

2016 U.S. Cement Industry Annual Yearbook

- Construction Facts
- Industry Trends
- Domestic & International Coverage



1916-2016
Celebrating 100 Years of Excellence

PCA
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U.S. CEMENT INDUSTRY ANNUAL YEARBOOK 2016

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Table 1
Construction and Economic Activity

Year	Construction (Billions 2009\$)	Real GDP (Billions 2009\$)	Ratio Construction % of GDP (Percent)	Ratio Portland Cement* to Construction (Metric Tons per \$Million)	Ratio Portland Cement* to GDP (Metric Tons per \$Million)
1995	898	10,175	8.8	95.7	8.1
1996	972	10,561	9.2	93.4	8.3
1997	998	11,035	9.0	96.4	8.4
1998	1,054	11,526	9.1	98.0	8.6
1999	1,095	12,066	9.1	100.0	8.7
2000	1,135	12,560	9.0	96.5	8.4
2001	1,140	12,682	9.0	98.7	8.5
2002	1,118	12,909	8.7	96.8	8.0
2003	1,130	13,271	8.5	96.0	7.8
2004	1,167	13,773	8.5	102.9	8.3
2005	1,215	14,234	8.5	105.2	8.6
2006	1,187	14,614	8.1	107.2	8.3
2007	1,147	14,874	7.7	99.9	7.4
2008	1,067	14,830	7.2	90.5	6.3
2009	907	14,419	6.3	78.1	4.8
2010	815	14,784	5.5	86.4	4.6
2011	776	15,021	5.2	93.0	4.7
2012	818	15,355	5.3	95.8	5.0
2013	846	15,583	5.4	96.5	5.1
2014	899	15,962	5.6	98.8	5.4
2015	977	16,349	6.0	94.3	5.5

* Portland and Masonry

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

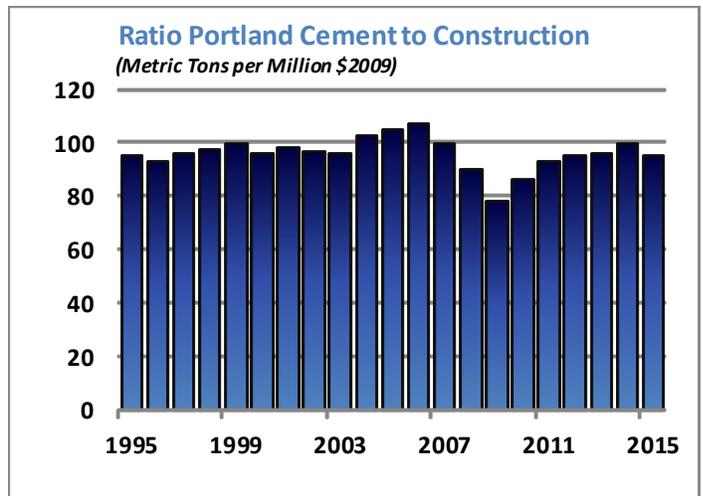
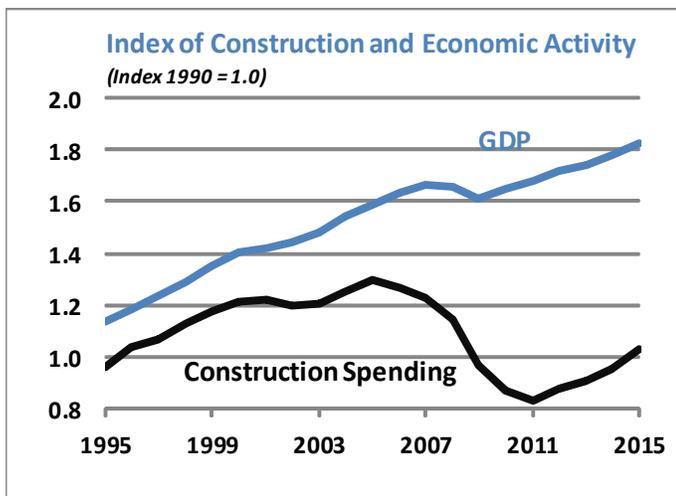




Table 2
Construction Put-in-Place

Year	Total	Share of Total		Share of Total		Share of Total		Share of Total	
		Residential	(%)	Nonresidential	(%)	Public	(%)	Other ¹	(%)
1995	898	348.7	38.8	239.0	26.6	214.8	23.9	95.8	10.7
1996	972	386.7	39.8	262.5	27.0	226.6	23.3	96.5	9.9
1997	998	385.9	38.7	282.7	28.3	231.8	23.2	97.7	9.8
1998	1,054	421.2	40.0	298.6	28.3	227.8	21.6	106.7	10.1
1999	1,095	443.9	40.5	294.3	26.9	240.1	21.9	117.1	10.7
2000	1,135	450.1	39.7	310.1	27.3	247.2	21.8	127.2	11.2
2001	1,140	451.9	39.7	295.8	26.0	264.1	23.2	127.6	11.2
2002	1,118	481.4	43.1	237.1	21.2	301.4	27.0	97.8	8.7
2003	1,130	516.8	45.7	223.5	19.8	298.4	26.4	91.1	8.1
2004	1,167	572.3	49.0	226.9	19.4	256.0	21.9	111.8	9.6
2005	1,215	624.4	51.4	226.3	18.6	252.5	20.8	111.5	9.2
2006	1,187	570.4	48.1	241.1	20.3	258.6	21.8	117.0	9.9
2007	1,147	454.4	39.6	273.9	23.9	270.5	23.6	148.5	12.9
2008	1,067	344.3	32.3	285.4	26.8	276.6	25.9	160.5	15.0
2009	907	247.5	27.3	222.2	24.5	275.3	30.4	161.6	17.8
2010	815	246.0	30.2	159.4	19.6	264.9	32.5	144.2	17.7
2011	776	246.4	31.8	153.6	19.8	243.6	31.4	132.0	17.0
2012	818	270.1	33.0	169.9	20.8	227.0	27.7	151.4	18.5
2013	846	306.8	36.2	177.2	20.9	212.2	25.1	150.2	17.7
2014	899	326.6	36.3	197.0	21.9	209.9	23.3	165.6	18.4
2015	977	373.6	38.2	229.3	23.5	217.7	22.3	156.5	16.0
Percent Change									
2015 / 2014	8.7%	14.4%		16.4%		3.7%		-5.5%	

¹ Public Utility, Farm Nonresidential, Miscellaneous
Source: U.S. Department of Commerce, U.S. Census Bureau

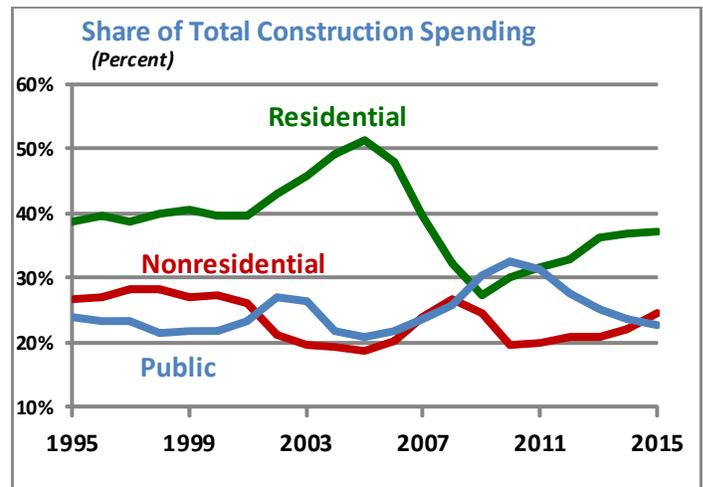
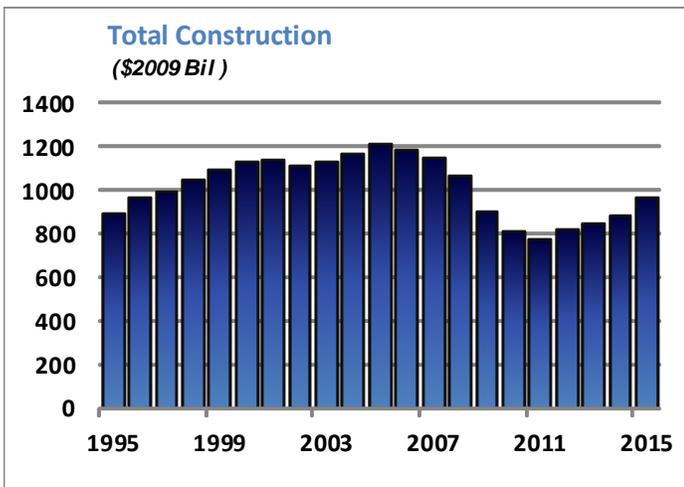




Table 3
Government Deficits

Year	Federal Debt (\$ Bil)	Federal Deficit/Surplus (\$ Bil)	Federal Deficit Share of GDP (%)	Federal Debt Share of GDP (%)	Long-Term Interest Rate (%)	Nominal GDP (\$ Bil)
1995	4,989	-146	1.9	65.1	6.9	7,664
1996	5,323	-111	1.4	65.7	6.7	8,100
1997	5,502	-2	0.0	63.9	6.6	8,609
1998	5,614	54	0.6	61.8	5.6	9,089
1999	5,776	159	1.6	59.8	5.9	9,661
2000	5,662	255	2.5	55.1	5.9	10,285
2001	5,943	94	0.9	56.0	5.5	10,622
2002	6,406	-231	2.1	58.4	5.4	10,978
2003	6,998	-399	3.5	60.8	5.1	11,511
2004	7,596	-399	3.3	61.9	5.1	12,275
2005	8,170	-322	2.5	62.4	4.6	13,094
2006	8,680	-209	1.5	62.6	4.9	13,856
2007	9,229	-188	1.3	63.7	4.8	14,478
2008	10,700	-680	4.6	72.7	4.3	14,719
2009	12,311	-1,471	10.2	85.4	4.1	14,419
2010	14,025	-1,275	8.5	93.7	4.3	14,964
2011	15,223	-1,250	8.1	98.1	3.9	15,518
2012	16,433	-1,061	6.6	101.7	2.9	16,155
2013	17,352	-560	3.4	104.1	3.4	16,663
2014	18,141	-488	2.8	104.6	3.3	17,348
2015	18,922	-478	2.7	105.4	2.8	17,947

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

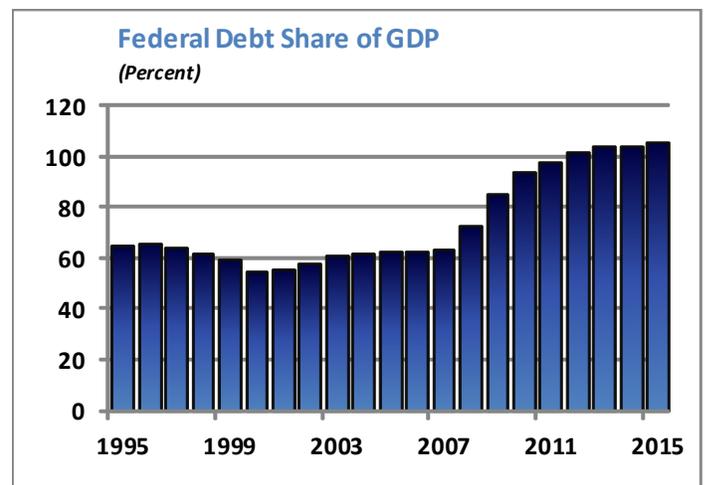
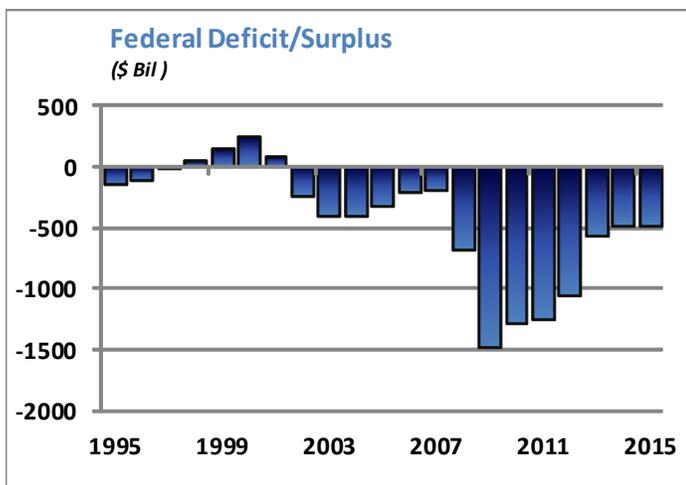




Table 4
Foreign Trade

Year	Value of Exports (\$ Bil)	Value of Imports (\$ Bil)	Trade Deficit (\$ Bil)	Trade Deficit as a % of GDP (%)	Value of USD (Major Currencies Index)
1995	911	1,013	-101	1.3	81.2
1996	986	1,101	-115	1.4	86.1
1997	1,104	1,249	-145	1.7	93.4
1998	1,129	1,395	-265	2.9	98.5
1999	1,159	1,536	-377	3.9	98.1
2000	1,258	1,736	-478	4.6	104.8
2001	1,185	1,687	-502	4.7	112.2
2002	1,165	1,749	-584	5.3	110.6
2003	1,185	1,827	-642	5.6	97.6
2004	1,301	2,035	-735	6.0	90.6
2005	1,382	2,164	-782	6.0	90.4
2006	1,507	2,301	-794	5.7	90.3
2007	1,646	2,359	-713	4.9	86.1
2008	1,741	2,299	-558	3.8	83.1
2009	1,588	1,983	-395	2.7	86.2
2010	1,777	2,235	-459	3.1	83.8
2011	1,898	2,358	-459	3.0	79.5
2012	1,963	2,410	-447	2.8	82.8
2013	2,018	2,436	-418	2.5	85.8
2014	2,086	2,529	-443	2.6	88.9
2015	2,110	2,654	-543	3.0	102.9

Source: Bureau of Economic Analysis

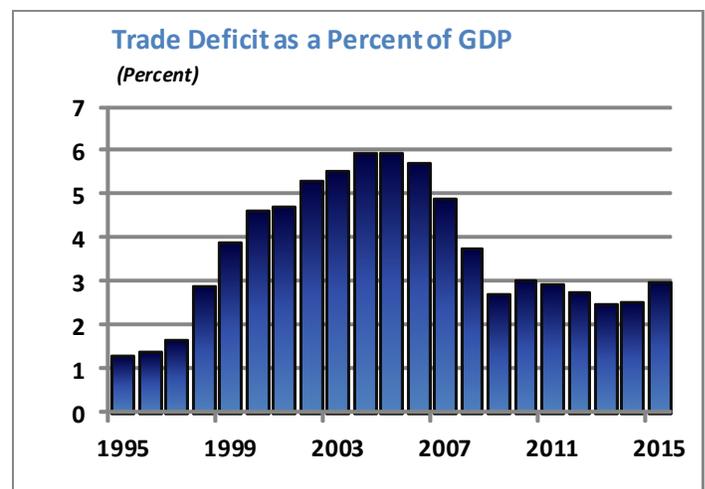
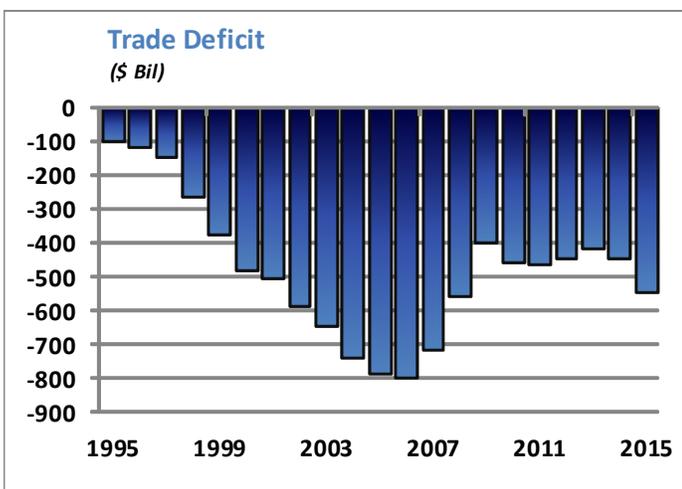




Table 5
Residential Drivers

Year	Single Family				Multifamily			Home Improvement	
	Mortgage Rate (%)	Median Home Price (\$000)	Average Monthly Payment (\$)	1 st Time Home Buyers* (000)	Median Rent (\$)	Mortgage To Rent Ratio	Vacancy Rate (%)	Apartment Age Population* (000)	Housing Stock (000)
1995	8.0	133	1,014	44,863	434	2.3	9.0	37,980	108,201
1996	7.8	140	1,046	44,730	443	2.4	9.2	37,740	109,593
1997	7.6	145	1,061	44,349	443	2.4	9.0	37,808	111,027
1998	6.9	152	1,036	43,878	460	2.3	9.0	37,970	112,499
1999	7.4	160	1,149	43,485	460	2.5	8.7	38,166	114,400
2000	8.1	167	1,279	43,175	480	2.7	8.7	38,397	116,301
2001	7.0	173	1,180	42,888	510	2.3	8.9	38,577	117,905
2002	6.5	185	1,204	42,410	568	2.1	9.7	38,935	119,456
2003	5.8	191	1,146	41,736	589	1.9	10.8	39,363	121,077
2004	5.8	218	1,305	41,034	615	2.1	10.9	39,953	122,825
2005	5.9	234	1,408	40,523	605	2.3	10.0	40,495	124,711
2006	6.4	243	1,559	40,226	641	2.4	9.8	41,146	126,500
2007	6.3	244	1,550	40,135	665	2.3	10.0	41,621	128,132
2008	6.0	230	1,414	40,122	697	2.0	10.5	42,083	129,313
2009	5.0	215	1,164	40,153	709	1.6	11.3	42,462	129,970
2010	4.7	221	1,147	40,150	699	1.6	11.1	42,849	131,801
2011	4.5	224	1,127	40,144	695	1.6	10.0	43,463	132,181
2012	3.7	242	1,089	40,445	717	1.5	9.3	44,007	132,598
2013	4.0	265	1,249	40,935	734	1.7	8.8	44,442	133,210
2014	4.2	284	1,372	41,457	761	1.8	7.9	44,907	133,976
2015	3.9	297	1,375	42,029	814	1.7	7.2	45,203	134,790

* Estimated

Source: U.S. Census Bureau, Freddie Mac

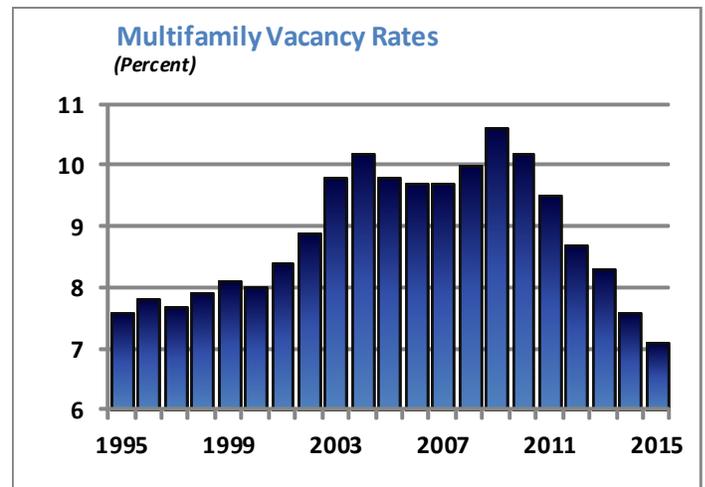
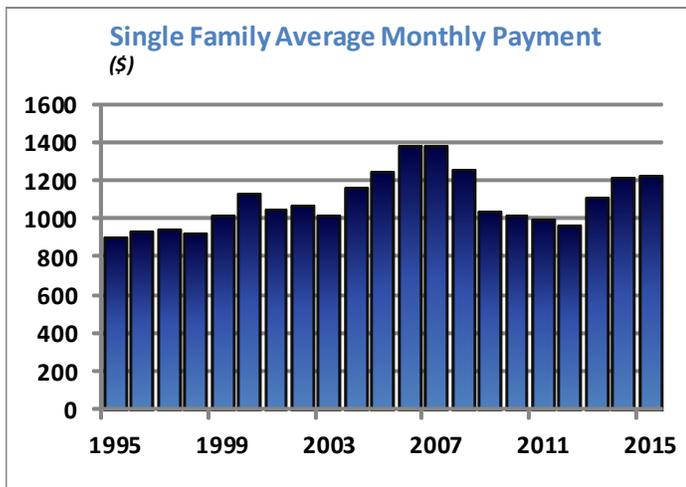




Table 6
Net Residential Balance

Year	Households (000)	Annual Change In Households (000)	Single Family Starts (000)	Multifamily Starts (000)	Manufactured Home Placements* (000)	Demolition* (000)	New Net Supply (000)
1995	98,990	1,883	1,082	279	319	267	1,413
1996	99,627	637	1,154	314	338	414	1,392
1997	101,018	1,391	1,136	338	336	377	1,434
1998	102,528	1,510	1,278	344	374	523	1,472
1999	103,874	1,346	1,306	341	338	296	1,690
2000	104,705	831	1,232	341	281	274	1,581
2001	108,209	3,504	1,272	330	196	251	1,546
2002	109,297	1,088	1,363	347	174	401	1,483
2003	111,278	1,981	1,505	349	140	435	1,559
2004	112,000	722	1,604	345	124	721	2,074
2005	113,343	1,343	1,719	354	123	490	1,706
2006	114,384	1,041	1,474	338	112	623	1,301
2007	116,011	1,627	1,036	306	95	560	877
2008	116,783	772	616	284	81	415	565
2009	117,181	398	442	112	55	350	259
2010	117,538	357	471	114	50	234	402
2011	119,927	2,389	434	178	47	358	301
2012	121,084	1,157	537	247	52	333	503
2013	122,459	1,375	620	308	56	417	568
2014	123,229	770	647	355	64	439	626
2015	124,587	1,358	713	395	71	497	682

Source: U.S. Census Bureau

* Estimated after 2012

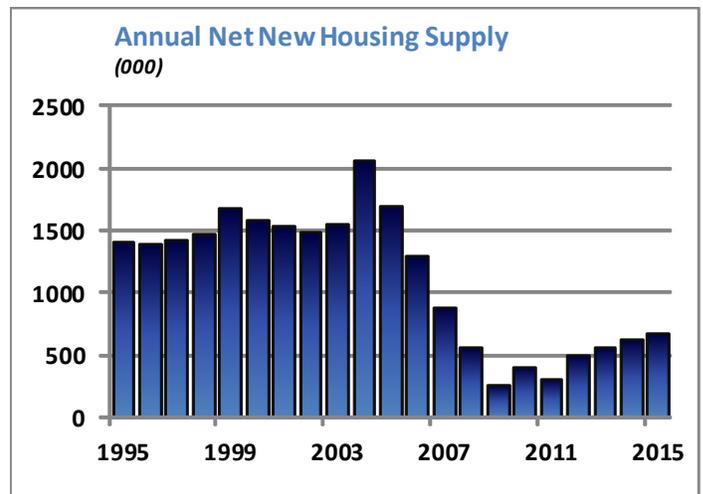
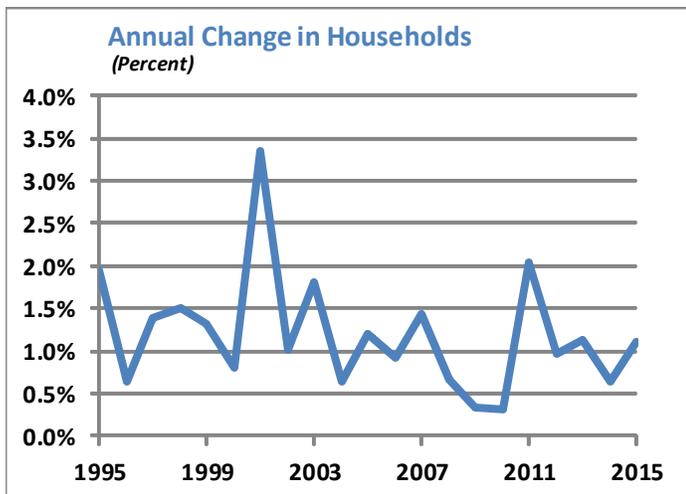




