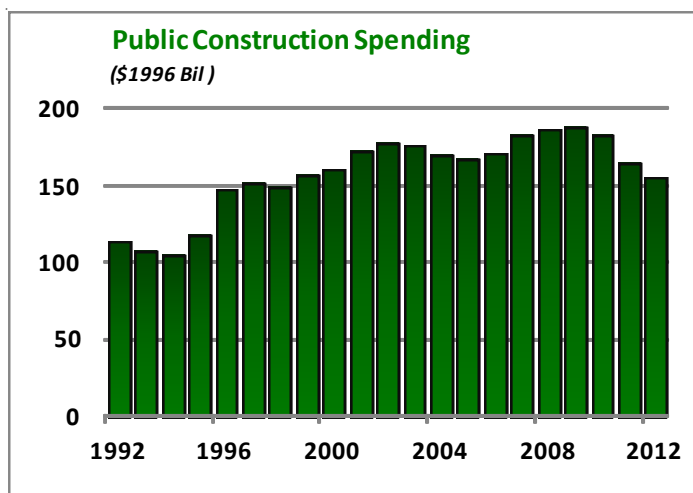
Year	Public Construction (\$1996 Bil)	State/Local Share of Total Public <sup>1</sup> (%)	State Deficit/ Surplus (\$ Bil)	Change In Government Employment (000)	Public Cement <sup>2</sup> (000 MT)	Cement Tons Per Million \$ (Metric Tons)
1992	114.6	88.3	-1.4	241	37,031	323.0
1993	107.4	88.6	-1.0	202	35,632	331.9
1994	104.9	88.8	8.2	286	37,916	361.5
1995	118.1	88.7	9.2	157	39,305	332.7
1996	148.3	89.5	23.0	107	41,373	279.1
1997	151.6	90.8	36.3	124	44,542	293.8
1998	148.9	90.7	46.9	246	43,874	294.7
1999	156.9	91.7	41.8	398	45,776	291.7
2000	161.5	92.2	41.3	483	42,712	264.5
2001	172.5	92.5	-15.9	329	46,440	269.2
2002	178.4	92.2	-54.1	395	45,713	256.3
2003	176.4	91.7	-38.8	70	46,135	261.5
2004	170.1	91.7	-8.4	38	48,725	286.5
2005	167.8	92.6	25.9	183	51,447	306.7
2006	171.7	93.1	51.0	170	55,270	322.0
2007	182.7	92.9	12.2	244	51,950	284.3
2008	186.9	92.3	-72.3	291	46,804	250.4
2009	188.5	90.9	-72.3	45	35,576	188.8
2010	183.0	89.8	-25.3	-65	37,249	203.5
2011	165.4	89.0	-65.5	-404	36,192	218.8
2012	156.1	90.1	-	-169	37,845 *	242.4

\* Preliminary Estimate

<sup>1</sup> Based on nominal value

<sup>2</sup> PCA is engaged in an extensive remodeling of its Apparent Use model. These numbers could be subject to significant revisions in 2014

Sources: PCA Market Research/Market Intelligence Depts., U.S. Geological Survey, U.S. Census Bureau, CB Commercial, Bureau of Labor Statistics, Federal, Highway Administration  
Bureau of Economic Analysis





**Table 19**  
**Highway Construction**

Year	Highway Construction (\$1996 Bil )	Highway Trust Fund Authorizations <sup>1,2</sup> (\$1996 Bil )	Estimated Discretionary Highway Spending <sup>3</sup> (\$ Bil )	State Deficit/Surplus (\$ Bil )	Highway Cement <sup>4</sup> (000 MT)	Cement Tons Per Million \$ (Metric Tons)
1992	37.4	18.7	18.7	-1.4	22,702	606.9
1993	38.6	22.7	15.8	-1.0	22,552	584.7
1994	40.9	22.1	18.8	8.2	24,715	604.5
1995	39.0	21.1	17.9	9.2	25,810	662.6
1996	39.7	20.4	19.3	23.0	27,305	687.3
1997	40.6	19.7	20.9	36.3	29,904	736.1
1998	40.4	19.8	20.6	46.9	29,123	721.3
1999	42.9	24.5	18.4	41.8	30,582	712.4
2000	44.1	25.5	18.6	41.3	29,236	662.6
2001	47.4	25.8	21.6	-15.9	32,806	692.0
2002	48.3	25.9	22.4	-54.1	31,915	660.7
2003	47.2	22.3	24.9	-38.8	32,277	684.5
2004	45.6	25.6	20.0	-8.4	33,496	734.4
2005	45.9	26.1	19.7	25.9	35,213	767.8
2006	47.8	24.9	22.9	51.0	38,406	802.7
2007	47.8	24.6	23.2	12.2	35,069	732.9
2008	49.0	24.2	24.8	-72.3	31,904	651.4
2009	49.9	24.3	25.6	-72.3	24,791	496.5
2010	49.9	24.9	25.0	-25.3	26,631	533.4
2011	46.2	24.0	22.2	-65.5	26,521	574.6
2012	44.8	24.1	20.7	-	28,285 *	631.9

<sup>1</sup> Highway Trust Fund encompasses ISTEA/TEA/SAFETEA-LU and subsequent extensions following 2009 expiration

<sup>2</sup> Data based on planned allocations, not actual funding

<sup>3</sup> Includes ARRA Spending

<sup>4</sup> PCA is engaged in an extensive remodeling of its Apparent Use model. These numbers could be subject to significant revisions in 2014

\* Preliminary Estimate

Sources: PCA Market Research/Market Intelligence Depts., U.S. Geological Survey, U.S. Census Bureau, U.S. Department of Transportation

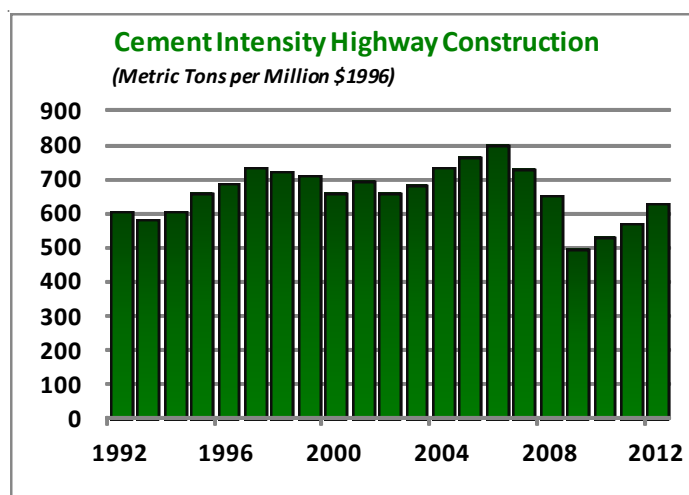
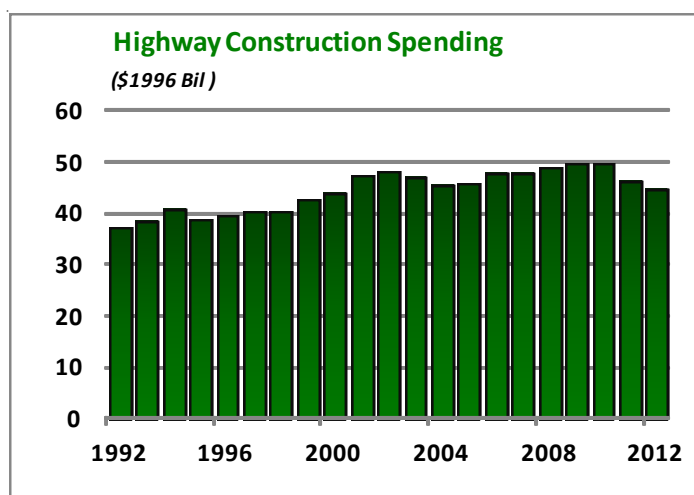




Table 20

## Portland Cement Consumption Growth by State

(Compound Annual Growth Rate)

1983 - 1992		1993 - 2002		2003 - 2012		1983 - 2012	
Hawaii	10.2	Wyoming	6.0	North Dakota	9.3	North Dakota	3.8
Nevada	9.0	Arizona	6.0	DC	1.9	Nevada	3.1
Delaware	5.7	New Hampshire	5.8	West Virginia	1.4	DC	2.7
Indiana	5.5	DC	5.6	Oklahoma	1.0	South Dakota	2.3
Washington	5.2	California	5.1	South Dakota	0.7	Nebraska	1.9
Michigan	5.2	Texas	5.0	Iowa	0.4	Iowa	1.8
Maine	5.1	Nevada	5.0	Louisiana	0.0	Utah	1.7
Wisconsin	4.7	Florida	4.1	Utah	0.0	Indiana	1.6
Missouri	4.6	New York	3.8	Texas	-0.6	Kansas	1.5
Oregon	4.5	Minnesota	3.7	Nebraska	-0.7	Idaho	1.3
Kentucky	4.5	South Carolina	3.5	Kansas	-1.1	Hawaii	1.2
Idaho	4.4	Idaho	3.4	Montana	-1.8	Minnesota	1.2
Ohio	3.7	Massachusetts	3.4	Hawaii	-1.9	Wisconsin	1.2
Minnesota	3.4	New Jersey	3.3	Delaware	-1.9	Washington	1.2
North Carolina	3.0	Maine	3.3	Pennsylvania	-2.3	West Virginia	1.1
Iowa	3.0	Michigan	3.3	Maryland	-2.4	South Carolina	1.1
Arkansas	2.9	Illinois	3.2	Virginia	-2.6	Texas	1.1
Pennsylvania	2.8	Nebraska	3.0	Indiana	-2.6	North Carolina	1.1
Colorado	2.8	Kansas	2.9	New York	-2.7	Ohio	1.0
Alabama	2.8	Iowa	2.9	New Mexico	-2.8	Kentucky	0.9
South Dakota	2.3	Missouri	2.8	North Carolina	-2.8	Arkansas	0.9
Nebraska	2.2	Virginia	2.7	Mississippi	-2.9	Montana	0.9
California	2.2	North Dakota	2.7	Wyoming	-2.9	Illinois	0.8
Kansas	2.1	Oklahoma	2.6	South Carolina	-3.1	Colorado	0.7
Tennessee	2.0	North Carolina	2.6	Kentucky	-3.1	Maine	0.6
West Virginia	1.7	Vermont	2.6	Washington	-3.2	Tennessee	0.6
South Carolina	1.7	Maryland	2.6	Wisconsin	-3.2	Michigan	0.6
Illinois	1.7	Utah	2.5	Colorado	-3.3	Missouri	0.5
Utah	1.3	South Dakota	2.5	Arkansas	-3.3	Oregon	0.5
Arizona	1.1	Oregon	2.4	Minnesota	-3.4	California	0.5
Mississippi	1.1	Connecticut	2.4	Ohio	-3.5	New Mexico	0.4
Florida	1.1	Colorado	2.3	Tennessee	-3.7	Mississippi	0.4
New Jersey	0.9	Tennessee	2.2	Massachusetts	-3.8	Arizona	0.4
Georgia	0.8	Rhode Island	2.2	Vermont	-3.8	Pennsylvania	0.3
New Mexico	0.5	Georgia	2.2	Connecticut	-3.9	Virginia	0.3
Connecticut	0.5	Ohio	1.9	Alabama	-4.4	New York	0.3
Virginia	0.2	New Mexico	1.8	Idaho	-5.0	Delaware	0.2
North Dakota	0.1	Indiana	1.7	New Jersey	-5.1	Alabama	0.1
New York	0.0	Pennsylvania	1.6	Illinois	-5.2	Oklahoma	0.1
Montana	-0.4	Washington	1.6	Oregon	-5.4	Maryland	-0.2
New Hampshire	-0.5	Arkansas	1.4	Maine	-5.6	Wyoming	-0.3
Rhode Island	-0.6	Alabama	1.3	California	-5.7	New Jersey	-0.3
Massachusetts	-1.0	Wisconsin	1.2	Missouri	-5.8	Vermont	-0.3
Maryland	-1.2	Louisiana	1.0	Rhode Island	-6.1	Louisiana	-0.3
DC	-1.4	Kentucky	0.3	New Hampshire	-6.2	Connecticut	-0.4
Vermont	-1.7	Mississippi	0.3	Georgia	-6.3	Massachusetts	-0.4
Texas	-2.4	West Virginia	-0.4	Michigan	-6.4	Florida	-0.4
Louisiana	-3.7	Delaware	-1.9	Nevada	-6.5	Georgia	-0.4
Oklahoma	-4.6	Montana	-2.5	Arizona	-7.4	New Hampshire	-0.5
Wyoming	-4.7	Hawaii	-3.4	Florida	-7.6	Rhode Island	-0.8
<b>Total U.S.</b>	<b>1.5</b>	<b>Total U.S.</b>	<b>3.2</b>	<b>Total U.S.</b>	<b>-3.5</b>	<b>Total U.S.</b>	<b>0.7</b>



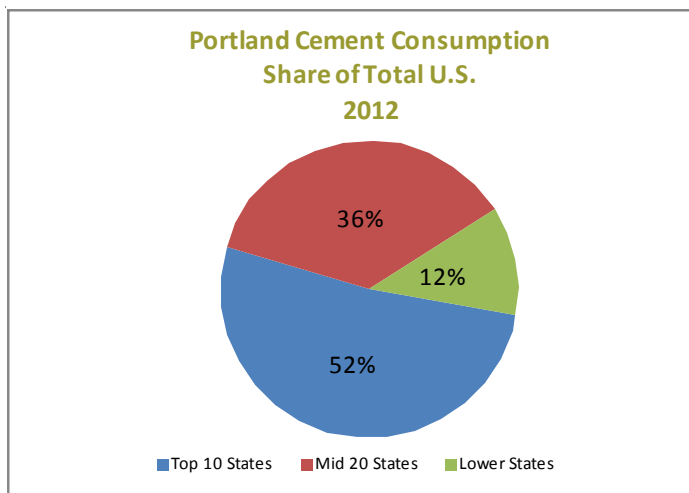
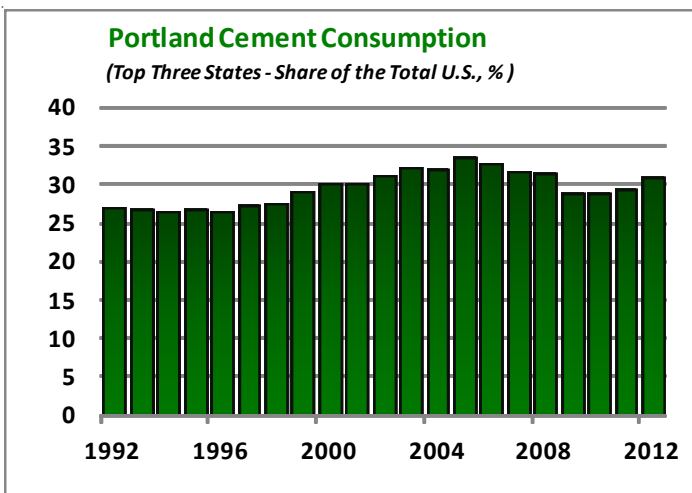
**Table 21**  
**Top 20 States in Portland Cement Consumption<sup>1</sup>**

(Thousands of Metric Tons)

State	1992	State	2002	State	2012
California	7,974	California	12,633	Texas	12,445
Texas	6,934	Texas	12,438	California	7,407
Florida	4,924	Florida	7,828	Florida	3,883
Illinois	3,330	Illinois	4,544	Ohio	2,692
Pennsylvania	2,922	Ohio	3,763	Illinois	2,583
Ohio	2,894	Pennsylvania	3,320	Pennsylvania	2,469
Georgia	2,222	Arizona	3,293	New York	2,391
New York	2,197	New York	3,157	Louisiana	2,053
Michigan	2,190	Michigan	3,147	North Carolina	1,851
Missouri	1,963	Georgia	3,086	Georgia	1,795
North Carolina	1,809	Colorado	2,612	Iowa	1,781
Wisconsin	1,787	North Carolina	2,511	Arizona	1,672
Indiana	1,777	Missouri	2,500	Indiana	1,668
Colorado	1,765	Virginia	2,119	Oklahoma	1,641
Arizona	1,671	Indiana	2,081	Colorado	1,631
Washington	1,621	Wisconsin	2,054	Virginia	1,614
Louisiana	1,556	Minnesota	1,998	Wisconsin	1,606
Virginia	1,500	New Jersey	1,975	Michigan	1,570
Minnesota	1,428	Tennessee	1,921	Missouri	1,463
Tennessee	1,402	Washington	1,899	Minnesota	1,462
<b>Total U.S.</b>	<b>73,354</b>	<b>Total U.S.</b>	<b>104,950</b>	<b>Total U.S.</b>	<b>76,511</b>

<sup>1</sup>U.S. Total excludes AK, HI and Puerto Rico

Source: U.S. Geological Survey



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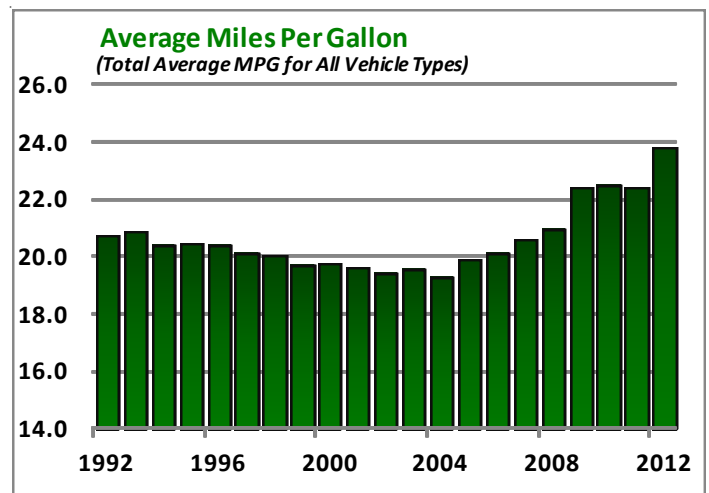
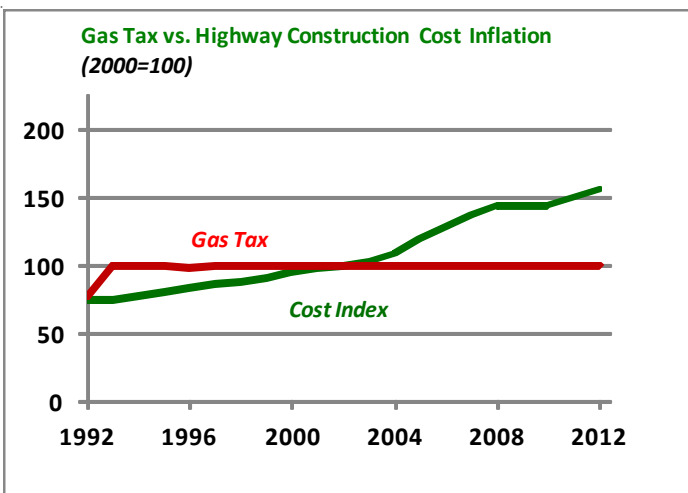




**Table 22**  
**Highway Infrastructure Funding**

Year	Gas Tax (cents per gallon)	Deflated Gas Tax (1993\$) (cents per gallon)	Gas Tax Highway Allocation (cents per gallon)	Gas Tax Public Transit Allocation (cents per gallon)	Vehicle Miles Traveled (Bil Miles)	Fuel Economy (average MPG)	Highway Construction Cost Index (1996=100)
1992	14.1	14.4	12.6	1.5	2,247	20.8	89.1
1993	18.4	18.4	16.9	1.5	2,297	20.9	90.1
1994	18.4	18.0	16.9	1.5	2,358	20.4	92.7
1995	18.4	17.6	16.4	2.0	2,423	20.5	96.8
1996	18.3	17.2	16.3	2.0	2,482	20.4	100.0
1997	18.4	17.0	15.5	2.9	2,560	20.1	103.3
1998	18.4	16.9	15.5	2.9	2,625	20.1	105.5
1999	18.4	16.6	15.5	2.9	2,679	19.7	108.7
2000	18.4	16.3	15.5	2.9	2,747	19.8	113.6
2001	18.4	15.9	15.5	2.9	2,792	19.6	117.5
2002	18.4	15.6	15.5	2.9	2,856	19.4	120.2
2003	18.4	15.3	15.5	2.9	2,886	19.6	122.9
2004	18.4	14.9	15.5	2.9	2,937	19.3	129.9
2005	18.4	14.5	15.5	2.9	2,969	19.9	141.9
2006	18.4	14.0	15.5	2.9	2,999	20.1	152.9
2007	18.4	13.7	15.5	2.9	3,003	20.6	164.1
2008	18.4	13.4	15.5	2.9	2,927	21.0	173.0
2009	18.4	13.3	15.5	2.9	2,968	22.4	172.7
2010	18.4	13.1	15.5	2.9	2,998	22.5	172.9
2011	18.4	12.9	15.5	2.9	2,956	22.4	179.4
2012	18.4	12.7	15.5	2.9	2,940	23.8	186.1

