Georgia Tech | The Center for Paper Business and Industry Studies

CPBIS

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New Year's Message from the Director

By Patrick McCarthy

From CBPIS@GeorgiaTech, a very Happy New Year! I hope that all of the CPBIS Community enjoyed a relaxing and healthy holiday season with friends and family. As CPBIS enters 2015 – it is hard to believe that the Center is starting its 15th year – we look forward to a productive year with greater connectivity and more knowledge products for the Center's stakeholders. And although the past few years have been leaner and smaller than hoped, the Center continues to actively engage with stakeholders through various pathways, including knowledge products, presentations, networking, or responding to media and others requesting information about the industry. And, as in the past, the CPBIS Community and I owe a debt of thanks to the continuing work that Dr. Tom McDonough, CPBIS Newsletter Editor, IPST Professor Emeritus, and CPBIS Director Emeritus, and Ms. Aselia Urmanbetova, CPBIS Web Site and Database Manager and a PhD candidate in the School of Public Policy at Georgia Tech. Tom has a knack for digging up interesting news items and is one of the best writers that I know, particularly in his ability to turn a phrase (which is not all that easy with many pulp and paper topics!) and to explain complex topics simply yet substantively for the lay reader. And many in the CPBIS Community who have purchased MillsOnLine and other data products or emailed questions to CPBIS have undoubtedly corresponded with Aselia and benefited from her knowledge of the industry and the data that are available from sources that are oftentimes well hidden in government websites. In short, Tom's and Aselia's contributions across CPBIS' activities have been invaluable to the Center!

New Year beginnings, of course, bring to mind transitions, taking stock, thinking about challenges and opportunities, and resolving to spend more time on this pursuit and less on another. The new millennium has and continues to witness significant innovations, the great recession, and an ever shrinking and more competitive world. So in thinking about transitions and taking stock, I wondered about 'time use' and whether this has changed much over the years.

One source of interesting information on time use is the Bureau of Labor Statistics (BLS). Since 2003, the BLS has conducted an annual survey on the average number of hours that people spend per day in various daily activities. Although the survey is very detailed, aggregate data provides some interesting insights on changes in how people spend their time. Here are a few samples found in these data. The table below identifies, for those people working, the number of hours spent in various work-related activities:

Overall, working and work-related activities have changed little, 8 hours in 2003 and 8.01 hours in 2013. But this masks changes when looking more closely. People spent an increasing amount of time searching for jobs and interviewing, 1.95 in 2003 and close to 3 hours per day in 2013. And there were interesting changes in hours per day spent on activities related to work, up from 0.76 (45 minutes) in 2003, 1.34 in 2008, and 1.56 hours (94 minutes) in 2013. On the other hand, there was a 14.3% decrease in time spent on other income-generating activities, down from 3.02 hours in 2003 to 2.51 hours per day in 2013. Also interesting is the time spent on educational activities. On balance, there was not much change, 0.67% over the 10 year period. Yet people did adjust their time allocations on particular activities, particularly homework and research, with a 13.6% increase, from two and a half hours in 2003 to over 3 hours in 2013.

How Do We Spend Our Time?

	2013	2008	2003	% Change 2008 - 2013	
Working and work-related activities	8.01	7.99	8.00	0.25%	0.12%
Working	7.55	7.56	7.56	-0.13%	-0.13%
Work-related activities	1.56	1.34	0.76	16.42%	105.26%
Other income-generating activities	2.51	2.93	3.02	-14.33%	-16.89%
Job search and interviewing	2.96	2.53	1.95	17.00%	51.79%
Educational activities	5.98	5.94	5.69	0.67%	5.10%
Attending class	5.10	5.22	5.10	-2.30%	0.00%
Homework and research	3.09	2.72	2.48	13.60%	24.60%

Source: Bureau of Labor Statistics, American Time Use Survey, http://www.bls.gov/tus/home.htm.

Another aspect of our daily lives is the average amount of travel time per day that we spend in our varied activities and the potential beneficial effect of information technology on travel. For the same period, the table below provides travel times and percentage changes in travel times. Between 2008 and 2013, and with the exception of educational activities, people spent more time travelling to work (45 minutes in 2013) and all other activities. However, we also see that time spent traveling decreased in all categories between 2003 and 2008, which suggests that the great recession's significant impact on employment also had its effect on travel.