Table 7
Nonresidential Drivers

Year	Commercial				Institutional			
	Manufacturing Capacity Utilization (%)	Office Vacancy Rate (%)	Retail Sales Growth (%)	Air Travel Growth (%)	Change in Population 5 - 19 (%)	Student Teacher Ratio ¹	Healthcare Expenditure Share of GDP (%)	Pop 65+ Share of Total Pop (%)
1995	83.2	14.6	5.2	3.6	2.0	17.1	9.4	12.7
1996	82.2	13.0	6.3	6.1	2.1	16.9	9.3	12.7
1997	82.8	10.8	4.7	3.1	1.8	16.6	9.2	12.6
1998	81.2	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	79.2	8.0	6.5	4.9	0.8	15.9	8.9	12.4
2001	73.3	11.1	2.8	-6.6	0.3	15.7	9.4	12.4
2002	72.6	14.9	2.4	-1.4	0.2	15.7	9.9	12.4
2003	73.6	16.6	4.4	5.1	0.1	15.7	10.0	12.4
2004	76.1	16.4	6.5	8.7	0.2	15.5	10.1	12.4
2005	78.2	14.6	6.2	5.0	0.2	15.4	10.1	12.4
2006	78.6	13.3	5.1	0.8	0.5	15.3	10.1	12.5
2007	79.0	12.7	3.4	3.3	0.4	15.2	10.2	12.6
2008	74.6	13.9	-1.1	-3.4	0.4	15.0	10.6	12.8
2009	65.4	15.7	-7.4	-5.3	0.3	15.0	11.3	12.9
2010	71.0	18.1	5.4	2.4	-0.1	15.5	11.3	13.1
2011	74.1	17.5	7.3	1.4	-0.4	15.5	11.4	13.3
2012	75.1	15.7	5.0	0.8	-0.3	15.6	11.4	13.7
2013	74.9	14.8	3.6	0.9	-0.2	15.6	11.3	14.1
2014	75.7	13.9	4.2	2.6	-0.2	15.6	11.3	14.5
2015	75.9	13.2	2.3	4.7	-0.2	15.6	11.5	14.1

¹ 2012-2015 are National Center for Education Statistics projections

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

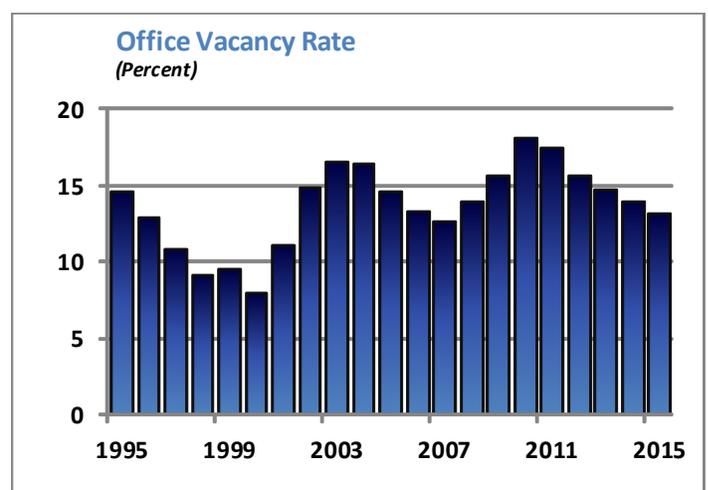
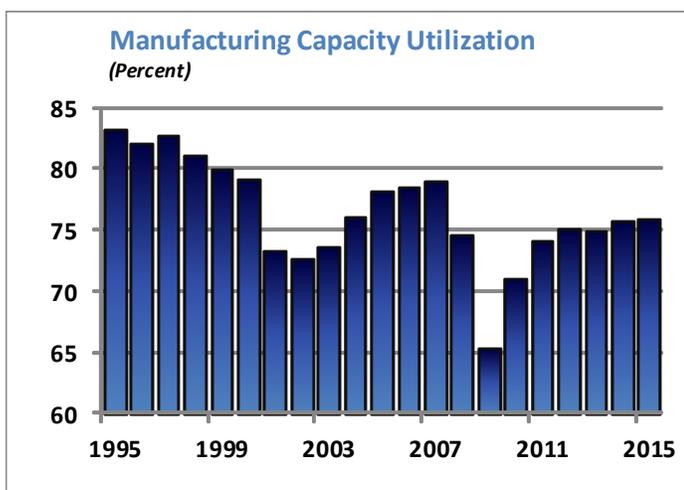




Table 8
Public Drivers

Year	State/Local Share of Total Public Construction ¹ (%)	State Government Revenues ¹ (\$ Bil)	State Revenue Per Capita ¹ (\$)	Municipal Bond Rate (%)	Real Public Construction Spending Per Capita (2009\$)
1995	88.7	980	3,680	6.1	807
1996	89.5	1,033	3,833	5.8	841
1997	90.8	1,086	3,983	5.5	850
1998	90.7	1,149	4,164	5.1	826
1999	91.7	1,222	4,379	5.7	861
2000	92.2	1,303	4,618	6.2	876
2001	92.5	1,353	4,747	5.7	927
2002	92.2	1,388	4,827	5.6	1,048
2003	91.7	1,475	5,083	5.2	1,028
2004	91.7	1,575	5,379	5.1	874
2005	92.6	1,709	5,782	4.9	854
2006	93.1	1,811	6,069	4.7	867
2007	92.9	1,901	6,309	4.6	898
2008	92.3	1,909	6,278	5.7	910
2009	90.9	1,919	6,256	6.3	897
2010	89.8	1,999	6,460	5.6	856
2011	89.0	2,031	6,514	5.9	781
2012	90.3	2,057	6,549	4.8	723
2013	91.2	2,136	6,752	4.8	671
2014	91.7	2,225	6,977	4.6	658
2015	92.1	2,325	7,233	4.2	677

¹ Based on nominal values

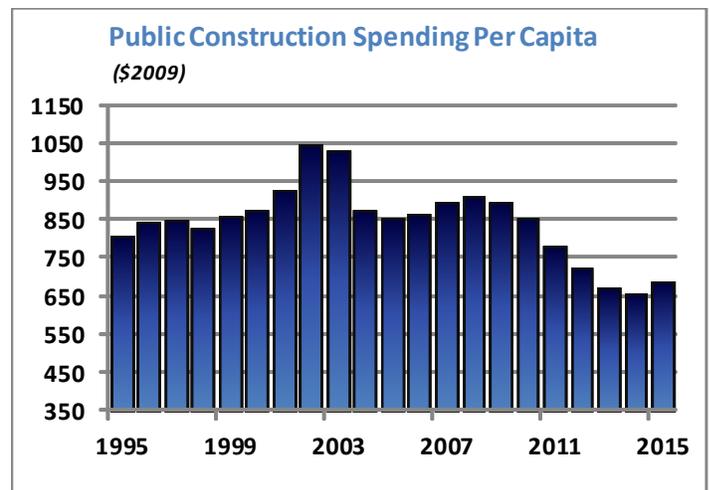
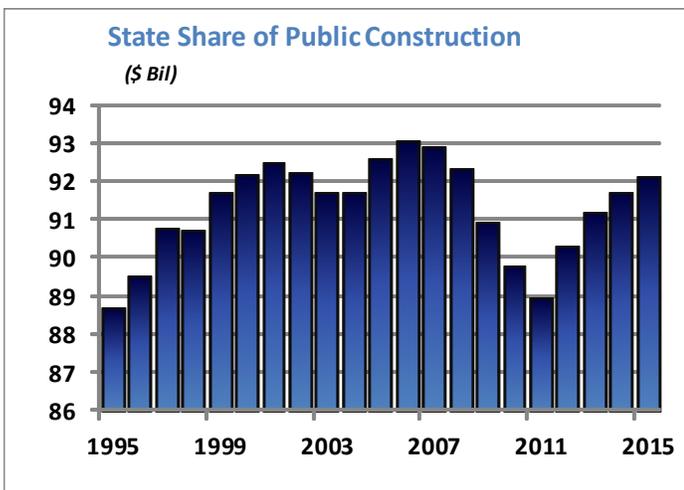




Table 9

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				
1995	82,829	3,160	85,989	761	13,848	1,113	74,015
1996	87,406	3,399	90,805	807	14,154	-326	77,132
1997	92,717	3,460	96,177	809	17,596	296	79,686
1998	99,158	4,101	103,259	763	24,085	-391	79,545
1999	105,153	4,352	109,505	736	29,321	974	81,895
2000	105,200	4,333	109,533	777	28,684	1,199	82,825
2001	108,040	4,482	112,523	785	25,861	-966	86,480
2002	103,756	4,436	108,193	874	24,169	1,080	85,977
2003	103,689	4,745	108,434	889	23,241	-1,070	85,012
2004	114,896	5,172	120,068	880	27,305	-3,965	89,678
2005	122,337	5,489	127,825	824	33,652	710	95,707
2006	121,848	5,401	127,249	723	35,896	1,930	94,006
2007	110,345	4,281	114,626	886	22,729	-490	92,294
2008	93,543	3,046	96,589	823	11,519	-530	85,363
2009	68,687	2,149	70,836	884	6,894	-2,280	62,546
2010	68,459	1,915	70,374	1,178	6,781	100	64,871
2011	70,309	1,836	72,145	1,414	6,543	90	67,106
2012	76,472	1,945	78,417	1,749	7,037	630	73,758
2013	79,538	2,125	81,662	1,670	7,243	-330	75,759
2014	86,519	2,316	88,835	1,397	8,392	-420	81,420
2015	89,732	2,368	92,100	1,300	11,280	-1,350 **	81,175

* Excludes Alaska, Foreign 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

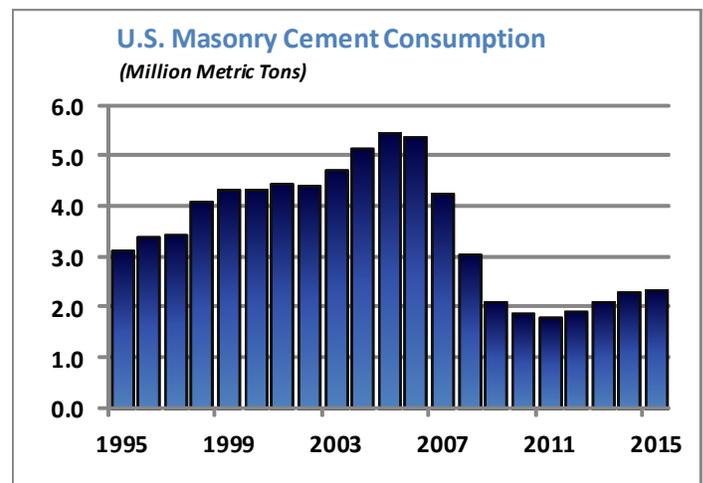
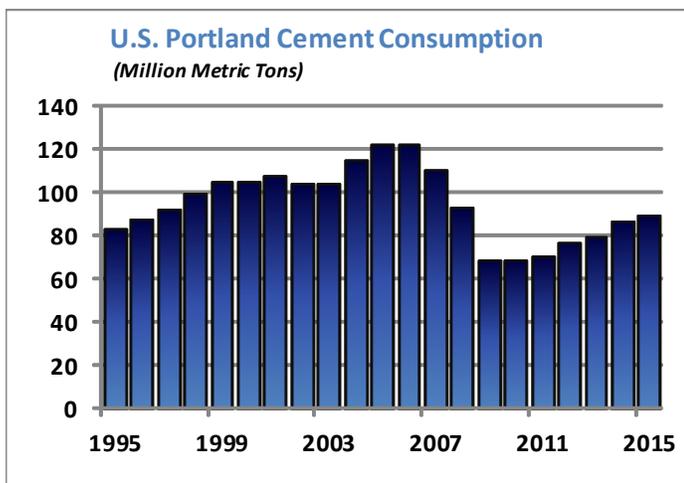




Table 10

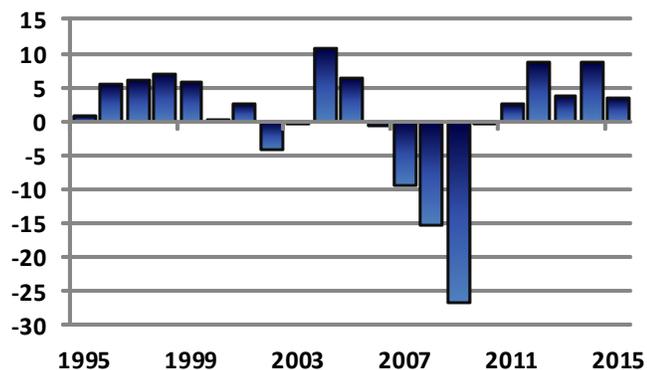
U.S. Cement Industry Consumption - Exports - Imports - Shipments

(Year-Year % Change)

Year	Consumption			Cement & Clinker Exports	Cement Imports	Total Shipments By Domestic Producers
	Portland Cement	Masonry Cement	Total			
1995	0.9	-3.3	0.7	17.8	22.5	-0.8
1996	5.5	7.6	5.6	6.1	2.2	4.2
1997	6.1	1.8	5.9	0.2	24.3	3.3
1998	6.9	18.5	7.4	-5.7	36.9	-0.2
1999	6.0	6.1	6.0	-3.5	21.7	3.0
2000	0.0	-0.5	0.0	5.5	-2.2	1.1
2001	2.7	3.5	2.7	1.0	-9.8	4.4
2002	-4.0	-1.0	-3.8	11.3	-6.5	-0.6
2003	-0.1	7.0	0.2	1.7	-3.8	-1.1
2004	10.8	9.0	10.7	-0.9	17.5	5.5
2005	6.5	6.1	6.5	-6.5	23.2	6.7
2006	-0.4	-1.6	-0.5	-12.2	6.7	-1.8
2007	-9.4	-20.7	-9.9	22.5	-36.7	-1.8
2008	-15.2	-28.8	-15.7	-7.1	-49.3	-7.5
2009	-26.6	-29.5	-26.7	7.4	-40.1	-26.7
2010	-0.3	-10.9	-0.7	33.3	-1.6	3.7
2011	2.7	-4.1	2.5	20.0	-3.5	3.4
2012	8.8	5.9	8.7	23.7	7.6	9.9
2013	4.0	9.2	4.1	-4.5	2.9	2.7
2014	8.8	9.0	8.8	-16.3	15.9	7.5
2015	3.7	2.3	3.7	-6.9	34.4	-0.3

Source: Calculated from Table 9

U.S. Portland Cement Consumption (Year-Year % Change)



U.S. Masonry Cement Consumption (Year-Year % Change)

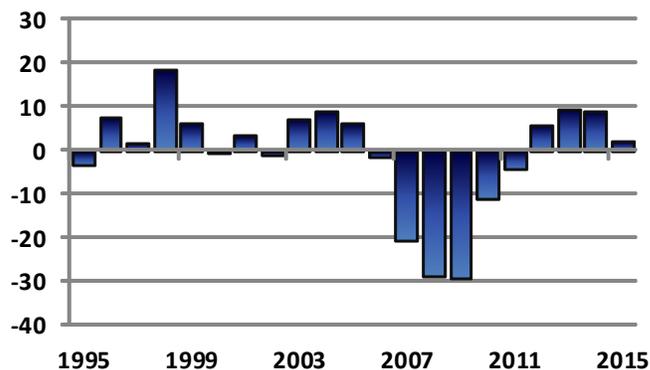




Table 11

Apparent Use of Portland Cement by Market

(Thousands of Metric Tons)

Market	2011	2012	2013	2014	2015*	5 Year Average	5 Year Average Share (%)
Total	70,309	76,472	79,538	86,519	89,732	80,514	
Residential Buildings	15,788	19,624	22,990	22,516	24,698	21,123	26.2
New Housing	9,863	12,345	15,422	16,680	18,539	14,570	18.1
Single Family	8,338	10,198	12,634	13,710	15,201	12,016	14.9
Multi Family	1,525	2,147	2,788	2,971	3,338	2,554	3.2
Improvements	5,925	7,280	7,568	5,836	6,159	6,645	8.3
Nonresidential Buildings	8,576	9,444	10,563	13,774	14,269	11,325	14.1
Manufacturing	639	676	719	841	964	768	1.0
Office	780	850	1,069	1,598	1,665	1,193	1.5
Lodging	254	352	419	697	820	509	0.6
Health Care	1,366	1,366	1,310	1,435	1,301	1,355	1.7
Religious	117	122	114	118	95	113	0.1
Educational	2,453	2,213	1,961	2,261	2,268	2,231	2.8
Commercial	2,966	3,865	4,971	6,824	7,157	5,156	6.4
Public Utility & Other	2,872	3,625	3,916	3,732	4,420	3,713	4.6
Farm Nonresidential	3,074	3,207	3,066	3,107	2,959	3,083	3.8
Oil & Gas Wells	2,519	2,870	2,997	3,142	1,659	2,637	3.3
Miscellaneous	1,493	1,660	1,599	1,943	1,999	1,739	2.2
Public Construction	35,986	36,041	34,406	38,306	39,729	36,894	45.8
Buildings	2,234	2,022	1,870	2,063	2,112	2,060	2.6
Highways & Streets	24,832	25,457	23,871	25,654	27,225	25,408	31.6
Public Safety	179	133	156	156	171	159	0.2
Conservation	2,527	2,375	2,285	2,728	2,617	2,506	3.1
Sewage & Waste Disposal	3,540	3,416	3,488	4,363	4,394	3,840	4.8
Water Supply Systems	2,674	2,638	2,736	3,343	3,210	2,920	3.6

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

* Preliminary Estimates

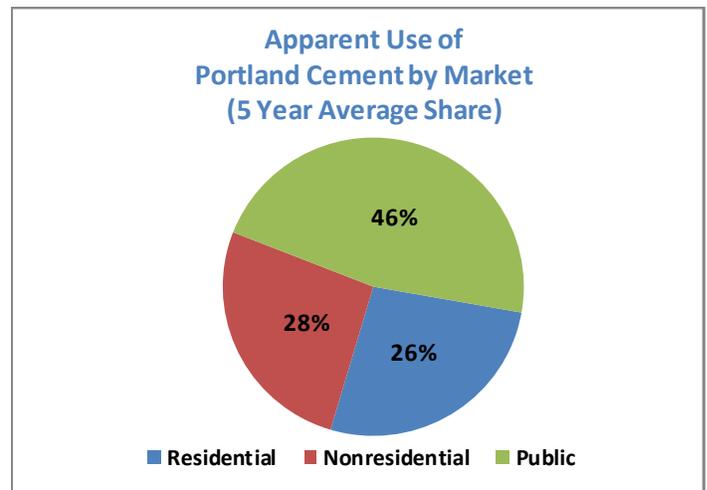
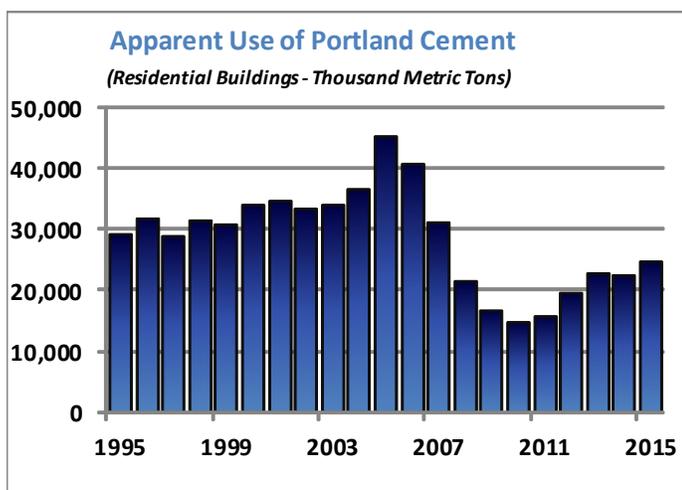




Table 12
Alternative Measures of Cement Usage Intensity

Year	Real Construction \$ per Capita (000, \$2009)	Portland Cement Consumption per Capita (000) (Metric Tons)	Portland Cement Consumption per Million Construction \$ (Metric Tons)	Portland Cement Consumption per Construction Worker (Metric Tons)
1995	3.4	311.1	92.2	15.7
1996	3.6	324.5	89.9	15.8
1997	3.7	340.1	92.9	15.9
1998	3.8	359.5	94.1	16.1
1999	3.9	376.8	96.0	16.1
2000	4.0	372.8	92.7	15.5
2001	4.0	379.1	94.8	15.8
2002	3.9	360.7	92.8	15.4
2003	3.9	357.4	91.8	15.4
2004	4.0	392.4	98.4	16.5
2005	4.1	414.0	100.7	16.7
2006	4.0	408.4	102.7	15.8
2007	3.8	366.3	96.2	14.5
2008	3.5	307.6	87.7	13.1
2009	3.0	223.9	75.8	11.4
2010	2.6	221.3	84.0	12.4
2011	2.5	225.6	90.6	12.7
2012	2.6	243.5	93.4	13.5
2013	2.7	251.4	94.0	13.6
2014	2.8	271.3	96.2	14.1
2015	3.0	279.2	91.8	13.9
20 Year Average	3.5	323.8	92.8	14.7
10 Year Average	3.1	279.8	91.2	13.5
5 Year Average	2.7	254.2	93.2	13.6

Sources: U.S. Dept. of Labor, U.S. Dept. of Commerce, PCA

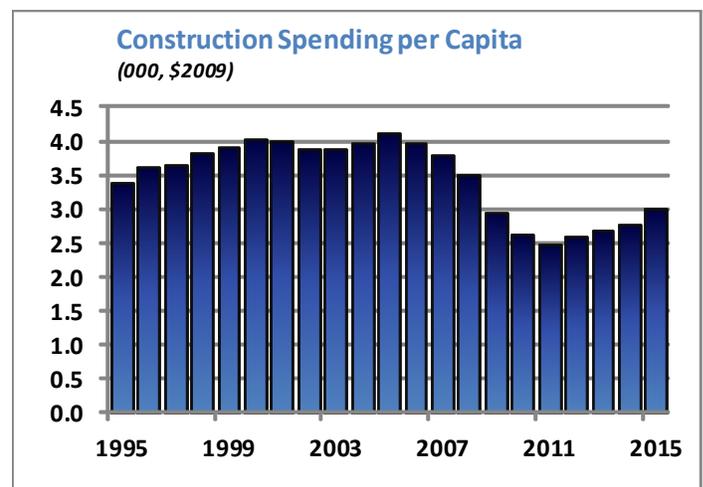
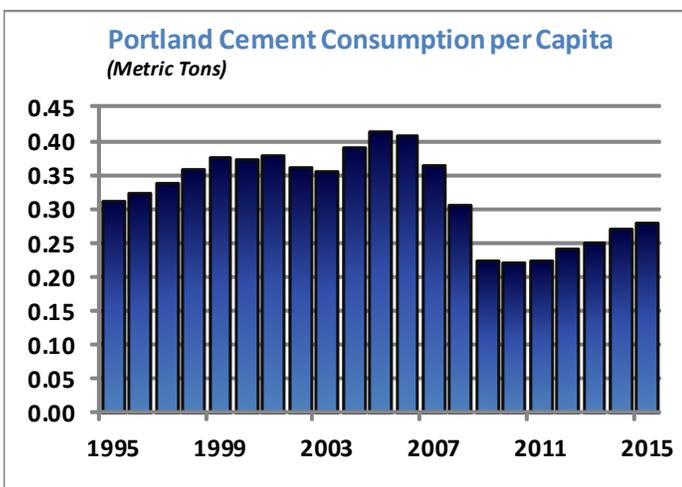




