



# SFSA CASTEEL REPORTER

Steel Founders' Society of America

a monthly publication  
serving SFSA steel casting industry Members

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## March — 2011

### Casteel Commentary

North American culture has identified college graduation as a prerequisite for success. We consider anyone that has to work for a living a failure. Our goal is for our children to graduate from college and have a professional career. This is a great disservice to people who are true artisans. Many people are creative and passionate about their ability to make things. They need careers and we need their skills. Manufacturing in the US is in crisis not from competition with China but from a self inflicted disdain for work. The Casteel Commentary examines the problem of education and our industry.

### Spring Management Meeting

The SFSA Spring Management meeting is scheduled for March 23 at the Four Points Sheraton at O'Hare airport in Chicago. The program will include B. Lashinsky giving an economic outlook. A panel of ISRI, Hickman Williams, Miller and HA will be discussing materials availability. George Weed will talk about improving energy efficiency. R. Monroe will give an overview of steel casting trends.

### Future Leaders

SFSA Future Leaders are meeting this month on the west coast. It is not too late to join the group for their meeting. The group will begin in Portland at Vancouver Iron and Steel and Columbia on March 16. Then the group will travel to Seattle and tour the Bradken plants in Chehalis and Tacoma. The meeting will conclude on Friday March 18. The meeting will include a training overview session on melting in steel foundries given by R. Monroe. If you are interested in participating, contact Dave Poweleit at [poweleit@sfsa.org](mailto:poweleit@sfsa.org).

### Safety / HR Meeting

SFSA Safety/HR meeting met at Amite, February 23/24. There were 33 attendees including speakers, representing 12 members. The HR committee considered harassment and got an update on current requirements from a local attorney. The Safety Committee discussed combustible dust regulations. A number of papers on Safety were identified for the SFSA Annual T&O Conference in December.

### GIFA / European Foundry Tour

SFSA has organized a tour of UK Foundries and attendance at GIFA. GIFA is the world's largest foundry show in Dusseldorf. We have 29 people registered 22 will be going on to GIFA and a German foundry tour.

### Western Division T&O Meeting

SFSA Western Division T&O will be meeting in Surrey, BC, Canada and will also take a tour of Highland Foundry on June 9/10, 2011. Details will follow.

### Investment Casting Training Course

The 1st Investment Casting Training Course will take place at Eagle Precision on May 12/13. The course will cover Shell Room issues and include tours of Eagle Precision, Argueso (wax producer) and Cannon Muskegon (ingot producer). Details have been circulated and if you have any questions email Malcolm.

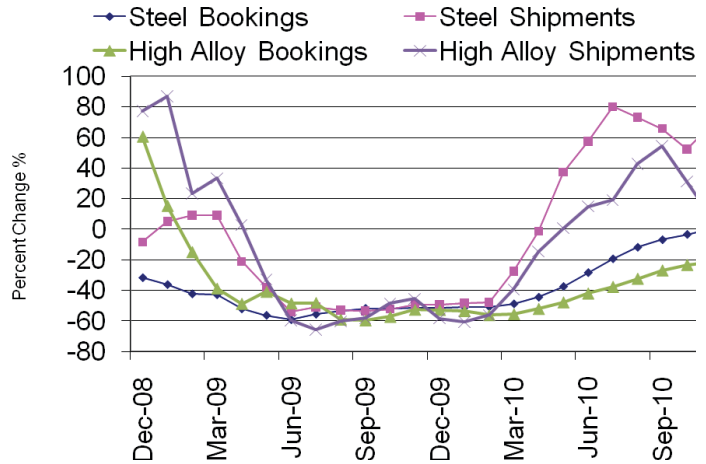
**Investment Casting Training Course**

The Board of Directors of the Steel Founders' Society of America cordially invites you to attend the 109th Annual Meeting, which will be held in Laguna Beach, California, September 10-13, 2011. The Board of Directors looks forward to your attendance and participation in this important educational and networking meeting and welcomes the opportunity to share new knowledge of the steel industry with you. Laguna Beach is easily accessible, located just 30 minutes from John Wayne Orange County Airport (SNA). Registration information is available online at [www.sfsa.org](http://www.sfsa.org)