Source: PCA Market Intelligence, U.S. Geological Survey, U.S. Census Bureau, U.S. Department of Transportation, Federal Highway Administration, U.S. Bureau of Economic Analysis (BEA)



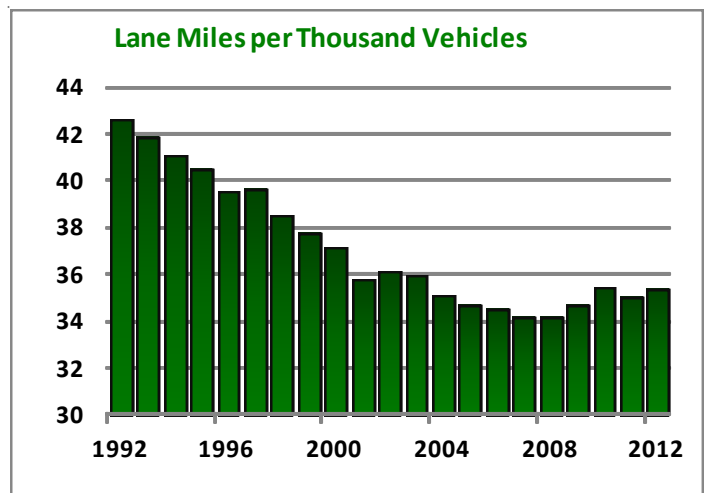
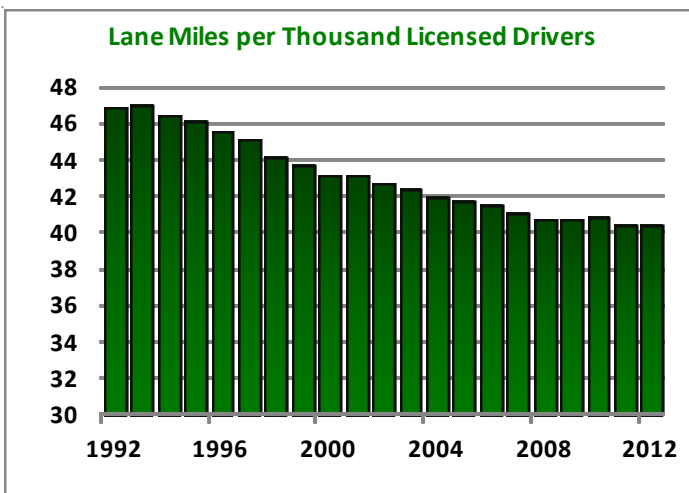


**Table 23**  
**Highway Congestion**

Year	Highway Lane Miles	Total Licensed Drivers (000)	Total Vehicles On Road (000)	Lane Miles Per Thousand Licensed Drivers	Lane Miles Per Thousand Vehicles	Fatalities (per million drivers)
1992	8,124,090	173,125	190,362	46.9	42.7	226.6
1993	8,132,196	173,149	194,063	47.0	41.9	231.8
1994	8,143,014	175,403	198,045	46.4	41.1	232.1
1995	8,158,253	176,628	201,530	46.2	40.5	236.8
1996	8,178,654	179,539	206,570	45.6	39.6	234.3
1997	8,242,437	182,709	207,754	45.1	39.7	229.9
1998	8,160,858	184,980	211,617	44.1	38.6	224.5
1999	8,177,983	187,170	216,309	43.7	37.8	222.9
2000	8,224,245	190,625	221,475	43.1	37.1	220.0
2001	8,251,847	191,276	230,428	43.1	35.8	220.6
2002	8,295,171	194,296	229,620	42.7	36.1	221.0
2003	8,315,121	196,166	231,390	42.4	35.9	218.6
2004	8,338,821	198,889	237,243	41.9	35.1	215.4
2005	8,371,718	200,665	241,194	41.7	34.7	217.0
2006	8,420,589	202,810	244,166	41.5	34.5	210.6
2007	8,457,353	205,742	247,265	41.1	34.2	200.5
2008	8,483,969	208,321	248,165	40.7	34.2	179.6
2009	8,542,163	209,618	246,283	40.8	34.7	168.7*
2010	8,581,158	210,115	242,061	40.8	35.5	156.8*
2011	8,567,618	211,875	244,778	40.4	35.0	144.4*
2012 *	8,615,478	213,073	243,677	40.4	35.4	134.3*

\* Estimated

Source: Federal Highway Administration

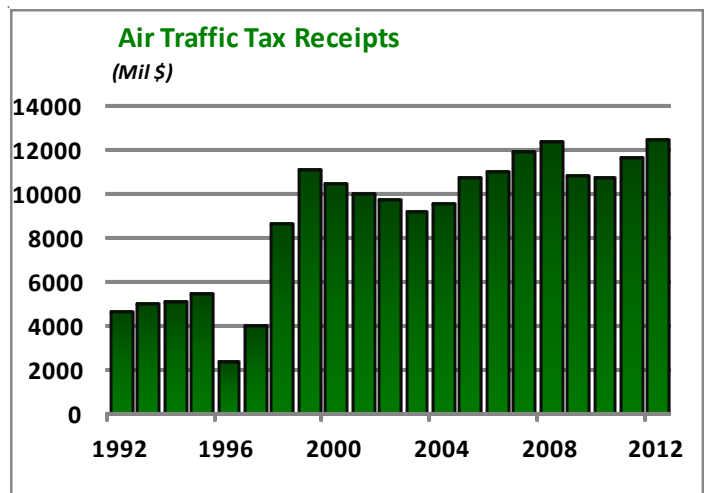
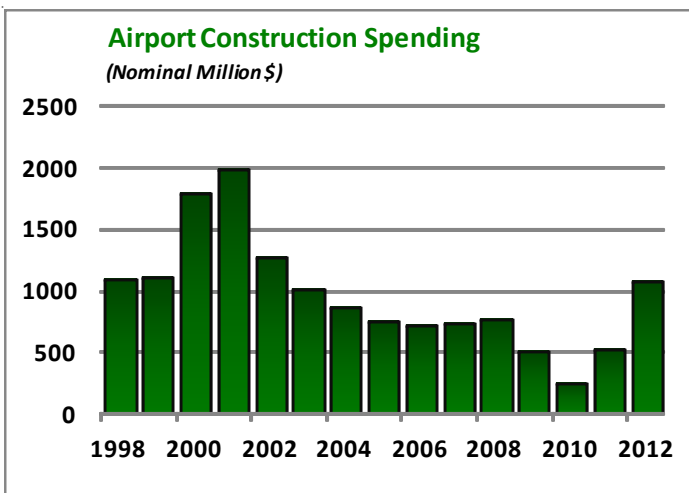




**Table 24**  
**Airport Infrastructure Funding**

Year	Airport and Airway Trust Fund Tax Receipts (Mil \$)	Airport and Airway Trust Fund Balance (Year End)	Airport Construction Spending (Nominal Mil \$)	Cargo Tax (%)	Domestic Passenger Tax (%)	International Departure Ticket Tax (\$ per passenger)
1992	4,645	6,872	--	6.25	10.00	6.0
1993	5,056	4,268	1,026	6.25	10.00	6.0
1994	5,189	3,667	914	6.25	10.00	6.0
1995	5,534	5,127	666	6.25	10.00	6.0
1996	2,369	2,189	871	6.25	10.00	6.0
1997	4,007	1,327	901	6.25	10.00	6.0
1998	8,698	4,589	1,093	6.25	9.00	12.0
1999	11,126	7,363	1,106	6.25	8.00	12.2
2000	10,557	7,074	1,804	6.25	7.50	12.4
2001	10,098	7,345	1,993	6.25	7.50	12.8
2002	9,808	4,815	1,281	6.25	7.50	13.2
2003	9,255	3,898	1,012	6.25	7.50	13.4
2004	9,621	2,447	869	6.25	7.50	13.7
2005	10,754	1,940	748	6.25	7.50	14.1
2006	11,073	1,773	719	6.25	7.50	14.5
2007	11,941	1,533	732	6.25	7.50	15.1
2008	12,422	1,435	776	6.25	7.50	15.4
2009	10,851	299	512	6.25	7.50	16.1
2010	10,794	696	259	6.25	7.50	16.1
2011	11,726	1,405	536	6.25	7.50	16.3
2012	12,532	912	1,074	6.25	7.50	16.7

Sources: Federal Aviation Administration, U.S. Census Bureau, Internal Revenue Service

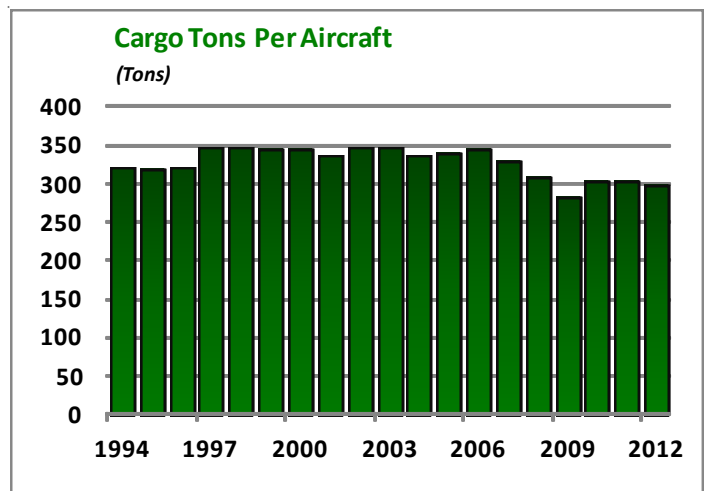
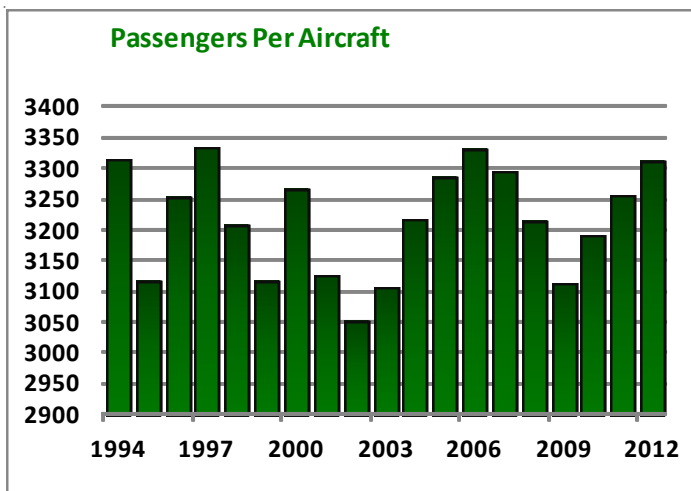




**Table 25**  
**Airport Congestion Measures**

Year	Air Travelers (000)	Air Travelers (% Change)	Total Landed Cargo (000 tons)	Active Aircraft (000)	Hours Flown Per Aircraft	Travelers Per Aircraft	Aviation Incidents
1992	514,051	5.2	46,274	186	148	2,769	2,292
1993	528,920	2.9	48,654	177	138	2,986	2,251
1994	573,576	8.4	55,708	173	139	3,317	2,187
1995	586,327	2.2	60,025	188	141	3,117	2,214
1996	621,613	6.0	61,765	191	141	3,252	2,106
1997	641,564	3.2	66,707	192	144	3,334	2,032
1998	656,689	2.4	71,379	205	137	3,208	2,068
1999	684,164	4.2	75,553	219	142	3,117	2,076
2000	710,299	3.8	74,927	218	138	3,265	2,044
2001	661,069	-6.9	71,595	211	128	3,126	1,906
2002	644,579	-2.5	73,433	211	128	3,051	1,885
2003	651,729	1.1	72,961	210	130	3,108	1,948
2004	706,398	8.4	74,297	219	128	3,219	1,798
2005	737,187	4.4	76,269	224	120	3,286	1,854
2006	739,275	0.3	76,362	222	125	3,331	1,667
2007	763,480	3.3	76,583	232	120	3,296	1,841
2008	735,032	-3.7	70,405	229	114	3,214	1,748
2009	696,806	-5.2	63,494	224	106	3,112	1,627
2010	712,588	2.3	67,759	223	111	3,190	1,598
2011	724,860	1.7	67,448	223	110	3,258	1,632
2012	731,129	0.9	66,095	221	113	3,312	1,586

Source: Federal Aviation Administration

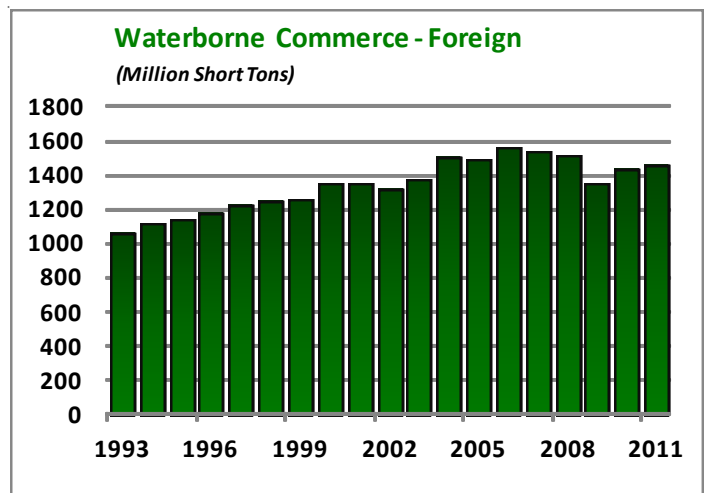
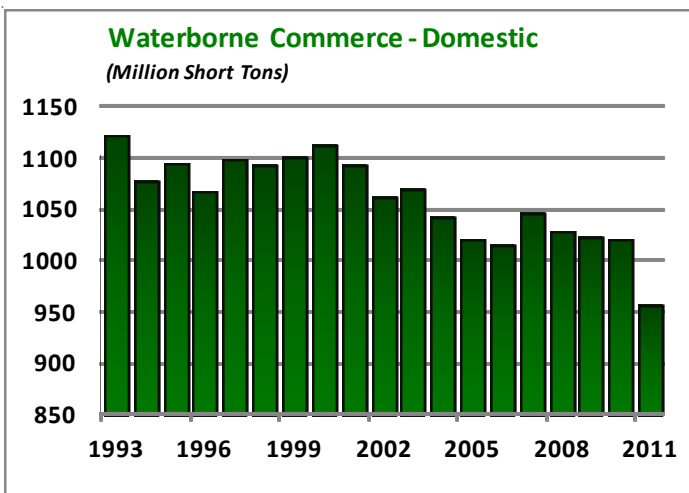




**Table 26**  
**Seaport Congestion Measures**

Year	U.S. Waterborne Commerce (Million Short Tons)	U.S. Waterborne Commerce (% Change)	Water Transportation Gross Output (Mil \$)	Water Transportation Gross Output (% Change)	Ratio Water Transportation to GDP (%)
1992	2,132	1.9	19,126	0.3	2.9
1993	2,128	-0.2	19,996	4.5	2.9
1994	2,215	4.1	20,433	2.2	2.8
1995	2,240	1.2	22,136	8.3	2.9
1996	2,284	1.9	23,909	8.0	3.0
1997	2,333	2.1	24,598	2.9	2.9
1998	2,340	0.3	24,820	0.9	2.7
1999	2,323	-0.7	26,191	5.5	2.7
2000	2,425	4.4	27,583	5.3	2.7
2001	2,393	-1.3	27,741	0.6	2.6
2002	2,340	-2.2	26,962	-2.8	2.5
2003	2,394	2.3	28,311	5.0	2.5
2004	2,552	6.6	30,676	8.4	2.5
2005	2,528	-1.0	30,527	-0.5	2.3
2006	2,588	2.4	30,930	1.3	2.2
2007	2,564	-0.9	34,407	11.2	2.4
2008	2,477	-3.4	37,580	9.2	2.6
2009	2,211	-10.8	35,471	-5.6	2.5
2010	2,334	5.6	37,151	4.7	2.5
2011	2,368	1.4	39,891	7.4	2.6

Sources: U.S. Army Corps of Engineers, Maritime Administration, Bureau of Economic Analysis



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**Table 27**  
**Clinker Capacity\***

(Thousands of Metric Tons)

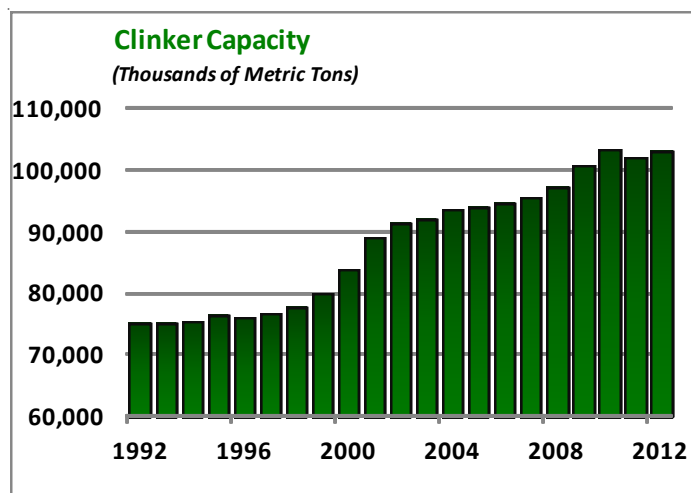
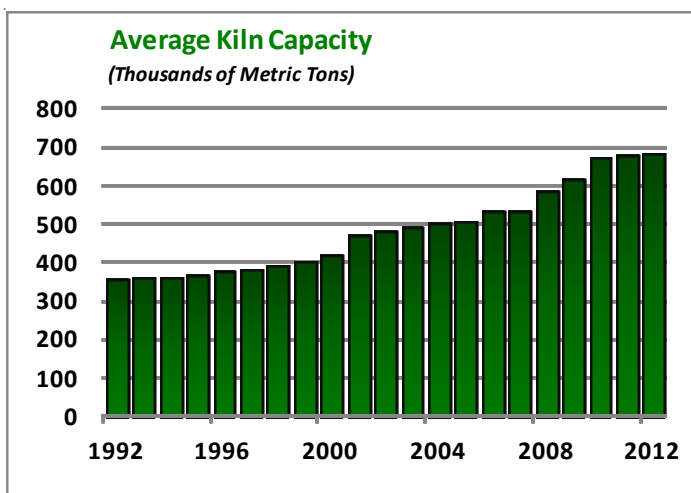
Year	Number of Plants <sup>1</sup>	Number of Kilns	Average Kiln Capacity	Daily Clinker Capacity	Annual Clinker Capacity
1992	111	210	357	233.1	75,062
1993	110	207	363	232.5	75,091
1994	110	207	364	233.8	75,413
1995	110	208	367	236.4	76,335
1996	109	202	376	234.8	76,000
1997	108	200	383	236.9	76,652
1998	108	198	393	240.4	77,914
1999	109	199	403	246.1	80,162
2000	109	201	418	259.2	84,052
2001	108	190	470	277.0	89,245
2002	108	189	484	280.3	91,490
2003	108	187	492	281.4	92,075
2004	107	186	504	286.1	93,785
2005	107	186	506	286.9	94,096
2006	105	178	532	288.4	94,693
2007	105	178	537	291.2	95,601
2008	104	167	584	297.9	97,462
2009	101	164	615	307.7	100,916
2010	102	154	673	315.9	103,602
2011	99	150	681	311.6	102,197
2012 **	100	151	684	314.9	103,286

\*Years 2009-2012 are estimates calculated from the 2008 base, adding expansions and subtracting only announced permanent closures.