Table 13
Single Family Construction

Year	Single Family Starts (000)	Mortgage Rate (%)	Payment Share of Household Income (%)	1st Time Home Buyers ¹ (000)	Home Ownership Rate (%)	Single Family Cement (000 MT)	Cement Tons per SF Start (Metric Tons)
1995	1,082	8.0	33.2	44,863	64.7	21,234	19.6
1996	1,154	7.8	32.9	44,730	65.4	22,954	19.9
1997	1,136	7.6	32.1	44,349	65.7	22,397	19.7
1998	1,278	6.9	30.1	43,878	66.3	25,196	19.7
1999	1,306	7.4	31.7	43,485	66.8	25,828	19.8
2000	1,232	8.1	34.8	43,175	67.4	24,374	19.8
2001	1,272	7.0	32.2	42,888	67.8	25,233	19.8
2002	1,363	6.5	32.7	42,410	67.9	26,965	19.8
2003	1,505	5.8	31.1	41,736	68.3	28,817	19.1
2004	1,604	5.8	34.5	41,034	69.0	30,637	19.1
2005	1,719	5.9	35.9	40,523	68.9	34,996	20.4
2006	1,474	6.4	37.7	40,226	68.8	30,551	20.7
2007	1,036	6.3	35.8	40,135	68.1	21,146	20.4
2008	616	6.0	31.9	40,122	67.8	12,210	19.8
2009	442	5.0	27.6	40,153	67.4	8,182	18.5
2010	471	4.7	27.4	40,150	66.9	8,642	18.3
2011	434	4.5	26.9	40,144	66.1	8,338	19.2
2012	537	3.7	25.9	40,445	65.4	10,198	19.0
2013	620	4.0	29.0	40,935	65.1	12,634	20.4
2014	647	4.2	30.9	41,457	64.5	13,710	21.2
2015	713	3.9	31.2	42,029	63.7	15,201*	21.3

¹ Ages 30-39

* Preliminary Estimate

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

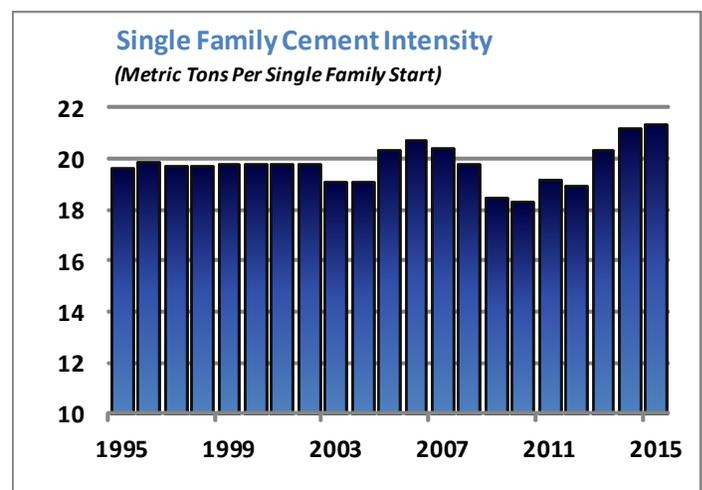
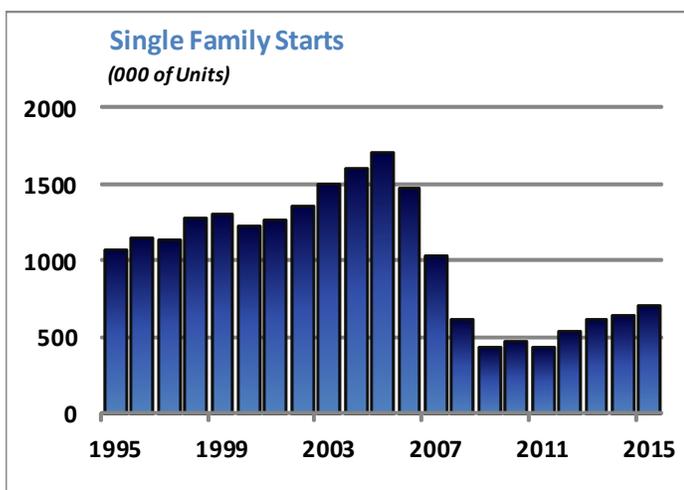




Table 14
Multifamily Construction

Year	Multifamily Starts (000)	Vacancy Rate (%)	Mortgage To Rent Ratio (%)	Apartment Age Population ¹ (000)	Retirement Age Population ² (000)	Multifamily Cement (000 MT)	Cement Tons per MF Start (Metric Tons)
1995	279.0	9.0	2.3	37,980	33,769	2,450	8.8
1996	314.3	9.2	2.4	37,740	34,142	2,770	8.8
1997	338.3	9.0	2.4	37,808	34,401	2,987	8.8
1998	343.6	9.0	2.3	37,970	34,619	3,036	8.8
1999	341.1	8.7	2.5	38,166	34,797	3,013	8.8
2000	341.3	8.7	2.7	38,397	35,070	3,015	8.8
2001	329.5	8.9	2.3	38,577	35,290	2,908	8.8
2002	347.0	9.7	2.1	38,935	35,522	3,067	8.8
2003	348.7	10.8	1.9	39,363	35,864	2,757	7.9
2004	345.3	10.9	2.1	39,953	36,203	3,018	8.7
2005	354.4	10.0	2.3	40,495	36,650	3,387	9.6
2006	338.3	9.8	2.4	41,146	37,164	3,000	8.9
2007	306.1	10.0	2.3	41,621	37,826	2,619	8.6
2008	283.7	10.5	2.0	42,083	38,778	2,696	9.5
2009	111.6	11.3	1.6	42,462	39,623	885	7.9
2010	114.1	11.1	1.6	42,849	40,479	974	8.5
2011	177.6	10.0	1.6	43,463	41,366	1,525	8.6
2012	246.8	9.3	1.5	44,007	43,164	2,147	8.7
2013	308.0	8.8	1.7	44,442	44,713	2,788	9.1
2014	354.5	7.9	1.8	44,907	46,251	2,971	8.4
2015	395.3	7.2	1.7	45,203	47,810	3,338*	8.4

¹ Ages 20-29

² Ages 65 and older

* Preliminary Estimate

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

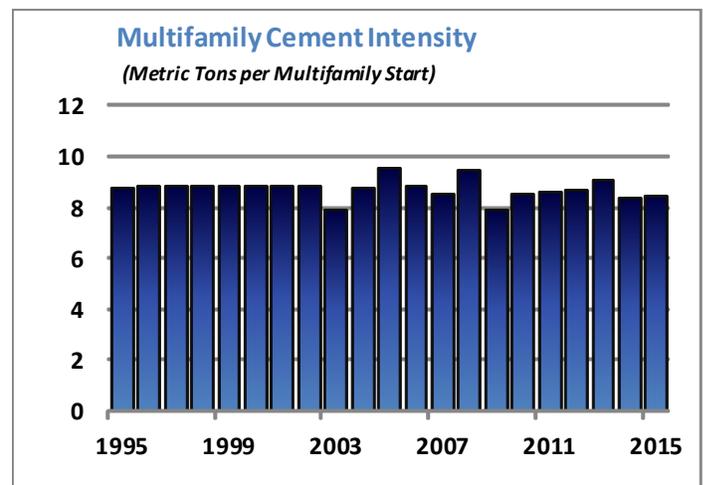
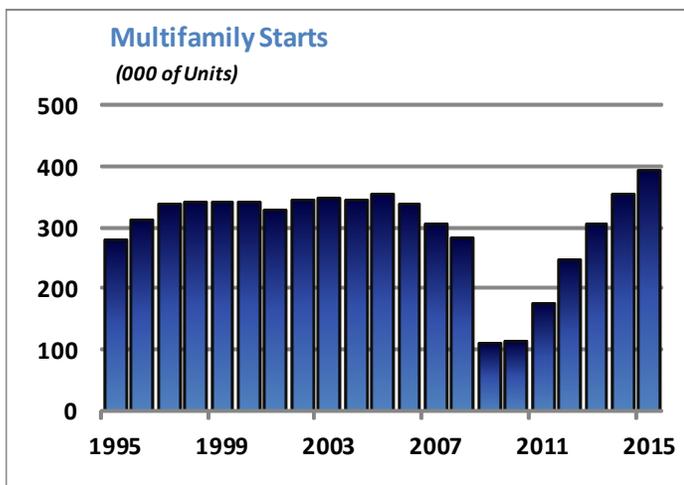




Table 15
Education Construction

Year	Education Construction (\$2009 Bil)	School Age Share of Population (%)	Student Teacher Ratio	Educational Cement (000 MT)	Cement Tons Per Million \$ (Metric Tons)
1995	11.0	21.4	17.1	4,793	43.5
1996	13.2	21.6	16.9	4,809	36.4
1997	16.2	21.7	16.6	4,764	29.5
1998	17.3	21.8	16.3	5,048	29.2
1999	16.5	21.8	15.9	5,631	34.1
2000	19.0	21.8	15.9	8,867	46.7
2001	20.1	21.6	15.7	9,370	46.5
2002	19.9	21.5	15.7	8,588	43.1
2003	20.0	21.3	15.7	7,505	37.6
2004	17.9	21.2	15.5	8,414	47.0
2005	16.7	21.0	15.4	7,514	44.9
2006	17.0	20.9	15.3	4,704	27.7
2007	18.6	20.8	15.2	4,412	23.7
2008	19.9	20.7	15.0	3,856	19.4
2009	16.9	20.5	15.0	2,717	16.1
2010	13.5	20.4	15.5	2,682	19.9
2011	13.7	20.1	15.5	2,453	15.5
2012	15.7	19.9	15.6	2,213	14.1
2013	15.7	19.7	15.6	1,961	12.5
2014	15.0	19.5	15.6	2,261	15.1
2015	15.6	19.4	15.6	2,268	17.4

Sources: National Center for Education Statistics, PCA Market Intelligence: Apparent Use of Portland Cement & Construction Put-In-Place Trend Analysis, U.S. Census Bureau

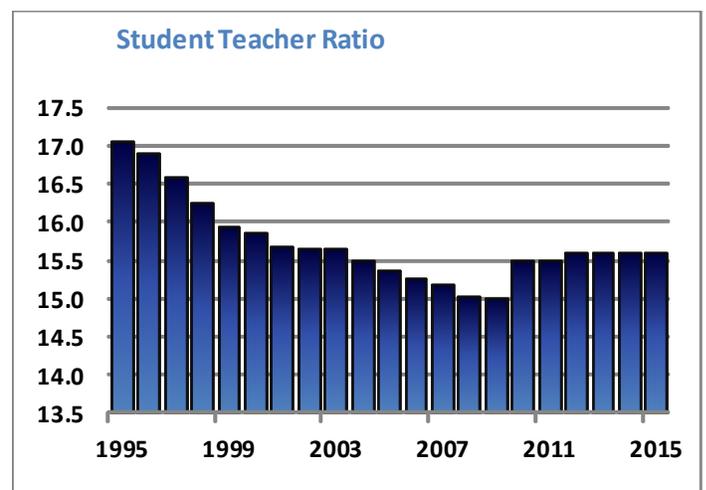
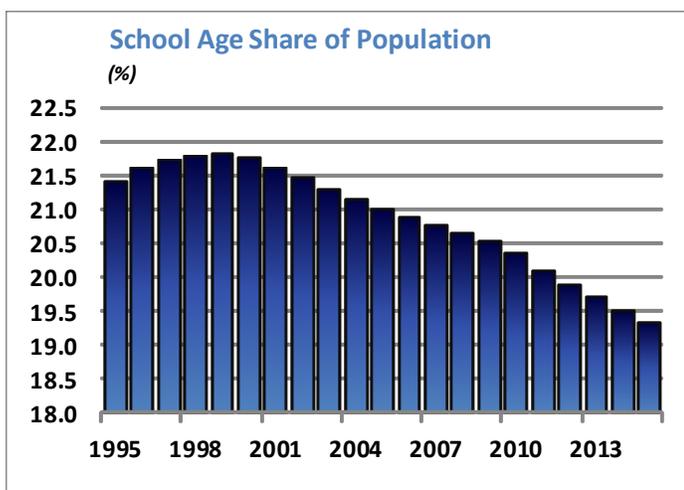




Table 16
Manufacturing Construction

Year	Manufacturing Construction (\$2009 Bil)	Industrial Production Index (2007=100)	Manufacturing Capacity Utilization (%)	Change in Manufacturing Employment (000)	Industrial Vacancy Rate (%)	Manufacturing Cement (000 MT)	Cement Tons Per Million \$ (Metric Tons)
1995	61.9	75	83.2	221	7.1	2,186	35.3
1996	65.2	78	82.2	-4	7.6	2,101	32.2
1997	62.4	84	82.8	183	8.2	2,585	41.4
1998	64.5	89	81.2	140	8.4	2,111	32.7
1999	53.8	92	80.0	-238	8.3	1,850	34.4
2000	55.5	96	79.2	-59	7.7	1,448	26.1
2001	53.9	93	73.3	-822	9.1	1,320	24.5
2002	31.5	93	72.6	-1,183	11.2	929	29.5
2003	29.2	95	73.6	-749	11.6	1,162	39.8
2004	30.1	97	76.1	-194	11.2	1,221	40.6
2005	34.1	100	78.2	-89	10.2	1,317	38.6
2006	36.4	102	78.6	-71	9.6	1,224	33.6
2007	43.1	105	79.0	-276	9.9	1,172	27.2
2008	54.6	101	74.6	-473	10.5	1,105	20.2
2009	57.4	90	65.4	-1,559	13.4	651	11.4
2010	41.6	95	71.0	-319	13.4	500	12.0
2011	39.9	97	74.1	198	13.8	639	16.0
2012	45.7	100	75.1	200	13.1	676	14.8
2013	47.7	102	74.9	93	11.3	719	15.1
2014	53.8	105	75.7	165	10.3	841	15.6
2015	70.4	105	75.9	133	9.4	964*	13.7

* Preliminary Estimate

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

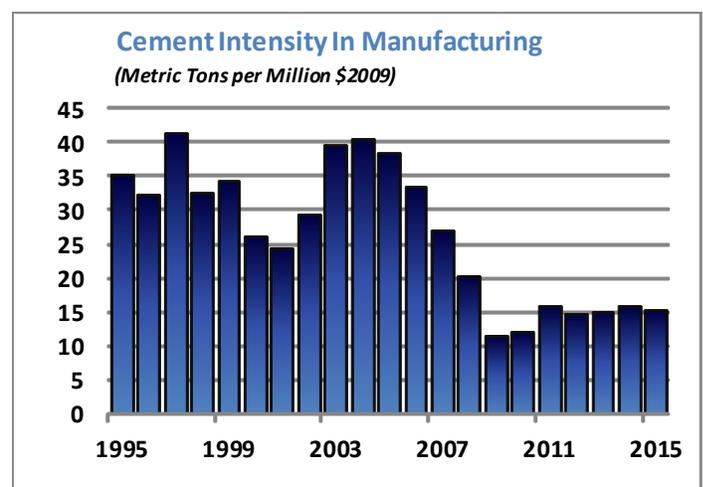
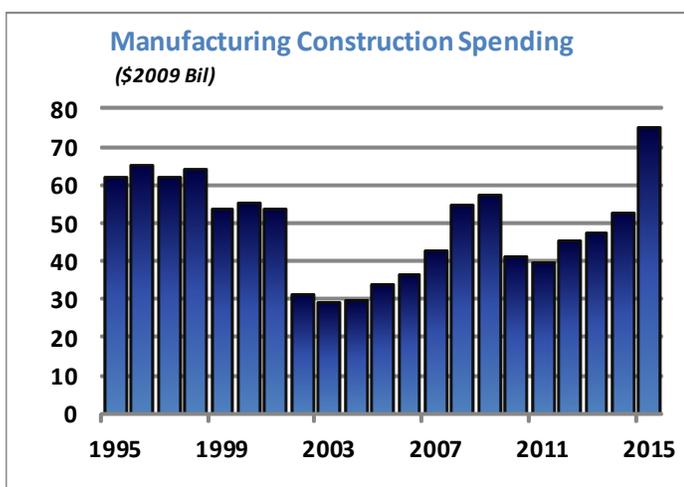




Table 17
Medical Construction

Year	Medical Construction (\$2009 Bil)	Population Insured (%)	Curative Care Occupancy Rate (% of Available Beds)	Medical Cement (000 MT)	Cement Tons Per Million \$ (Metric Tons)
1995	18.7	84.6	62.8	2,539	13.6
1996	19.1	84.4	61.5	2,516	13.2
1997	21.2	83.9	61.9	2,834	13.4
1998	20.9	83.7	62.6	2,830	13.6
1999	19.7	86.4	63.4	3,034	15.4
2000	20.2	86.9	63.9	3,131	15.5
2001	20.0	86.5	64.5	2,894	14.5
2002	23.1	86.1	65.7	2,868	12.4
2003	23.2	85.4	66.2	2,830	12.2
2004	22.5	85.7	66.9	3,060	13.6
2005	22.8	85.4	67.4	2,934	12.9
2006	25.5	84.8	67.1	2,473	9.7
2007	27.0	85.3	66.6	2,312	8.6
2008	28.0	85.1	66.4	2,008	7.2
2009	27.8	83.9	65.5	1,357	4.9
2010	25.4	83.7	64.6	1,166	4.6
2011	24.4	84.3	64.4	1,366	5.0
2012	25.7	84.6	63.4	1,366	5.3
2013	22.8	86.6	62.9	1,310	5.8
2014	21.0	89.6	-	1,435	6.8
2015	23.6	90.9	-	1,301	6.6

Sources: PCA Market Intelligence: Apparent Use of Portland Cement & Construction Put-In-Place Trend Analysis, U.S. Census Bureau

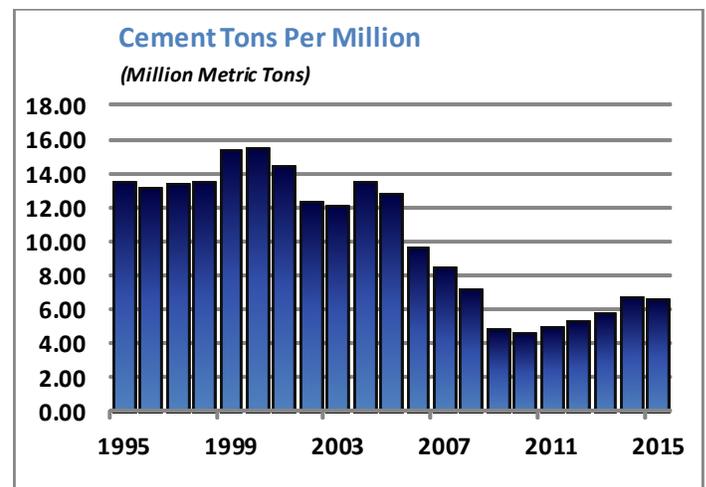
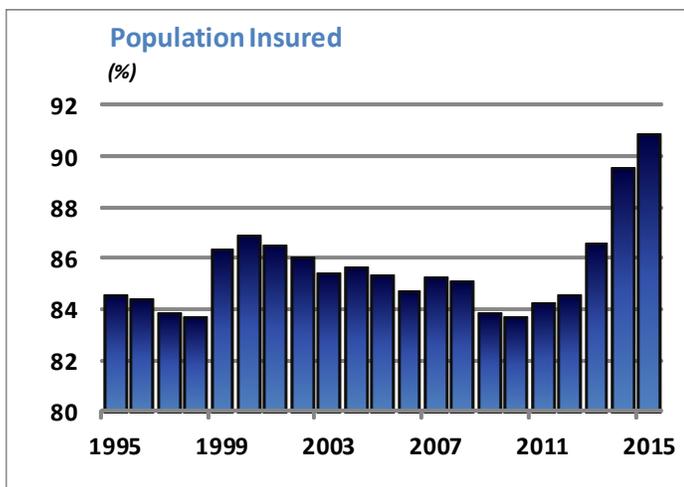




Table 18
Office Construction

Year	Office Construction (\$2009 Bil)	Office Employment (000)	Change in Office Employment (000)	Estimated Office Capacity ¹ (000)	Office Vacancy Rate (%)	Office Cement (000 MT)	Cement Tons Per Million \$ (Metric Tons)
1995	52.6	22,553	732	26,889	14.6	1,804	34.3
1996	57.5	23,420	867	27,408	13.0	2,273	39.5
1997	67.1	24,674	1,253	28,344	10.8	3,248	48.4
1998	77.0	25,930	1,257	29,062	9.1	4,560	59.2
1999	82.4	27,128	1,198	29,859	9.5	4,479	54.3
2000	91.0	28,080	952	31,019	8.0	4,844	53.2
2001	83.5	28,006	-74	30,449	11.1	3,929	47.1
2002	60.3	27,326	-679	30,747	14.9	2,649	43.9
2003	53.4	27,253	-74	32,015	16.6	3,450	64.5
2004	55.6	27,618	365	33,125	16.4	3,115	56.0
2005	56.3	28,211	594	33,756	14.6	2,985	53.0
2006	59.9	28,971	759	33,933	13.3	3,331	55.6
2007	65.9	29,322	352	33,811	12.7	3,421	51.9
2008	66.2	28,925	-398	33,133	13.9	2,746	41.4
2009	44.8	27,220	-1,705	31,615	15.7	1,369	30.5
2010	30.4	27,130	-91	32,182	18.1	818	26.9
2011	29.3	27,702	572	33,836	17.5	780	26.7
2012	33.0	28,391	690	34,394	15.7	850	25.7
2013	35.7	29,107	716	34,507	14.8	1,069	29.9
2014	43.1	29,765	658	34,935	13.9	1,598	37.1
2015	50.5	30,547	782	35,478	13.2	1,665*	33.0