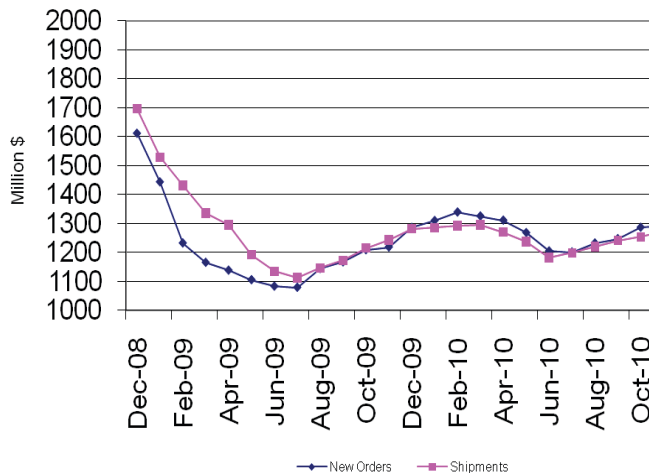
**Market News**

Market demand for steel castings continued to increase in November. Shipments of both steel and stainless steel castings are sharply up for 2010. Bookings have not increased as strongly as shipments. Production at the end of the year was reported to be at about 80% of the highest levels with solid backlog and orders.

Backlog reported shows continued increases back to about 8 weeks for all steel castings, the highest since early in 2009.



Iron and Steel Castings  
3 month average

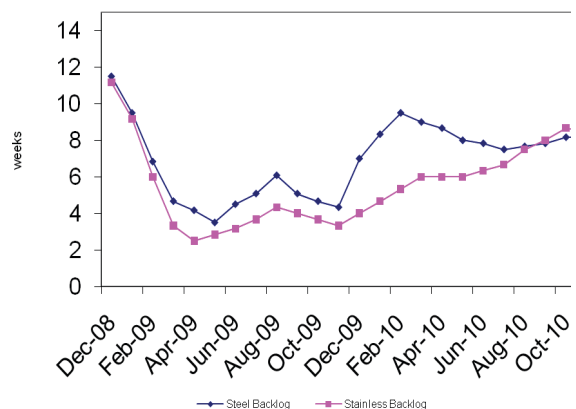


Iron and steel castings reported by DOC census was up in November. Iron casting shipments and orders are dominated by centrifugal pipe and municipal castings, automotive production, and other castings. The reliance of iron casting production on construction activity, the largest tonnage section, dampens their recovery relative to steel. The monthly shipments and orders for iron and steel castings is reported to exceed \$1.2 billion. Since steel castings are typically about 10% of that number, monthly steel casting demand should be about \$120 million. We could be a larger part of the sales number perhaps 15% which would

make the monthly sales value \$160 million. Both of these numbers seem low so either we are a bigger part of the iron and steel sales or the total number is wrong. One would expect that the sales of steel castings at 1,000,000 tons at \$3,000 a ton would be \$250 million a month.

From the MEPS (<http://www.meps.co.uk/webcontent/webcontent.htm>), the global price for carbon steel mill products has risen in the past year, January 2010 to 2011, from \$653 to \$813 a ton or almost 25%. Stainless steel has risen in the same period from \$2912 to \$3749 a ton or almost 30%.

Casting Backlog



Orders for nondefense capital goods less aircraft continues to improve rising to levels last seen in January of 2009. The ratio of inventories relative to orders and shipments are below 1.7, a level last seen around August of 2008. This suggests continued strong demand moving into the year.

All of these indicators suggest continued improved demand for steel castings. It appears that for larger castings, demand may out strip supply by mid year. Lead times and capacity are already issues with major steel casting users. Even small complicated castings are becoming difficult to find in adequate supply. Economic conditions with high oil and copper prices may slow and this may moderate demand. These high prices for commodities will stimulate then additional demand as well for large mining and material handling equipment.

### **Casteel Commentary**

The US dominates manufacturing in the world. As you can see in the graph even with the dramatic growth in China, the US manufacturing economy is bigger and bigger by a lot. We are not only the largest manufacturing economy; we still dominate most of the technologies. Our manufacturing is so attractive; many companies have been purchased by foreign producers. The two largest steel foundry groups in North America are foreign owned.

Our biggest challenge even with slow economic conditions is in hiring. Our industry like most manufacturing has failed to recruit and retain the next generation of foundry employees. Since many people believe that manufacturing is not viable in the US, they discourage young people from entering manufacturing as a career choice.