\*\*Reflects Capacity Adjustments through 7/31/2013

<sup>1</sup> Clinker Producing Only

Source: PCA U.S. and Canadian Portland Cement Industry: Plant Information Summary





**Table 28**  
**Clinker Production,**  
**Capacity and Capacity Utilization**

Year	Clinker Production (MMT)	Clinker Capacity* (MMT)	Utilization Rate (%)
1992	62.1	75.1	82.7
1993	65.7	75.1	87.5
1994	68.6	75.4	91.0
1995	70.0	76.3	91.7
1996	70.4	76.0	92.6
1997	72.7	76.7	94.8
1998	75.9	77.9	97.4
1999	77.3	80.2	96.4
2000	79.6	84.1	94.7
2001	79.9	89.2	89.5
2002	83.0	91.5	90.8
2003	83.2	92.1	90.4
2004	88.0	93.8	93.8
2005	88.7	94.1	94.3
2006	89.9	94.7	95.0
2007	87.5	95.6	91.6
2008	79.6	97.5	81.6
2009	56.9	100.9	56.4
2010	60.4	104.4	57.9
2011	62.0	104.4	59.3
2012	67.8	103.3 **	65.6

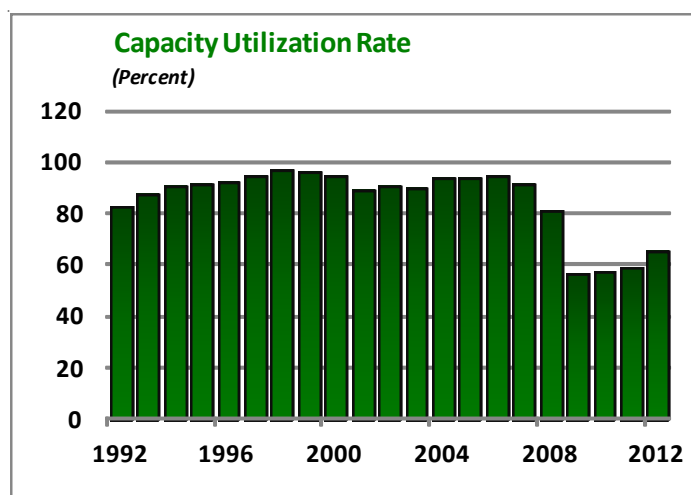
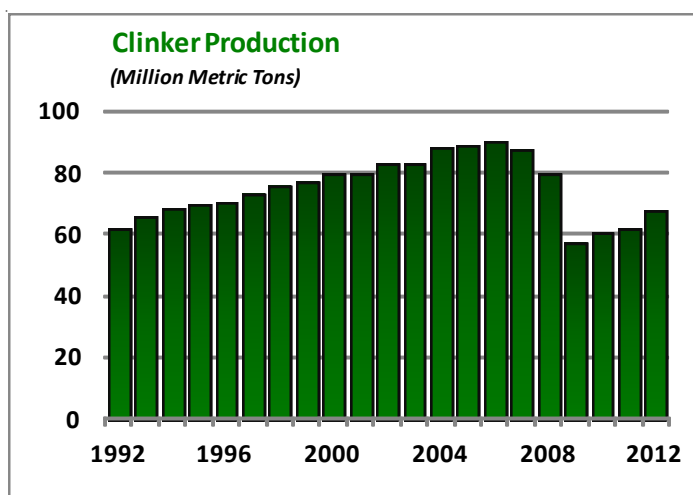
\* Years 2009-2012 are estimates calculated from the 2008 base, adding expansions and subtracting **only** announced permanent closures.

\*\*Reflects Capacity Adjustments through 7/31/2013

**Clinker** is the primary intermediate product of cement making. Kilns produce clinker which is finely ground to make finished cement. Clinker comprises approximately 96% of cement's final weight

Source: U.S. Geological Survey

PCA U.S. and Canadian Portland Cement Industry: Plant Information Summary







**Table 29**

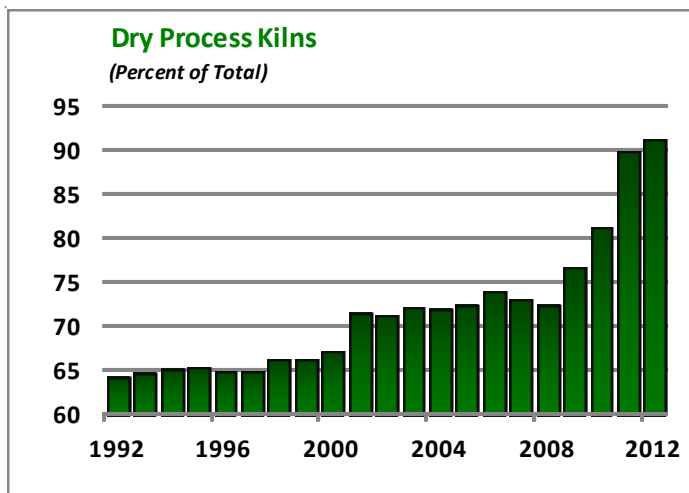
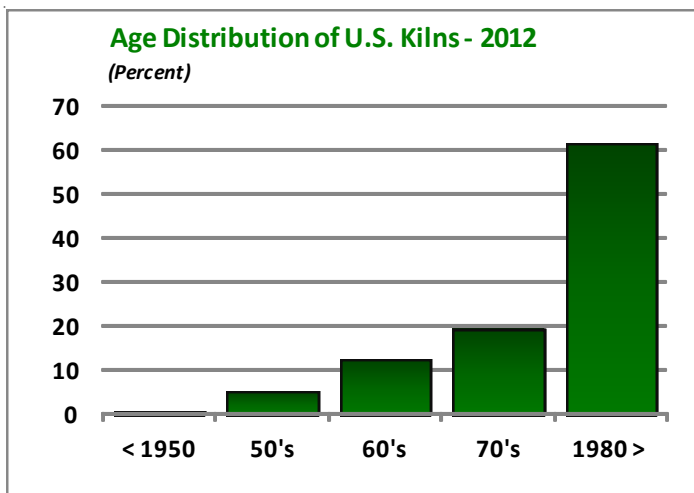
**Age Distribution of U.S. Clinker Capacity by Process, 2012\*\***

(Percent)

Age of Kilns	Wet Process	Dry Process	Total
Before 1931	3.8	0.0	0.4
1931-1935	0.0	0.0	0.0
1936-1940	0.0	0.0	0.0
1941-1945	0.0	0.0	0.0
1946-1950	0.0	0.1	0.1
1951-1955	7.0	0.3	0.9
1956-1960	21.2	2.7	4.6
1961-1965	44.4	5.3	8.9
1966-1970	19.3	2.0	3.7
1971-1975	4.3	6.8	7.0
1976-1980	0.0	13.6	12.5
After 1980	0.0	69.2	62.2
<b>Total Clinker</b>	<b>8,972</b>	<b>94,314</b>	<b>103,286</b>

\*\*Reflects Capacity Adjustments through 7/31/2012

Source: PCA U.S. and Canadian Portland Cement Industry: Plant Information Summary





**Table 30**  
**Clinker Capacity By Census District\***

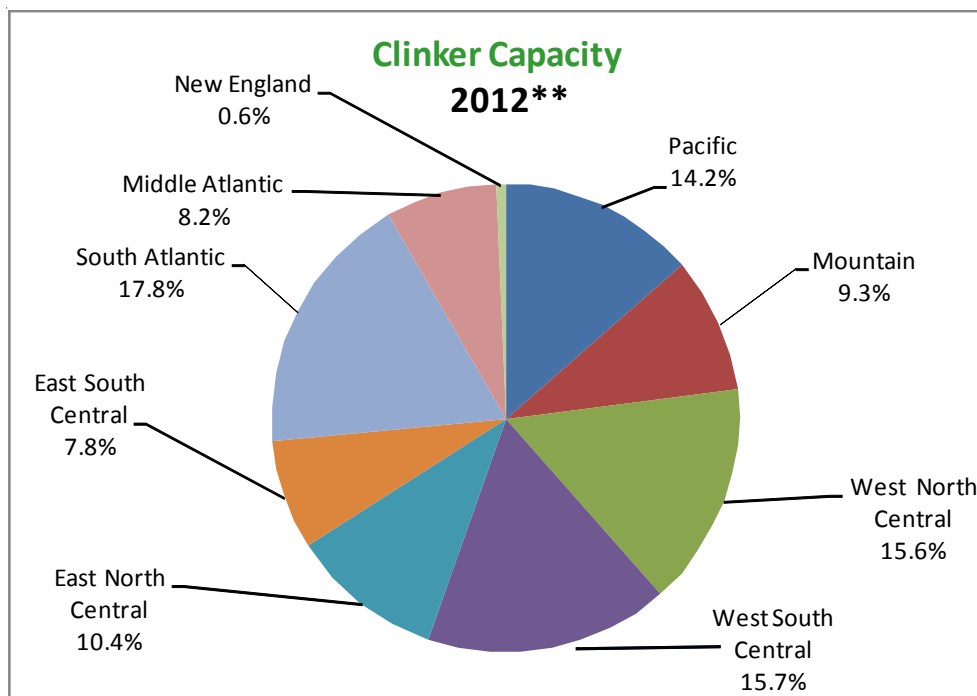
(Thousands of Metric Tons)

Year	New England	Mid Atlantic	South Atlantic	East North Central	East South Central	West North Central	West South Central	Mountain	Pacific	Total
1992	392	9,166	10,156	11,288	6,014	9,798	10,367	6,205	11,677	75,062
1993	392	9,582	10,156	10,807	6,096	9,873	10,437	6,126	11,622	75,091
1994	392	9,117	10,115	10,890	6,170	10,037	10,495	6,406	11,791	75,413
1995	392	9,099	10,164	11,007	6,278	10,171	10,646	6,685	11,893	76,335
1996	392	9,091	10,160	10,992	6,194	10,151	10,684	6,683	11,653	76,000
1997	392	9,090	10,082	10,533	6,384	10,220	10,673	6,928	12,350	76,652
1998	392	9,554	10,418	10,634	6,452	10,324	10,729	7,147	12,264	77,914
1999	392	9,463	11,323	10,656	6,625	10,498	11,040	7,127	13,038	80,162
2000	392	9,614	12,343	11,408	7,351	10,666	11,947	7,498	12,833	84,052
2001	392	9,183	12,712	11,337	7,715	11,766	13,660	8,384	14,096	89,245
2002	392	9,236	12,585	11,354	8,570	12,260	13,671	9,293	14,129	91,490
2003	392	9,186	13,887	11,291	8,369	12,327	13,621	8,828	14,174	92,075
2004	392	9,300	14,355	11,319	8,597	14,241	12,519	8,754	14,308	93,785
2005	392	9,357	14,436	11,269	8,677	12,376	14,408	8,744	14,437	94,096
2006	776	9,159	14,998	11,581	8,722	12,191	14,228	8,657	14,381	94,693
2007	661	9,088	15,334	12,108	8,815	12,716	14,175	8,411	14,293	95,601
2008	647	9,021	16,096	11,720	8,700	12,787	15,074	8,256	15,161	97,462
2009	647	8,567	18,032	10,890	8,389	15,328	15,074	9,119	14,870	100,916
2010	647	8,805	18,806	10,890	8,286	16,327	16,383	9,418	14,040	103,602
2011	647	7,947	18,806	10,890	7,872	15,908	16,383	9,717	14,040	102,197
2012 **	647	7,947	18,806	10,890	7,872	15,908	17,472	9,717	14,040	103,286

\* Years 2009-2011 are estimates calculated from the 2008 base, adding expansions and subtracting only announced permanent closures.

\*\*Reflects Capacity Adjustments through 7/31/2012

Source: PCA U.S. and Canadian Portland Cement Industry: Plant Information Summary



**Table 31****U.S. Cement Company Clinker Capacity***(Gray and White Plants) (Thousands of Metric Tons - Estimated as of 7/18/2013)*

Rank	Company	Clinker Capacity**	Percent of Industry
1	CEMEX	14,650	14.2
2	Holcim (US) Inc.	13,772	13.3
3	Lehigh Hanson Cement Company	9,198	8.9
4	Buzzi Unicem, Inc.	7,975	7.7
5	Ash Grove Cement Company	7,504	7.3
6	Lafarge North America Inc.	7,322	7.1
7	Texas Industries Inc.	5,896	5.7
8	Essroc Cement Corp.	4,195	4.1
9	Eagle Materials	3,441	3.3
10	CalPortland	3,387	3.3
11	Titan America LLC	2,954	2.9
12	Giant Cement Holding, Inc.	2,587	2.5
13	Argos USA Corporation	2,381	2.3
14	GCC of America, Inc.	2,135	2.1
15	St. Marys Cement, Inc. (U.S.)/VCNA	1,870	1.8
16	Mitsubishi Cement Corporation	1,543	1.5
17	Vulcan Materials Co.	1,489	1.4
18	Texas-Lehigh Cement Company	1,118	1.1
19	Phoenix Cement Company	1,067	1.0
20	National Cement Co. Of California	1,033	1.0
21	Monarch Cement Company	975	0.9
22	Continental Cement Co., Inc.	948	0.9
23	American Cement Company	917	0.9
24	National Cement Co. Of Alabama	899	0.9
25	Alamo Cement Company	887	0.9
26	Ash Grove Texas, L.P.	873	0.8
27	Suwannee American Cement	799	0.8
28	Capitol Aggregates, Ltd.	608	0.6
29	Drake Cement LLC	599	0.6
30	Armstrong Cement & Sup. Corp.	264	0.3
<b>Total Capacity</b>		<b>103,286</b>	

\*\*Reflects Capacity Adjustments through 7/31/2013

Source: PCA U.S. and Canadian Portland Cement Industry: Plant Information Summary

**Table 32****Foreign Affiliated U.S. Clinker Capacity***(Gray and White Plants)*

<b>Company</b>	<b>Affiliation as of July, 18, 2013</b>	<b>Country</b>	<b>Clinker Capacity (000 Metric Tons) 7/18/2013**</b>
Alamo Cement Co.	Buzzi Unicem	Italy	887
Argos USA	Cementos Argos S.A.	Columbia	2,381
Buzzi Unicem USA, Inc.	Buzzi Unicem	Italy	7,975
CalPortland	Taiheiyo Cement Corp.	Japan	3,387
CEMEX	CEMEX S.A.B. de C.V.	Mexico	14,650
Drake Cement LLC	Cementos Lima SA	Peru	599
Essroc Cement Corp.	Italcementi Group	Italy	4,195
GCC of America, Inc	Grupo Cementos de Chihuahua	Mexico	2,135
Giant Cement Holding, Inc.	Cementos Portland Valderrivas	Spain	2,587
Holcim (US) Inc.	Holcim, Ltd.	Switzerland	13,772
Lafarge North America Inc.	Lafarge SA	France	7,322
Lehigh Hanson Cement Company	Heidelberg Cement INC.	Germany	6,174
Lehigh Southwest Cement Company	Heidelberg Cement INC.	Germany	3,024
Mitsubishi Cement Corporation	Mitsubishi Materials Corp.	Japan	1,543
National Cement Co. of Alabama	Vicat S.A.	France	899
National Cement Co. of California	Vicat S.A.	France	1,033
St. Marys Cement Inc. (U.S.)/VCNA	Votorantim	Brazil	1,870
Suwannee American Cement/VCNA	Votorantim (50%)/Anderson Columbia (50%)	Brazil/USA	799
Texas-Lehigh Cement Company	Heidelberg Cement (50%)/Eagle Materials (50%)	Germany/USA	1,118
Titan America LLC	Titan Cement Co. SA	Greece	2,954
<b>Total Foreign Owned Capacity:</b>			<b>78,782</b>
<b>Total U.S. Capacity:</b>			<b>103,286</b>
<b>Percent of U.S. Foreign Owned Clinker Capacity :</b>			<b>76.3%</b>

**Domestic Affiliated U.S. Clinker Capacity**

<b>Company</b>	<b>Affiliation as of July, 18, 2013</b>	<b>Clinker Capacity (000 Metric Tons)</b>
American Cement Company	Privately Held	917
Armstrong Cement & Sup. Corp.	Snyder Associated Companies INC.	264
Ash Grove Cement Company	Privately Held	7,504
Ash Grove Texas, L.P.	Ash Grove Cement/Hanson PLC	873
Capitol Aggregates, Ltd.	H. B. Zachry Construction Co.	608
Continental Cement Co., Inc.	Continental Cement Co. LLC	948
Eagle Materials	Eagle Materials (IL/NV/WY)	3,441
Vulcan Materials Co.	Privately Held	1,489
Monarch Cement Company	Privately Held	975
Phoenix Cement Company	Salt River Materials Group	1,067
Texas Industries Inc.	Privately Held	5,896
<b>Total Domestic Owned Capacity:</b>		<b>24,504</b>
<b>Total U.S. Capacity:</b>		<b>103,286</b>
<b>Percent of U.S. Domestically Owned Clinker Capacity :</b>		<b>23.7%</b>

\*\*Reflects Capacity Adjustments through 7/18/2013; includes temporarily furlogged plants

Source: PCA Market Intelligence



**Table 33**  
**Capacity Expansion Estimates**

(Clinker, Thousands of Metric Tons)

Company	Location	Year On Stream	Net Expansion							Total
			2012	2013	2014	2015	2016	2017		
<b>Total Expansion</b>			<b>1,089</b>	<b>0</b>	<b>0</b>	<b>1,673</b>	<b>3,744</b>	<b>1,707</b>	<b>8,558</b>	
<b>Estimated Dollar Investment (\$ Millions)</b>			<b>\$300</b>	<b>\$0</b>	<b>\$0</b>	<b>\$446</b>	<b>\$1,032</b>	<b>\$486</b>	<b>\$6,126</b>	
<b>2011</b>	Sumter Cement Company	Center Hill, Florida (G)	P**	0	0	0	0	0	0	
<b>2012</b>	CalPortland	Rillito, Arizona	P**	0	0	0	0	0	0	
	Cemex	Seligman, Arizona (G)	P**	0	0	0	0	0	0	
	Eagle Materials	Laramie, Wyoming	P**	0	0	0	0	0	0	
	Lehigh	Mitchell, Indiana	P**	0	0	0	0	0	0	
	Texas Industries Inc	New Braunfels, Texas	2012	1,089	0	0	0	0	1,089	
<b>2013</b>	Lafarge	Grand Chain, Illinois	2013	0	0	0	0	1,657	1,657	
	National Cement	Ragland, Alabama	P**	0	0	0	0	0	0	
<b>2015</b>	Houston American Cement	Perry, Georgia (G)	2015	0	0	0	817	0	817	
	Lafarge	Ravena, New York	2015	0	0	0	856	0	856	
<b>2016</b>	Titan America	Castle Hayne, North Carolina	2016	0	0	0	0	2,087	2,087	
<b>2017</b>	Universal Cement	Chicago, Illinois (G)	2015	0	0	0	0	0	907	
	Lafarge	Exshaw, Alberta (Canada)	2015	0	0	0	0	0	800	
<b>Unspecified</b>	Cemex	Odessa, TX	-	-	-	-	-	-	345	
<b>Net North American Capacity Changes</b>			<b>1,089</b>	<b>0</b>	<b>0</b>	<b>1,673</b>	<b>3,744</b>	<b>6,506</b>	<b>11,923</b>	

(P\*\*) Postponed-no additional information available

(G) Designates a greenfield plant. All other listings reflect expansions



**Table 34**  
**15 Largest States Ranked by Cement Grinding Capacity**

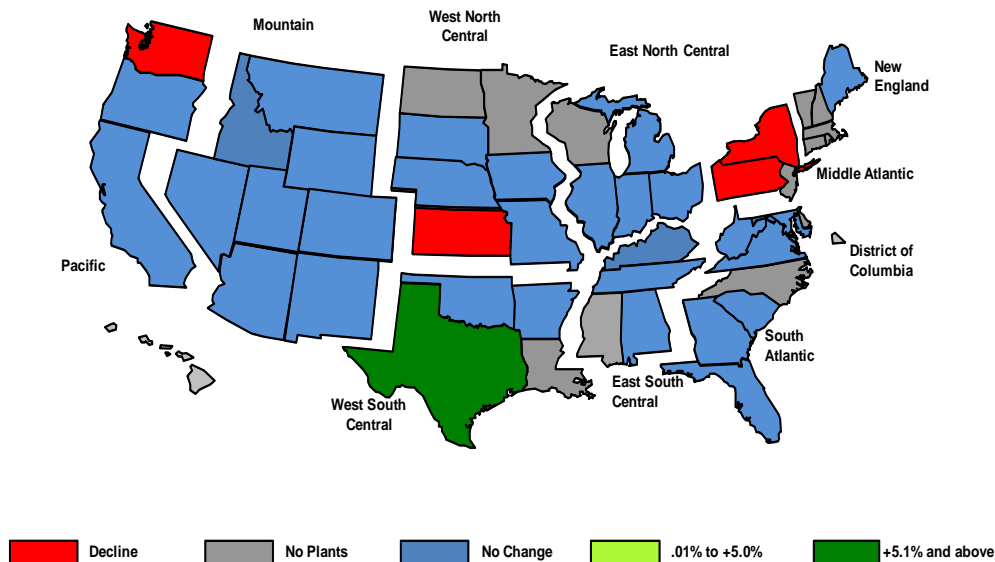
(Thousands of Metric Tons - as of 12/31/10)