* Preliminary Estimate

¹ Employment Based

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

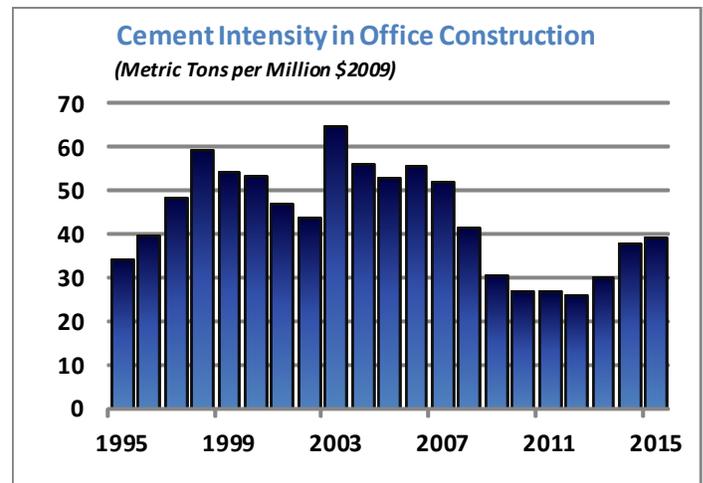
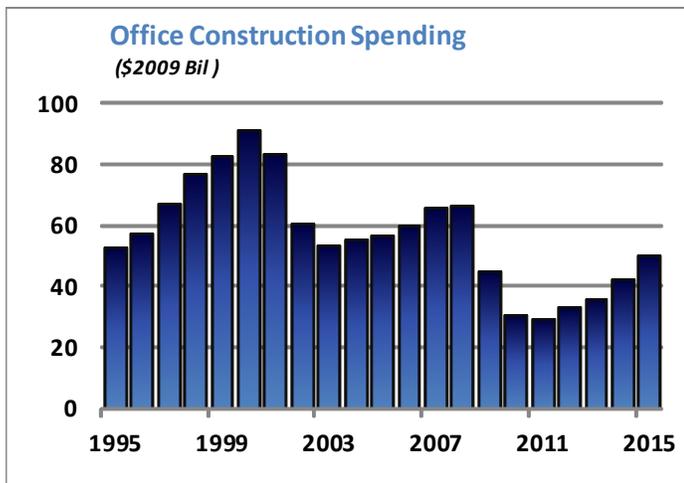




Table 19
Retail Construction

Year	Retail Construction (\$2009 Bil)	Real Consumer Spending Growth (%)	Change in Retail Employment (000)	Consumer Sentiment Index (1985=100)	Retail Cement (000 MT)	Cement Tons Per Million \$ (Metric Tons)
1995	75.7	3.0	409	100	8,437	111.4
1996	82.4	3.5	246	105	8,158	99.0
1997	86.6	3.8	249	125	8,947	103.4
1998	86.3	5.3	220	132	10,857	125.8
1999	87.8	5.3	361	135	11,682	133.0
2000	90.5	5.1	308	139	12,619	139.5
2001	87.8	2.6	-39	107	11,787	134.3
2002	77.6	2.6	-212	97	9,969	128.5
2003	74.2	3.1	-110	80	11,227	151.3
2004	76.6	3.8	143	96	11,624	151.7
2005	73.7	3.5	220	100	11,860	161.0
2006	76.3	3.0	75	106	12,968	170.0
2007	85.0	2.2	161	103	11,528	135.6
2008	76.0	-0.3	-232	58	9,206	121.1
2009	43.8	-1.6	-763	45	4,549	103.8
2010	31.4	1.9	-77	54	3,160	100.6
2011	33.3	2.3	226	58	2,966	89.1
2012	35.4	1.5	166	67	3,865	109.2
2013	39.1	1.7	238	73	4,971	127.1
2014	45.9	2.7	280	87	6,824	148.8
2015	48.1	3.1	286	98	7,157*	148.7

* Preliminary Estimate

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

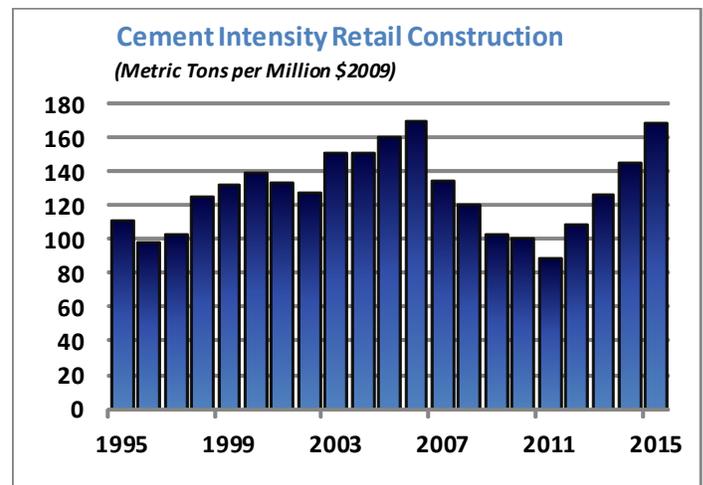
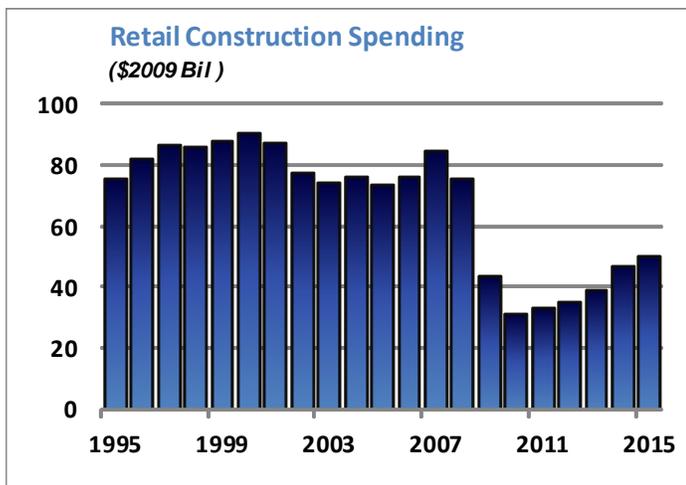




Table 20

Total Public Construction

Year	Public Construction (\$2009 Bil)	State/Local Share of Total Public ¹ (%)	Change In Government Employment (000)	Public Cement (000 MT)	Cement Tons Per Million \$ (Metric Tons)
1995	214.8	88.7	157	30,731	143.1
1996	226.6	89.5	107	32,274	142.4
1997	231.8	90.8	124	33,776	145.7
1998	227.8	90.7	246	34,691	152.3
1999	240.1	91.7	398	37,371	155.6
2000	247.2	92.2	483	38,178	154.5
2001	264.1	92.5	329	41,484	157.1
2002	301.4	92.2	395	39,615	131.4
2003	298.4	91.7	70	38,206	128.1
2004	256.0	91.7	38	41,517	162.1
2005	252.5	92.6	183	44,320	175.5
2006	258.6	93.1	170	46,027	178.0
2007	270.5	92.9	244	45,130	166.9
2008	276.6	92.3	291	40,921	147.9
2009	275.3	90.9	45	31,565	114.7
2010	264.9	89.8	-65	36,020	136.0
2011	243.6	89.0	-404	35,986	147.7
2012	227.0	90.3	-166	36,041	158.8
2013	212.2	91.2	-68	34,406	162.2
2014	209.9	91.7	29	38,306	182.5
2015	217.7	92.1	125	39,729*	182.5

* Preliminary Estimate

¹ Based on nominal value

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

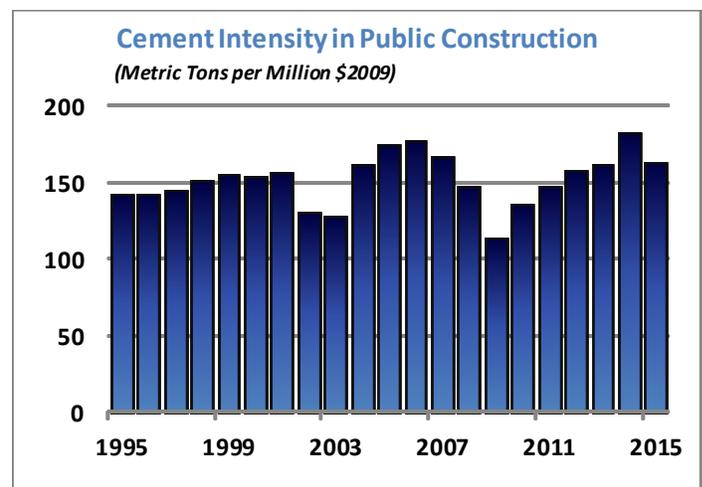
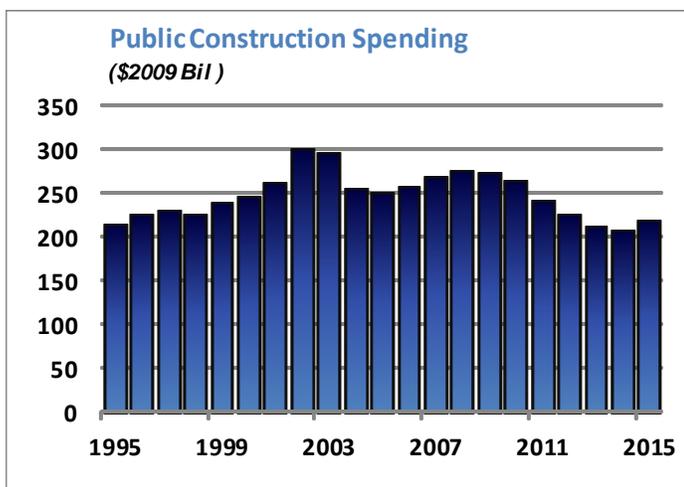




Table 21
Highway Construction

Year	Highway Construction (\$2009 Bil)	Highway Trust Fund Authorizations ^{1,2} (\$2009 Bil)	Estimated Discretionary Highway Spending ³ (\$ Bil)	Highway Cement (000 MT)	Cement Tons Per Million \$ (Metric Tons)
1995	66.3	20.4	45.9	19,231	290.1
1996	65.4	33.5	31.8	19,345	295.9
1997	66.9	32.6	34.3	20,446	305.8
1998	66.4	32.9	33.5	21,646	325.8
1999	70.6	40.7	30.0	23,180	328.1
2000	72.6	42.3	30.3	23,573	324.6
2001	78.0	42.8	35.3	24,878	318.9
2002	79.5	43.1	36.4	23,622	297.1
2003	77.6	37.2	40.4	21,931	282.6
2004	75.1	42.6	32.5	22,214	295.9
2005	75.5	43.7	31.8	26,093	345.7
2006	78.7	41.7	37.1	27,744	352.4
2007	78.7	41.5	37.2	28,155	357.6
2008	80.6	41.4	39.2	25,893	321.3
2009	82.2	42.0	40.2	19,974	243.1
2010	82.2	42.9	39.3	23,144	281.7
2011	76.3	41.4	34.9	24,832	325.4
2012	74.7	41.6	33.2	25,457	340.7
2013	73.9	37.2	36.7	23,871	323.0
2014	74.9	36.3	38.7	25,654	342.4
2015	78.8	--	--	27,225*	345.7

¹ Highway Trust Fund encompasses ISTEA/TEA/SAFETEA-LU/MAP-21 and subsequent extensions following 2009 expiration

² Data based on planned allocations, not actual funding

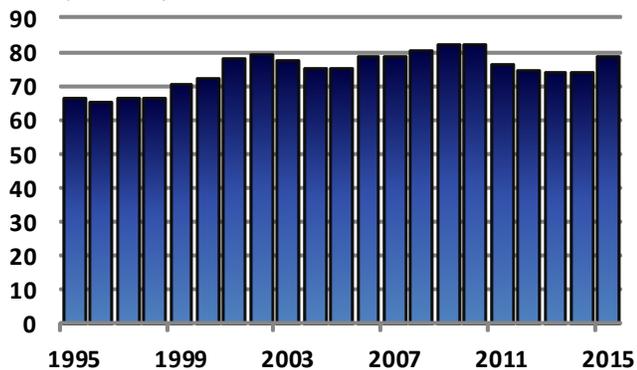
³ Includes ARRA Spending

* Preliminary Estimate

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

Highway Construction Spending

(\$2009 Bil)



Cement Intensity Highway Construction

(Metric Tons per Million \$2009)

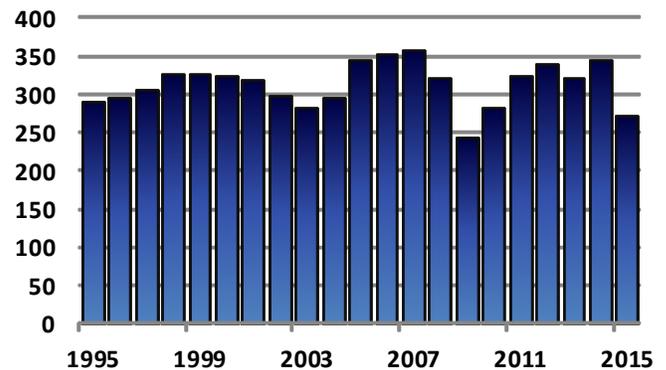




Table 22
Oil Exploration and Production

Year	WTI Oil Price (Dollars Per Barrel)	Active Rig Count	U.S. Oil Production Share of World (%)	Oil Well Cement	Oil Well Cement / Active Rig
1995	-	721	9.3	626	0.9
1996	-	785	9.0	665	0.8
1997	20.6	953	8.7	1,048	1.1
1998	14.4	806	8.3	890	1.1
1999	19.4	634	7.9	694	1.1
2000	30.4	916	7.5	1,375	1.5
2001	25.9	1,155	7.5	1,756	1.5
2002	26.2	831	7.4	1,447	1.7
2003	31.1	1,031	7.1	1,722	1.7
2004	41.5	1,191	6.5	2,052	1.7
2005	56.7	1,381	6.1	2,519	1.8
2006	66.1	1,648	6.0	2,083	1.3
2007	72.3	1,767	6.0	2,160	1.2
2008	99.7	1,878	5.8	2,377	1.3
2009	62.0	1,085	6.2	1,523	1.4
2010	79.5	1,539	6.2	1,820	1.2
2011	94.9	1,875	6.4	2,680	1.4
2012	94.1	1,918	7.2	2,870	1.5
2013	98.0	1,761	8.2	2,997	1.7
2014	93.2	1,862	9.3	3,142	1.7
2015	48.7	977	-	1,659	1.7

Sources: Baker Hughes Incorporated, PCA Market Intelligence: Apparent Use of Portland Cement & Construction Put-In-Place Trend Analysis, U.S. Energy Information Administration

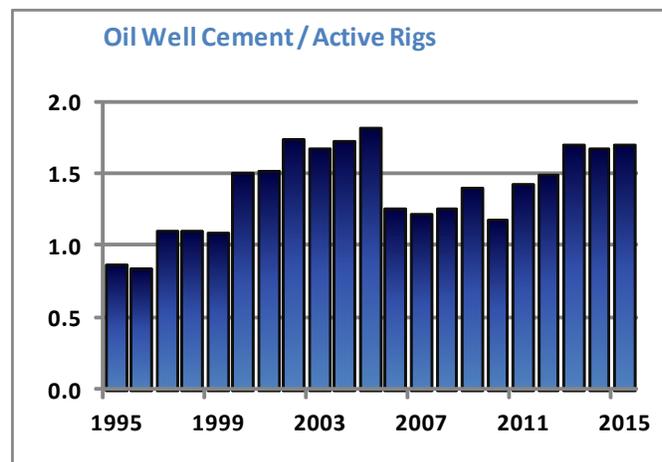
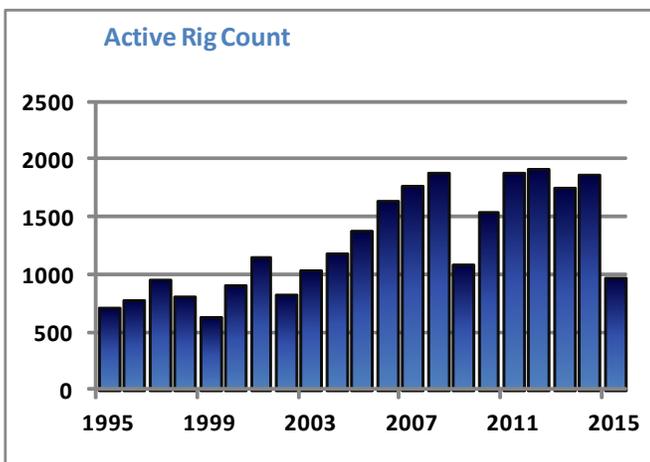




Table 23
Portland Cement Consumption Growth by State

(Compound Annual Growth Rate)

1986 - 1995		1996 - 2005		2006 - 2015		1986 - 2015	
Nevada	8.9	Wyoming	9.0	North Dakota	10.9	North Dakota	5.0
Idaho	7.8	Florida	6.4	DC	1.2	Iowa	2.4
Hawaii	7.4	Arizona	6.4	Oklahoma	0.5	DC	2.2
Wisconsin	4.9	California	6.2	Nebraska	0.0	Idaho	2.2
Montana	4.9	DC	6.0	Iowa	-0.1	Nebraska	2.2
Washington	4.6	Rhode Island	5.4	Texas	-0.2	Nevada	2.2
Iowa	4.5	Texas	5.3	Delaware	-0.7	Texas	2.0
Indiana	4.4	Idaho	4.6	Hawaii	-1.2	Oklahoma	1.7
Missouri	4.3	South Carolina	4.4	Minnesota	-1.4	Colorado	1.6
Oregon	4.0	Virginia	4.0	Indiana	-1.4	Hawaii	1.6
Ohio	3.8	Nevada	3.9	Wisconsin	-1.5	Washington	1.5
Illinois	3.8	South Dakota	3.8	New York	-1.6	South Dakota	1.4
Nebraska	3.6	Oklahoma	3.4	Louisiana	-1.7	South Carolina	1.3
Mississippi	3.0	Montana	3.4	Ohio	-1.7	Montana	1.2
Minnesota	2.9	Georgia	3.3	Kansas	-1.7	Utah	1.2
Delaware	2.8	Hawaii	3.2	Kentucky	-1.7	Wisconsin	1.2
North Carolina	2.8	Nebraska	3.2	Pennsylvania	-1.9	Oregon	1.1
Michigan	2.6	New Jersey	2.9	South Dakota	-2.1	Indiana	1.0
South Dakota	2.5	Colorado	2.9	Colorado	-2.3	Minnesota	0.8
Tennessee	2.5	Arkansas	2.9	Montana	-2.3	Louisiana	0.7
Kentucky	2.4	Maryland	2.9	Michigan	-2.4	Delaware	0.6
Arkansas	2.3	Illinois	2.7	Massachusetts	-2.5	Kansas	0.6
Colorado	2.0	Washington	2.7	Maryland	-2.7	Ohio	0.6
West Virginia	2.0	New York	2.6	South Carolina	-2.9	North Carolina	0.4
Alabama	1.9	North Carolina	2.5	New Jersey	-2.9	Wyoming	0.4
Pennsylvania	1.7	Minnesota	2.3	Washington	-2.9	Kentucky	0.4
New Mexico	1.7	Missouri	2.2	Wyoming	-2.9	Arkansas	0.3
Arizona	1.5	Louisiana	2.2	West Virginia	-3.0	West Virginia	0.3
Kansas	0.9	Connecticut	2.0	Utah	-3.2	Florida	0.1
Utah	0.8	New Mexico	1.9	Connecticut	-3.3	Illinois	0.1
South Carolina	0.6	Iowa	1.9	Idaho	-3.7	New Mexico	0.0
DC	0.6	Utah	1.9	Arkansas	-3.8	Tennessee	0.0
Florida	0.5	Kentucky	1.7	Illinois	-3.8	Pennsylvania	-0.2
Georgia	0.5	Alabama	1.7	California	-4.1	Georgia	-0.2
Rhode Island	0.2	Wisconsin	1.6	North Carolina	-4.2	Mississippi	-0.3
North Dakota	-0.8	Massachusetts	1.5	Tennessee	-4.2	California	-0.3
Oklahoma	-0.8	West Virginia	1.5	Virginia	-4.5	Arizona	-0.3
California	-1.0	Pennsylvania	1.4	Vermont	-4.5	New York	-0.3
New Jersey	-1.0	Vermont	1.4	Missouri	-4.6	Missouri	-0.5
Massachusetts	-1.0	Mississippi	1.4	New Hampshire	-5.1	Michigan	-0.5
Virginia	-1.1	Tennessee	1.3	Mississippi	-5.1	Alabama	-0.7
Maine	-1.2	Indiana	1.1	Georgia	-5.2	New Jersey	-0.7
New York	-1.3	North Dakota	1.1	Oregon	-5.2	Maryland	-0.7
Maryland	-1.9	Maine	1.0	Maine	-5.3	Virginia	-0.9
Texas	-1.9	Oregon	0.6	New Mexico	-5.6	Maine	-1.5
Connecticut	-2.3	Ohio	0.4	Alabama	-5.7	Vermont	-1.6
Louisiana	-2.5	Kansas	0.1	Florida	-6.1	Connecticut	-1.6
Wyoming	-3.2	Michigan	-0.2	Rhode Island	-7.7	Massachusetts	-1.7
New Hampshire	-3.4	Delaware	-1.5	Nevada	-8.1	New Hampshire	-1.9
Vermont	-4.2	New Hampshire	-1.8	Arizona	-8.4	Rhode Island	-2.2
Total U.S.	-0.8	Total U.S.	3.4	Total U.S.	-3.0	Total U.S.	0.5

Source: U.S. Geological Survey



Table 24

Top 20 States in Portland Cement Consumption¹

(Thousands of Metric Tons)

State	1995	State	2005	State	2015
California	8,102	California	15,322	Texas	14,345
Texas	8,340	Texas	14,667	California	9,434
Florida	5,770	Florida	11,302	Florida	5,929
Illinois	3,306	Illinois	4,539	Ohio	3,144
Ohio	3,532	Arizona	4,671	Illinois	3,090
Georgia	3,045	Ohio	3,893	New York	2,847
Pennsylvania	2,807	Georgia	4,395	Pennsylvania	2,718
Michigan	2,713	Pennsylvania	3,310	Georgia	2,628
Arizona	2,266	North Carolina	2,899	Louisiana	2,154
New York	2,328	Michigan	2,924	Colorado	2,094
Missouri	2,236	New York	3,151	North Carolina	2,028
Wisconsin	1,837	Virginia	2,666	Michigan	1,968
Indiana	1,857	Colorado	2,520	Arizona	1,916
North Carolina	2,217	Missouri	2,816	Iowa	1,895
Virginia	1,757	Indiana	2,183	Indiana	1,892
Washington	1,668	Wisconsin	2,349	Wisconsin	1,873
Tennessee	1,806	Louisiana	2,166	Washington	1,750
Louisiana	1,746	Minnesota	2,016	Virginia	1,664
Minnesota	1,580	Washington	2,237	Minnesota	1,656
New Jersey	1,410	Tennessee	2,242	Missouri	1,644
Total U.S.	82,829	Total U.S.	122,337	Total U.S.	89,732

¹ U.S. Total excludes AK, Foreign, and Puerto Rico
Source: U.S. Geological Survey

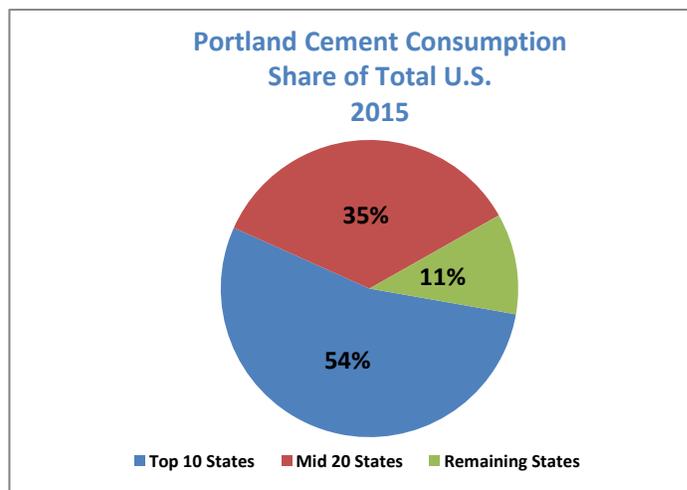
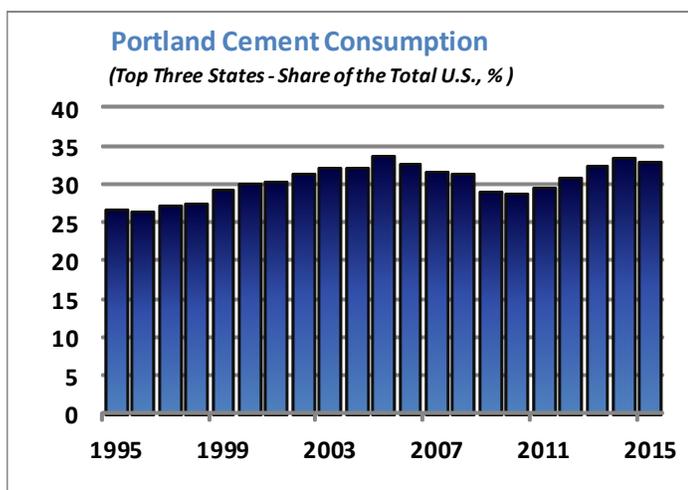