*Raymond Monroe*

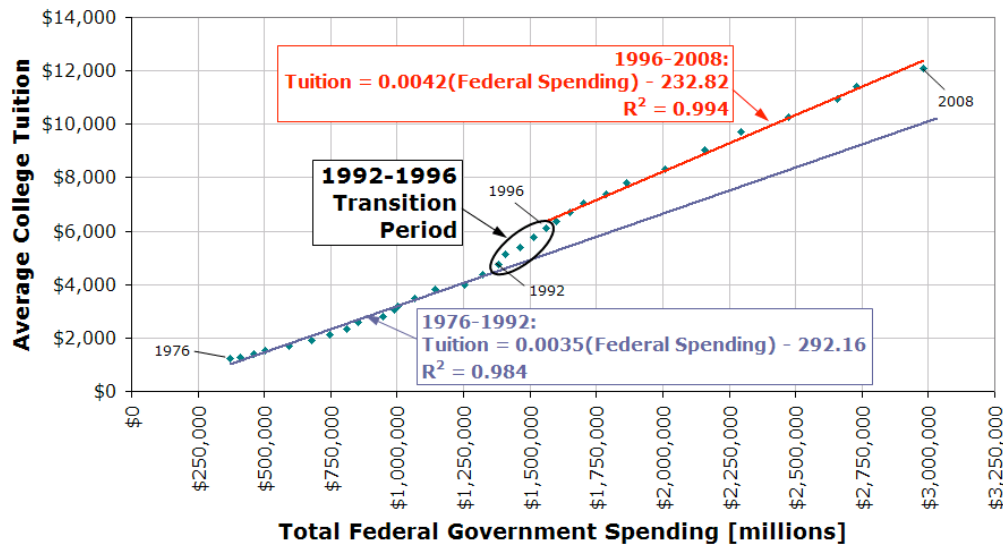
# The Manufacturing Predicament

by Gerald Shankel, President and CEO, Fabricators & Manufacturers Association, International  
February 22, 2010

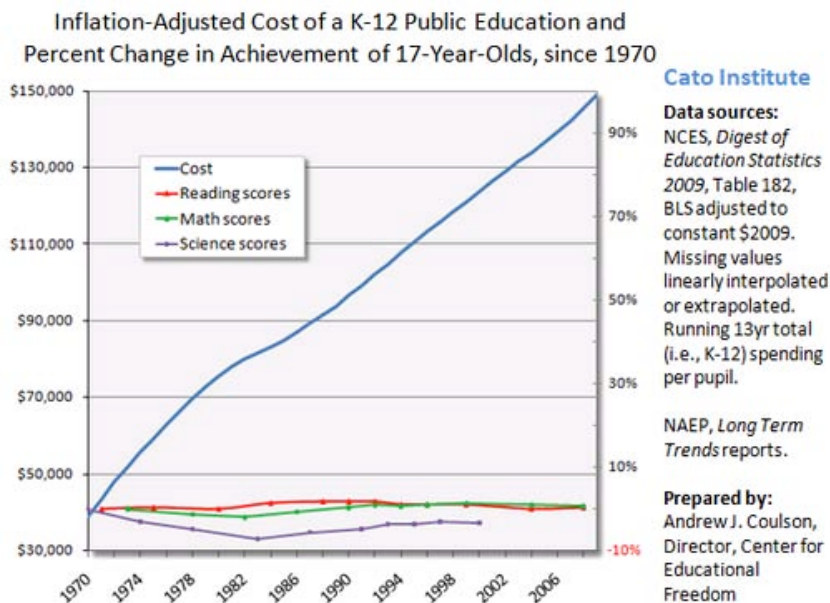
Companies cannot find workers in an economy still reeling from months of double-digit unemployment rates. Yet, research and real-life scenarios support what for many is counter-intuitive:

- The 2010 Manpower Talent Shortage Survey revealed that among the most difficult U.S. jobs to fill today are those in the skilled trades.
- A recent CBS News segment reported the number of open manufacturing jobs doubled in one year to 227,000, yet many are not filled due to a shortage of skilled workers.
- PBS Newshour reported in December 2010 “there is an unfilled demand for highly skilled, highly educated personnel in the manufacturing sector.”
- The state of Pennsylvania predicted a shortage of 15,000 to 17,000 workers in precision manufacturing and industrial maintenance over the next decade.
- The president of Chicago-based Laystrom Manufacturing reported he searched for four months before he found a maintenance worker who could operate the firm’s sophisticated laser-cutting machinery.
- A national poll of teenagers underscored teens’ disinterest in manufacturing. The poll, sponsored by Nuts, Bolts & Thingamajigs (NBT), the Foundation of the Fabricators & Manufacturers Association (FMA), showed a majority of teens — 52 percent — have little or no interest in a manufacturing career and another 21 percent are ambivalent. When asked why, 61 percent said they seek a professional career, far surpassing other issues such as pay (17 percent), career growth (15 percent), and physical work (14 percent).