State	1992			2002			2012		
	Rank	Cement Grinding Capacity	Percent of U.S. Total	Rank	Cement Grinding Capacity	Percent of U.S. Total	Rank	Cement Grinding Capacity	Percent of U.S. Total
Texas	2	10,850	11.9	2	12,750	10.9	1	15,064	11.7
California	1	11,496	12.7	1	14,606	12.5	2	14,536	11.3
Florida	5	5,054	5.6	5	7,215	6.2	3	11,801	9.2
Missouri	7	4,585	5.1	6	6,448	5.5	4	10,045	7.8
Alabama	6	5,010	5.5	8	5,350	4.6	5	7,084	5.5
Pennsylvania	3	7,458	8.2	4	7,426	6.4	6	6,639	5.1
Michigan	4	5,843	6.4	3	7,617	6.5	8	5,991	4.6
South Carolina	11	2,576	2.8	7	3,779	3.2	7	4,716	3.7
Arizona	12	2,136	2.4	12	3,435	2.9	9	4,169	3.2
Colorado	15	1,854	2.0	14	3,185	2.7	10	4,138	3.2
Maryland	14	1,885	2.1	13	3,278	2.8	11	4,061	3.1
Indiana	10	2,659	2.9	9	3,952	3.4	12	3,735	2.9
New York	8	3,177	3.5	10	3,861	3.3	13	3,193	2.5
Illinois	9	2,667	2.9	11	3,836	3.3	14	3,482	2.7
Kansas	13	1,960	2.2	15	2,964	2.5	15	3,217	2.5
<b>Total U.S.</b>		<b>90,770</b>			<b>116,790</b>			<b>128,934</b>	

Source: PCA U.S. and Canadian Portland Cement Industry: Plant Information Summary

### Grinding Capacity

2012/2010 Percent Change





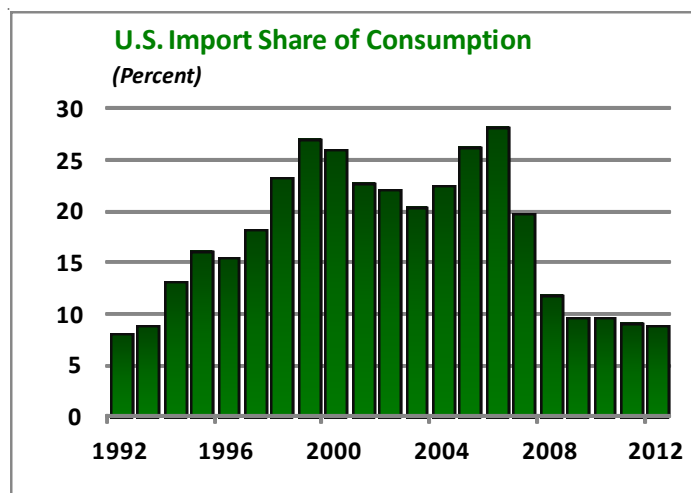
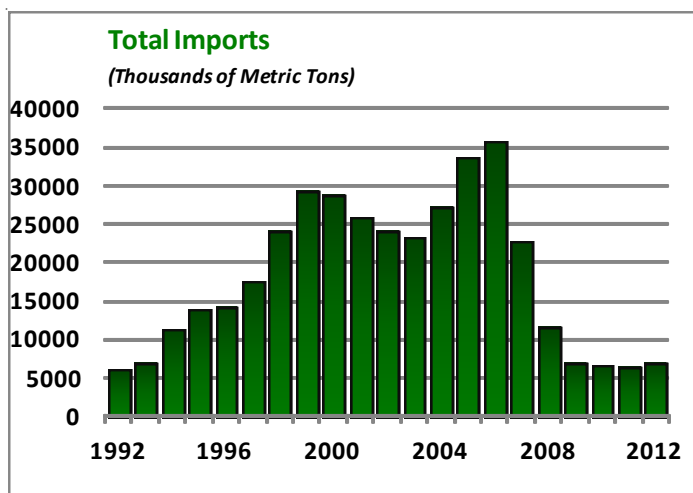
**Table 35**  
**Cement Imports**

(Thousands of Metric Tons)

Year	Clinker	Finished Cement	Total	U.S. Cement Consumption <sup>1</sup>	Percent Share of Consumption		
					Clinker	Finished Cement	Total
1992	1,566	4,593	6,159	76,107	2.1	6.0	8.1
1993	1,508	5,552	7,056	79,643	1.9	7.0	8.9
1994	2,208	9,095	11,302	85,496	2.6	10.6	13.2
1995	2,858	10,990	13,848	86,269	3.3	12.7	16.1
1996	2,548	11,606	14,154	91,212	2.8	12.7	15.5
1997	3,027	14,569	17,596	96,354	3.1	15.1	18.3
1998	4,134	19,952	24,085	103,255	4.0	19.3	23.3
1999	4,570	24,781	29,321	108,427	4.2	22.9	27.0
2000	3,760	24,923	28,684	109,528	3.4	22.8	26.2
2001	1,782	24,079	25,861	113,801	1.6	21.2	22.7
2002	1,603	22,567	24,169	109,387	1.5	20.6	22.1
2003	1,838	21,403	23,241	113,494	1.6	18.9	20.5
2004	1,630	25,675	27,305	121,273	1.3	21.2	22.5
2005	2,941	30,711	33,652	128,035	2.3	24.0	26.3
2006	3,425	32,471	35,896	127,251	2.7	25.5	28.2
2007	990	21,739	22,729	114,622	0.9	19.0	19.8
2008	621	10,898	11,519	96,658	0.6	11.3	11.9
2009	556	6,338	6,894	70,566	0.8	9.0	9.8
2010	613	6,168	6,781	70,326	0.9	8.8	9.6
2011	606	5,937	6,543	72,128	0.8	8.2	9.1
2012	786	7,037	7,823	78,460	1.0	9.0	9.0

<sup>1</sup> Portland and Masonry. Excludes AK, HI and Puerto Rico

Source: U.S. Department of Commerce - Foreign Trade Division, U.S. Geological Survey



**Table 36****U.S. Cement and Clinker Imports By Port - Top Customs Districts***(Thousands of Metric Tons)*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Detroit	1,343	1,625	1,419	1,317	1,214	1,021	838	841	939	947	1,114
Seattle	1,360	1,335	1,654	1,489	1,619	1,788	1,243	783	916	1,053	1,036
Houston/Galvesto	2,137	2,025	1,969	2,619	3,371	3,350	1,876	793	612	699	813
Buffalo	642	711	807	823	832	809	708	574	590	555	572
Cleveland	744	698	699	792	932	766	485	494	555	488	538
Columbia-Snake	516	537	655	867	1,032	1,194	788	292	332	343	335
Honolulu	318	314	417	428	495	477	383	276	277	290	315
Pembina	217	239	181	178	122	150	173	162	167	191	281
New York City	1,192	941	839	1,265	1,207	933	291	214	213	25	276
Miami	1,743	2,067	2,294	2,265	2,186	1,046	375	185	147	170	248
Ogdensburg	306	361	384	336	418	460	399	248	174	184	205
Philadelphia	139	239	410	494	605	316	187	140	141	158	190
All Others	13,514	12,150	15,549	20,780	21,863	10,420	3,774	1,892	1,717	1,440	1,115
<b>Total U.S.</b>	<b>24,169</b>	<b>23,241</b>	<b>27,305</b>	<b>33,652</b>	<b>35,896</b>	<b>22,729</b>	<b>11,519</b>	<b>6,894</b>	<b>6,781</b>	<b>6,543</b>	<b>7,037</b>

*Source: U.S. Department of Commerce - Foreign Trade Division***Table 37****U.S. Cement and Clinker Imports - Country of Origin***(Thousands of Metric Tons)*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Canada	5,181	5,601	5,753	5,404	5,059	5,326	4,104	3,426	3,410	3,416	3,709
Korea	1,625	1,745	1,729	2,672	2,745	2,686	1,283	882	1,045	1,402	1,280
Greece	1,785	1,188	2,011	2,786	1,950	703	213	186	191	0	609
China	2,280	2,228	3,215	4,726	10,620	5,377	2,098	608	688	578	375
Mexico	1,228	891	1,439	2,185	2,276	1,700	1,088	380	382	368	316
Spain	327	355	412	236	69	29	0	81	109	106	163
Sweden	1,047	924	1,058	1,050	889	457	261	74	83	81	132
Denmark	333	433	373	439	296	239	99	69	54	74	96
Columbia	1,579	1,766	2,123	1,849	1,874	1,555	969	659	322	229	87
Francy	85	90	79	74	97	111	108	65	91	72	85
Egypt	0	0	0	569	275	95	57	55	44	71	84
Taiwan	0	0	0	1,759	2,180	2,168	855	254	232	65	39
Croatia	0	0	0	34	29	26	34	15	24	33	24
Thailand	4,259	3,344	2,808	2,893	3,798	730	77	21	16	11	13
Other	4,440	4,678	6,304	6,975	3,737	1,528	273	118	91	36	27
<b>Total U.S.</b>	<b>24,169</b>	<b>23,241</b>	<b>27,305</b>	<b>33,652</b>	<b>35,896</b>	<b>22,729</b>	<b>11,519</b>	<b>6,894</b>	<b>6,781</b>	<b>6,543</b>	<b>7,037</b>

*Source: U.S. Department of Commerce - Foreign Trade Division*



**Table 38****Cement & Clinker Imports By Census District***(Thousands of Metric Tons)*

Year	New England	Mid Atlantic	South Atlantic	East North Central	East South Central	West North Central	West South Central	Mountain	Pacific	Total
1992	110	1,038	1,239	1,097	0	164	336	377	1,799	6,159
1993	70	1,151	1,503	1,479	0	162	386	564	1,740	7,056
1994	129	1,526	2,839	1,872	155	359	2,383	376	1,663	11,302
1995	153	1,649	4,039	2,210	401	374	2,844	546	1,629	13,848
1996	109	1,668	4,321	2,364	383	475	2,308	625	1,901	14,154
1997	234	2,171	5,117	2,489	273	531	3,305	662	2,815	17,596
1998	548	2,338	6,214	3,401	322	559	5,910	766	4,027	24,085
1999	773	2,336	7,487	2,944	440	703	8,821	822	4,996	29,321
2000	1,240	2,457	7,525	2,396	557	607	7,961	735	5,206	28,684
2001	1,083	2,440	6,594	2,254	393	571	5,529	917	6,080	25,861
2002	1,205	2,279	6,694	2,338	501	439	4,539	678	5,496	24,169
2003	984	2,251	6,335	2,629	368	428	3,861	585	5,800	23,241
2004	1,027	2,439	6,786	2,432	528	354	5,045	897	7,768	27,305
2005	1,163	2,918	8,604	2,308	514	375	7,580	1,130	9,061	33,652
2006	937	3,062	8,673	2,147	521	302	8,930	1,104	10,219	35,896
2007	889	2,517	4,093	1,788	2	323	5,191	723	7,202	22,729
2008	403	1,585	1,387	1,330	0	328	2,649	358	3,479	11,519
2009	265	1,176	898	1,335	0	276	1,228	0	1,716	6,894
2010	192	1,118	765	1,496	0	285	1,045	0	1,879	6,781
2011	94	922	673	1,435	0	294	1,166	45	1,913	6,543
2012	109	1,242	679	1,652	0	415	1,070	8	1,862	7,037

<sup>1</sup> Includes Puerto Rico and U.S. Virgin Islands

Source: U.S. Department of Commerce - Foreign Trade Division

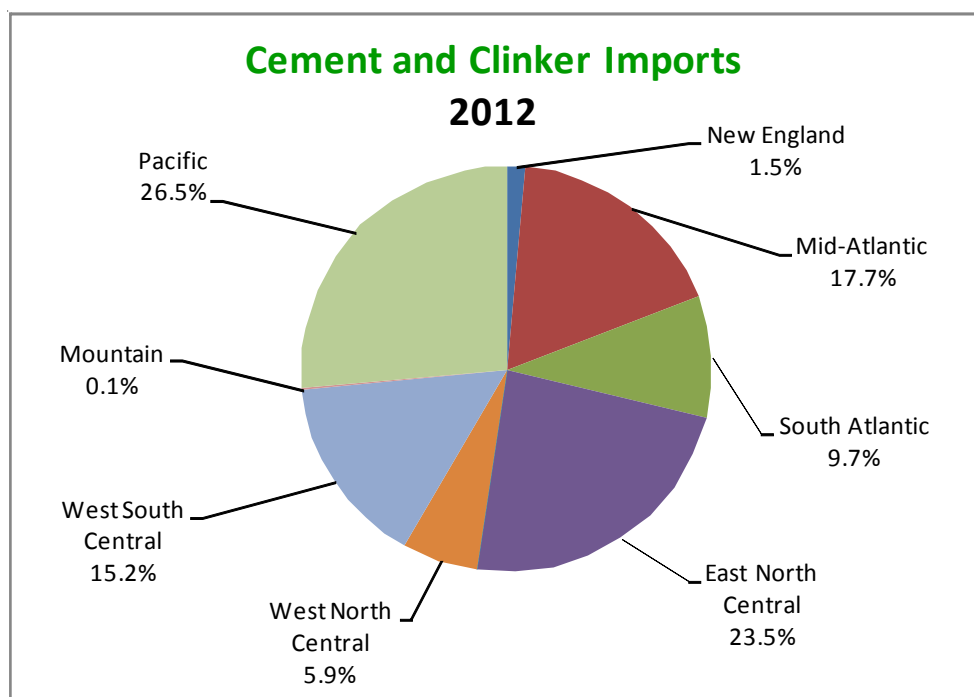




Table 39

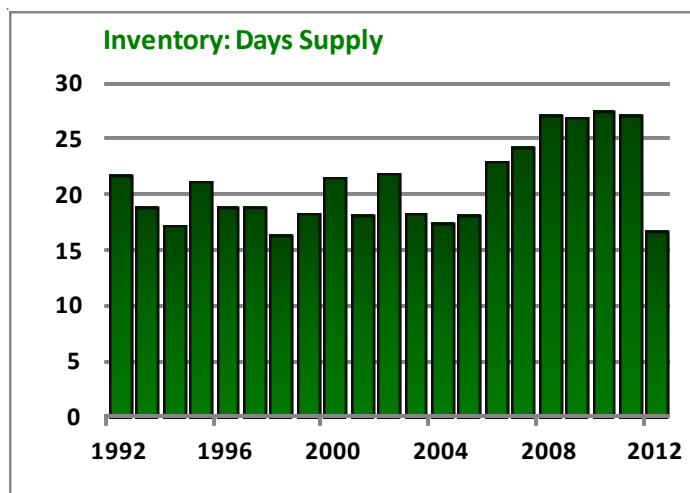
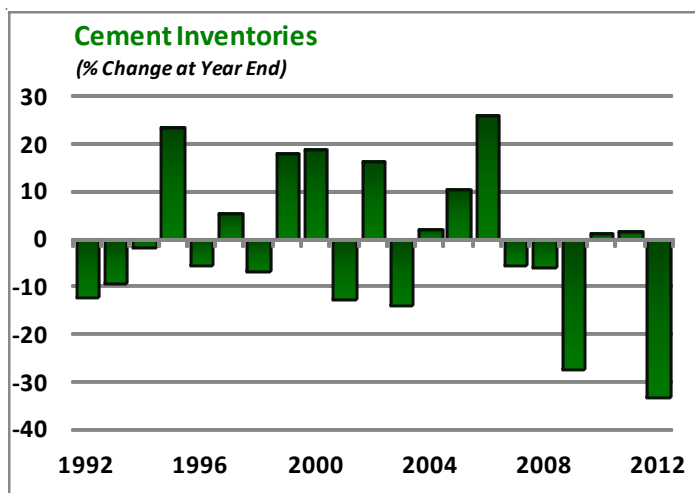
## Cement\* Inventories at Year-end

(Thousands of Metric Tons)

Year	Stocks at Mills & Terminals	Year-Year %Change	U.S. Consumption	Year-Year %Change	Days Supply
1992	5,272	-12.3	76,058	6.2	21.7
1993	4,788	-9.2	79,589	4.6	18.8
1994	4,701	-1.8	85,420	7.3	17.2
1995	5,814	23.7	86,176	0.9	21.1
1996	5,488	-5.6	91,037	5.6	18.9
1997	5,784	5.4	96,184	5.7	18.8
1998	5,393	-6.8	103,254	7.3	16.3
1999	6,367	18.1	108,427	5.0	18.4
2000	7,566	18.8	109,527	1.0	21.6
2001	6,600	-12.8	113,800	3.9	18.2
2002	7,680	16.4	109,387	-3.9	22.0
2003	6,610	-13.9	113,494	3.8	18.2
2004	6,740	2.0	121,272	6.9	17.4
2005	7,450	10.5	128,035	5.6	18.2
2006	9,380	25.9	127,251	-0.6	23.1
2007	8,890	-5.2	114,622	-9.9	24.3
2008	8,360	-6.0	96,658	-15.7	27.1
2009	6,080	-27.3	70,566	-27.0	27.0
2010	6,170	1.5	70,323	-0.3	27.5
2011	6,270	1.6	72,127	2.6	27.2
2012	4,200	-33.0	78,458	8.8	16.8

\* Portland &amp; Masonry (excludes Puerto Rico)

Source: U.S. Geological Survey





**Table 40**  
**Portland Cement Shipments by Type of Customer\***

(Thousands of Metric Tons)

	2009		2010		2011	
	Quantity	% of Total	Quantity	% of Total	Quantity	% of Total
Ready-Mix Concrete	49,100	71.3	47,300	69.2	49,100	69.8
Concrete Product Manufacturers	8,570	12.4	7,980	11.7	8,040	11.4
Contractors	6,140	8.9	6,920	10.1	6,160	8.8
Building Material Dealers	2,210	3.2	2,480	3.6	2,430	3.5
Oil Well, Mining, and Waste	1,780	2.6	2,560	3.7	3,160	4.5
Government & Misc.	1,120	1.6	1,240	1.8	1,370	1.9
<b>Total Shipments</b>	<b>68,900</b>		<b>68,400</b>		<b>70,300</b>	

\*Includes imported cement and cement made from imported clinker. Excludes Puerto Rico.

Source: U.S. Geological Survey

**Table 41**  
**Portland Cement Shipped from U.S. Plants by Type of Product**

(Thousands of Metric Tons)

	2009		2010		2011	
	Quantity	% of Total	Quantity	% of Total	Quantity	% of Total
General Use and Moderate Heat (Types I and II)	54,900	79.7	53,500	78.2	54,500	77.5
High-Early Strength (Type III)	2,460	3.6	2,590	3.8	2,550	3.6
Sulfate-Resisting (Type V)	8,610	12.5	8,630	12.6	9,340	13.3
Block	167	0.2	154	0.2	147	0.2
Oil Well	846	1.2	1,300	1.9	1,750	2.5
White	577	0.8	638	0.9	635	0.9
Blended						
Portland Slag and Pozzolan	614	0.9	1,001	1.5	742	1.1
Portland Fly Ash and Other	682	1.0	567	0.8	593	0.8
Miscellaneous	27	0.0	30	0.0	26	0.0
<b>Total Shipments</b>	<b>68,900</b>		<b>68,400</b>		<b>70,300</b>	

\*Includes sales of imported cement. Excludes Puerto Rico.