Table 25

Top 20 MSAs in Portland Cement Consumption

MSA	2005	MSA	2015
Los Angeles-Long Beach-Santa Ana, CA	4,184	Houston-Sugar Land-Baytown, TX	4,040
Dallas-Fort Worth-Arlington, TX	3,950	Dallas-Fort Worth-Arlington, TX	2,964
Houston-Sugar Land-Baytown, TX	3,597	Los Angeles-Long Beach-Santa Ana, CA	2,921
Phoenix-Mesa-Scottsdale, AZ	3,304	New York-Northern New Jersey-Long Island, NY-NJ-PA	2,913
New York-Northern New Jersey-Long Island, NY-NJ-PA	3,259	Chicago-Naperville-Joliet, IL-IN-WI	1,934
Riverside-San Bernardino-Ontario, CA	3,146	Atlanta-Sandy Springs-Marietta, GA	1,458
Atlanta-Sandy Springs-Marietta, GA	2,598	Washington-Arlington-Alexandria, DC-VA-MD-WV	1,454
Chicago-Naperville-Joliet, IL-IN-WI	2,553	Miami-Fort Lauderdale-Pompano Beach, FL	1,421
Miami-Fort Lauderdale-Pompano Beach, FL	2,301	Riverside-San Bernardino-Ontario, CA	1,322
Washington-Arlington-Alexandria, DC-VA-MD-WV	1,965	Phoenix-Mesa-Scottsdale, AZ	1,321
Las Vegas-Paradise, NV	1,819	Seattle-Tacoma-Bellevue, WA	1,064
Orlando-Kissimmee, FL	1,432	San Francisco-Oakland-Fremont, CA	1,037
Tampa-St. Petersburg-Clearwater, FL	1,405	Austin-Round Rock, TX	1,029
San Diego-Carlsbad-San Marcos, CA	1,333	Denver-Aurora, CO	1,000
St. Louis, MO-IL	1,278	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	977
San Francisco-Oakland-Fremont, CA	1,265	San Diego-Carlsbad-San Marcos, CA	969
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	1,225	Minneapolis-St. Paul-Bloomington, MN-WI	927
Kansas City, MO-KS	1,207	San Antonio, TX	887
San Antonio, TX	1,167	Tampa-St. Petersburg-Clearwater, FL	863
Denver-Aurora, CO	1,158	Orlando-Kissimmee, FL	861
Total U.S.	101,622	Total U.S.	71,987

¹ U.S. Total excludes AK, Foreign, and Puerto Rico

Source: PCA Market Intelligence: 2000-2015 Trend Analysis of Portland Cement Usage with Projections through 2020

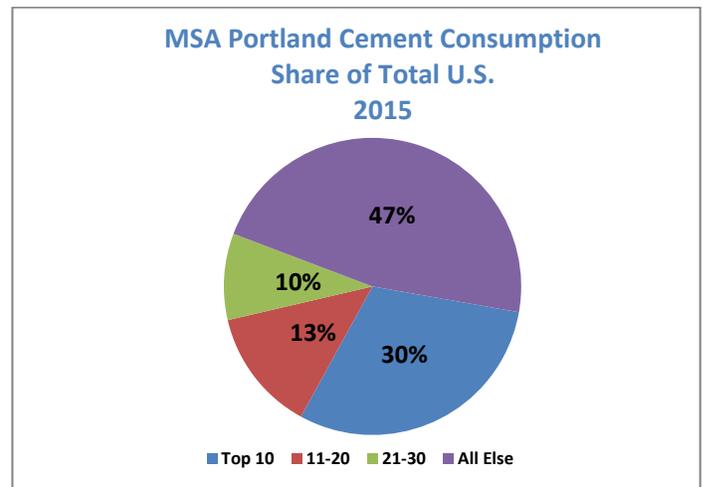
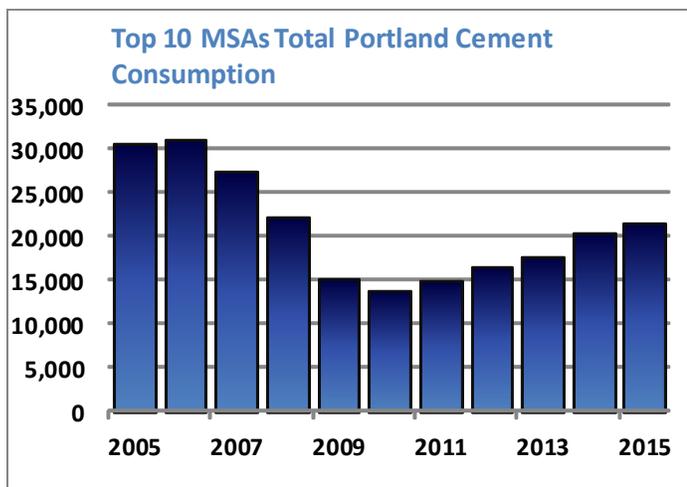




Table 26
Highway Infrastructure Funding

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 (2009=100)
1995	18.4	18.4	16.4	2.0	2,423	20.5	58.9
1996	18.3	17.7	16.3	2.0	2,482	20.4	60.8
1997	18.4	17.3	15.5	2.9	2,560	20.1	62.6
1998	18.4	17.1	15.5	2.9	2,625	20.1	63.4
1999	18.4	16.5	15.5	2.9	2,679	19.7	65.6
2000	18.4	15.9	15.5	2.9	2,747	19.8	68.3
2001	18.4	15.3	15.5	2.9	2,792	19.6	70.9
2002	18.4	15.0	15.5	2.9	2,856	19.4	72.3
2003	18.4	14.7	15.5	2.9	2,886	19.6	73.6
2004	18.4	13.9	15.5	2.9	2,937	19.3	78.1
2005	18.4	12.8	15.5	2.9	2,969	19.9	85.0
2006	18.4	11.8	15.5	2.9	2,999	20.1	91.5
2007	18.4	11.1	15.5	2.9	3,003	20.6	97.4
2008	18.4	10.7	15.5	2.9	2,927	21.0	100.9
2009	18.4	10.8	15.5	2.9	2,968	22.4	100.0
2010	18.4	10.8	15.5	2.9	2,998	22.6	100.4
2011	18.4	10.4	15.5	2.9	2,956	22.4	103.9
2012	18.4	10.1	15.5	2.9	2,946	23.6	107.8
2013	18.4	9.8	15.5	2.9	2,968	24.1	110.1
2014	18.4	9.6	15.5	2.9	3,039	24.2	113.1
2015	18.4	9.5	15.5	2.9	3,143	24.7	113.9

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)

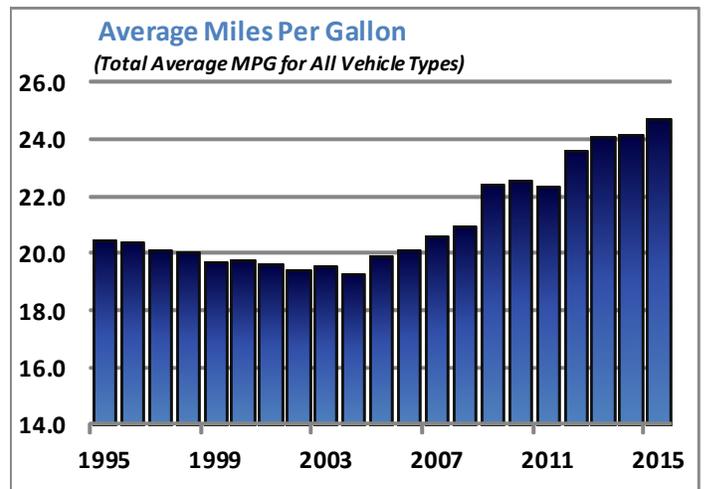
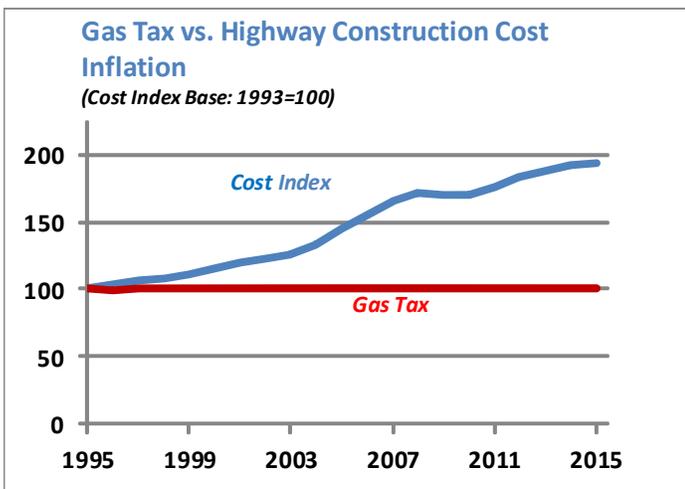




Table 27
Highway Congestion Measures

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)
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	8,251,865	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	161.6
2010	8,581,158	210,115	242,061	40.8	35.5	157.1
2011	8,567,618	211,875	244,778	40.4	35.0	153.3
2012	8,606,003	211,815	253,639	40.6	33.9	158.4
2013	8,656,070	212,160	255,877	40.8	33.8	157.4
2014	8,716,663	214,092	260,351	40.7	33.5	156.4
2015	8,624,497*	212,025*	260,674*	40.7*	33.1*	157.5*

* Estimated

Source: Federal Highway Administration, National Highway Traffic Safety Administration

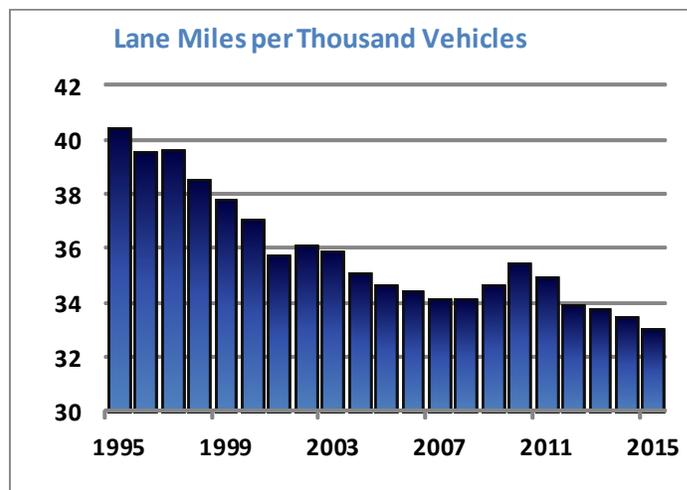
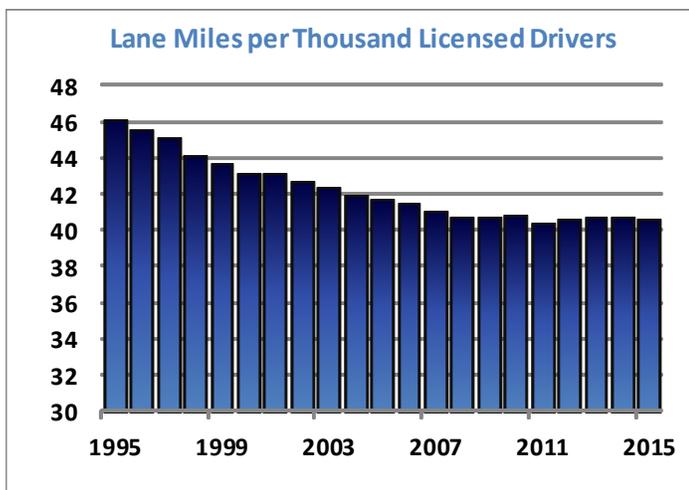




Table 28
Airport Infrastructure Funding

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)
1995	5,534	5,127	666	6.25	10.0	6.0
1996	2,369	2,189	871	6.25	10.0	6.0
1997	4,007	1,327	901	6.25	10.0	6.0
1998	8,698	4,589	1,093	6.25	9.0	12.0
1999	11,126	7,363	1,106	6.25	8.0	12.2
2000	10,557	7,074	1,804	6.25	7.5	12.4
2001	10,098	7,345	1,993	6.25	7.5	12.8
2002	9,808	4,815	1,281	6.25	7.5	13.2
2003	9,255	3,898	1,012	6.25	7.5	13.4
2004	9,621	2,447	869	6.25	7.5	13.7
2005	10,754	1,940	748	6.25	7.5	14.1
2006	11,073	1,773	719	6.25	7.5	14.5
2007	11,941	1,533	732	6.25	7.5	15.1
2008	12,422	1,435	776	6.25	7.5	15.4
2009	10,851	299	512	6.25	7.5	16.1
2010	10,794	696	259	6.25	7.5	16.1
2011	11,726	1,405	535	6.25	7.5	16.3
2012	12,532	912	1,044	6.25	7.5	16.7
2013	12,854	1,046	921	6.25	7.5	17.2
2014	13,513	600	658	6.25	7.5	17.5
2015	14,268	1,407	729	6.25	7.5	17.7

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

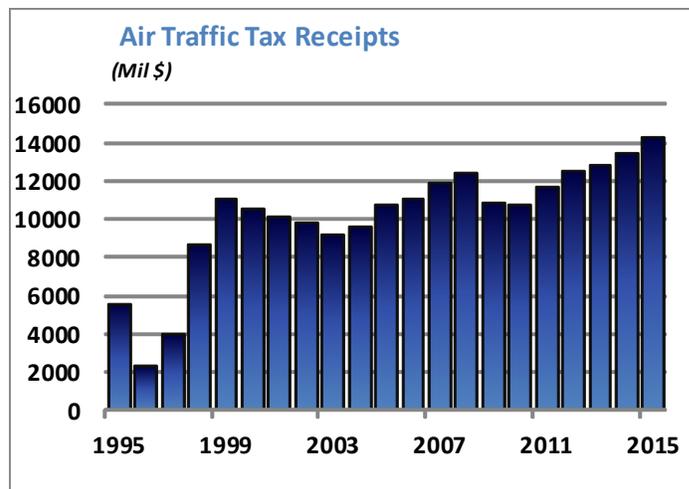
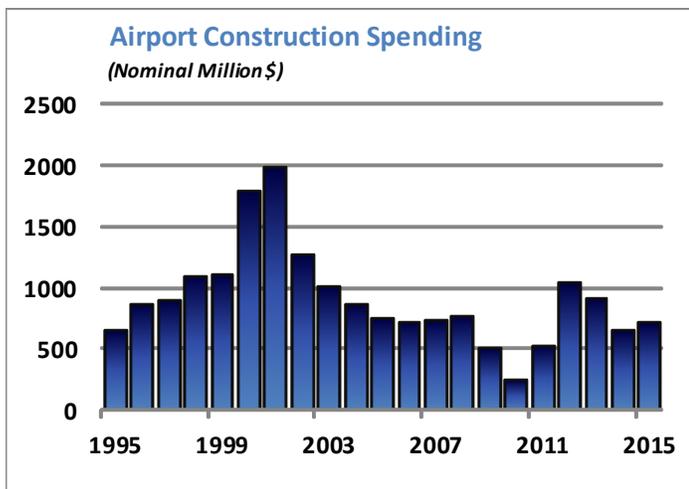




Table 29
Airport Congestion Measures

Year	Air Travelers (000)	Air Travelers (% Change)	Total Landed Cargo (000 Tons)	Active Aircraft (000)	Hours Flown Per Aircraft	Travelers Per Aircraft	Aviation Incidents
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	220	111	3,288	1,635
2012	731,129	0.9	66,656	209	117	3,498	1,589
2013	738,981	1.1	68,655	200*	114*	3,696	1,313
2014	761,288	3.0	70,629	204	114	3,724	1,176
2015	780,643	2.5	74,071	204*	114*	3,829	1,332

* Estimated

Note: 2015 Air Travelers and Total Landed Cargo are Preliminary Estimates

Source: Federal Aviation Administration, National Transportation Safety Board

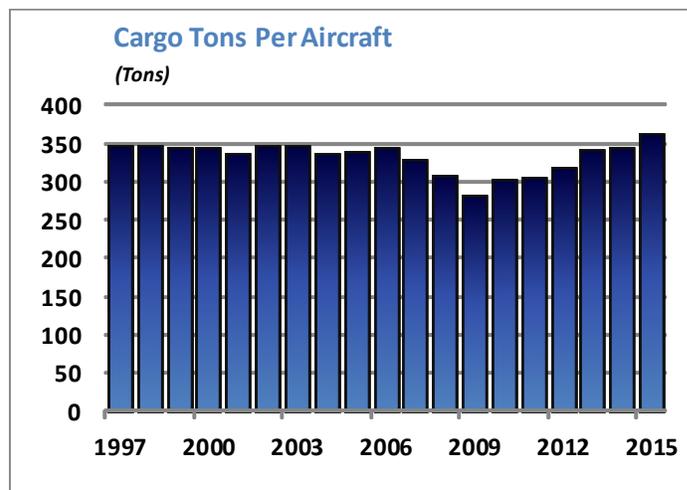
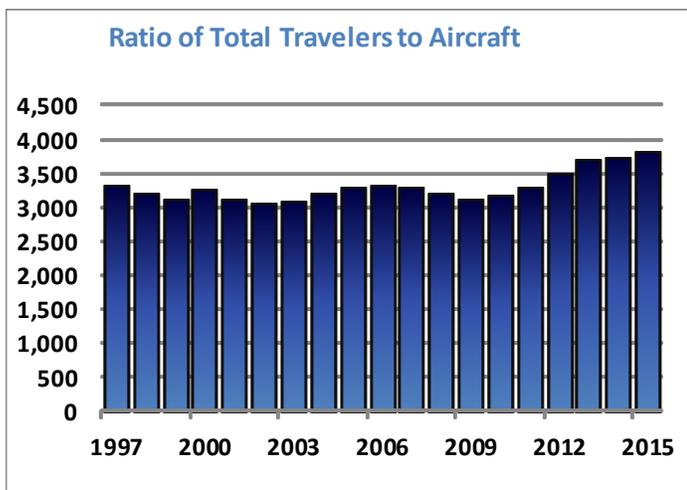




Table 30
Seaport Congestion Measures

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 (%)
1995	2,240	1.2	22,082	8.3	0.3
1996	2,284	1.9	23,837	7.9	0.3
1997	2,333	2.1	24,569	3.1	0.3
1998	2,340	0.3	24,848	1.1	0.3
1999	2,323	-0.7	26,218	5.5	0.3
2000	2,425	4.4	27,590	5.2	0.3
2001	2,393	-1.3	27,743	0.6	0.3
2002	2,340	-2.2	26,953	-2.8	0.2
2003	2,394	2.3	31,262	16.0	0.3
2004	2,552	6.6	37,318	19.4	0.3
2005	2,528	-1.0	39,252	5.2	0.3
2006	2,588	2.4	42,190	7.5	0.3
2007	2,564	-0.9	48,330	14.6	0.3
2008	2,477	-3.4	54,733	13.2	0.4
2009	2,211	-10.8	49,217	-10.1	0.3
2010	2,334	5.6	54,004	9.7	0.4
2011	2,367	1.4	56,578	4.8	0.4
2012	2,307	-2.6	59,281	4.8	0.4
2013	2,275	-1.4	60,549	2.1	0.4
2014	2,346	3.1	62,989	4.0	0.4

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

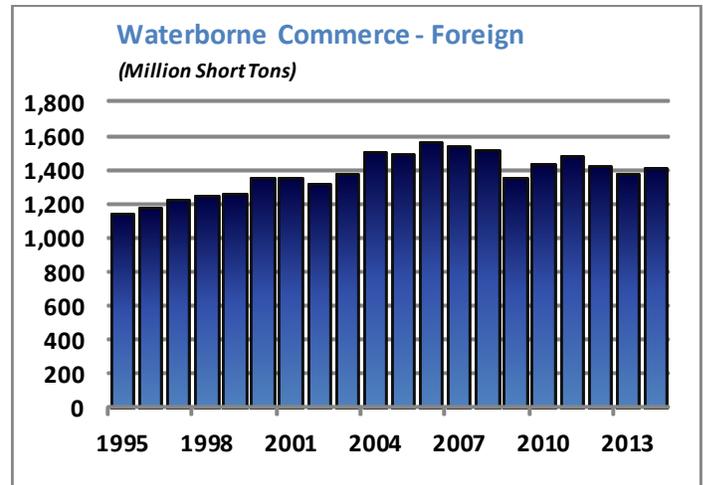
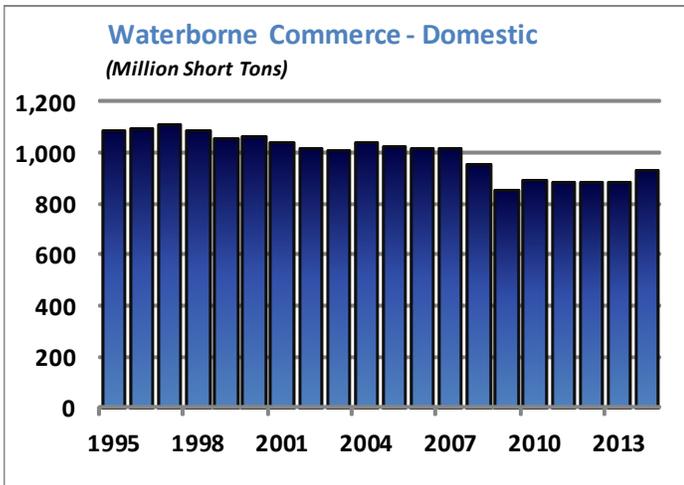




Table 31
Clinker Capacity*

(Thousands of Metric Tons)

Year	Number of Plants ¹	Number of Kilns	Average Kiln Capacity	Daily Clinker Capacity	Annual Clinker Capacity
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	98	151	684	314.9	103,286
2013	97	143	698	307.1	99,859
2014	97	140	710	305.5	99,357
2015**	97	143	710	305.5	99,357

¹Count reflects clinker-producing plants only

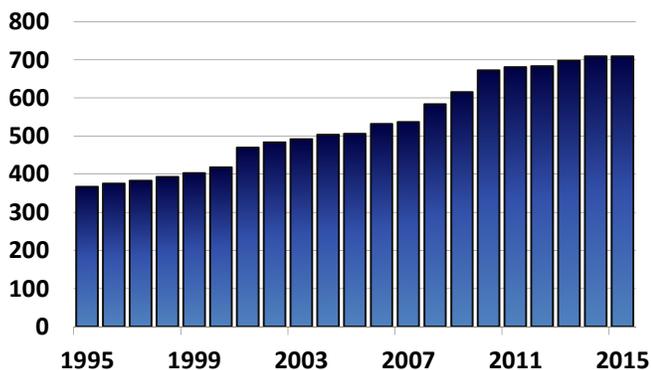
* Years 2011-2012, 2014-2015 are estimates calculated from base years 2010 and 2013, respectively, adding expansions and subtracting only announced permanent closures.