**Average Annual College Tuition vs Total Federal Government Spending, 1976-2008**



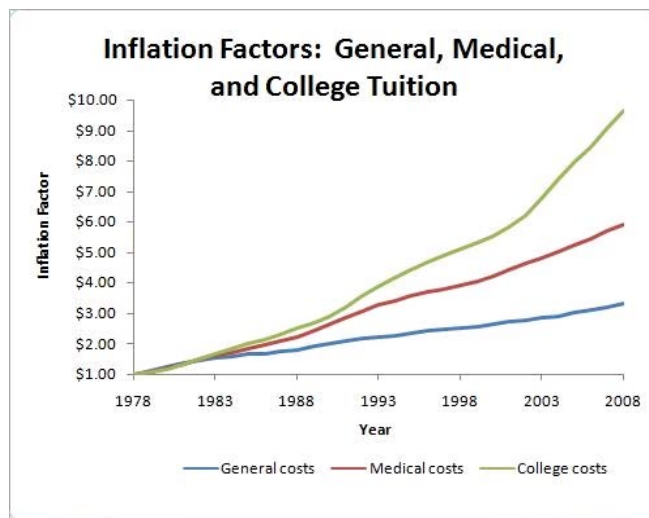
As a society and culture, we have decided that any career choice other than a professional degree in an office counts as a failure. Given the choice between being a welder at \$70,000 and a clerk at \$30,000, the clerk is a “professional” and a success while the welder is a failure and to be pitied. As a society we have stigmatized artisans and elevated bureaucrats. We wonder why no one wants to work in manufacturing when the most common bad guy in a movie is a businessman running a manufacturing operation. He is making his millions poisoning his neighbors and his employees. The hero is planting trees and talking to the animals.



Economically this makes no sense. We take young people that are not academically gifted or interested and force them to remain in school and college to avoid having to actually work for a living. Education has become an almost religious rite required for success. This leads families and students to take on debt and all of us to pay taxes to make college more affordable. Like any temple, the educational establishment hires enough people to absorb all the money we can devote to this task.

Instead of education cost being driven by the cost of providing instruction, it is driven by the perceived market value. We have so elevated the value of education that its costs are out of control. You can see that the cost of college education has tracked the increase in federal spending.

If the rising cost of health care is a crisis, then the rising cost of education is a disaster. The inflation rate of health care is roughly double the rate of inflation but the inflation for college tuition is roughly three times the rate of inflation. One possible explanation for the increase cost is the increase in value. If the rising cost of education was matched in improved outcomes--- more education--- then it might be rational. The graph showing K-12 achievement and cost belies any notion that we are paying more to get more.



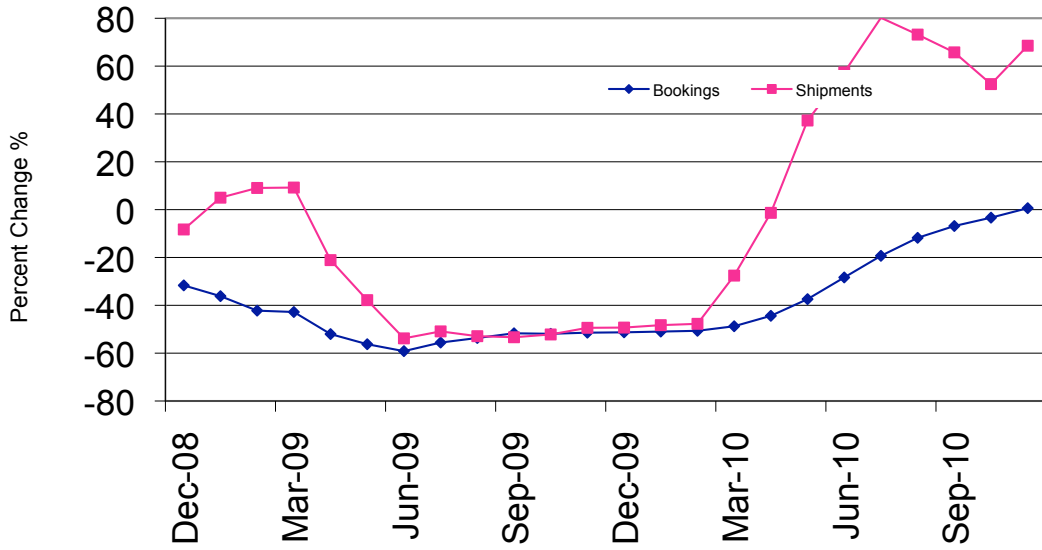
The tragedy of our education system is that we fail the least capable students. We have no career path for the academically disinclined. We have no educational path for the artisan. We have no good way for a young person to succeed by becoming a machinist, a welder, a molder, a melter, a pattern maker, etc. Our biggest challenge is attracting and developing these artisans while our educational system and society considers these creative valuable people failures.