Source: U.S. Geological Survey

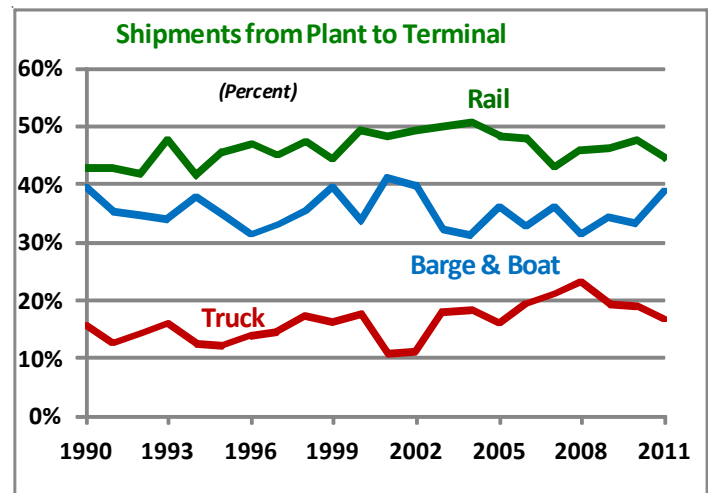
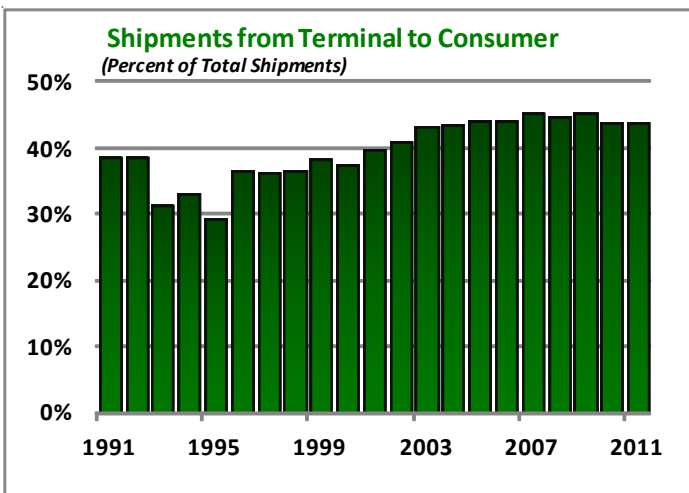


**Table 42**  
**Shipments of Portland Cement from Mills by Type of Carrier**

*(Percent Distribution)*

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Shipments to Ultimate Customer</b>											
Rail	2.1	1.9	2.0	1.8	1.7	2.1	2.3	2.5	2.9	3.1	1.8
Truck	97.8	98.1	98.1	97.4	97.6	97.5	97.3	97.1	97.1	96.6	96.9
Barge & Boat	0.2	0.2	0.2	1.2	0.1	0.5	0.2	0.4	0.1	0.3	1.3
Unspecified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Shipments from Plant to Terminal (Bulk only)</b>											
Rail	48.2	49.3	49.8	50.7	48.2	48.0	42.9	46.0	46.3	47.7	44.6
Truck	10.8	11.0	17.9	18.2	15.7	19.4	21.0	23.0	19.3	19.0	16.5
Barge & Boat	41.0	39.6	32.3	31.1	36.0	32.6	36.1	31.1	34.4	33.3	38.9
Unspecified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Percent of Total Shipments</b>											
Terminal to customer	43.2	43.6	44.0	44.3	45.5	44.9	45.2	43.9	44.0	41.2	5.1
Plant to customer	56.8	56.4	56.2	56.2	54.0	55.0	54.8	56.2	55.9	58.9	6.5

Source: U.S. Geological Survey





**Table 43**

**Summary of Energy Consumption**

(Thousands of BTUs per Equivalent Metric Ton\*)

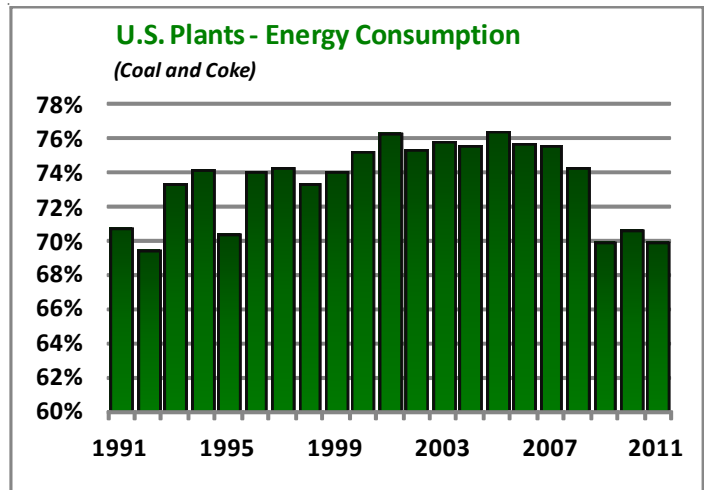
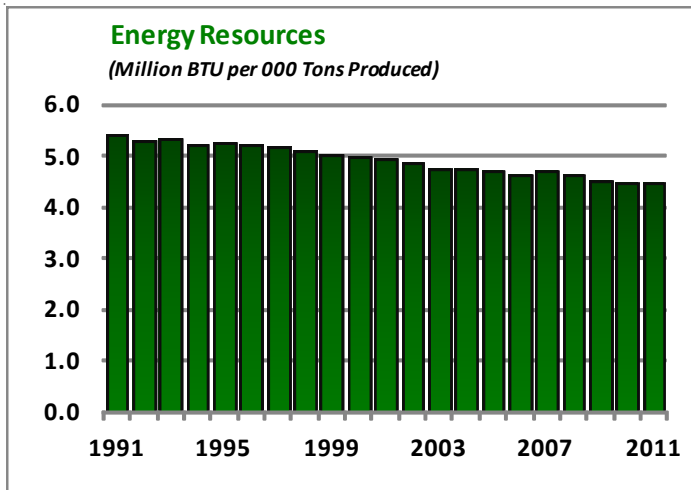
	1972	2007	2008	2009	2010	2011	2012 <sup>1</sup>	%Change	
								11/72	11/10
Gasoline	7.4	2.8	5.4	5.3	4.6	1.5	-	-79.7	-67.4
Middle Distillates**	88.3	36.5	41.7	44.1	40.1	42.7	-	-51.6	6.5
Diesel	-	-	-	-	-	32.0	-	-	-
Fuel Oil	-	-	-	-	-	10.7	-	-	-
Residual oil	808.9	4.2	4.2	9.6	8.6	-	-	-	-
LPG	1.4	0.8	0.7	0.8	0.8	0.6	-	-57.1	-25.0
<b>Total Petroleum Products</b>	<b>906.0</b>	<b>44.3</b>	<b>52.0</b>	<b>59.8</b>	<b>54.1</b>	<b>44.8</b>	-	<b>-95.1</b>	<b>-17.2</b>
Natural gas	3,347.1	140.9	120.1	170.3	129.9	173.5	-	-94.8	33.6
Coal	2,639.0	2,668.9	2,601.3	2,410.5	2,382.3	2,456.8	-	-6.9	3.1
Petroleum Coke	39.6	888.3	846.4	761.3	769.9	666.3	-	1,582.6	-13.5
<b>Total Coal and Coke</b>	<b>2,678.6</b>	<b>3,557.2</b>	<b>3,447.7</b>	<b>3,171.8</b>	<b>3,152.2</b>	<b>3,123.1</b>	-	<b>16.6</b>	<b>-0.9</b>
Alternative Fuel	-	438.3	495.2	578.6	592.3	612.9	-	-	3.5
<b>Total Fossil Fuels</b>	<b>6,931.7</b>	<b>4,180.7</b>	<b>4,115.0</b>	<b>3,980.5</b>	<b>3,928.5</b>	<b>3,953.9</b>	-	<b>-43.0</b>	<b>0.6</b>
Electricity	488.6	522.6	526.1	554.4	538.3	512.0	-	4.8	-4.9
<b>Total Fuel and Power</b>	<b>7,420.3</b>	<b>4,703.3</b>	<b>4,641.1</b>	<b>4,534.9</b>	<b>4,466.8</b>	<b>4,465.9</b>	-	<b>-39.8</b>	<b>0.0</b>

\* Equivalent Metric Ton=weighted average of 92%linker production plus 8%finished cement production

\*\*Collection of Diesel and Fuel Oil individually commenced in 2011

<sup>1</sup>Data to be released 4Q2013

Source: FCA U.S. and Canadian Labor-Energy Input Survey





**Table 44**  
**Alternative Fuels Utilized**

United States											
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 <sup>1</sup>
<b>Total Reporting Plants</b>	98	97	96	96	98	98	97	90	88	84	-
Plants using Alternative Fuel	55	56	62	64	65	64	66	63	64	62	-
<i>Percent</i>	56.1	57.7	64.6	66.7	67.0	65.3	68.0	70.0	72.8	73.8	-
<b>Types of Alternative Fuels Used*</b>											
Tire Derived Fuel	37	41	44	52	47	41	43	40	39	37	-
Waste Oil	10	13	16	16	15	15	18	18	16	11	-
Solvents	12	13	12	11	10	9	11	11	11	9	-
Other	23	22	28	36	40	39	42	43	45	49	-
Canada											
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 <sup>1</sup>
<b>Total Reporting Plants</b>	15	15	15	15	15	15	15	14	14	12	-
Plants using Alternative Fuel	7	7	8	8	8	8	8	8	9	6	-
<i>Percent</i>	46.7	46.7	53.3	53.3	53.3	53.3	53.3	57.0	64.3	50.0	-
<b>Types of Alternative Fuels Used*</b>											
Tire Derived Fuel	3	3	4	5	6	5	5	5	5	5	-
Waste Oil	5	5	5	5	5	5	5	5	5	4	-
Solvents	2	2	2	1	1	1	2	2	3	1	-
Other	7	4	5	5	8	5	8	8	8	6	-

\* Plants may use more than one type of alternative fuel

<sup>1</sup> Data to be released 4Q 2013

Source: PCA U.S. and Canadian Labor-Energy Input Survey

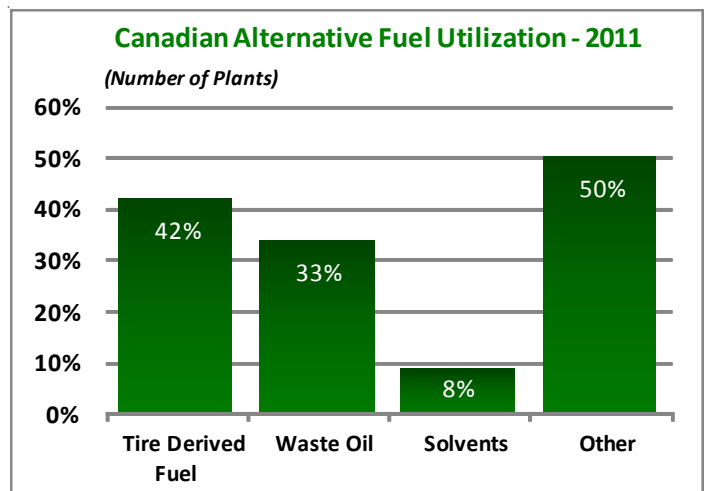
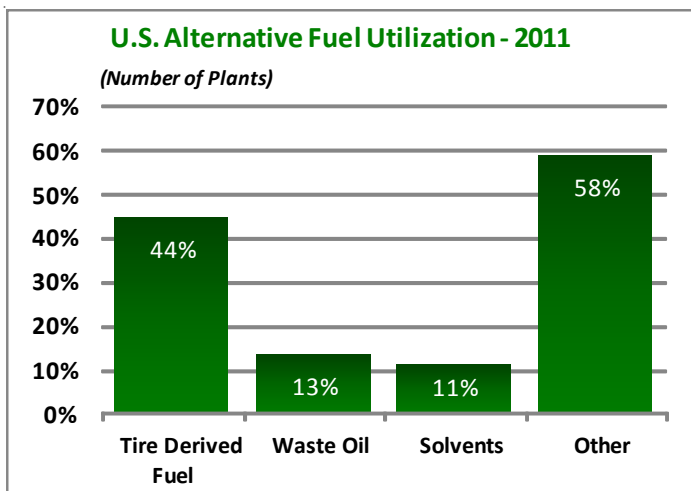




Table 45

**Fossil Fuel Mix***(% Distribution of BTUs Consumed)*

	1972	2004	2005	2006	2007	2008	2009	2010	2011	2012 <sup>1</sup>
Coal and Coke	36.1	75.9	75.4	75.7	75.6	74.3	69.9	70.6	69.9	-
Natural Gas	45.1	3.1	3.6	3.3	3.0	2.6	3.8	2.9	3.9	-
Petroleum Products	12.2	0.9	0.8	0.9	0.9	1.1	1.3	1.2	1.0	-
Electricity	6.6	10.7	11.0	11.1	11.1	11.3	12.8	12.1	11.5	-
Alternative Fuels	0.0	9.4	9.2	9.0	9.4	10.7	12.2	12.2	13.7	-
<b>Total Fuel</b>	100	100	100	100	100	100	100	100	100	-

<sup>1</sup>Data to be released 4Q 2013

Source: PCA U.S. and Canadian Labor-Energy Input Survey

Table 46

**Energy Consumption by Process***(Thousands of BTUs per Equivalent Metric Ton\*)*

	1972	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 <sup>1</sup>	%Change		
												11/72	11/10	
<b>Fuel and Electricity</b>														
All Plants	7,438	4,763	4,755	4,699	4,649	4,703	4,641	4,535	4,467	4,466	-	-40	0	
Wet-Process Plants	7,998	6,647	6,807	6,387	6,464	6,485	6,448	6,359	6,714	7,042	-	-12	5	
Dry-Process Plants	6,895	4,434	4,407	4,433	4,375	4,434	4,384	4,383	4,318	4,317	-	-37	0	
<b>Fuel</b>														
All Plants	6,931	4,240	4,245	4,180	4,131	4,181	4,115	3,980	3,928	3,954	-	-43	1	
Wet-Process Plants	7,498	6,135	6,291	5,879	5,949	5,979	5,935	5,823	6,196	6,561	-	-12	6	
Dry-Process Plants	6,393	3,909	3,899	3,913	3,856	3,909	3,856	3,827	3,779	3,804	-	-40	1	
<b>Electricity (kWh per Equivalent Metric Ton)</b>														
All Plants	143	153	149	152	152	153	155	162	158	150	-	5	-5	
Wet-Process Plants	142	150	151	149	151	148	150	157	152	141	-	-1	-7	
Dry-Process Plants	142	154	149	153	152	154	156	163	158	151	-	6	-4	

\*Equivalent Metric Ton=weighted average of 92%clinker production plus 8%finished cement production

<sup>1</sup>Data to be released 4Q 2013

Source: PCA U.S. and Canadian Labor-Energy Input Survey



**Table 47**  
**Resources Used in Producing Cement<sup>1</sup>**

(Per Thousand Metric Tons of Cement Production)

Year	Material (metric tons)	Energy* (million BTUs per ton)	Labor** (Tons per Hour)
1990	1,600	5,321	2.23
1991	1,593	5,417	2.08
1992	1,596	5,294	2.18
1993	1,560	5,315	2.19
1994	1,545	5,204	2.31
1995	1,626	5,261	2.35
1996	1,593	5,201	2.39
1997	1,577	5,171	2.47
1998	1,604	5,107	2.49
1999	1,634	5,040	2.53
2000	1,619	4,982	2.54
2001	1,629	4,930	2.58
2002	1,678	4,858	2.78
2003	1,595	4,762	2.88
2004	1,624	4,755	2.96
2005	1,608	4,699	2.96
2006	1,645	4,640	2.97
2007	1,635	4,703	2.91
2008	1,626	4,641	2.71
2009	1,568	4,535	2.38
2010	--	4,467	2.66
2011	--	4,466	2.86
2012 <sup>2</sup>	--	--	--
<b>Percent Change</b>	--	0.0%	7.5%

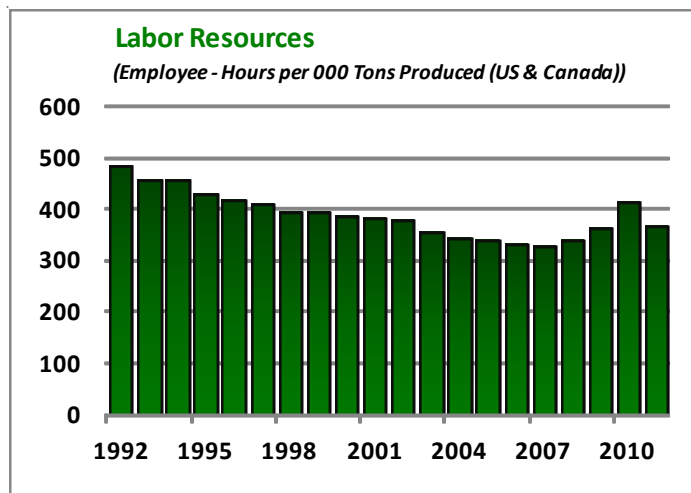
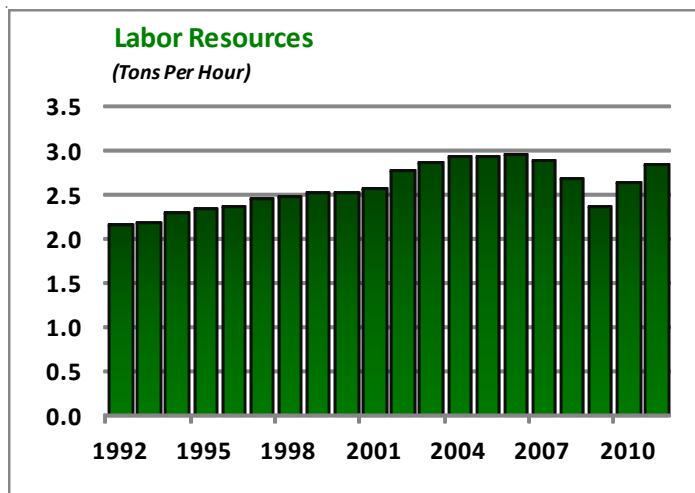
<sup>1</sup>Portland and Masonry

<sup>2</sup>Data to be released 4Q 2013

\* Equivalent Energy Ton = weighted average of 92% clinker production plus 8% finished cement production

\*\*Equivalent Labor Ton = weighted average of 85% clinker production plus 15% finished cement production

Source: PCA U.S. and Canadian Labor-Energy Input Survey, U.S. Geological Survey







**Table 48**  
**U.S. Cement Industry Employment**

(Thousands)

Year	All Employees	Production Workers	Cement * per Employee	Cement* per Production Worker
1970	28.80	24.30	2.38	2.82
1975	28.70	22.80	2.21	2.78
1980	30.40	24.20	2.29	2.88
1985	21.20	15.90	3.95	5.26
1988	18.60	14.20	4.51	5.91
1989	16.90	13.00	4.86	6.32
1990	17.29	13.40	4.67	6.03
1991	16.88	12.20	4.24	5.87
1992	16.44	12.80	4.63	5.94
1993	16.40	12.50	4.85	6.37
1994	16.53	12.40	5.17	6.89
1995	16.43	12.60	5.24	6.84
1996	16.24	12.50	5.60	7.28
1997	16.20	12.50	5.94	7.69
1998	16.51	12.71	6.26	8.12
1999	16.67	12.85	6.51	8.44
2000	16.88	12.73	6.49	8.60
2001	16.82	12.73	6.76	8.94
2002	16.44	13.18	6.65	8.30
2003	16.46	12.97	6.90	8.75
2004	16.24	12.77	7.47	9.50
2005	16.86	12.68	7.60	10.10
2006	17.01	13.22	7.48	9.63
2007	17.48	13.37	6.56	8.57
2008	17.29	13.69	5.59	7.06
2009	15.44	10.81	4.57	6.53
2010	13.65	9.55	5.15	7.36
2011	13.47	9.11	5.36	7.92

\* Portland + Masonry

Source: Annual Survey of Manufacturers/U.S. Census (NAICS 327310)

**Table 49**  
**U.S. Cement Industry Financial Statistics**

(Median Results Cement Operations)

	2005	2006	2007	2008	2009	2010	2011	2012	Industry Total 2012
Gross Margin (%)	25.5	31.4	32.1	24.7	15.8	8.5	6.7	10.5	14.3
Operating Profit (%)	20.9	25.9	25.0	19.9	10.6	1.1	-3.7	5.2	7.2
Operating Profit (\$/ton)	18.00	26.50	26.40	20.30	10.20	1.00	-3.30	4.50	7.50
Annual Capital Expenditures (% of sales)	9.3	7.2	8.2	8.0	7.4	4.2	3.9	6.2	6.7

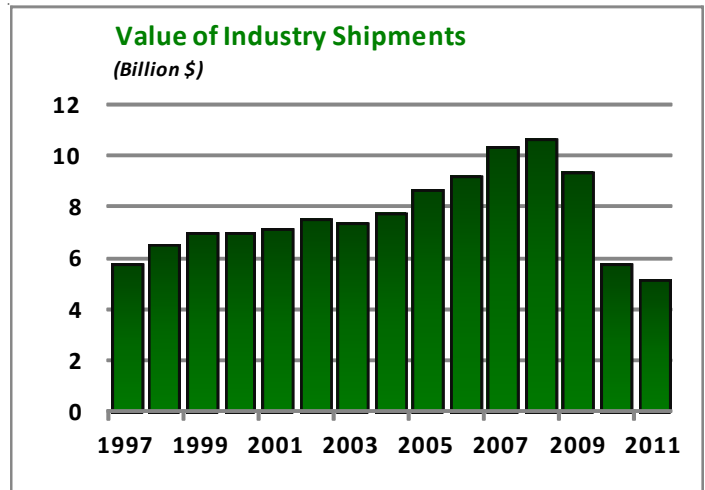
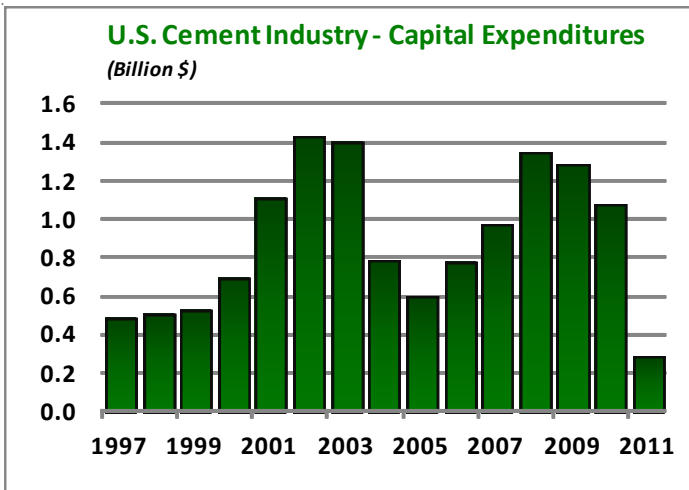
Source: PCA Financial Benchmarking Survey