**Reflects Capacity Adjustments through 12/31/2015

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

Average Kiln Capacity

(Thousands of Metric Tons)



Clinker Capacity

(Thousands of Metric Tons)

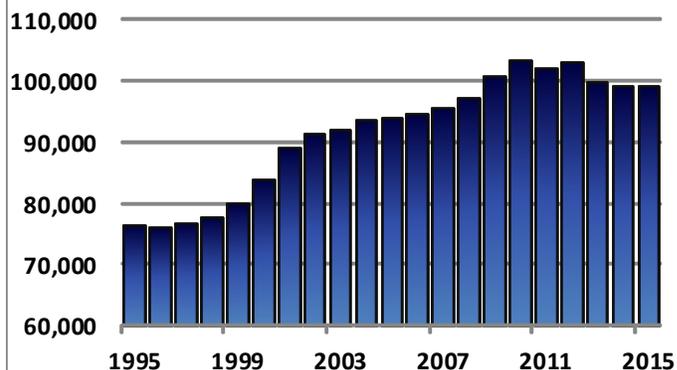




Table 32
Clinker Production,
Capacity and Capacity Utilization

Year	Clinker Production (MMT)	Clinker Capacity* (MMT)	Utilization Rate (%)
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	103.6	58.3
2011	62.0	102.2	60.6
2012	67.8	103.3	65.6
2013	69.9	99.9	70.0
2014	75.0	99.4	75.5
2015	76.6	99.4**	77.1

*Years 2011, 2012, 2014 and 2015 are estimates calculated from 2010 and 2013 Plant Information Summaries by adding expansions and subtracting only announced permanent closures.

**Reflects Capacity Adjustments through 12/31/2015

Clinker is the primary intermediate product of cement making. Kilns produce clinker which is finely ground to make finished cement. Clinker comprises approximately 92% of cement's final weight.

Source: U.S. Geological Survey, PCA U.S. Portland Cement Industry: Plant Information Summary

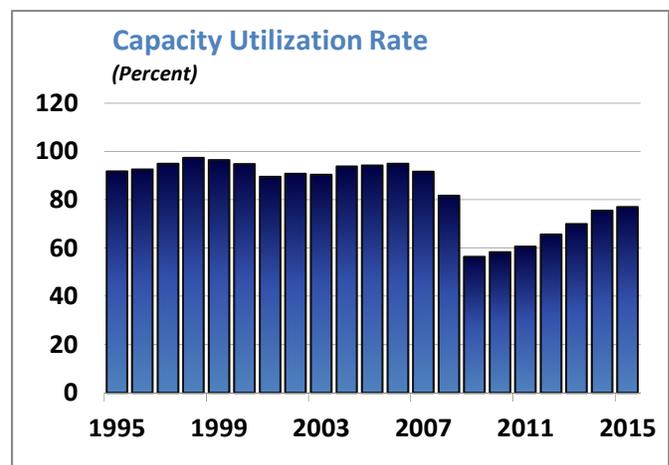
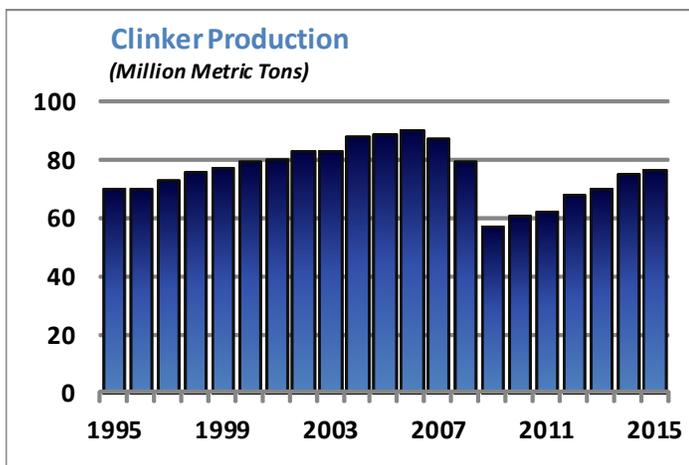




Table 33

Age Distribution of U.S. Clinker Capacity by Process, 2015**

(Percent)

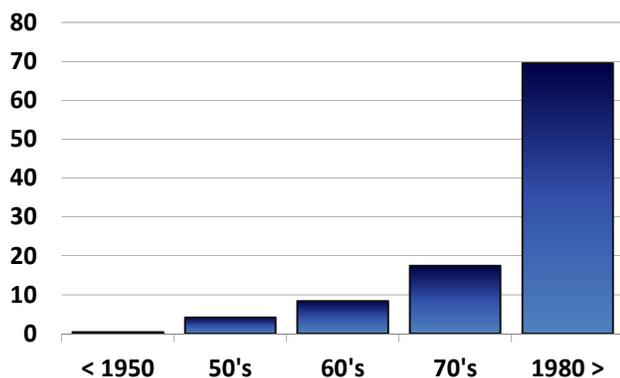
Age of Kilns	Wet Process	Dry Process	Total
Before 1931	7.1	0.0	0.3
1931-1935	0.0	0.0	0.0
1936-1940	0.0	0.0	0.0
1941-1945	0.0	0.0	0.0
1946-1950	0.0	0.1	0.1
1951-1955	0.0	0.7	0.7
1956-1960	25.5	2.6	3.5
1961-1965	44.1	4.8	6.3
1966-1970	15.9	1.6	2.1
1971-1975	7.5	4.1	4.2
1976-1980	0.0	13.8	13.3
After 1980	0.0	72.3	69.5
Total Clinker	3,743	95,614	99,357

**Reflects Capacity Adjustments through 12/31/2015

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

Age Distribution of U.S. Kilns - 2013

(Percent)



Dry Process Kilns

(Percent Share of Total Capacity)

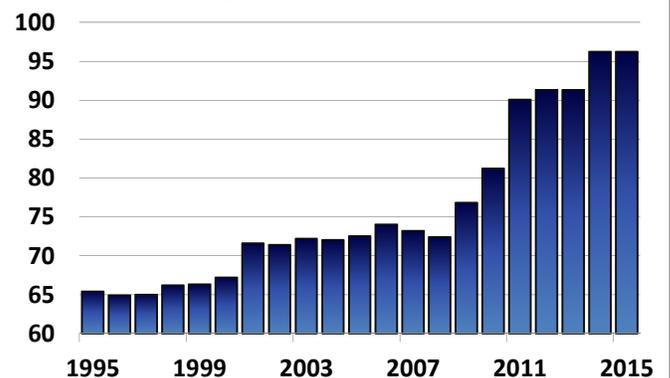




Table 34
Clinker Capacity By Census District*

(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
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	102,210
2012	647	7,947	18,806	10,890	7,872	15,908	17,472	9,717	14,040	103,299
2013	693	7,872	18,278	9,863	8,302	15,564	15,800	9,393	14,094	99,859
2014	693	7,549	18,278	9,863	8,302	15,564	15,621	9,393	14,094	99,357
2015**	693	7,549	18,278	9,863	8,302	15,564	15,621	9,393	14,094	99,357

* Years 2011-2012, 2014-2015 are estimates calculated from base years 2010 and 2013, respectively, adding expansions and subtracting only announced permanent closures.

**Reflects Capacity Adjustments through 12/31/2015

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

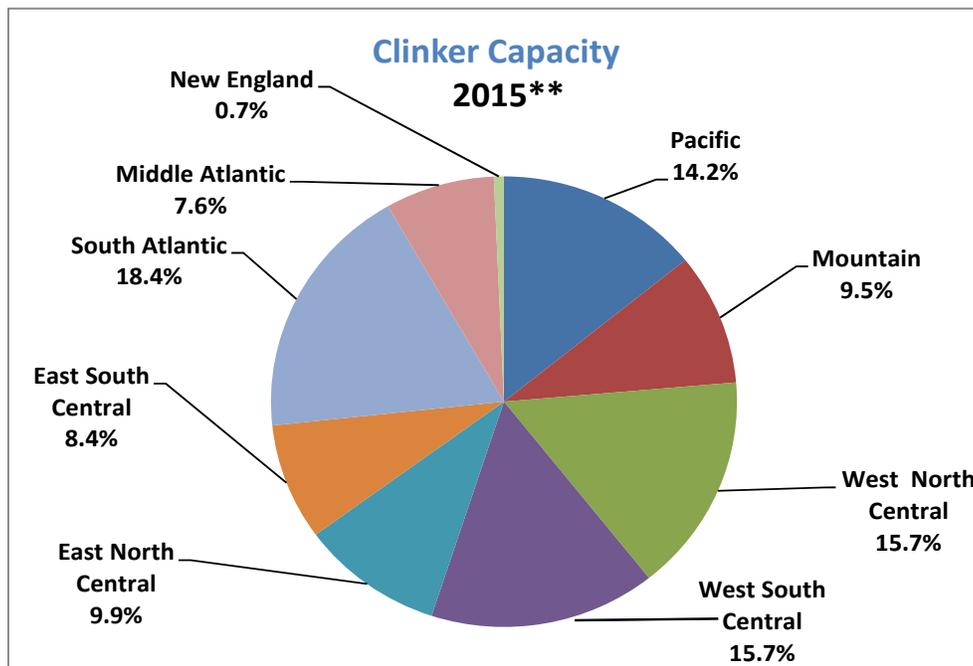




Table 35

U.S. Cement Company Clinker Capacity

(Gray and White Plants) (Thousands of Metric Tons - Estimated as of 12/31/2015)

Rank	Company	Clinker Capacity**	Percent of Industry
1	LafargeHolcim	18,884	19.0
2	CEMEX	14,580	14.7
3	Lehigh Hanson, Inc.	9,136	9.2
4	Buzzi Unicem, Inc.	8,108	8.2
5	Ash Grove Cement Company	7,123	7.2
6	CalPortland Company	5,217	5.3
7	Essroc Cement Corp.	4,195	4.2
8	Martin Marietta Materials, Inc.	3,971	4.0
9	Argos USA Corporation	3,521	3.5
10	Eagle Materials	3,441	3.5
11	Titan America	2,955	3.0
12	Giant Cement Holding	2,554	2.6
13	Continental Cement Co., Inc.	1,904	1.9
14	GCC of America Inc	1,875	1.9
15	St. Marys Cement Inc (U.S.)/VCNA	1,870	1.9
16	Mitsubishi Cement Corporation	1,498	1.5
17	Texas-Lehigh Cement Company	1,118	1.1
18	National Cement Co. Of California	1,033	1.0
19	Monarch Cement Company	988	1.0
20	American Cement Company	917	0.9
21	Salt River Materials Group-Phoenix Cement	912	0.9
22	National Cement Co. of Alabama	899	0.9
23	Suwannee American Cement	814	0.8
24	Capitol Aggregates, Ltd.	701	0.7
25	Drake Cement	599	0.6
26	Oldcastle Materials	280	0.3
27	Armstrong Cement & Supply Corp.	264	0.3
Total Capacity		99,357	

**Reflects Capacity Adjustments through 12/31/2015

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



Table 36

Foreign Affiliated U.S. Clinker Capacity

(Gray and White Plants)

Company	Affiliation as of December, 31, 2015	Country	Clinker Capacity
			(000 Metric Tons) 12/31/2015**
Argos USA	Cementos Argos S.A.	Columbia	3,521
Buzzi Unicem USA, Inc.	Buzzi Unicem	Italy	8,108
CalPortland Company	Taiheiyo Cement Corp.	Japan	5,217
CEMEX	CEMEX S.A.B. de C.V.	Mexico	14,580
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	1,875
Giant Cement Holding, Inc.	Cementos Portland Valderrivas	Spain	2,554
LafargeHolcim	Lafarge SA	Switzerland	18,884
Lehigh Hanson Cement Company	Heidelberg Cement INC.	Germany	9,136
Mitsubishi Cement Corporation	Mitsubishi Materials Corp.	Japan	1,498
National Cement Co. of Alabama	Vicat S.A.	France	899
National Cement Co. of California	Vicat S.A.	France	1,033
Olcastle Materials	CRH plc	Ireland	280
St. Marys Cement Inc. (U.S.)/VCNA	Votorantim	Brazil	1,870
Titan America LLC	Titan Cement Co. SA	Greece	2,955
Total Foreign Owned Capacity:			78,628
Total U.S. Capacity:			99,357
Percent of U.S. Foreign Owned Clinker Capacity :			79.1%

Domestic Affiliated U.S. Clinker Capacity

Company			
American Cement Company	CRH (50%)/Trap Rock Industries (50%)	Ireland/USA	917
Armstrong Cement & Sup. Corp.	Snyder Associated Companies		264
Ash Grove Cement Company	Privately Held		7,123
Capitol Aggregates, Ltd.	H. B. Zachry Construction Co.		701
Continental Cement Co., Inc.	Summit Materials		1,904
Eagle Materials	Eagle Materials		3,441
Monarch Cement Company	Privately Held		988
Phoenix Cement Company	Salt River Materials Group		912
Martin Marietta Materials, Inc.	Martin Marietta Materials, Inc.		3,971
Suwannee American Cement	Votorantim (50%)/Anderson Columbia (50%)	Brazil/USA	814
Texas-Lehigh Cement Company	Heidelberg Cement (50%)/Eagle Materials (50%)	Germany/USA	1,118
Total Domestic Owned Capacity:			20,729
Total U.S. Capacity:			99,357
Percent of U.S. Domestically Owned Clinker Capacity :			20.9%

**Reflects Capacity Adjustments through 12/31/2015; includes temporarily furloughed plants

Source: PCA Market Intelligence



Table 37
Capacity Expansion Estimates

(Clinker, Thousands of Metric Tons)

Company	Location	Year On Stream	Net Expansion							Total
			2009	2010	2011	2012	2013	2014	2015	
Total Expansion			7,398	3,769	299	1,089	0	0	0	12,555
Estimated Dollar Investment (\$ Millions)			2039	1039	83	\$300	\$0	\$0	\$0	\$3,461
2008										
Cemex (South)	Brooksville, Florida	2008	406	0	0	0	0	0	0	406
Continental Cement	Hannibal, Missouri	2008	0	0	0	0	0	0	0	0
Cemex	New Braunfels, Texas	2008	0	0	0	0	0	0	0	0
Texas Industries	Oro Grande, California	2008	637	0	0	0	0	0	0	637
2009										
American Cement Co. (G)	Sumterville, Florida (G)	2009	917	0	0	0	0	0	0	917
Buzzi Unicem	Festus, Missouri	2009	983	0	0	0	0	0	0	983
Essroc Cement	Martinsburg, West Virginia	2009	870	0	0	0	0	0	0	870
GCC America (G)	Pueblo, Colorado (G)	2009	863	0	0	0	0	0	0	863
Holcim (G)	St. Genevieve, Missouri (G)	2009	2722	999	0	0	0	0	0	3,721
2010										
Ash Grove Cement	Foreman, Arkansas	2010	0	1309	0	0	0	0	0	1,309
Drake Cement (G)	Paulden, Arizona (G)	2010	0	299	299	0	0	0	0	598
Vulcan Materials	Newberry, Florida	2010	0	773	0	0	0	0	0	773
National Cement	Ragland, Alabama	2010	0	650	650	0	0	0	0	1,300
Giant Cement	Bath, Pennsylvania	2010	0	389	0	0	0	0	0	389
2012										
Texas Industries Inc	New Braunfels, Texas	2012	0	0	0	1,089	0	0	0	1,089
Net U.S. Capacity Changes			7,398	3,769	299	1,089	0	0	0	12,555

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



Table 38

15 Largest States Ranked by Cement Grinding Capacity

(Thousands of Metric Tons - as of 12/31/15)

State	1995			2005			2015		
	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	10,455	11.4	2	12,803	10.9	1	15,562	12.3
California	1	10,986	12.0	1	14,892	12.7	2	14,710	11.7
Florida	7	4,347	4.8	3	7,925	6.7	3	11,261	8.9
Missouri	6	4,844	5.3	7	5,931	5.0	4	10,273	8.1
Alabama	5	4,901	5.4	6	6,286	5.3	5	6,736	5.3
Pennsylvania	3	7,740	8.5	4	7,312	6.2	6	6,605	5.2
Michigan	4	6,590	7.2	5	6,687	5.7	7	4,954	3.9
Maryland	15	1,841	2.0	14	3,278	2.8	8	4,052	3.2
Arizona	17	1,745	1.9	13	3,435	2.9	9	4,038	3.2
Indiana	8	2,977	3.3	10	3,772	3.2	10	3,735	3.0
South Carolina	11	2,706	3.0	8	5,417	4.6	11	3,731	3.0
Colorado	14	1,868	2.0	16	2,876	2.4	12	3,675	2.9
Iowa	12	2,551	2.8	12	3,515	3.0	13	3,381	2.7
Kansas	13	1,964	2.1	9	3,952	3.4	14	3,217	2.5
Illinois	10	2,875	3.1	11	3,673	3.1	15	2,847	2.3
Total U.S.		91,499			117,662			126,260	

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

Grinding Capacity

2015/2005 Percent Change

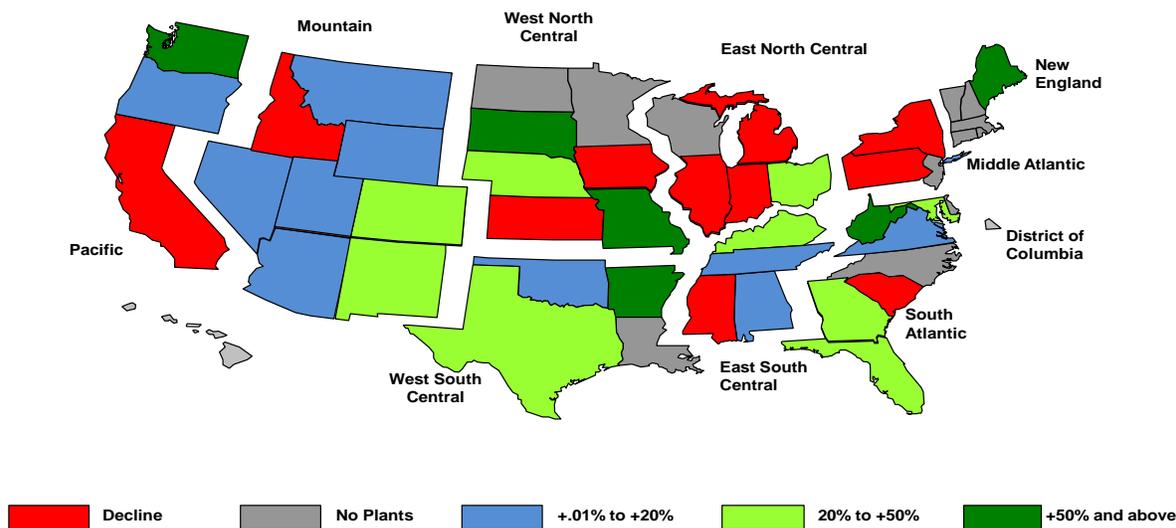




Table 39
Cement Imports

(Thousands of Metric Tons)

Year	Clinker	Finished Cement	Total	U.S. Cement Consumption ¹	Percent Share of Consumption		
					Clinker	Finished Cement	Total
1995	2,858	10,990	13,848	86,081	3.3	12.8	16.1
1996	2,548	11,606	14,154	90,979	2.8	12.8	15.6
1997	3,027	14,569	17,596	96,347	3.1	15.1	18.3
1998	4,134	19,952	24,085	103,259	4.0	19.3	23.3
1999	4,570	24,781	29,321	109,505	4.2	22.6	26.8
2000	3,760	24,923	28,684	109,533	3.4	22.8	26.2
2001	1,782	24,079	25,861	112,523	1.6	21.4	23.0
2002	1,603	22,567	24,169	108,193	1.5	20.9	22.3
2003	1,838	21,403	23,241	108,435	1.7	19.7	21.4
2004	1,630	25,675	27,305	120,069	1.4	21.4	22.7
2005	2,941	30,711	33,652	127,826	2.3	24.0	26.3
2006	3,425	32,471	35,896	127,249	2.7	25.5	28.2
2007	990	21,739	22,729	114,627	0.9	19.0	19.8
2008	621	10,898	11,519	96,589	0.6	11.3	11.9
2009	556	6,338	6,894	70,836	0.8	8.9	9.7
2010	613	6,168	6,781	70,376	0.9	8.8	9.6
2011	606	5,937	6,543	72,146	0.8	8.2	9.1
2012	786	6,251	7,037	78,419	1.0	8.0	9.0
2013	806	6,436	7,243	81,664	1.0	7.9	8.9
2014	720	7,673	8,392	88,840	0.8	8.6	9.4
2015	942	10,338	11,280	92,101	1.0	11.2	12.2

¹ Portland and Masonry. Excludes AK, Foreign and Puerto Rico

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

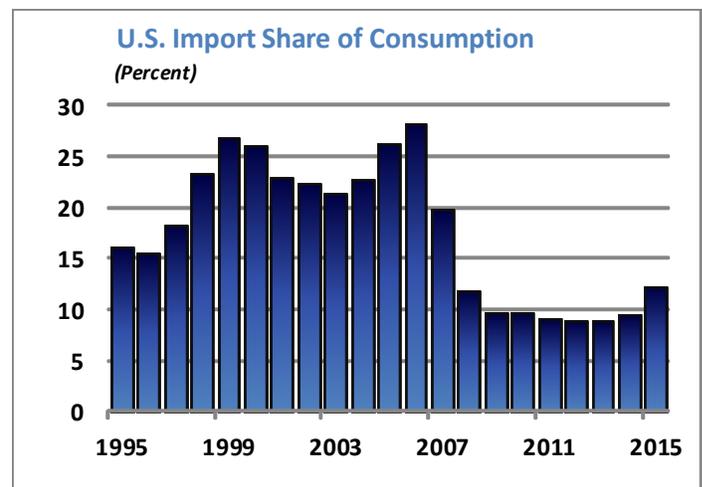
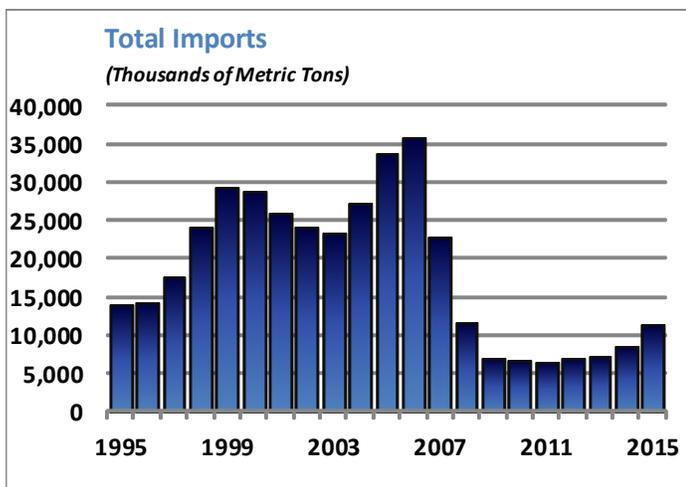