For us in the steel casting industry, we are going to need to create the US equivalent of the apprentice programs common in Germany and Austria. A 15 year old student interested and passionate about welding or pattern making, should be given the opportunity to learn, develop, and practice that skill. This would not be a return to vocational education but a commitment to developing the skills and creative talent we need. But more than meeting our need for skilled workers, we would be promoting a genuine human success. We would be providing a challenging and useful opportunity for these students.

**STEEL FOUNDERS' SOCIETY OF AMERICA  
BUSINESS REPORT**

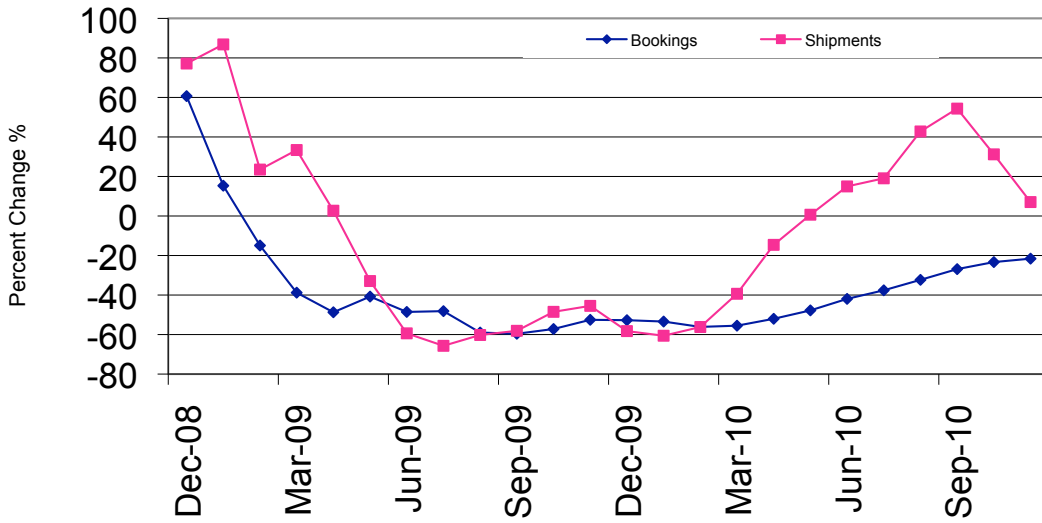
<b>SFSA Trend Cards</b> (%-12 mos. Ago)	12 Mo Avg	3 Mo Avg	Nov	Oct
<b>Carbon &amp; Low Alloy</b>				
Shipments	32.8	68.5	94.9	58.7
Bookings	-24.8	0.6	5.1	0.1
Backlog (wks)	8.3	8.2	8.0	8.0
<b>High Alloy</b>				
Shipments	-1.4	7.1	5.2	-32.2
Bookings	-39.4	-21.6	-20.8	-22.3
Backlog (wks)	6.8	8.5	8.0	9.0
<b>Department of Commerce Census Data</b>				
<b>Iron &amp; Steel Foundries (million \$)</b>				
Shipments	1,254.8	1,272.0	1,302	1,268
New Orders	1,281.6	1,290.3	1,296	1,337
Inventories	1,916.7	1,820.3	1,826	1,830
<b>Nondefense Capital Goods (billion \$)</b>				
Shipments	62.3	65.1	65.3	65.0
New Orders	63.6	69.8	65.6	71.3
Inventories	131.1	134.6	135.7	134.7
<b>Nondefense Capital Goods less Aircraft (billion \$)</b>				
Shipments	58.3	61.2	61.6	60.7
New Orders	59.2	63.1	64.2	62.2
Inventories	99.4	103.2	103.8	103.4
Inventory/Orders		1.64	1.62	1.66
Inventory/Shipments		1.69	1.69	1.70
Orders/Shipments		1.03	1.04	1.02
<b>American Iron and Steel Institute</b>				
Raw Steel Shipments (million net tons)	6.9	6.8	6.5	6.6