**Table 50**  
**Cement Industry Operating Statistics**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>Value of Shipments (\$ Billion)</b>	7.16	7.57	7.41	7.78	8.72	9.25	10.34	10.67	9.25	5.75	5.21	5.34
<b>Labor</b>												
Employment (000)	17.2	17.2	17.7	17.4	16.9	16.7	17.1	17.9	18.2	14.3	13.0	12.4
Payroll (\$ Million)	829.5	860.5	890.5	902.4	930.2	956.2	978.6	1081.0	1108.0	861.1	813.2	767.4
<b>Energy (\$ Million)</b>												
Purchased Fuel & Power	999.7	1079.9	1114.9	1160.5	1257.1	1425.3	1608.8	1677.0	1668.5	1046.3	1098.8	1144.3
Fuel	507.7	532.2	565.9	570.3	626.2	723.2	841.3	870.3	869.1	520.9	556.7	619.2
Power	492.0	547.7	549.0	590.2	630.9	702.1	767.5	806.7	799.4	525.4	542.1	525.1
NonEnergy Material	1590.0	1644.6	1806.3	1819.7	1855.5	1952.1	2146.8	2414.8	2223.3	1085.4	1326.6	1098.2
<b>Investment (\$ Million)</b>												
New Capital Expenditures	1108.0	1430.0	1404.4	792.7	602.4	783.6	966.1	1347.2	1281.1	1076.1	790.3	293.4
Buildings	287.7	236.1	184.5	180.9	67.7	95.7	86.7	96.7	129.3	39.0	52.7	45.6
Equipment	820.3	1193.9	1116.4	611.8	534.8	687.9	879.4	1250.6	1151.8	1037.1	737.7	247.8
<b>Key Ratios - Percent of Shipments (%)</b>												
Payroll	11.6	11.4	12.0	11.6	10.7	10.3	9.5	10.1	11.9	14.9	15.6	14.4
Purchased Fuel and Power	14.0	14.3	15.1	14.9	14.4	15.4	15.6	15.7	18.0	18.2	21.1	21.4
NonEnergy Materials	22.2	21.7	24.4	23.4	21.3	21.1	20.8	22.6	24.0	18.9	25.5	20.6

Source: Annual Survey of Manufacturers





**Table 51**  
**Canadian Construction and Economic Activity**

Year	Construction (Billions \$2002)	Real GDP (Billions \$2002)	Ratio Construction % of GDP	Ratio of Cement* % of Construction (Tons per \$Million)	Ratio of Cement* % of GDP (Tons per \$Million)
1992	94.2	765.1	12.3	71.0	8.74
1993	92.5	783.8	11.8	71.6	8.45
1994	99.3	819.1	12.1	72.5	8.79
1995	92.6	840.5	11.0	75.1	8.27
1996	94.4	852.5	11.1	76.9	8.52
1997	104.8	888.2	11.8	72.8	8.59
1998	103.4	922.6	11.2	73.6	8.25
1999	107.0	974.4	11.0	74.8	8.22
2000	110.7	1,026.2	10.8	72.8	7.85
2001	120.1	1,040.9	11.5	68.2	7.86
2002	125.3	1,068.8	11.7	65.7	7.70
2003	131.3	1,091.4	12.0	65.9	7.93
2004	140.7	1,125.0	12.5	64.5	8.07
2005	150.6	1,158.7	13.0	62.6	8.13
2006	159.8	1,191.4	13.4	59.8	8.03
2007	164.8	1,219.0	13.5	59.6	8.06
2008	172.5	1,229.8	14.0	55.7	7.83
2009	152.0	1,193.2	12.7	52.4	6.67
2010	167.6	1,233.9	13.6	52.4	7.11
2011	175.3	1,266.6	13.8	51.0	7.06
2012	188.9	1,295.1	14.6	50.0	7.30

\*Portland and Masonry

Note: Dollar amounts stated in Canadian Dollars

Source: Statistics Canada

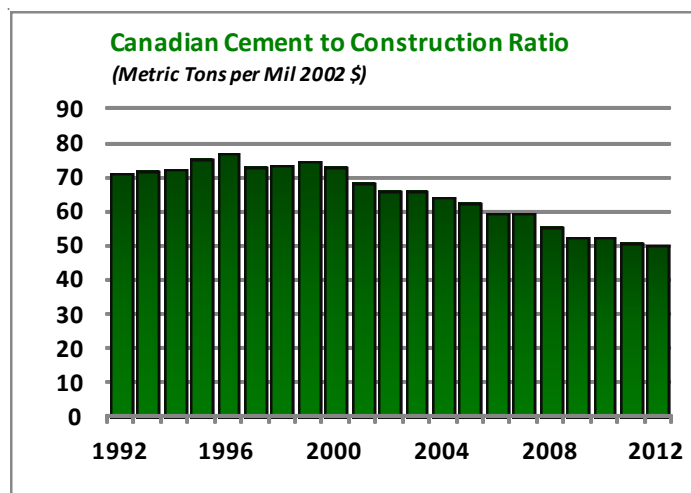
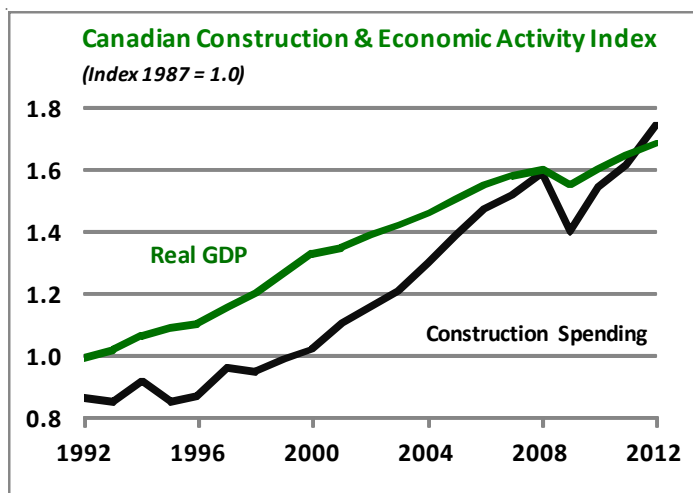




Table 52

## Canadian Cement Industry Consumption - Exports - Imports - Shipments

(Thousands of Metric Tons)

Year	Consumption			Cement Exports	Cement Imports	Total Shipments by Domestic Producers
	Portland Cement	Masonry Cement	Total			
1992	6,494	189	6,683	2,353	551	8,485
1993	6,445	177	6,622	3,096	527	9,191
1994	7,012	186	7,198	3,803	534	10,467
1995	6,766	162	6,928	3,831	598	10,161
1996	7,102	161	7,263	4,339	610	10,992
1997	7,431	196	7,627	4,331	658	11,300
1998	7,411	203	7,614	4,300	598	11,316
1999	7,795	214	8,009	4,287	622	11,674
2000	8,051	220	8,271	4,102	643	11,730
2001	8,186	226	8,413	4,462	760	12,115
2002	8,235	241	8,476	4,448	783	12,141
2003	8,651	249	8,901	4,636	770	12,767
2004	9,084	243	9,328	5,119	690	13,757
2005	9,190	235	9,425	5,119	717	13,827
2006	9,349	215	9,564	4,398	640	13,322
2007	9,621	202	9,823	4,929	910	13,842
2008	9,400	208	9,607	3,674	1,033	12,248
2009	7,799	163	7,962	2,958	951	9,968
2010	8,603	179	8,782	2,927	1,216	10,493
2011	8,783	162	8,945	2,893	1,502	10,335
2012	9,297	159	9,456	3,066	1,460	11,062

Source: Statistics Canada

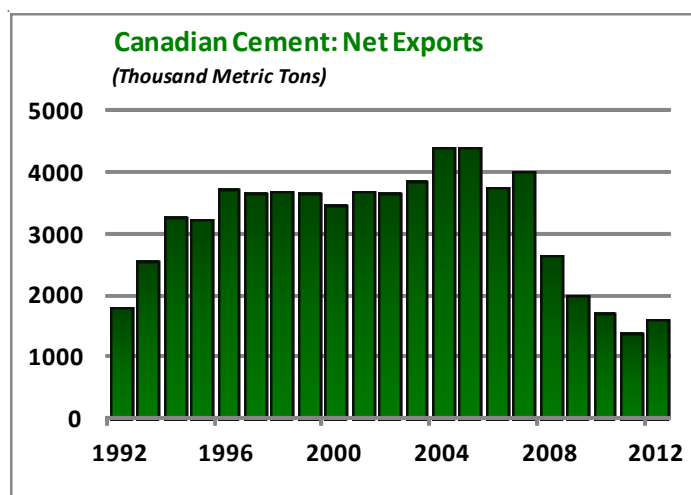
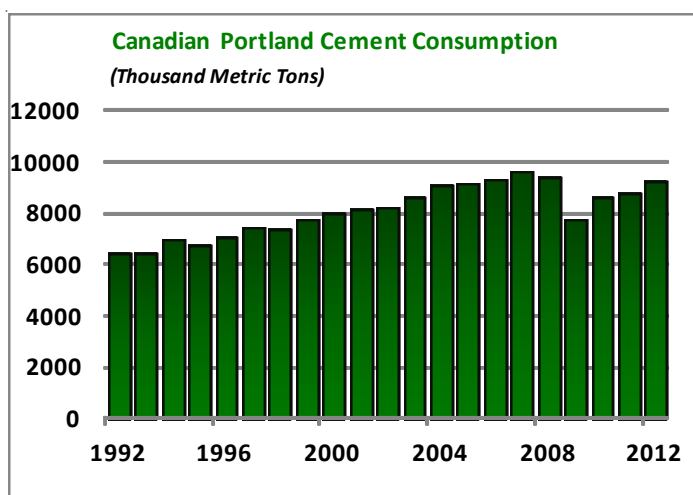




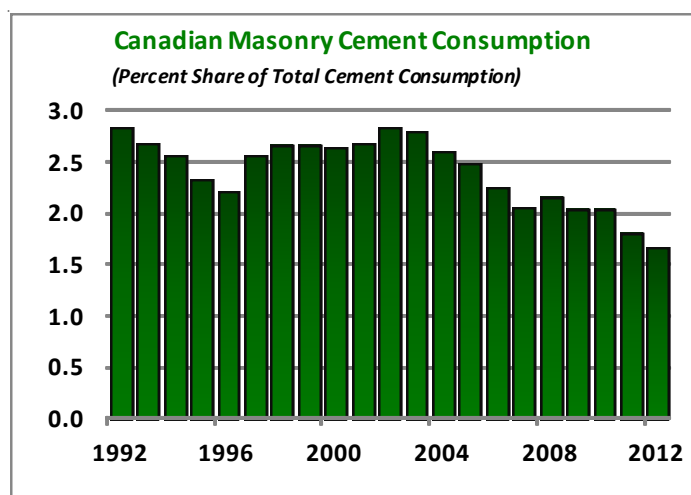
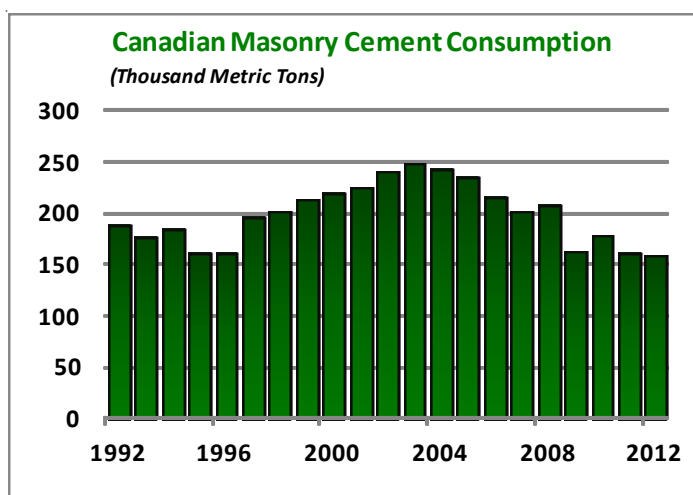
Table 53

## Canadian Cement Industry Consumption - Exports - Imports - Shipments

(Year-Year % Change)

Year	Consumption			Cement Exports	Cement Imports	Total Shipments by Domestic Producers
	Portland Cement	Masonry Cement	Total			
1992	-4.1	-10.8	-4.3	-11.8	7.4	-7.1
1993	-0.8	-6.4	-0.9	31.6	-4.4	8.3
1994	8.8	4.7	8.7	22.8	1.3	13.9
1995	-3.5	-12.6	-3.7	0.7	12.0	-2.9
1996	5.0	-0.9	4.8	13.3	2.0	8.2
1997	4.6	22.1	5.0	-0.2	7.9	2.8
1998	-0.3	3.3	-0.2	-0.7	-9.1	0.1
1999	5.2	5.3	5.2	-0.3	4.0	3.2
2000	3.3	2.9	3.3	-4.3	3.4	0.5
2001	1.7	3.0	1.7	8.8	18.2	3.3
2002	0.6	6.5	0.7	-0.3	3.0	0.2
2003	5.1	3.3	5.0	4.2	-1.7	5.2
2004	5.0	-2.3	4.8	10.4	-10.4	7.8
2005	1.2	-3.3	1.0	0.0	3.9	0.5
2006	1.7	-8.5	1.5	-14.1	-10.7	-3.7
2007	2.9	-6.3	2.7	12.1	42.2	3.9
2008	-2.3	2.9	-2.2	-25.5	13.5	-11.5
2009	-17.0	-21.6	-17.1	-19.5	-7.9	-18.6
2010	10.3	10.0	10.3	-1.0	27.8	5.3
2011	2.1	-9.7	1.9	-1.2	23.5	-1.5
2012	5.9	-1.9	5.7	6.0	-2.8	7.0

Source: Statistics Canada (Calculated from Table 52)





**Table 54**  
**Alternative Measures of Cement Usage Intensity**

Year	Construction \$ per Capita (\$000)	Portland Cement Consumption per Capita (Metric Tons)	Portland Cement Consumption per thousand Construction \$ (Metric Tons)	Portland Cement Consumption per Construction Worker (Metric Tons)
1992	3.326	0.229	0.069	9.100
1993	3.230	0.225	0.070	9.310
1994	3.429	0.242	0.071	9.680
1995	3.163	0.231	0.073	9.320
1996	3.193	0.240	0.075	10.010
1997	3.508	0.249	0.071	10.300
1998	3.432	0.246	0.072	10.120
1999	3.525	0.257	0.073	9.974
2000	3.611	0.263	0.073	9.993
2001	3.878	0.264	0.068	9.573
2002	4.001	0.263	0.066	9.538
2003	4.157	0.274	0.066	9.519
2004	4.412	0.285	0.065	9.052
2005	4.675	0.285	0.061	8.767
2006	4.913	0.287	0.058	8.513
2007	5.010	0.293	0.058	7.641
2008	5.187	0.283	0.054	7.630
2009	4.515	0.232	0.051	6.719
2010	4.922	0.253	0.051	7.062
2011	5.090	0.255	0.050	6.958
2012	5.425	0.267	0.049	7.336

Source: PCA/Statistics Canada

**Table 55**  
**Canadian Construction Spending**

(Billions \$2002)

Year	Total	Residential	Nonresidential	Engineering
1992	94.2	39.9	23.1	31.2
1993	92.5	38.6	20.8	33.1
1994	99.3	40.3	21.6	37.4
1995	92.6	34.2	20.9	37.4
1996	94.4	36.7	22.8	35.0
1997	104.8	40.9	22.9	41.0
1998	103.4	39.8	23.7	39.9
1999	107.0	41.0	26.0	40.0
2000	110.7	43.7	24.1	42.8
2001	120.1	48.1	24.9	47.1
2002	125.3	55.3	27.2	42.8
2003	131.3	58.7	26.4	46.3
2004	140.7	63.2	27.4	50.1
2005	150.6	65.3	27.0	58.3
2006	159.8	67.3	29.0	63.6
2007	164.8	69.4	28.3	67.1
2008	172.5	69.3	30.2	73.1
2009	152.0	62.7	29.2	60.1
2010	167.6	70.7	29.6	67.3
2011	175.3	71.9	29.6	73.7
2012	188.9	78.4	30.8	79.7
<b>Percent Change</b> 2012 / 2011	7.8%	9.1%	3.9%	8.1%

Source: Statistics Canada



**Table 56**  
**Canadian Cement and Clinker Exports**

(Thousands of Metric Tons)

Year	Clinker	Finished Cement*	Total
1992	988	2,353	3,341
1993	883	3,096	3,979
1994	981	3,803	4,784
1995	1,330	3,831	5,161
1996	1,253	4,339	5,592
1997	1,019	4,331	5,350
1998	1,658	4,300	5,958
1999	1,237	4,287	5,524
2000	806	4,102	4,908
2001	661	4,462	5,123
2002	681	4,448	5,129
2003	981	4,636	5,617
2004	639	5,119	5,758
2005	740	4,737	5,477
2006	608	4,398	5,006
2007	577	4,929	5,506
2008	534	3,674	4,209
2009	490	2,958	3,448
2010	501	2,927	3,428
2011	532	2,893	3,424
2012	674	3,066	3,740

\*Portland + Masonry

Source: Statistics Canada - International Trade Division

**Table 57**  
**Canadian Cement and Clinker Exports**

(Metric Tons)

By Country	2011	2012
United States	3,416,184	3,710,542
Caribbean	3,042	19,080
Other	3,184	6,194
Europe	721	615
South America	831	2,174
Asia	182	598
Middle East	39	0
<b>Total</b>	<b>3,424,183</b>	<b>3,739,203</b>

Source: Statistics Canada - International Trade Division

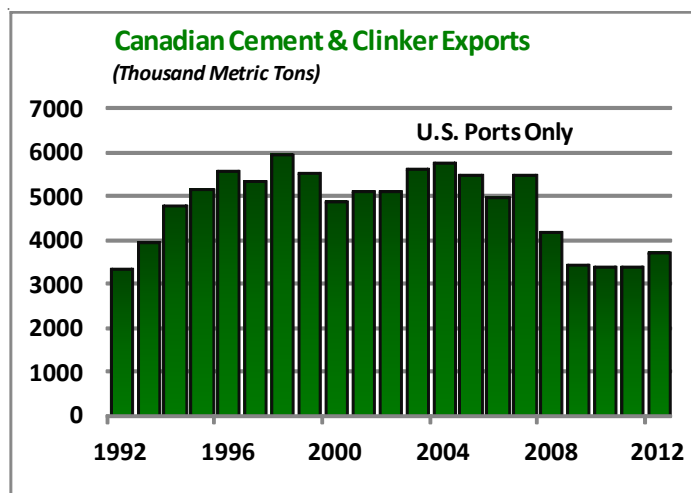
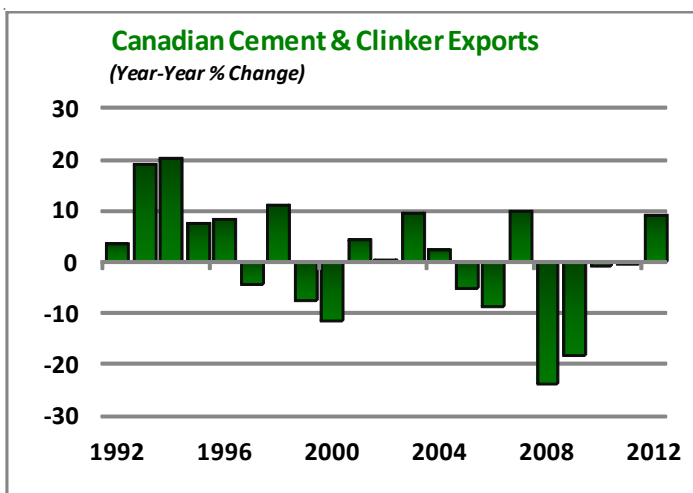




Table 58

## Canadian Cement and Clinker Imports by Source Country

(Metric Tons)