Time Investments in Travel Related to Daily Activities

Travel Related To	2013	2008	2003	% Change 2008 - 2013
Personal care activities	0.68	0.52	0.80	30.77%
Eating and drinking	0.48	0.47	0.47	2.13%
Household activities	0.49	0.41	0.44	19.51%
Purchasing goods and services	0.66	0.66	0.66	0.00%
Caring for and helping household members	0.64	0.60	0.64	6.67%
Caring for and helping nonhousehold members	0.62	0.60	0.68	3.33%
Working and work-related activities	0.75	0.73	0.74	2.74%
Educational activities	0.58	0.64	0.65	-9.38%
Organizational, civic, and religious activities	0.45	0.44	0.44	2.27%
Leisure and sports	0.67	0.64	0.65	4.69%

Source: Bureau of Labor Statistics, American Time Use Survey, http://www.bls.gov/tus/home.htm.

Time is a scarce resource and the factors that generate changes in time allocations – work-related and personal – are as interesting, complex and varied as those involving the allocation of other scarce resources that pulp and paper companies and, more generally society make. For CPBIS, we will continue to try and allocate our scarce time and limited resources in ways that maximize the value of our collective efforts' value to the CPBIS Community.

CPBIS standing activities include:

- a monthly newsletter
- an annual benchmark report
- MillsOnLine and related data products

Other CPBIS activities, as opportunities arise, include research papers, presentations on industry trends, articles in industry trade magazines, and stakeholder connectivity. Also, in 2014, the Center sold 18 products from the market place, the majority of which were related to the Mills Online and related databases.

Donate to CPBIS – CPBIS is the only academic Center that focuses on the business, economic, and policy aspects of the pulp, paper, and, more broadly, forest products industry. Support CPBIS and help the Center maintain and expand its industry-related knowledge products and maximize your value.

Thank you for your interest in CPBIS. I look forward to a productive and knowledge-rich 2015!

Trend Indicators from Industry Intelligence Inc.

Industry Intelligence Inc. has provided market intelligence to more than 600 companies worldwide since it began as Forestweb in 1999. Industry Intelligence delivers a daily report featuring news of the paper and forest products industries. For your subscription visit: http://www.industryintel.com

Below is a small sampling of recent Industry Intelligence headlines, chosen to mirror significant trends in and around the paper and forest products industries.

RBC Capital Markets: AF&PA US containerboard stats for December viewed as slightly positive on surprisingly strong exports despite high US dollar; RBC highlights higher prices attracting capacity, prices for kraft linerboard stable, operating rates higher

The market saw 950K tons of new capacity in 2013 (SP, Atlantic, Norampac), with over 1.2MM tons slated for 2014/15 (represents a 6% increase in NA capacity base at year-end 2013).

Two more companies, MiniMill Technologies and Fibre Technologies, express interest in buying and operating Verso's closed Bucksport, Maine, paper mill; both propose converting mill to produce another paper grade, suggest it would involve packaging

Verso Paper Corp. had announced plans to sell the mill to a scrap metal company.

Potential for producing textile fibers at Metsä Fibre's planned bio-product plant proposed in connection with €1.1B pulp mill investment in Äänekoski, Finland, being tested by Itochu, a multi-sector Japanese company that makes textiles

If realized, the Äänekoski project will be the largest investment in history in the forest industry in Finland. It includes facilities for a more extensive utilisation of the by-products of the pulp mill. It is scheduled to start up at the end of 2017.

Jari Celulose in Mungaba, Pará, Brazil, starts up this week, producing eucalyptus-based dissolving pulp destined mostly for Asia, with first exports expected in February-March; mill produced paper pulp before shutting down in January 2013

China's anti-dumping duty imposed on Jari is 11.5%, rather than the 49.4% China announced in its preliminary plan, "so China is still a viable market for us," a Jari official said.

Swedish Energy agency's program to study energy use by country's pulp and paper industry granted 22M kronor to 13 projects during 2010-2014; several of the projects studied separating biomass into fractions, a method expected to improve energy efficiency

The pulp and paper industry currently accounts for about 50% of energy consumption in the whole Swedish industry.

GP's Green Bay, Wisconsin, tissue paper mill receives delivery of new natural gas boiler, which will produce steam for mill's operations and generate power, replace mill's largest coal-fired boiler, improve air emissions to meet future regulations

Emissions of sulfur dioxide and nitrous oxide will drop by 80 percent.

Greenpeace's campaigns against Resolute Forest Products causing 'significant' loss of market share, says CEO; environmental group alleges company is logging in areas inhabited by endangered woodland caribou, urges customers to boycott Resolute's products

Resolute denied Greenpeace allegations that it was secretly building roads and chopping down trees in remote caribou habitat, and responded by suing Greenpeace for defamation and intentional interference with its customers, even after Greenpeace retracted its claims of out-of-bounds logging. Resolute says, "The damage is done and they continue to make allegations that are just absolutely untrue."