### Carbon & Low Alloy Casting Market Trends



SFSA Postcards

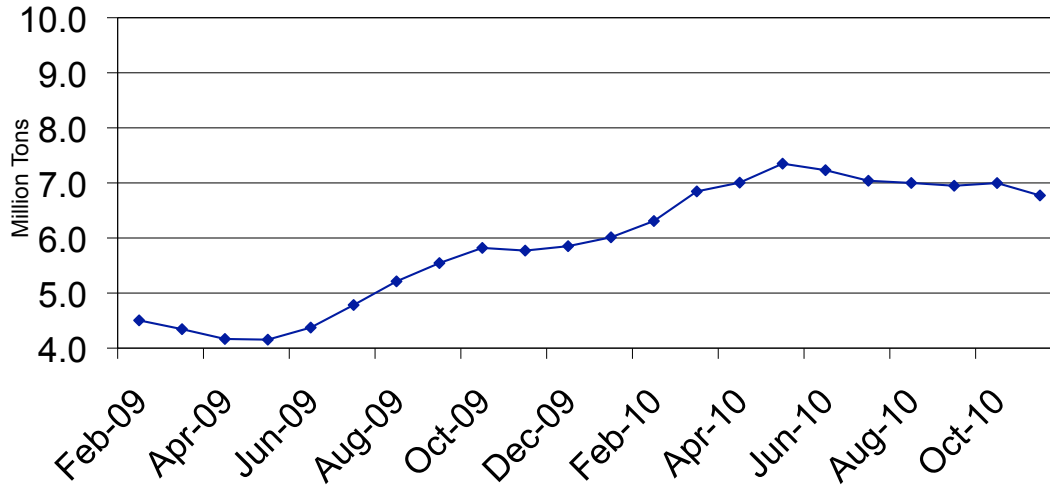
### High Alloy Casting Market Trends



SFSA Postcards

## Raw Steel Shipments

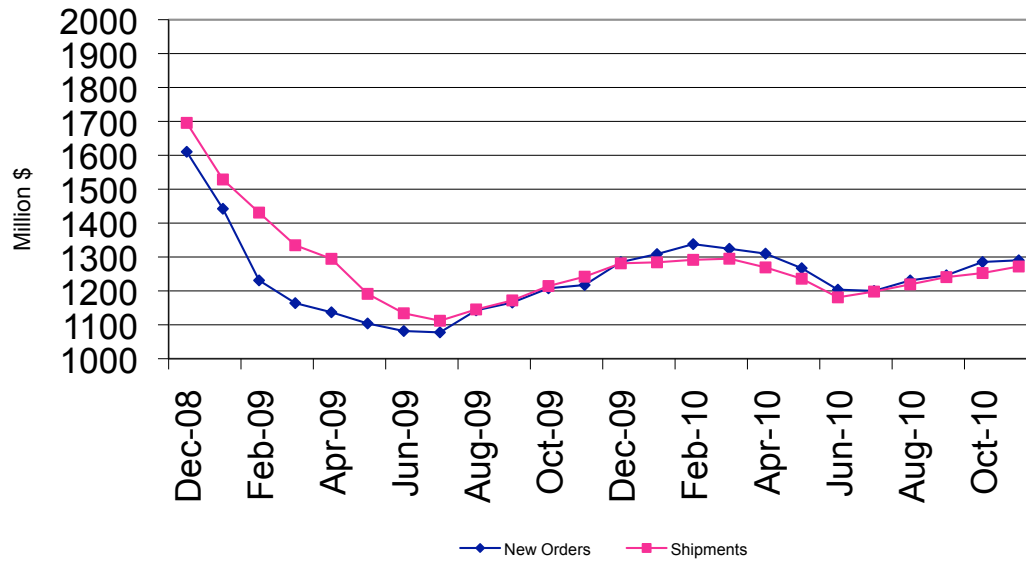
3 month average



AISI Data

## Iron and Steel Castings

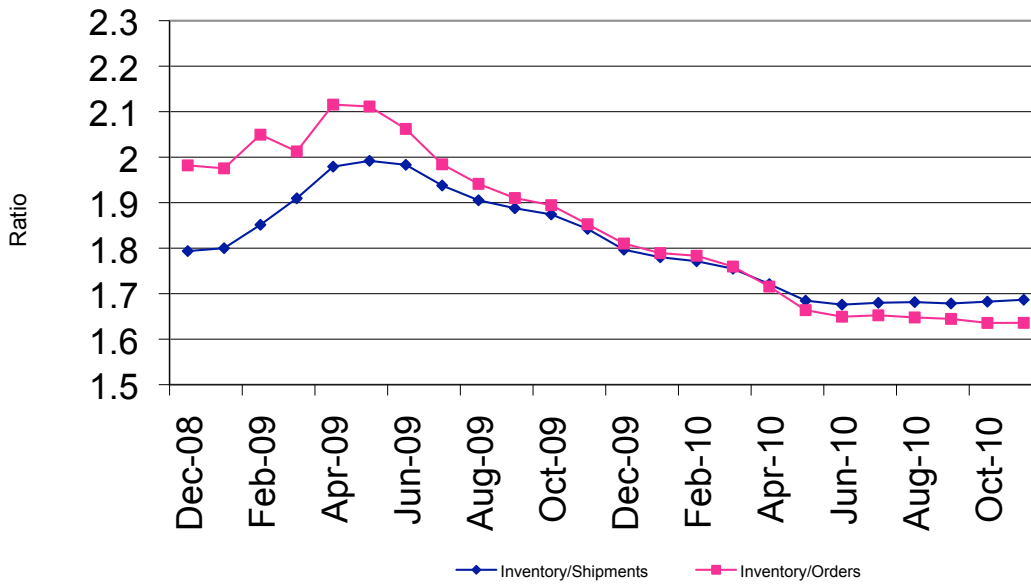