Table 40

U.S. Cement and Clinker Imports By Port - Top Customs Districts

(Thousands of Metric Tons)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Houston/Galveston	2,619	3,371	3,350	1,876	793	612	699	813	1,137	1,546	2,255
Seattle	1,489	1,619	1,788	1,243	783	916	1,053	1,036	1,104	1,126	1,355
Detroit	1,317	1,214	1,021	838	841	939	947	1,114	1,061	1,013	1,245
Cleveland	792	932	766	485	494	555	488	538	519	633	718
Columbia-Snake	867	1,032	1,194	788	292	332	343	335	534	441	577
Ogdensburg	336	418	460	399	248	174	184	205	232	239	252
Buffalo	823	832	809	708	574	590	555	572	457	538	531
New York City	1,265	1,207	933	291	214	213	25	276	379	461	983
Miami	2,265	2,186	1,046	375	185	147	170	248	150	506	455
Honolulu	428	495	477	383	276	277	290	315	270	336	424
San Francisco	2,363	2,800	1,387	400	219	203	79	15	15	46	318
Pembina	178	122	150	173	162	167	191	281	259	295	293
All Others	18,911	19,668	9,349	3,560	1,813	1,655	1,518	1,290	1,124	1,212	1,874
Total U.S.	33,652	35,896	22,729	11,519	6,894	6,781	6,543	7,037	7,243	8,392	11,280

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

Table 41

U.S. Cement and Clinker Imports - Country of Origin

(Thousands of Metric Tons)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Canada	5,404	5,059	5,326	4,104	3,426	3,410	3,416	3,709	3,615	3,769	4,497
Greece	2,786	1,950	703	213	186	191	0	609	686	773	1,595
Korea	2,672	2,745	2,686	1,283	882	1,045	1,402	1,280	1,244	1,375	1,103
China	4,726	10,620	5,377	2,098	608	688	578	375	514	856	1,465
Sweden	1,050	889	457	261	74	83	81	132	46	357	499
Egypt	569	275	95	57	55	44	71	84	89	95	94
Turkey	675	591	138	96	95	21	1	9	26	79	431
Denmark	439	296	239	99	69	54	74	96	36	72	159
Mexico	2,185	2,276	1,700	1,088	380	382	368	316	319	372	353
Italy	0	0	0	0	0	0	0	0	116	0	64
France	74	97	111	108	65	91	72	85	93	95	82
Taiwan	1,759	2,180	2,168	855	254	232	65	39	270	356	424
Croatia	34	29	26	34	15	24	33	24	22	24	29
Spain	236	69	29	0	81	109	106	163	132	72	372
Other	11,043	8,819	3,674	1,222	703	407	275	118	34	97	113
Total U.S.	33,652	35,896	22,729	11,519	6,894	6,781	6,543	7,037	7,243	8,392	11,280

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



Table 42

Cement & Clinker Imports By Census District

(Thousands of Metric Tons)

Year	New England	Mid Atlantic	South Atlantic ¹	East North Central	East South Central	West North Central	West South Central	Mountain	Pacific	Total
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
2013	106	1,259	426	1,581	0	400	1,394	8	2,069	7,243
2014	147	1,432	775	1,646	0	431	1,823	1	2,138	8,392
2015	332	1,990	902	1,964	71	427	2,656	47	2,891	11,280

¹ Includes Puerto Rico and U.S. Virgin Islands

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

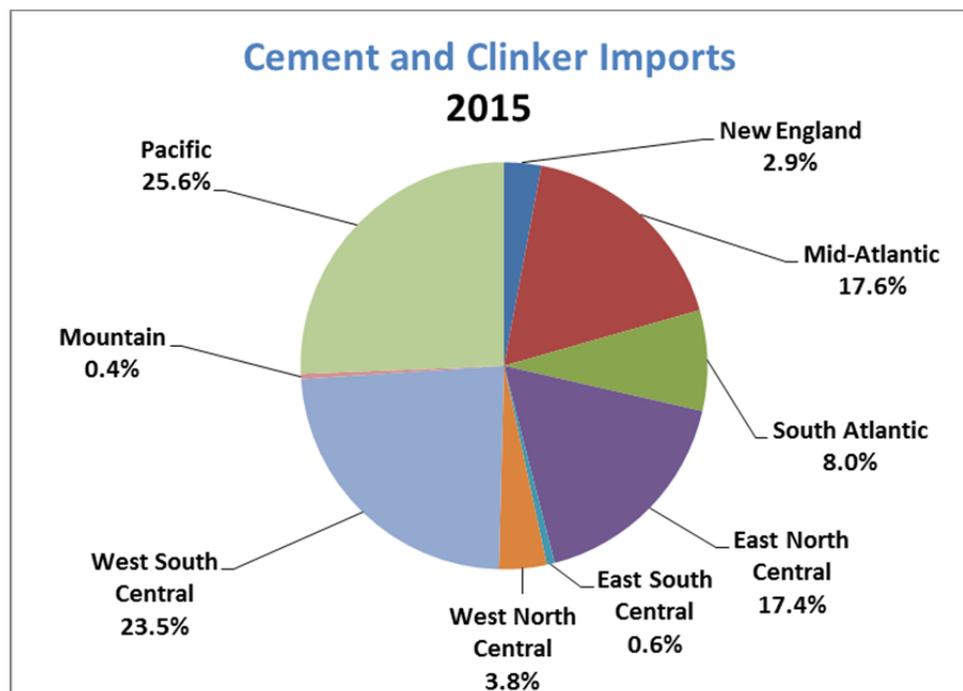




Table 43

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
1995	5,814	23.7	85,989	0.7	21.2
1996	5,488	-5.6	90,805	5.6	18.9
1997	5,784	5.4	96,177	5.9	18.8
1998	5,393	-6.8	103,259	7.4	16.3
1999	6,367	18.1	109,505	6.0	18.2
2000	7,566	18.8	109,533	0.0	21.6
2001	6,600	-12.8	112,523	2.7	18.4
2002	7,680	16.4	108,193	-3.8	22.2
2003	6,610	-13.9	108,434	0.2	19.1
2004	6,740	2.0	120,068	10.7	17.6
2005	7,450	10.5	127,825	6.5	18.2
2006	9,380	25.9	127,249	-0.5	23.1
2007	8,890	-5.2	114,626	-9.9	24.3
2008	8,360	-6.0	96,589	-15.7	27.1
2009	6,080	-27.3	70,836	-26.7	26.9
2010	6,180	1.6	70,374	-0.7	27.5
2011	6,270	1.5	72,145	2.5	27.2
2012	6,900	10.0	78,417	8.7	27.5
2013	6,570	-4.8	81,662	4.1	25.2
2014	6,150	-6.4	88,835	8.8	21.7
2015	4,800	-22.0	92,100	3.7	16.3

* Portland & Masonry (excludes Puerto Rico)

Source: U.S. Geological Survey

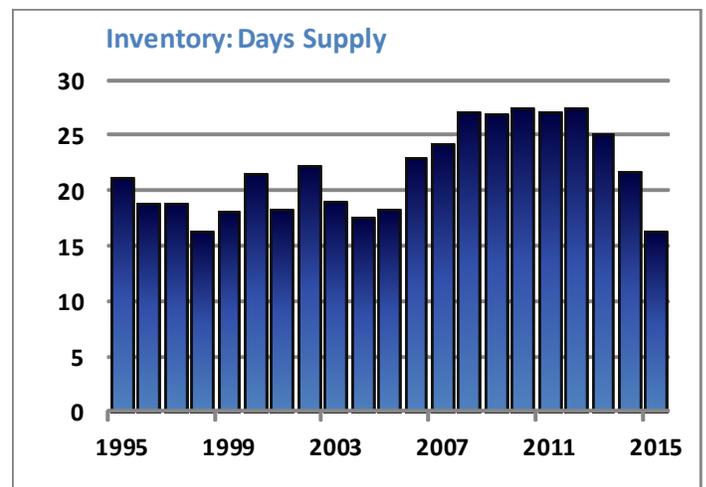
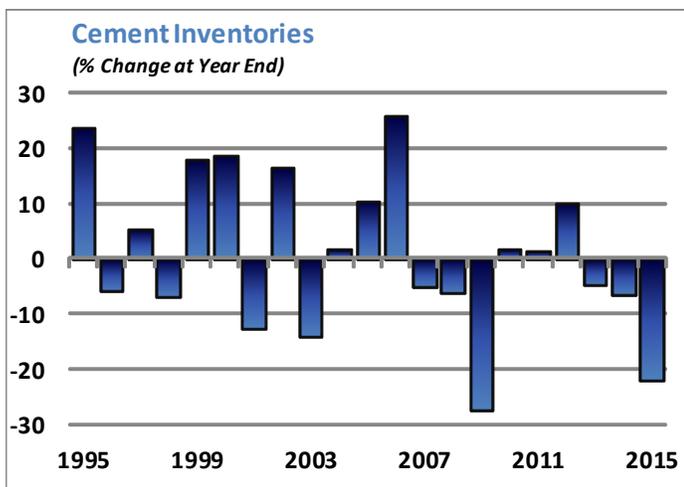




Table 44
Supplementary Cementitious Materials (SCM)

Year	Fly Ash (000 MT)	Slag Cement (000 MT)	Electric Arc Furnaces (% of Steel Production)	Basic Oxygen Furnaces (% of Steel Production)	Coal as % of U.S. Electrical Generation
1996	-	1,081	42.6	57.4	-
1997	-	1,326	43.8	56.2	-
1998	-	1,490	45.1	54.9	-
1999	-	1,702	46.3	53.7	-
2000	18,213	1,931	47.0	53.0	-
2001	19,963	2,227	47.4	52.6	51.0
2002	24,157	2,775	50.4	49.6	50.1
2003	24,618	2,861	51.0	49.0	50.8
2004	25,464	3,309	52.2	47.8	49.8
2005	26,416	3,211	55.0	45.0	49.6
2006	29,414	3,299	67.1	32.9	49.0
2007	28,691	3,071	58.2	41.8	48.5
2008	27,345	2,734	57.4	42.6	48.2
2009	22,423	1,897	61.8	38.2	44.4
2010	23,336	1,845	61.3	38.7	44.8
2011	20,843	1,917	60.3	39.7	42.3
2012	21,051	2,151	59.1	40.9	37.4
2013	21,157	2,141	60.6	39.4	38.9
2014	21,030	2,271	62.6	37.4	38.6

Sources: American Coal Ash Association, Slag Cement Association, U.S. Energy Information Administration, U.S. Geological Survey

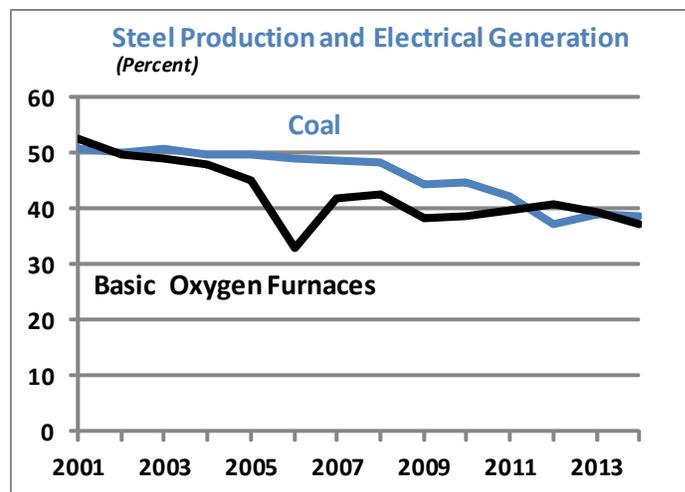
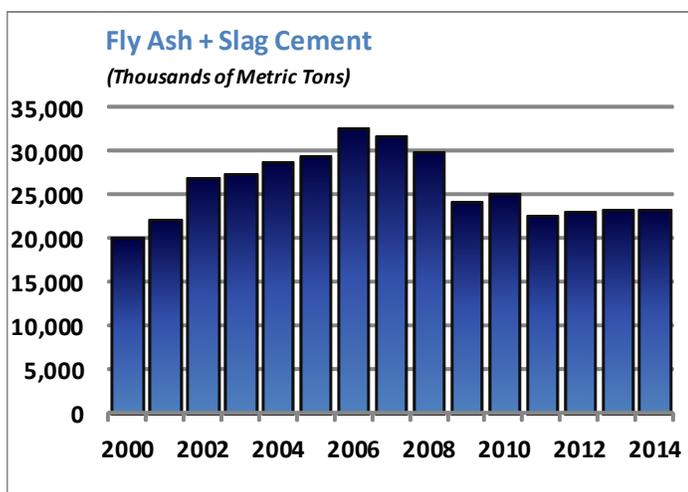




Table 45
Portland Cement Shipments by Type of Customer*

(Thousands of Metric Tons)

	2011		2012		2013	
	Quantity	% of Total	Quantity	% of Total	Quantity	% of Total
Ready-Mix Concrete	49,100	69.8	53,700	70.3	56,500	71.1
Concrete Product Manufacturers	8,040	11.4	8,300	10.9	9,030	11.4
Contractors	6,160	8.8	6,780	8.9	5,850	7.4
Building Material Dealers	2,430	3.5	3,070	4.0	3,000	3.8
Oil Well, Mining, and Waste	3,160	4.5	3,480	4.6	3,670	4.6
Government & Misc.	1,370	1.9	1,070	1.4	1,440	1.8
Total Shipments	70,300		76,400		79,500	

*Includes imported cement and cement made from imported clinker. Excludes Puerto Rico, data may not add to totals due to rounding

Note: 2013 Preliminary

Source: U.S. Geological Survey

Table 46
Portland Cement Shipped from U.S. Plants by Type of Product*

(Thousands of Metric Tons)

	2011		2012		2013	
	Quantity	% of Total	Quantity	% of Total	Quantity	% of Total
General Use and Moderate Heat (Types I and II)	54,500	77.5	59,400	77.7	61,000	76.7
High-Early Strength (Type III)	2,550	3.6	2,520	3.3	2,670	3.4
Sulfate-Resisting (Type V)	9,340	13.3	10,300	13.5	11,100	14.0
Block	147	0.2	142	0.2	165	0.2
Oil Well	1,750	2.5	2,000	2.6	2,420	3.0
White	635	0.9	705	0.9	794	1.0
Blended						
Portland Slag and Pozzolan	741	1.1	636	0.8	615	0.8
Portland Fly Ash and Other	593	0.8	643	0.8	652	0.8
Miscellaneous	26	0.0	3	0.0	37	0.0
Total Shipments	70,300		76,400		79,500	

*Includes sales of imported cement. Excludes Puerto Rico, data may not add to totals due to rounding

Note: 2013 Preliminary

Source: U.S. Geological Survey



Table 47

Shipments of Portland Cement from Mills by Type of Carrier

(Percent Distribution)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Shipments to Ultimate Customer											
Rail	2.0	1.8	1.7	2.1	2.3	2.5	2.9	3.1	1.8	1.5	2.1
Truck	98.1	97.4	97.6	97.5	97.3	97.1	97.1	96.6	96.9	98.2	97.6
Barge & Boat	0.2	1.2	0.1	0.5	0.2	0.4	0.1	0.3	1.3	0.2	0.2
Unspecified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shipments from Plant to Terminal <i>(Bulk only)</i>											
Rail	49.8	50.7	48.2	48.0	42.9	46.0	46.3	47.7	44.6	49.1	49.8
Truck	17.9	18.2	15.7	19.4	21.0	23.0	19.3	19.0	16.5	14.4	15.9
Barge & Boat	32.3	31.1	36.0	32.6	36.1	31.1	34.4	33.3	38.9	36.6	34.2
Unspecified	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Percent of Total Shipments											
Terminal to customer	44.0	44.3	45.5	44.9	45.2	43.9	44.0	41.2	46.1	46.0	44.7
Plant to customer	56.2	56.2	54.0	55.0	54.8	56.2	55.9	58.9	53.9	53.9	55.3

Note: 2013 Preliminary

Source: U.S. Geological Survey

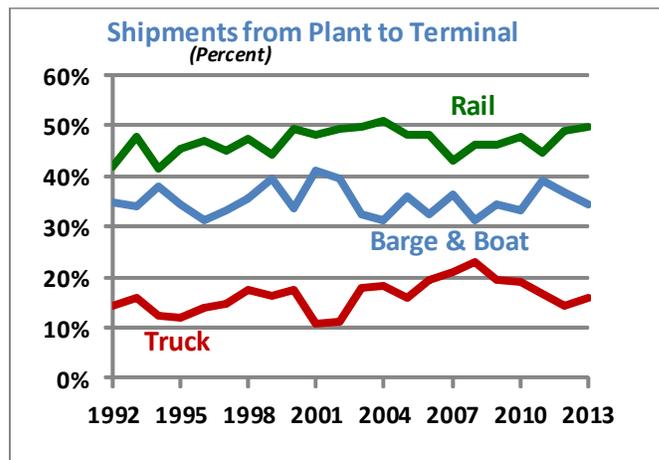
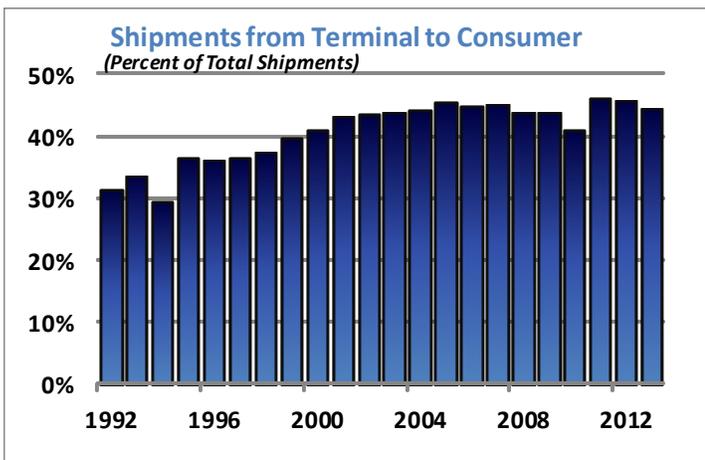




Table 48
Summary of Energy Consumption

(Thousands of BTUs per Equivalent Metric Ton*)

	1972	2009	2010	2011	2012	2013	2014	% Change	
								'14/'72	'14/'13
Gasoline	7.4	5.3	4.6	2.5	2.1	1.8	2.3	-69.5	23.3
Middle Distillates**	88.3	44.1	40.1	42.7	42.2	45.0	39.6	-55.2	-12.2
Diesel	-	-	-	32.0	34.6	37.2	31.6	-	-
Fuel Oil	-	-	-	10.7	7.6	7.9	7.9	-	-
Residual oil	808.9	9.6	8.6	-	-	-	-	-	-
LPG	1.4	0.8	0.8	0.6	0.4	0.3	0.2	-86.6	-37.9
Total Petroleum Products	906.0	59.8	54.0	46.8	44.7	47.1	42.0	-95.4	-10.8
Natural gas	3,347.1	170.3	129.9	173.5	486.2	397.8	250.3	-92.5	-37.1
Coal	2,639.0	2,410.5	2,382.3	2,512.7	2,141.9	2,195.3	2,259.3	-14.4	2.9
Petroleum Coke	39.6	761.4	769.9	682.7	635.1	666.0	686.7	1,634.2	3.1
Total Coal and Coke	2,678.6	3,171.9	3,152.2	3,195.3	2,777.0	2,861.3	2,946.0	10.0	3.0
Alternative Fuel	-	578.6	578.3	633.1	568.5	633.4	658.7	-	4.0
Total Fuel	6,931.7	3,980.6	3,914.3	4,048.7	3,876.4	3,939.6	3,897.0	-43.8	-1.1
Electricity	488.6	554.4	538.3	512.0	509.4	492.9	487.0	-0.3	-1.2
Total Fuel and Power	7,420.3	4,535.0	4,452.6	4,560.8	4,402.3	4,432.5	4,384.0	-40.9	-1.1

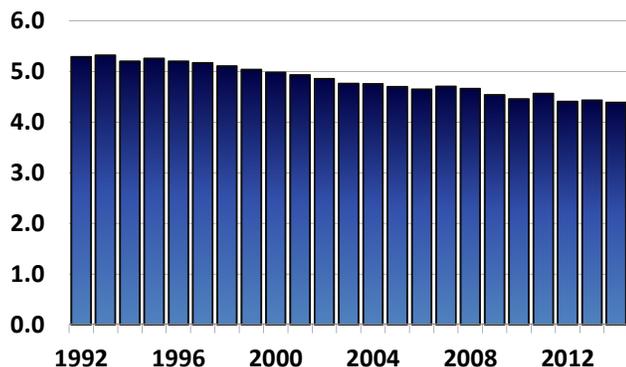
* Equivalent Metric Ton = weighted average of 92% clinker production plus 8% finished cement production

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

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

Energy Resources

(Million BTU per 000 Tons Produced)



U.S. Plants - Energy Consumption

(Coal and Coke)

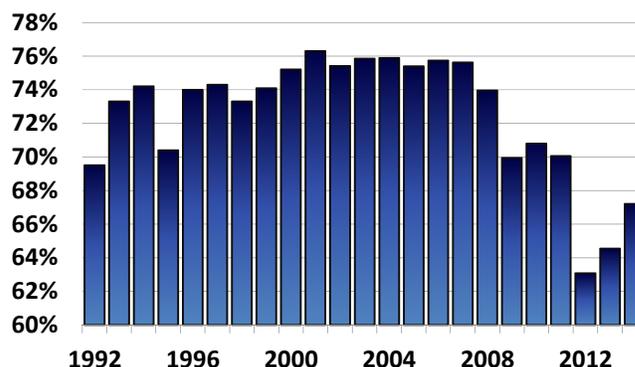




Table 49
Alternative Fuels Utilized

	United States										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Reporting Plants	96	96	98	98	97	90	88	84	84	83	87
Plants using Alternative Fuel	62	64	65	64	66	63	64	62	63	61	65
<i>Percent</i>	64.6	66.7	67.0	65.3	68.0	70.0	72.8	73.8	75.0	73	75
Types of Alternative Fuels Used											
Tire Derived Fuel	44	52	47	41	43	40	39	37	36	34	40
Waste Oil	16	17	16	15	18	18	16	11	11	16	15
Solvents	12	11	10	10	11	11	11	9	9	12	11
Other	28	36	40	39	42	43	45	49	67	69	62

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

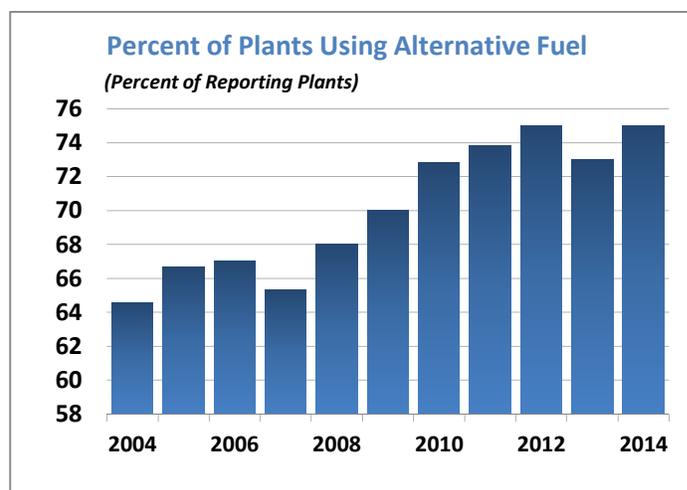
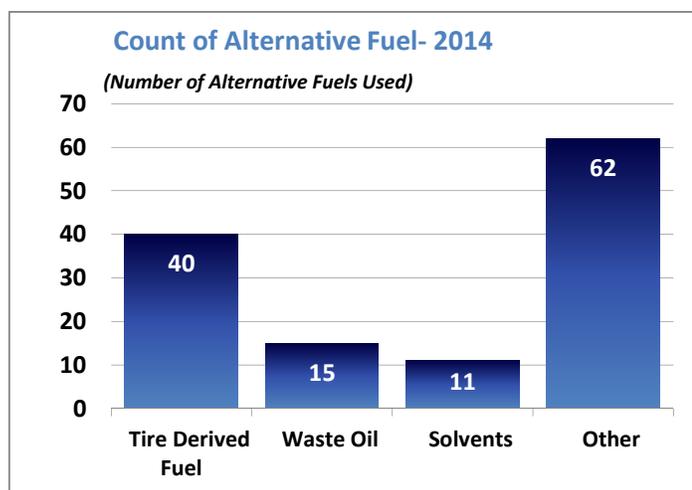