Clinker	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Belgium	-	-	-	-	-	-	-	-	-	-
Bermuda	-	-	-	-	-	-	-	-	-	-
China	-	-	-	3,346	41,274	31,175	1,252	29,185	3,731	19,327
France	-	-	-	-	-	-	-	-	-	-
Germany	-	-	16,650	-	-	1	-	-	-	-
Lebanon	-	-	-	-	-	-	-	-	-	-
Mexico	-	-	-	-	-	-	-	-	-	-
Spain	-	-	-	-	-	-	-	-	-	-
Thailand	-	-	-	-	-	-	-	-	-	-
Turkey	18,915	90,506	22,977	-	-	-	-	-	-	-
United States	5,729	1,705	1,794	3,666	2,207	2,385	7,721	3,996	10,213	7,498
Venezuela	-	-	-	-	-	-	-	-	-	-
Other	29,910	2,201	23,698	-	42	-	-	52,555	1	6
<b>Total Clinker</b>	<b>54,554</b>	<b>94,412</b>	<b>65,119</b>	<b>7,012</b>	<b>43,523</b>	<b>33,561</b>	<b>8,973</b>	<b>85,736</b>	<b>13,945</b>	<b>26,831</b>
<b>Finished Cement<sup>1</sup></b>										
Belgium	-	-	-	-	-	3	-	-	18	-
Bermuda	-	-	-	-	-	-	-	-	-	-
China	318	210	437	7,581	41,220	80,739	65,069	87,460	150,281	153,371
Colombia	1	-	-	-	-	-	-	-	-	-
Croatia	4,336	3,839	4,562	3,454	2,455	1,452	1,856	1,709	2,069	2,460
Denmark	354	521	297	388	446	386	308	256	169	437
France	820	741	485	382	210	156	826	620	360	54
Germany	538	696	592	376	455	41	151	1,006	2,751	156
Italy	29	14	-	-	2	44	25	22	3	1
Japan	1,355	123	630	324	635	918	360	939	5,988	931
Korea, South	2	3	20	786	1,852	132,075	44,000	48,250	216,672	-
Lebanon	-	-	-	-	-	-	1	2	556	-
Mexico	347	267	106	320	414	1,052	363	354	1,009	154
Netherlands	232	306	63	55	68	100	20	-	53	-
South Africa	286	17	81	45	108	20	10	-	-	-
Spain	-	-	16	-	1	-	-	-	-	-
Sweden	-	-	-	2	3	-	-	222	313	981
Switzerland	1	-	-	-	-	-	-	20	1	-
Taiwan	43,932	1	3,399	264	3,302	109	8	11	21	-
Thailand	1,868	36,743	94,449	107,356	188,956	2	98,507	147,720	2	9
Turkey	-	-	-	-	22	-	-	24	-	-
United Arab Emirate	228	406	54	-	-	-	-	4	15	-
United Kingdom	2,146	2,365	478	678	490	49	64	53	89	60
United States	713,131	634,141	610,990	518,515	669,281	816,036	730,608	841,005	1,116,023	1,123,295
Other	228	9,496	71	-	152	283	218	312	5,440	1,188
<b>Total Cement</b>	<b>770,152</b>	<b>689,889</b>	<b>716,730</b>	<b>640,526</b>	<b>910,072</b>	<b>1,033,465</b>	<b>942,394</b>	<b>1,129,989</b>	<b>1,501,833</b>	<b>1,283,097</b>
<b>Total Cement &amp; Clinker Imports</b>	<b>824,706</b>	<b>784,301</b>	<b>781,849</b>	<b>647,538</b>	<b>953,595</b>	<b>1,067,026</b>	<b>951,367</b>	<b>1,215,725</b>	<b>1,515,778</b>	<b>1,309,928</b>

<sup>1</sup> Category includes white cement, portland cement, aluminous, hydraulic masonry, hydraulic oilwell, hydraulic slag, hydraulic supersulfate, and all other hydraulic cement

Source: Statistics Canada - International Trade Division





**Table 59**  
**Cement and Clinker Imports by Province**

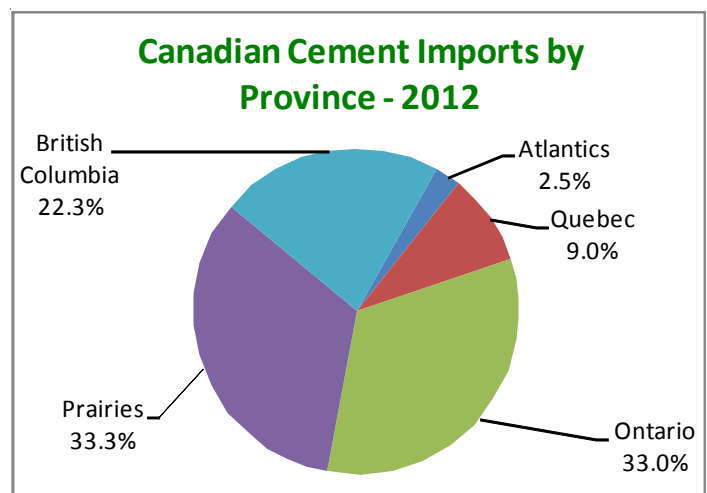
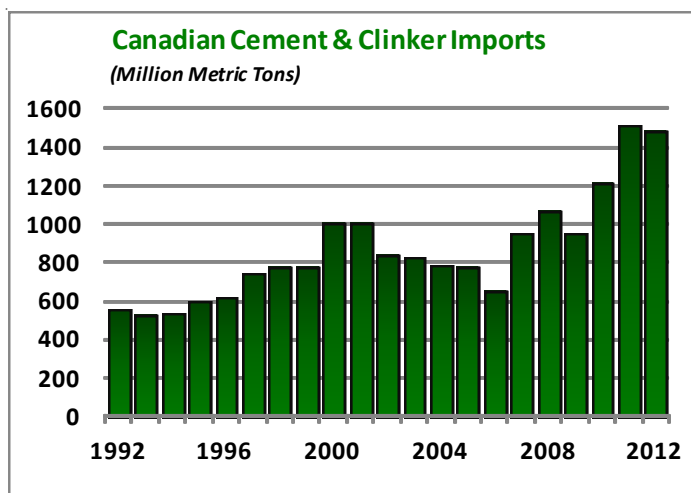
(Metric Tons)

Clinker	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Nova Scotia	-	-	-	-	-	-	-	-	-	-
New Brunswick	-	-	-	-	-	-	-	-	-	-
Quebec	48,825	92,706	63,110	1,526	4,577	919	5	53,063	21	371
Ontario	5,564	455	749	2,870	32,252	22,917	1,391	22,082	588	1,467
Manitoba	6	-	-	-	3,561	8,969	7,455	8,539	9,936	12,619
Saskatchewan	-	-	-	-	866	377	-	-	-	472
Alberta	-	146	-	-	-	27	91	2,039	3,384	11,195
British Columbia**	159	1,105	1,260	2,616	2,267	352	31	13	16	707
<b>Total Clinker</b>	<b>54,554</b>	<b>94,412</b>	<b>65,119</b>	<b>7,012</b>	<b>43,523</b>	<b>33,561</b>	<b>8,973</b>	<b>85,736</b>	<b>13,945</b>	<b>26,831</b>
<b>Finished Cement<sup>(1)</sup></b>										
Prince Edward Is.	-	-	-	-	-	-	-	-	-	-
Newfoundland	134	-	-	-	2	-	-	-	51	2,229
Nova Scotia	18	662	18	30	128	27	-	2	-	2
New Brunswick	12,156	15,086	24,681	10,499	14,878	35,128	14,948	17,514	60,270	33,626
Quebec	59,832	57,310	139,924	148,460	236,214	174,678	174,006	234,314	263,894	131,497
Ontario	302,888	291,262	214,039	178,964	202,471	336,061	297,733	295,440	491,953	481,645
Manitoba	6,567	4,400	1,760	3,228	12,314	12,146	3,798	6,987	16,021	13,831
Saskatchewan	3,636	4,813	5,492	1,206	1,899	1,454	774	1,234	15,974	11,499
Alberta	258,805	215,032	257,543	230,120	342,474	310,093	307,384	336,911	378,066	460,753
British Columbia**	126,116	101,324	73,273	68,019	99,692	163,878	143,751	237,587	275,604	324,906
<b>Total Cement**</b>	<b>770,152</b>	<b>689,889</b>	<b>716,730</b>	<b>640,526</b>	<b>910,072</b>	<b>1,033,465</b>	<b>942,394</b>	<b>1,129,989</b>	<b>1,501,833</b>	<b>1,459,988</b>
<b>Total Cement &amp; Clinker Imports</b>	<b>824,706</b>	<b>784,301</b>	<b>781,849</b>	<b>647,538</b>	<b>953,595</b>	<b>1,067,026</b>	<b>951,367</b>	<b>1,215,725</b>	<b>1,515,778</b>	<b>1,486,819</b>

<sup>(1)</sup> Category includes white cement, portland cement, aluminous, hydraulic masonry, hydraulic oilwell, hydraulic slag, hydraulic supersulfate, and all other hydraulic cement.

\*\* Includes Yukon & NW Territories

Source: Statistics Canada - International Trade Division





**Table 60**  
**Provincial Grinding Capacity\***

(Thousands of Metric Tons)

Province	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Ontario	6,954	7,397	7,231	8,081	8,081	7,620	7,777	7,527	7,527	6,544	6,544	6,544
Quebec	4,037	4,203	4,203	4,203	4,479	4,719	4,719	3,825	3,825	4,079	4,079	4,079
British Columbia	2,165	2,999	2,697	2,679	2,679	3,487	3,487	3,487	3,487	2,898	2,898	2,898
Alberta	2,728	2,802	2,802	2,710	2,710	2,710	2,741	2,741	2,741	2,740	2,740	2,740
Nova Scotia	306	621	616	616	535	500	500	500	500	500	500	500
Manitoba	0	0	0	0	0	0	0	0	0	0	0	0
Newfoundland	0	0	0	0	0	0	0	0	0	0	0	0
Saskatchewan	0	0	0	0	0	0	0	0	0	0	0	0
New Brunswick	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>16,190</b>	<b>18,022</b>	<b>17,549</b>	<b>18,289</b>	<b>18,484</b>	<b>19,036</b>	<b>19,224</b>	<b>18,080</b>	<b>18,080</b>	<b>16,761</b>	<b>16,761</b>	<b>16,761</b>

\*Gray and white plants

After 2004, the Plant Information Summary became a biennial publication. Odd years thereafter are estimated

Source: PCA U.S. and Canadian Portland Cement Industry: Plant Information Summary

**Table 61**  
**Provincial Portland Cement Consumption**

(Thousands of Metric Tons)

Province	2002	Province	2012
Ontario	3,170	Ontario	3,183
Prairie Provinces	1,784	Prairie Provinces	2,447
Quebec	1,865	Quebec	2,285
B.C. & Territories	902	B.C. & Territories	930
Atlantic Provinces	513	Atlantic Provinces	452
<b>Total Canada</b>	<b>8,235</b>	<b>Total Canada</b>	<b>9,297</b>

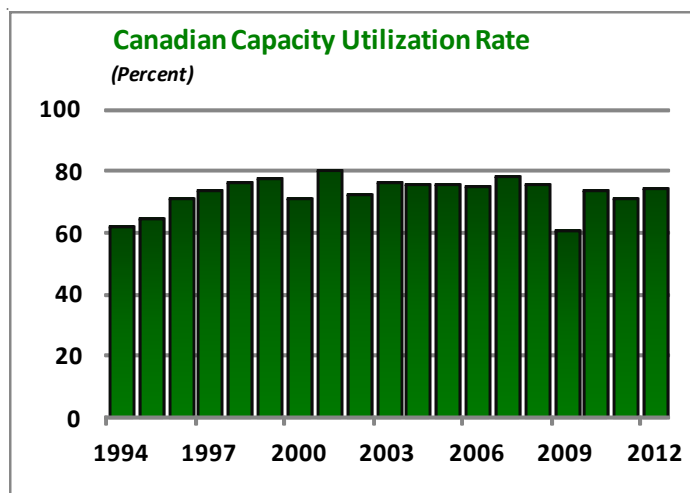
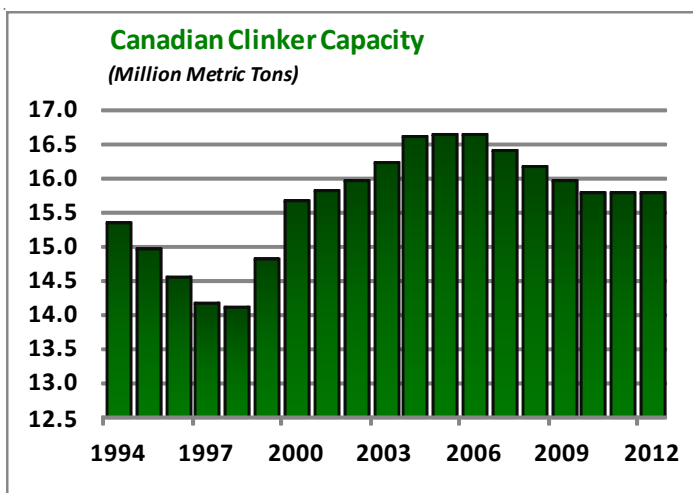
Source: Statistics Canada

**Table 62**  
**Growth of Provincial Portland Cement Consumption**

(Compound Annual Growth Rate, 1990 - 2011)

Province	
Atlantic Provinces	3.3
Ontario	0.7
Prairie Provinces	2.0
Quebec	1.6
British Columbia	-1.0
<b>Total Canada</b>	<b>1.7</b>

Source: Statistics Canada



**Table 63****Canadian Cement Production and Capacity***(Thousands of Metric Tons)*

Year	Cement <sup>(1)</sup> Production	Cement Capacity	Utilization Rate (%)
1996	11,587	16,237	71.4
1997	11,736	15,858	74.0
1998	12,124	15,838	76.6
1999	12,625	16,260	77.6
2000	12,612	17,605	71.6
2001	12,986	16,190	80.2
2002	13,060	18,022	72.5
2003	13,425	17,549	76.5
2004	13,863	18,289	75.8
2005	14,179	18,709 *	75.8
2006	14,335	19,036	75.3
2007	15,078	19,193 *	78.6
2008	13,672	18,080	75.6
2009	10,985	18,080 *	60.8
2010	12,431	16,761	74.2
2011	12,001	16,761 *	71.6
2012	12,465	16,761 *	74.4

\* Estimated

<sup>(1)</sup> Portland and Masonry

Sources: PCA, Statistics Canada

**Table 64****Canadian Clinker Capacity\****(Thousands of Metric Tons)*

Year	Number of Plants	Number of Kilns	Average Kiln Capacity	Daily Clinker Capacity	Annual Clinker Capacity
1996	18	32	455	46.32	14,560
1997	17	30	473	45.35	14,170
1998	17	28	505	44.54	14,130
1999	17	27	549	46.44	14,830
2000	16	27	580	48.82	15,670
2001	16	27	587	49.40	15,840
2002	16	27	592	49.77	15,970
2003	16	27	601	49.85	16,230
2004	16	27	616	50.68	16,630
2005	16	27	621	50.78	16,663
2006	17	26	640	50.46	16,640
2007	17	26	642	50.24	16,414
2008	17	26	623	50.25	16,188
2009	17	26	614	49.56	15,966
2010	16	24	658	49.11	15,784
2011	16	24	658	49.11	15,784
2012	16	24	658	49.11	15,784

\* Years 2005, 2007, 2009, 2011 are estimates

Source: PCA U.S. and Canadian Portland Cement Industry: Plant Information Summary



**Table 65**  
**Age Distribution of Canadian Clinker Capacity by Process - 2012**

(Thousands of Metric Tons)

Age of Kilns	Wet Process	Dry Process
1951 - 1955	0.0	0.0
1956 - 1960	0.0	0.0
1961 - 1965	0.0	6.2
1966 - 1970	0.0	5.7
1971 - 1975	0.0	12.7
1976 - 1980	0.0	20.6
After 1980	0.0	55.0
<b>Total Clinker Capacity</b>	<b>0.0</b>	<b>15,784</b>

Source: PCA U.S. and Canadian Portland Cement Industry:

Plant Information Summary

**Table 66**  
**Canadian Cement Company Clinker Capacity - 2012**

(Thousands of Metric Tons)

Company	Clinker Capacity	Percent Industry
Lafarge Canada Inc.	4,983	31.6
St. Marys Cement Inc.	2,459	15.6
Lehigh Cement Company	2,339	14.8
Holcim Canada Inc.	2,276	14.4
Essroc Canada Inc.	1,325	8.4
Ciment Quebec Inc.	1,139	7.2
Federal White Cement	998	6.3
Colacem Canada Inc.	265	1.7
<b>Total Capacity</b>	<b>15,784</b>	<b>100.0</b>

Source: PCA U.S. and Canadian Portland Cement Industry:

Plant Information Summary

**Table 67**  
**Foreign Affiliated Canadian Clinker Capacity**

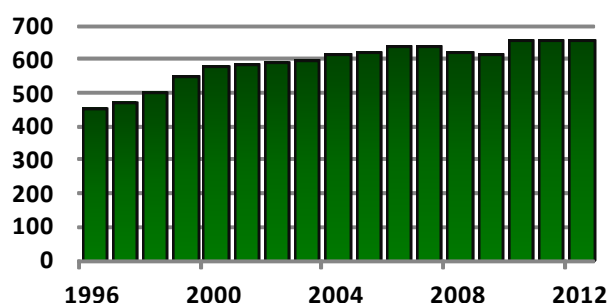
Company	Affiliation as of January 1, 2012	Country	Clinker Capacity on 12/31/12 (000 Metric Tons)
Ciment Quebec Inc.	Groupe Ciment Quebec	Canada/Italy	1,139
Colacem Canada Inc.	Colacem/Simard Beaudry	Italy	265
Essroc Canada Inc.	Italcementi Group	Italy	1,325
Lafarge Canada Inc.	Lafarge North America	France	4,983
Lehigh Cement Company	Heidelberg Cement	Germany	2,339
Holcim Canada Inc.	Holcim Group	Switzerland	2,276
St. Marys Cement Inc.	Votorantim Cimentos	Brazil	2,459
<b>Total:</b>			<b>14,786</b>
<b>Total Canadian Capacity:</b>			<b>15,784</b>
<b>Percent of Foreign Owned Canadian Clinker Capacity:</b>			<b>93.7</b>

Source: PCA U.S. and Canadian Portland Cement Industry:

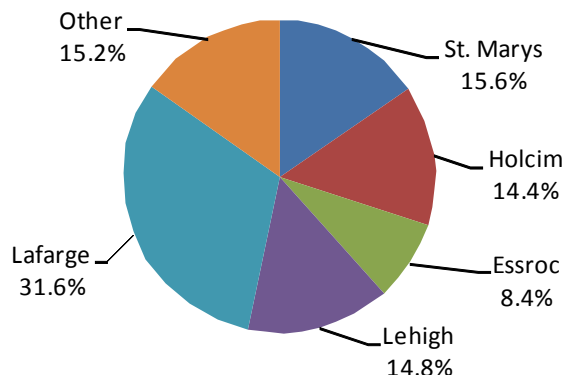
Plant Information Summary

**Average Canadian Kiln Capacity**

(Thousand Metric Tons)



**Top Five Canadian Cement Companies Share of Total Clinker Capacity - 2012**





**Table 68**  
**Summary of Energy Consumption**

(Thousand kJoules per Equivalent Metric Tonne\*)

	1974	2008	2009	2010	2011	2012	% Change	
							12/74	12/11
Gasoline	4.4	5.1	4.8	3.7	1.2	-	-	-
Middle distillates	40.1	18.3	22.0	21.9	17.4	-	-	-
Diesel	-	-	-	-	16.9	-	-	-
Fuel Oil	-	-	-	-	0.5	-	-	-
Residual Oil	2,226.1	35.5	38.7	23.3	-	-	-	-
LPG	3.5	1.1	2.1	2.1	1.7	-	-	-
<b>Total Petroleum Products</b>	<b>2,274.1</b>	<b>60.0</b>	<b>67.6</b>	<b>51.0</b>	<b>20.3</b>	-	-	-
Natural Gas	2,834.7	100.4	94.0	90.6	61.3	-	-	-
Coal	573.7	2,190.2	2,095.0	2,079.2	1,980.7	-	-	-
Petroleum Coke	44.5	1,168.3	1,251.8	1,070.8	1,219.2	-	-	-
<b>Total Coal and Coke</b>	<b>618.2</b>	<b>3,358.5</b>	<b>3,346.8</b>	<b>3,150.0</b>	<b>3,199.9</b>	-	-	-
<b>Alternative Fuels</b>	-	<b>403.7</b>	<b>435.1</b>	<b>392.4</b>	<b>386.1</b>	-	-	-
<b>Total Fuels</b>	<b>5,727.0</b>	<b>3,922.6</b>	<b>3,943.5</b>	<b>3,684.0</b>	<b>3,667.6</b>	-	-	-
Electricity	493.8	582.0	598.3	580.2	540.9	-	-	-
<b>Total Fuel and Power</b>	<b>6,220.8</b>	<b>4,504.6</b>	<b>4,541.8</b>	<b>4,264.2</b>	<b>4,208.5</b>	-	-	-

\* Equivalent Metric Tonne = weighted average of 92%clinker production plus 8%finished cement production

\*\*Collection of Diesel and Fuel Oil individually commenced in 2011

Source: PCA U.S. and Canadian Labor-Energy Input Survey

**Table 69**  
**Alternative Fuels Utilized**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Total Reporting Plants</b>	15	15	15	15	15	15	15	14	14	12	-
Plants reporting alternative fuels	7	7	8	8	8	8	8	8	9	6	-
Percent	46.7	46.7	53.3	53.3	53.3	53.3	53.3	57.1	64.3	50.0	-
<b>Types of Alternative Fuels Used*</b>											
Tire Derived	3	3	4	5	6	5	5	5	5	5	-
Waste Oil	5	5	5	5	5	5	5	5	5	4	-
Solvents	2	2	2	1	1	1	2	2	3	1	-
Other Solid	5	4	5	4	5	4	6	5	5	5	-
Other	2	0	0	1	3	1	2	3	3	1	-

\* Plants may use more than one type of alternative fuel.