3 month average



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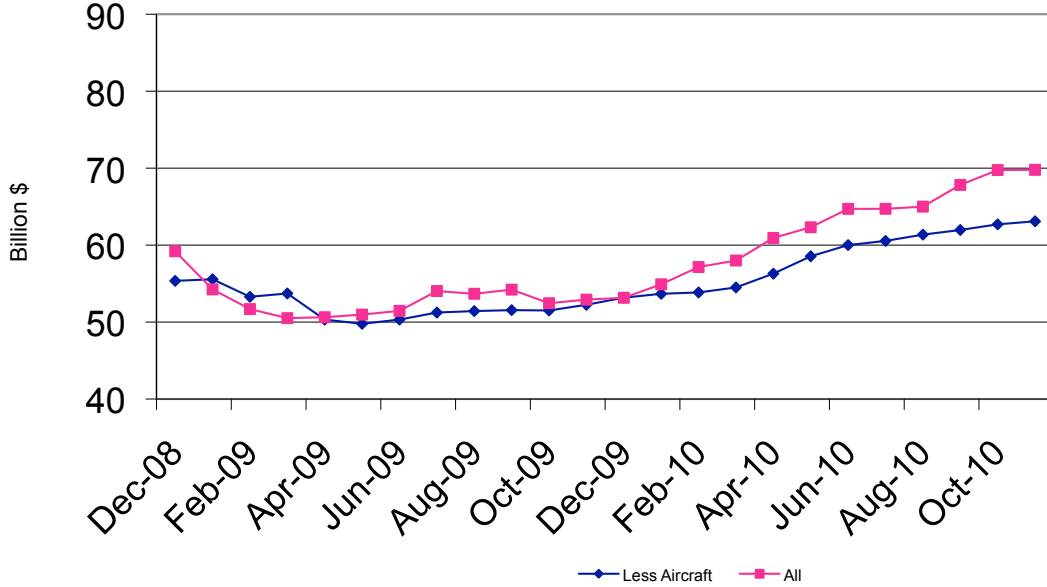
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### Nondefense Capital Goods less Aircraft 3 month average



Department of Commerce

### Nondefense Capital Goods New Orders 3 month average



Department of Commerce