Table 50

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

	1972	2006	2007	2008	2009	2010	2011	2012	2013	2014
Coal and Coke	36.1	75.8	75.6	74.3	69.9	70.8	69.7	63.3	64.7	67.2
Natural Gas	45.1	3.2	3.0	2.6	3.8	2.9	3.9	11.1	9.0	5.7
Petroleum Products	12.2	0.9	0.9	1.1	1.3	1.2	1.0	1.0	1.1	1.0
Electricity	6.6	11.2	11.1	11.3	12.8	12.1	11.4	11.6	10.9	11.1
Alternative Fuels	0.0	8.9	9.4	10.7	12.2	13.0	14.0	13.0	14.3	15.0
Total Fuel	100	100	100	100	100	100	100	100	100	100

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

Table 51

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

	1972	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	% Change	
												'14/'72	'14/'13
Fuel and Electricity													
All Plants	7,438	4,699	4,649	4,704	4,662	4,535	4,453	4,561	4,402	4,432	4,384	-41	-1
Wet-Process Plants	7,998	6,387	6,464	6,485	6,612	6,359	6,714	7,043	6,981	7,696	7,371	-8	-4
Dry-Process Plants	6,895	4,433	4,375	4,434	4,384	4,383	4,303	4,418	4,269	4,281	4,295	-38	0
Fuel													
All Plants	6,931	4,180	4,131	4,181	4,135	3,981	3,914	4,049	3,876	3,940	3,897	-44	-1
Wet-Process Plants	7,498	5,879	5,949	5,979	6,099	5,823	6,196	6,561	6,021	7,209	6,836	-9	-5
Dry-Process Plants	6,393	3,913	3,856	3,909	3,856	3,827	3,764	3,904	3,756	3,788	3,809	-40	1
Electricity (kWh per Equivalent Metric Ton)													
All Plants	143	152	152	153	155	162	158	150	149	146	143	0	-2
Wet-Process Plants	142	149	151	148	150	157	152	141	136	143	157	11	10
Dry-Process Plants	142	153	152	154	156	163	158	151	150	146	142	0	-3

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

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



Table 52
Resources Used in Producing Cement¹

(Per Thousand Metric Tons of Cement Production)

Year	Energy* (million BTUs per ton)	Labor** (Tons per Hour)
1990	5,321	2.2
1991	5,417	2.1
1992	5,294	2.2
1993	5,315	2.2
1994	5,204	2.3
1995	5,261	2.4
1996	5,201	2.4
1997	5,171	2.5
1998	5,107	2.5
1999	5,040	2.5
2000	4,982	2.5
2001	4,930	2.6
2002	4,858	2.8
2003	4,762	2.9
2004	4,755	3.0
2005	4,699	3.0
2006	4,649	3.0
2007	4,704	2.9
2008	4,662	2.7
2009	4,535	2.4
2010	4,453	2.7
2011	4,561	2.9
2012	4,402	3.0
2013	4,433	3.1
2014	4,384	3.2
Year/Year Change	-0.4%	4.3%

¹ Portland and Masonry

*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. Labor-Energy Input Survey, U.S. Geological Survey

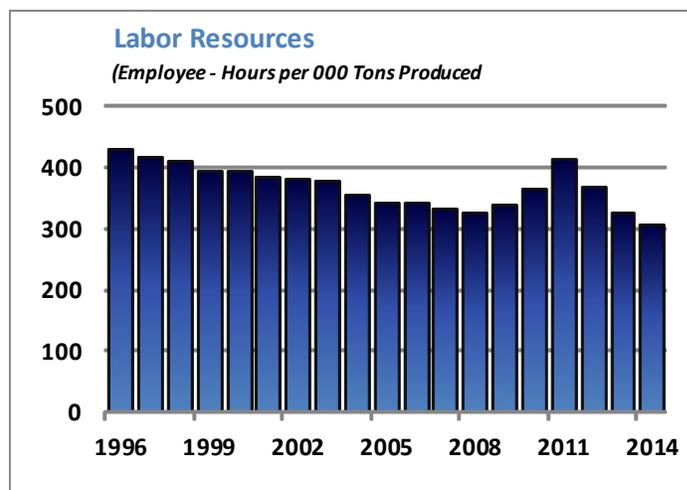
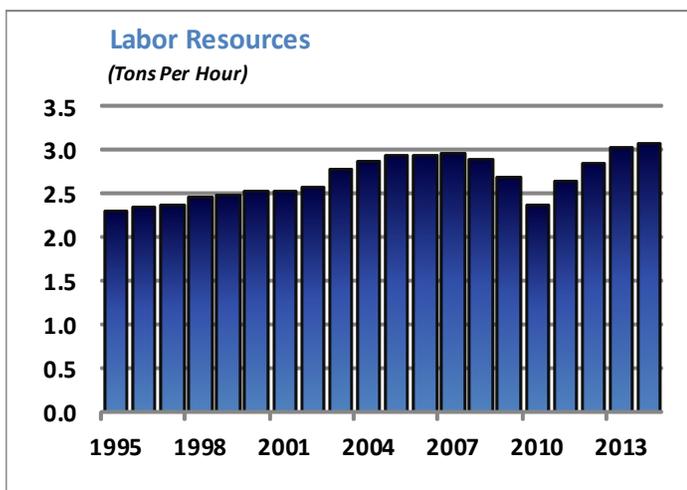




Table 53
U.S. Cement Industry Employment

(Thousands)

Year	All Employees	Production Workers	Cement Tons* per Employee	Cement Tons* per Production Worker
1970	28.8	24.3	2.4	2.8
1975	28.7	22.8	2.2	2.8
1980	30.4	24.2	2.3	2.9
1985	21.2	15.9	3.8	5.1
1991	16.9	12.2	4.2	5.9
1992	16.4	12.8	4.6	5.9
1993	16.4	12.5	4.9	6.4
1994	16.5	12.4	5.2	6.9
1995	16.4	12.6	5.2	6.8
1996	16.2	12.5	5.6	7.3
1997	16.2	12.5	5.9	7.7
1998	16.5	12.7	6.3	8.1
1999	16.7	12.9	6.6	8.5
2000	16.9	12.7	6.5	8.6
2001	16.8	12.7	6.7	8.8
2002	16.4	13.2	6.6	8.2
2003	16.5	13.0	6.6	8.4
2004	16.2	12.8	7.4	9.4
2005	16.9	12.7	7.6	10.1
2006	17.0	13.2	7.5	9.6
2007	17.5	13.4	6.6	8.6
2008	17.3	13.7	5.6	7.1
2009	15.4	10.8	4.6	6.6
2010	13.6	9.6	5.2	7.4
2011	13.5	9.2	5.4	7.9
2012	12.9	9.0	6.1	8.7
2013	12.9	9.2	6.3	8.9
2014	12.8	8.9	7.0	10.0

* Portland + Masonry

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

Table 54
U.S. Cement Industry Financial Statistics

(Median Results Cement Operations)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	Industry Total 2014
Gross Margin (%)	31.4	32.1	24.7	15.2	6.8	6.7	10.3	13.8	16.3	16.3
Operating Profit (%)	25.9	25.0	19.9	10.4	1.1	-3.5	5.4	6.8	8.8	10.2
Operating Profit (\$/ton)	26.5	26.4	20.3	10.2	1.0	-3.0	4.6	6.1	8.4	11.0
Annual Capital Expenditures (% of sales)	7.2	8.2	8.0	7.5	4.4	3.9	6.2	7.0	7.0	7.4

Source: PCA Financial Benchmarking Survey

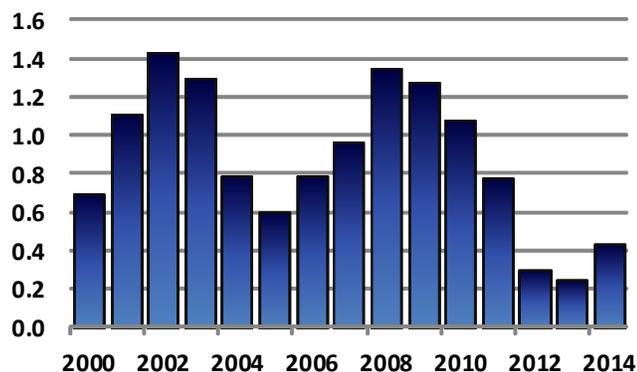


Table 55
Cement Industry Operating Statistics

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Value of Shipments (\$ Billion)	7.8	8.7	9.8	10.3	10.7	9.3	5.7	5.2	5.4	5.9	6.8	7.2
Labor												
Employment (000)	17.4	16.9	16.7	17.1	17.9	18.2	14.3	12.9	12.4	12.0	12.1	11.9
Payroll (\$ Million)	902.4	930.2	956.2	978.6	1081.0	1108.0	861.1	801.8	767.6	779.7	815.4	856.1
Energy (\$ Million)												
Purchased Fuel & Power	1160.5	1257.1	1425.3	1608.8	1677.0	1668.5	1046.2	1098.2	1147.0	1251.6	1361.8	1459.5
Fuel	570.3	626.2	723.2	841.3	870.3	869.1	520.9	556.3	620.1	679.3	734.9	697.8
Power	590.2	630.9	702.1	767.5	806.7	799.4	525.3	541.9	527.0	572.3	626.9	761.7
NonEnergy Material	1819.7	1855.5	1952.1	2146.8	2414.8	2223.3	1085.4	1327.0	1525.6	1521.3	1819.2	1960.3
Investment (\$ Million)												
New Capital Expenditures	792.7	602.4	783.6	966.1	1347.2	1281.1	1076.1	782.3	299.2	244.5	430.0	676.7
Buildings	180.9	67.7	95.7	86.7	96.6	129.3	39.0	50.7	33.2	15.6	24.9	85.2
Equipment	611.8	534.8	687.9	879.4	1250.6	1151.8	1037.1	731.6	266.0	229.0	405.1	591.5
Key Ratios - Percent of Shipments (%)												
Payroll	11.6	10.7	9.8	9.5	10.1	12.0	15.0	15.4	14.1	13.2	12.1	11.9
Purchased Fuel and Power	14.9	14.4	15.4	15.6	15.7	18.0	18.2	21.2	21.1	21.2	20.1	20.3
NonEnergy Materials	23.4	21.3	21.1	20.8	22.6	24.0	18.9	25.6	28.0	25.8	26.9	27.2

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

U.S. Cement Industry - Capital Expenditures
(Billion \$)



Value of Industry Shipments
(Billion \$)

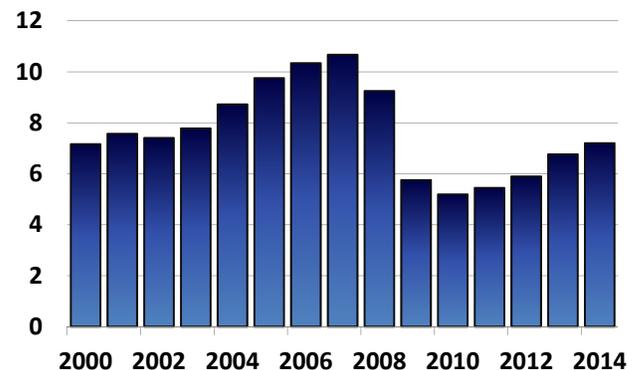




Table 56

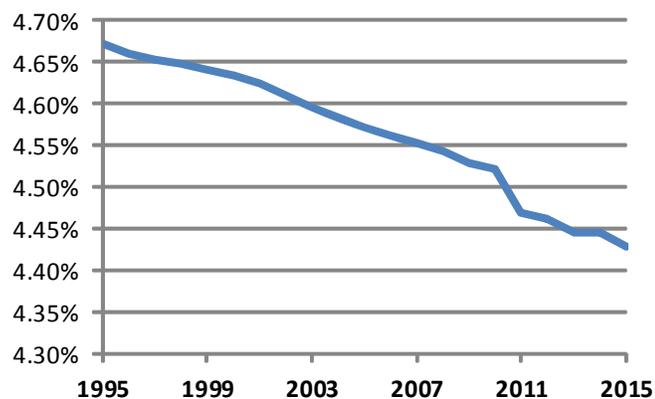
Top World Producers of Hydraulic Cement

(Thousand of Metric Tons)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
China	1,074,000	1,240,000	1,360,000	1,400,000	1,646,000	1,880,000	2,080,000	2,184,000	2,414,000	2,476,000	2,570,000
India	141,800	159,010	170,460	177,300	195,930	224,720	240,510	246,700	255,790	265,140	280,820
United States	93,910	97,690	92,630	84,020	60,370	66,450	67,900	74,150	76,600	82,700	86,600
Iran	31,840	35,200	41,000	44,500	52,100	61,600	66,400	70,250	68,700	66,700	70,000
Turkey	42,800	47,400	49,300	53,110	53,970	66,200	67,800	67,600	74,400	77,200	79,300
Brazil	35,600	41,900	46,600	51,300	51,700	59,120	64,090	68,810	70,160	71,360	72,260
Russia	48,000	54,700	59,900	53,600	44,200	50,400	56,100	61,500	66,300	68,470	67,200
Japan	73,500	73,200	71,200	68,000	60,000	56,600	56,400	59,300	61,700	62,500	64,350
Egypt	33,600	36,200	40,370	39,840	46,940	47,950	45,420	52,200	50,100	49,000	51,600
Korea, Republic of	47,200	49,200	52,200	51,650	50,130	47,420	48,250	46,860	47,300	47,300	47,800
Mexico	36,000	38,020	38,620	37,090	35,810	34,500	35,400	37,830	36,250	37,840	38,600
Pakistan	16,360	18,410	24,220	30,870	33,370	32,400	31,600	33,110	33,600	35,290	36,910
Italy	46,410	47,880	47,540	43,030	36,320	34,280	32,790	26,240	23,080	21,200	21,800
Spain	50,350	54,030	54,720	42,080	29,500	21,170	22,180	15,940	13,730	13,910	14,770
Total World	2,364,960	2,618,860	2,813,950	2,871,840	2,945,000	3,364,850	3,638,740	3,782,700	4,074,820	4,181,270	4,354,310

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

U.S. Share of World Population



Total World Production of Hydraulic Cement

(Million Metric Tons)

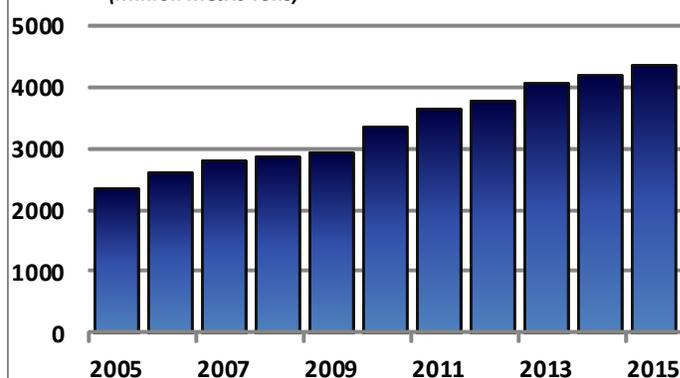




Table 57

Population Growth Rates for Top World Producers of Hydraulic Cement

(Year-Year % Change)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
China	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5
India	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.3	1.3	1.2
United States*	0.9	1.0	1.0	0.9	0.8	0.8	0.7	0.7	0.8	0.8	0.8
Japan	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2
Brazil	1.2	1.1	1.1	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8
Korea, South	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1
Turkey	1.5	1.4	1.4	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.3
Iran	1.3	1.2	1.3	1.2	1.2	1.3	1.2	1.2	1.2	1.2	1.2
Russia	-0.5	-0.3	-0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Egypt	2.1	2.1	2.1	2.1	2.0	2.0	2.0	1.9	1.9	1.8	1.8
Italy	0.4	0.4	0.8	0.7	0.5	0.5	0.4	0.4	0.3	0.3	0.3
Mexico	1.2	1.3	1.4	1.4	1.4	1.4	1.4	1.3	1.2	1.2	1.2
Spain	1.6	1.7	1.8	1.3	0.4	0.5	0.6	0.7	0.7	0.8	0.9
Pakistan	1.7	1.9	1.7	1.7	1.6	1.6	1.6	1.6	1.5	1.5	1.5
Total World	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1

*Includes Puerto Rico.

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

Share of G8 Countries to Total World Cement Consumption - 2014

(Percent)

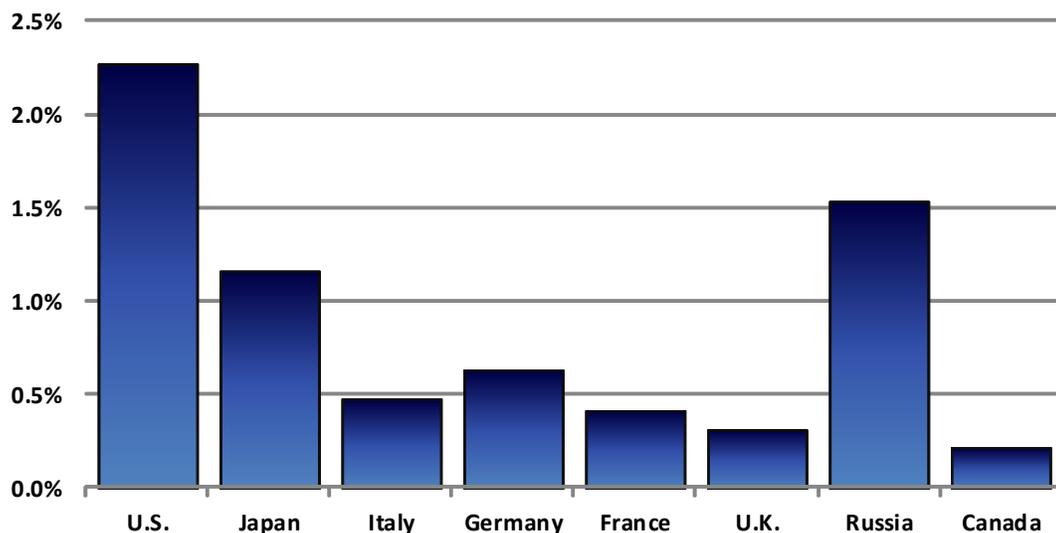




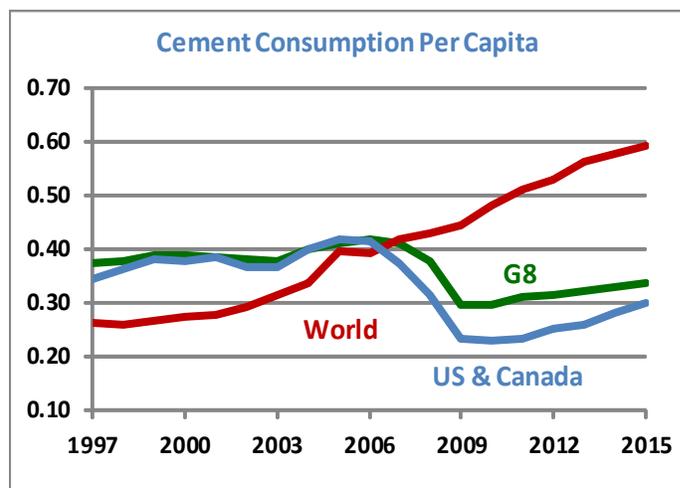
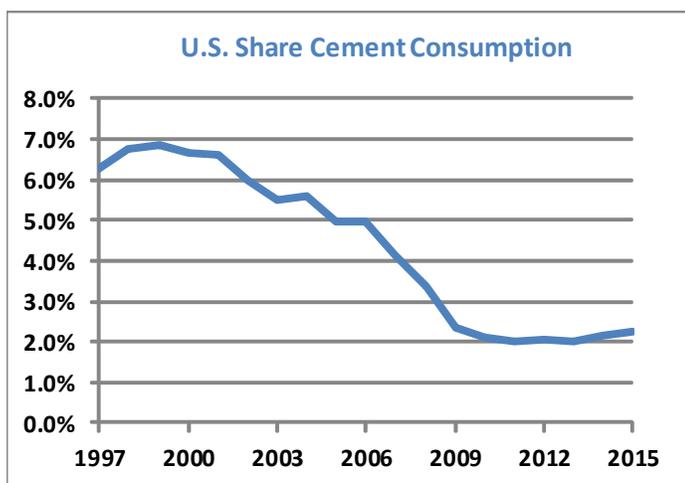
Table 58
Cement Consumption

(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				
1996	90.8	82.3	33.6	35.6	18.7	14.5	26.8	7.3	309.5	1,475.1	21.0	
1997	96.2	78.6	33.8	34.3	18.7	14.8	25.9	7.6	309.9	1,531.3	20.2	
1998	103.3	71.6	34.7	37.3	19.0	14.7	26.0	7.6	314.1	1,527.5	20.6	
1999	109.5	70.8	36.1	38.3	20.2	15.1	28.4	8.0	326.5	1,603.6	20.4	
2000	109.5	72.3	38.3	35.4	20.6	14.1	30.6	8.3	329.2	1,648.9	20.0	
2001	112.5	68.6	39.5	30.5	20.7	14.1	33.3	8.4	327.5	1,698.8	19.3	
2002	108.2	64.6	41.3	29.0	20.7	14.6	35.9	8.5	322.8	1,815.7	17.8	
2003	108.4	60.1	43.5	29.0	20.7	14.4	38.5	8.9	323.5	1,970.2	16.4	
2004	120.1	58.0	46.4	29.0	21.9	15.0	41.5	9.3	341.2	2,149.6	15.9	
2005	127.8	59.0	46.1	26.9	22.5	14.8	46.0	9.4	352.6	2,564.5	13.7	
2006	127.2	58.6	46.9	28.9	24.1	14.7	52.2	9.6	362.2	2,568.0	14.1	
2007	114.6	55.9	46.4	27.2	24.8	15.8	61.0	9.8	355.5	2,763.0	12.9	
2008	96.6	50.5	43.8	27.3	24.1	13.4	61.6	9.6	326.9	2,857.0	11.4	
2009	70.8	44.0	36.0	25.4	20.4	11.3	43.8	8.0	259.6	2,998.0	8.7	
2010	70.4	41.8	33.9	24.7	19.8	10.5	49.4	8.8	259.3	3,311.7	7.8	
2011	72.2	42.1	32.8	28.0	21.4	11.3	57.4	8.8	274.0	3,585.2	7.6	
2012	77.8	44.3	25.6	26.8	20.0	10.5	65.2	9.5	279.6	3,745.7	7.5	
2013	81.7	47.0	21.7	26.5	19.2	11.5	69.7	9.1	286.5	4,033.5	7.1	
2014	89.1	48.0	19.9	27.1	18.2	12.4	71.1	9.2	295.1	4,139.5	7.1	
2015	97.1	49.4*	20.5*	27.2*	17.7*	13.2*	65.7*	9.2*	300.0*	4,276.1*	7.0*	

* Estimated

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



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