Source: PCA U.S. and Canadian Labor-Energy Input Survey



**Table 70**  
**Canadian Fuel Consumption Mix**

(Percent Distribution of kJoules Used)

	1974	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Coal and Coke	9.9	68.1	69.7	73.5	76.7	77.8	76.0	74.6	73.7	73.9	76.0	-
Natural Gas	45.6	9.7	8.5	4.1	3.0	1.9	2.0	2.2	2.1	2.2	1.5	-
Petroleum Products	36.6	2.0	2.7	2.3	2.9	2.0	1.5	1.3	1.5	1.2	0.5	-
Electricity	7.9	12.2	11.7	12.0	11.7	12.3	12.4	12.9	13.2	13.6	12.8	-
Alternative Fuel	0.0	8.1	7.4	8.0	5.7	6.0	8.1	9.0	9.6	9.2	9.2	-
<b>Total Fuel (%)</b>	100	100	100	100	100	100	100	100	100	100	100	-

Source: PCA U.S. and Canadian Labor-Energy Input Survey

**Table 71**  
**Canadian Energy Consumption by Process**

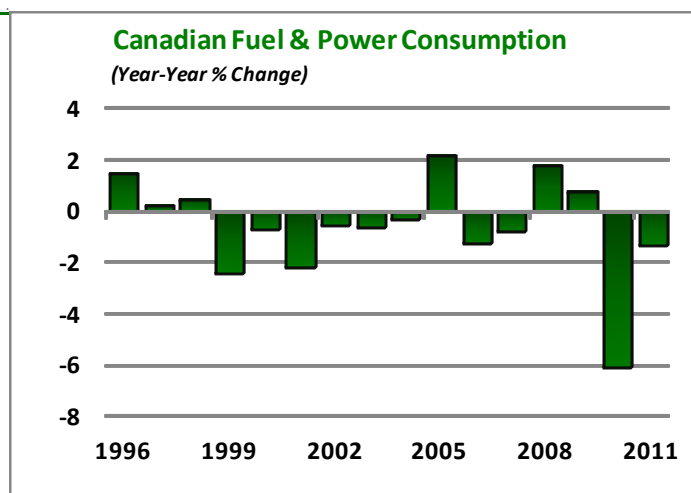
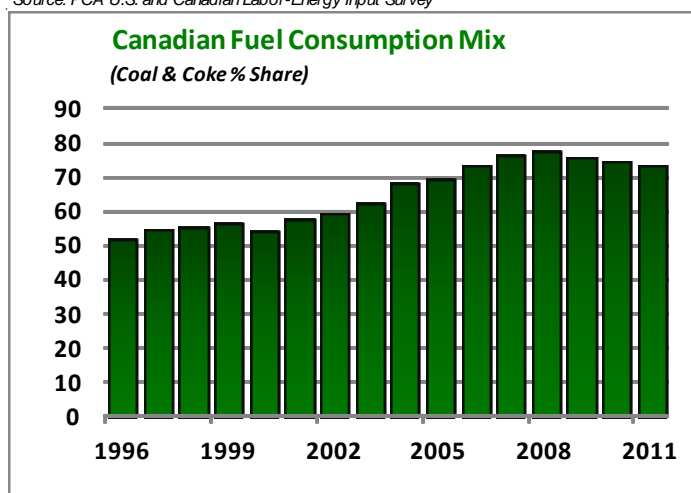
(Thousand kJoules per Equivalent Metric Tonne\*)

	1974	2008	2009	2010	2011	2012	% Change	
							12/74	12/11
<b>Fuel and Electricity</b>								
All Plants	6,221	4,505	4,541	4,264	4,208	-	-	-
Wet-Process Plants	6,972	(1)	(1)	(1)	(1)	-	-	-
Dry-Process Plants	5,632	4,484	4,541	4,264	4,208	-	-	-
<b>Fuel</b>								
All Plants	5,727	3,923	3,943	3,684	3,668	-	-	-
Wet-Process Plants	6,481	(1)	(1)	(1)	(1)	-	-	-
Dry-Process Plants	5,145	3,904	3,943	3,684	3,668	-	-	-
<b>Electricity</b>								
All Plants	494	582	598	580	540	-	-	-
Wet-Process Plants	491	(1)	(1)	(1)	(1)	-	-	-
Dry-Process Plants	487	580	598	580	540	-	-	-

\* Equivalent Metric Tonne=weighted average of 92%clinker production plus 8%finished cement production.

(1) Not available due to disclosure restrictions.

Source: PCA U.S. and Canadian Labor-Energy Input Survey





**Table 72**  
**Canadian Employment**

(000)

Year	Total Employment	%Change	Construction Employment	%Change	Cement & Concrete Employment*	%Change
1996	13,419	0.9	712	-2.1	19.5	2.5
1997	13,705	2.1	725	1.8	22.0	13.0
1998	14,047	2.5	736	1.5	23.7	7.5
1999	14,408	2.6	765	3.9	24.5	3.7
2000	14,766	2.5	807	5.5	26.5	8.0
2001	14,939	1.2	819	1.5	25.2	-5.0
2002	15,296	2.4	860	5.0	24.1	-4.2
2003	15,659	2.4	907	5.5	24.9	3.2
2004	15,927	1.7	954	5.2	24.7	-0.7
2005	16,128	1.3	1,015	6.4	24.6	-0.7
2006	16,412	1.8	1,066	5.0	26.9	9.6
2007	16,803	2.4	1,130	6.0	26.6	-1.1
2008	17,082	1.7	1,230	8.8	27.1	1.9
2009	16,814	-1.6	1,161	-5.6	26.0	-4.1
2010	17,045	1.4	1,218	4.9	27.3	5.0
2011	17,309	1.5	1,262	3.6	27.8	1.9
2012	17,489	1.0	1,267	0.4	28.3	1.9

\*Includes Cement, Ready Mix, Pipe-Brick-Block Manufacturing

Source: Statistics Canada

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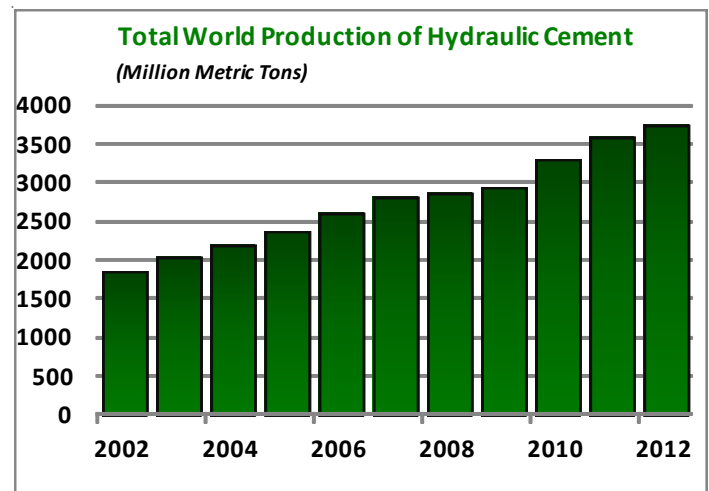
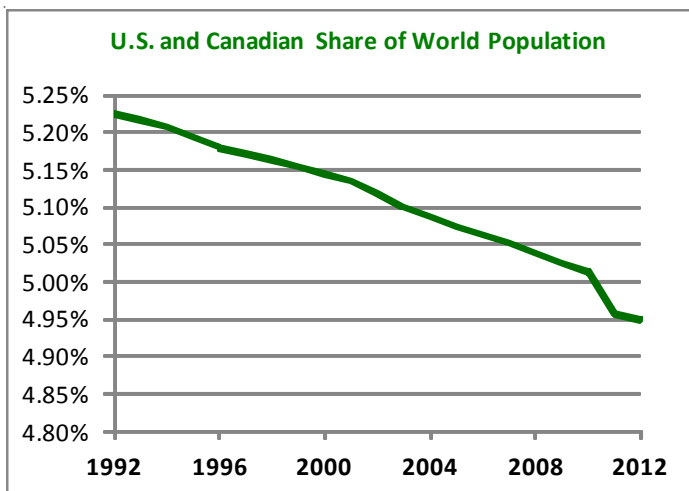
Table 73

### Top World Producers of Hydraulic Cement

(Thousand of Metric Tons)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
China	720,000	863,000	970,000	1,074,000	1,240,000	1,360,000	1,400,000	1,646,000	1,850,000	2,050,000	2,160,000
India	114,590	121,420	127,600	141,800	159,010	170,460	177,300	195,930	224,720	240,510	246,700
United States	85,283	88,107	92,440	93,910	97,690	92,630	84,020	60,370	66,450	67,900	74,370
Iran	28,500	29,100	29,800	33,600	36,200	40,370	39,840	46,940	47,950	45,420	55,200
Turkey	38,000	34,000	34,200	35,600	41,900	46,600	51,300	51,700	59,120	64,090	68,020
Brazil	76,400	73,800	72,400	73,500	73,200	71,200	68,000	60,000	56,600	56,400	59,000
Russia	32,758	35,095	38,800	42,800	47,400	49,300	53,110	53,970	66,200	67,800	69,000
Japan	29,500	31,000	31,460	31,840	35,200	41,000	44,500	52,100	61,600	66,400	73,200
Egypt	11,180	12,900	13,630	16,360	18,410	24,220	30,870	33,370	32,400	31,600	32,400
Korea, Republic of	37,700	41,000	44,000	48,000	54,700	59,900	53,600	44,200	50,400	56,100	60,000
Mexico	41,400	43,500	46,950	46,410	47,880	47,540	43,030	36,320	34,280	32,790	25,900
Pakistan	42,420	44,700	46,600	50,350	54,030	54,720	42,080	29,500	21,170	21,180	15,830
Italy	56,000	59,200	54,300	47,200	49,200	52,200	51,650	50,130	47,420	48,250	48,870
Spain	31,700	30,400	33,900	36,000	38,020	38,620	37,090	35,810	34,500	35,400	36,800
<b>Total World</b>	<b>1,846,272</b>	<b>2,028,124</b>	<b>2,195,410</b>	<b>2,364,960</b>	<b>2,618,860</b>	<b>2,813,950</b>	<b>2,871,840</b>	<b>2,945,000</b>	<b>3,313,090</b>	<b>3,586,750</b>	<b>3,737,200</b>

Source: U.S. Census Bureau, International Cement Review

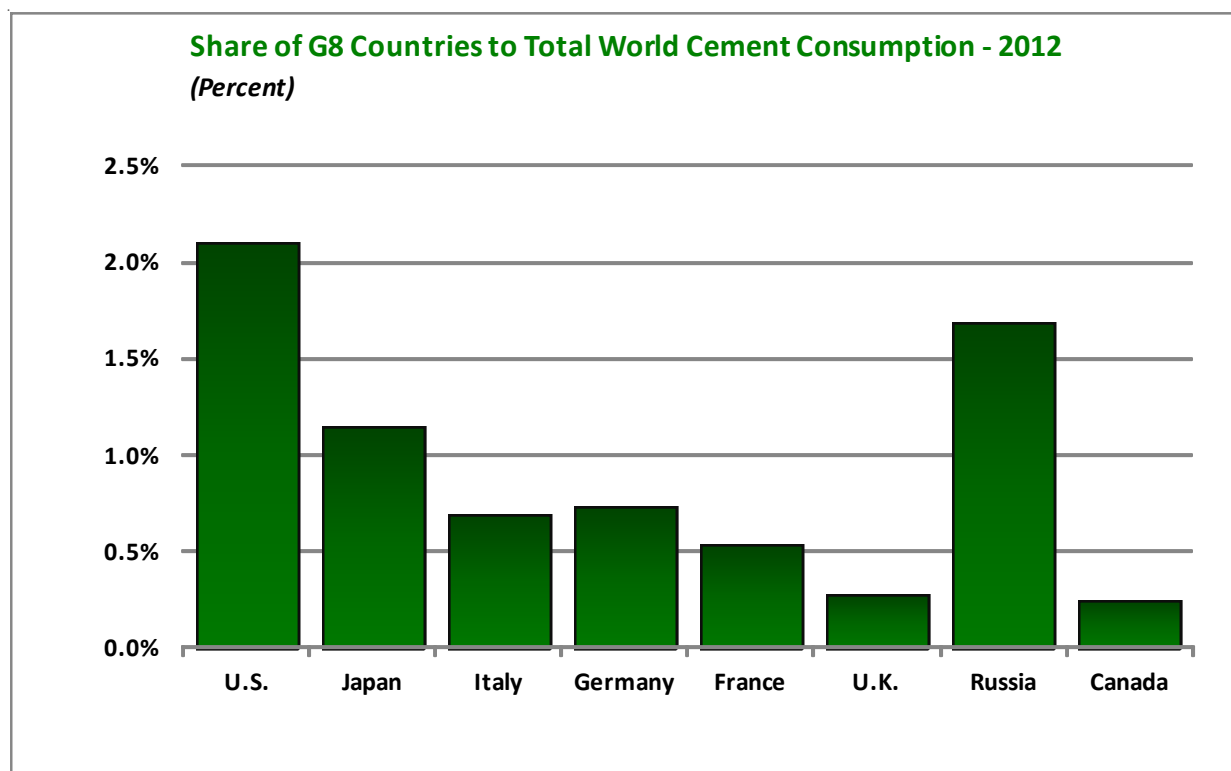


**Table 74****Population Growth Rates for Top World Producers of Hydraulic Cement***(Year-Year % Change)*

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
China	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
India	1.60	1.60	1.60	1.50	1.50	1.50	1.40	1.40	1.40	1.30	1.30
United States*	0.90	0.90	0.90	0.90	1.00	1.00	0.90	0.80	0.80	0.70	0.90
Japan	0.10	0.20	0.10	0.00	0.00	0.00	0.00	-0.10	-0.10	-0.10	-0.10
Brazil	1.30	1.30	1.20	1.20	1.10	1.00	1.00	1.00	0.90	0.90	0.90
Korea, South	0.50	0.40	0.40	0.20	0.30	0.30	0.30	0.30	0.30	0.20	0.20
Turkey	1.50	1.50	1.50	1.50	1.40	1.40	1.30	1.30	1.30	1.20	1.20
Iran	0.70	0.70	1.10	1.30	1.20	1.30	1.20	1.20	1.30	1.20	1.20
Russia	-0.50	-0.60	-0.50	-0.50	-0.30	-0.10	0.00	0.10	0.00	0.00	0.00
Egypt	2.20	2.10	2.10	2.10	2.10	2.10	2.10	2.00	2.00	2.00	1.90
Italy	0.30	0.60	0.70	0.40	0.40	0.80	0.70	0.50	0.50	0.40	0.40
Mexico	1.20	1.20	1.20	1.20	1.20	1.20	1.10	1.10	1.10	1.10	1.10
Spain	1.70	1.60	1.60	1.60	1.70	1.80	1.30	0.40	0.50	0.60	0.70
Pakistan	1.80	1.80	1.90	1.70	1.90	1.70	1.70	1.60	1.60	1.60	1.60
<b>Total World</b>	1.23	1.22	1.20	1.20	1.20	1.19	1.17	1.14	1.12	1.11	1.11

\*Includes Puerto Rico.

Source: U.S. Census Bureau, International Data Base





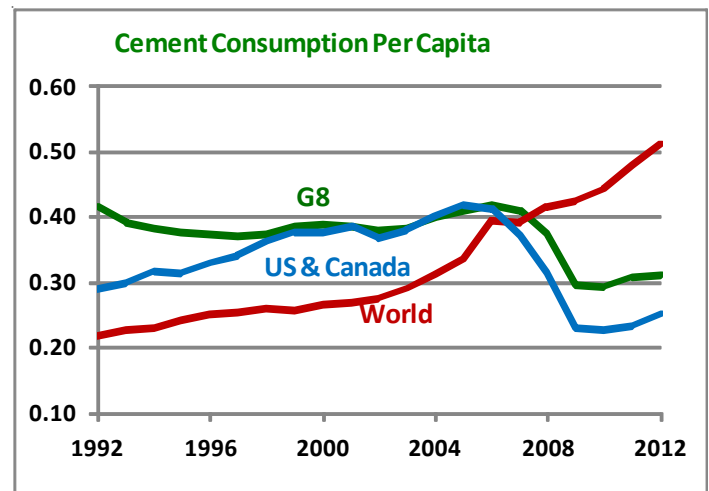
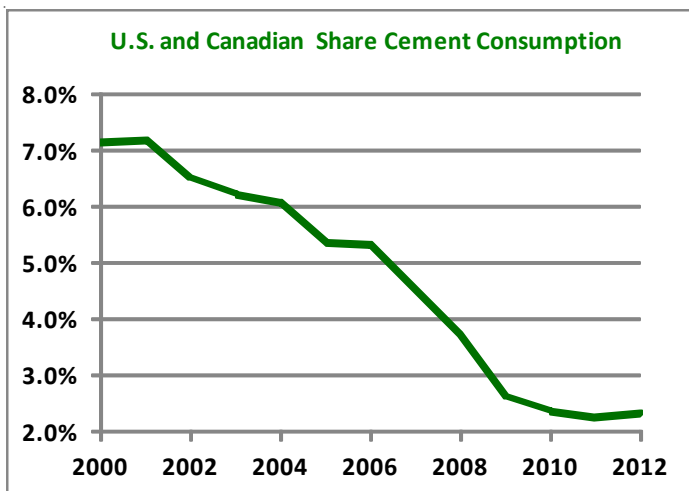
**Table 75**  
**Cement Consumption**

(Million Metric Tons)

Year	G8 Countries								Total G8 Consumption	World Consumption	G8 Share of World Consumption (%)
	U.S.	Japan	Italy	Germany	France	U.K.	Russia	Canada			
1993	79.589	79.000	37.360	36.800	19.398	12.500	48.450	6.622	319.719	1,281.650	24.9
1994	85.420	80.200	32.690	40.850	20.055	12.600	35.900	7.198	314.913	1,363.050	23.1
1995	86.176	79.600	32.460	37.980	19.730	13.120	35.300	6.928	311.295	1,435.800	21.7
1996	91.037	82.300	33.623	35.550	18.720	14.500	26.760	7.263	309.754	1,475.145	21.0
1997	96.184	78.600	33.767	34.260	18.730	14.800	25.900	7.627	309.869	1,531.277	20.2
1998	103.254	71.591	34.700	37.260	18.980	14.700	26.000	7.614	314.099	1,527.501	20.6
1999	108.427	70.774	36.120	38.340	20.210	15.100	28.400	8.009	325.379	1,603.596	20.3
2000	109.527	72.274	38.338	35.440	20.630	14.100	30.600	8.271	329.180	1,648.885	20.0
2001	113.800	68.637	39.469	30.460	20.660	14.050	33.300	8.413	328.789	1,698.833	19.4
2002	109.387	64.592	41.300	29.020	20.727	14.620	35.900	8.476	324.022	1,815.653	17.8
2003	113.494	60.125	43.500	29.030	20.678	14.370	38.500	8.901	328.597	1,970.246	16.7
2004	121.272	58.002	46.360	29.020	21.940	14.950	41.500	9.328	342.372	2,149.551	15.9
2005	128.035	59.039	46.050	26.930	22.520	14.810	46.000	9.425	352.809	2,564.463	13.8
2006	127.251	58.616	46.880	28.920	24.090	14.730	52.200	9.564	362.251	2,568.000	14.1
2007	114.622	55.900	46.370	27.210	24.800	15.770	61.046	9.823	355.541	2,763.000	12.9
2008	96.658	50.500	43.800	27.300	24.130	13.350	61.600	9.607	326.945	2,857.000	11.4
2009	70.566	44.000	35.950	25.380	20.380	11.290	43.800	7.962	259.327	2,998.000	8.7
2010	70.323	41.800	33.930	24.690	19.790	10.510	49.400	8.782	259.225	3,311.690	7.8
2011	72.127	42.100 *	32.800 *	27.960 *	21.410 *	11.310 *	57.400 *	8.945	274.052 *	3,585.170 *	7.6 *
2012	78.458	43.000 *	26.000 *	27.400 *	20.000 *	10.600 *	63.000 *	9.456	277.914 *	3,736.080 *	7.4 *

\* Estimated

Source: U.S. Census Bureau, International Cement Review, United States Geological Survey, Statistics Canada





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