Segezha Pulp and Paper Mill in Russia plans 12B-rubles investment to increase kraft paper capacity by 110,000 tonnes/year, while improving quality and lowering production costs; project also would improve wood processing, raise paper sack capacity

The US$182.1 million project will increase annual unbleached sack kraft paper capacity to 360,000 tonnes from 250,000 tonnes.

UPM to shut down its SC paper mill in Madison, Maine, from Jan. 24 to around Feb. 9, citing market conditions, increased energy costs, its struggle competing with province-supported SC paper mill in Port Hawkesbury, Nova Scotia

The Nova Scotia government has reportedly provided more than $125 million in subsidies to restart a Canadian paper mill in Port Hawkesbury.

Newsprint shortage in Venezuela taking toll on printed news distribution, with newspapers limiting copies and shrinking their editions; government moves to centralize imports through state-run enterprise, leading to concern about future of press freedom

The country imports its newsprint from Canada and the U.S., but due to the socialist government's currency controls, it can take many months for newspaper companies to secure the dollars required to buy newsprint.

Suzano's Imperatriz, Brazil, pulp mill to achieve full 1.5 million tonnes/year capacity this year, could reach 1.7 million tonnes/year with minor adjustments, 10-day maintenance outage scheduled for February; mill's transport capability growing

Operations at the unit were kicked off in December 2013 with capacity to 1,5mil tons of pulp

Plant geneticists from University of Massachusetts, University of California sort out the gene regulatory networks that control cell wall thickening; discovery could help researchers improve the efficiency of biofuel production

The work offers a framework for future research that should allow researchers to identify ways to manipulate this network and engineer energy crops for biofuel production.

(Editor's note: The ability to control cell [fiber] wall composition and thickening would also have important implications for the manufacture of improved paper products.)

Continued decline of North American newsprint demand creating uncertain outlook for 2015, could lead to further capacity reductions, say analysts; nearly 2 million tonnes/year of newsprint capacity has been eliminated in past three years

Analyst sees more machine closures and conversions to containerboard ahead.

Business groups trying to overturn new California law that bans single-use plastic bags, starting July 2015, have reportedly collected enough signatures to put referendum on November 2016 ballot

If the referendum qualifies, the nation's first statewide ban on single-use plastic bags will be suspended until voters weigh in.

Top paper, paper products stocks on NYSE in terms of profit margin are Domtar, KapStone, Neenah Paper, Schweitzer-Mauduit; trailing 12-month profit margins for the four companies are 7.5%-7.9%

Domtar's ROE for the same period is 15.00%.

Global liquid packaging carton market expected to witness CAGR of 4.87% in terms of revenue and post during 2014-2019 period, with use of aseptic technology a major trend upcoming in market

The use of aseptic technology helps to retain the freshness of liquid products for longer periods.

Pratt Industries to build recycled corrugated box producing facility in Beloit, Wisconsin, for US$52M; 350,000-sq.-ft. manufacturing facility will produce approximately 600 tonnes of recycled boxes/day, is expected to be fully operational by January 2016

Aside from using 100% recycled paper in its box-making process, the plant will also use the latest in water reclamation technology, and will eventually reduce discharge into the local sewer system to zero.

Vigil held on last operating day for Resolute Forest Products' Iroquois Falls, Ontario, newsprint mill, as town mourns loss of what some say was lifeline of community built by predecessor company Abitibi; mayor asks Resolute to heat mill until June

"It was the lifeblood of the town," said one worker, speaking of Abitibi and the mill.

Time Inc. to cut People and Time magazine circulation guarantees to advertisers by a combined 300,000 copies/issue, effective Jan. 1, citing 'less profitable circulation'; company's digital strategy has so far offset ad losses from print

In 2007, *Time* reduced its rate base from 4 million to 3.25 million copies.

Top packaging trends in 2015 include sustainability, demand for transparent sourcing, lightweight packaging, new barrier and coating technologies, convenience; 42% of Americans willing to pay more for sustainable packaging, says Asia Pulp & Paper

Some brands are exploring bioplastics and water-based coatings, aiming to keep coatings recyclable, renewably sourced or biodegradable.

Global packaging production to reach €500B in 2016, with rigid, flexible packaging taking 34% market share combined, followed by board with 30%, metal with 14% and glass with 6%; growth will be driven primarily by BRICS countries: survey

People are looking to paper to provide a sustainable and environmentally friendly resource.

Saudi Paper Manufacturing in Saudi Arabia starts up renovated tissue paper line for trials, plans to start commercial production Jan. 1; upgrade is expected to boost company's production capacity to 18,000 tonnes/year

Saudi Paper said the upgrade has brought its maximum production capacity to 18,000 tonnes per year.

Global pulp and paper production stagnates in 2013, largely due to 1% decline in China's paper output and its use of pulp and wastepaper, after 38 years of growth; this could mark end of one of the few growth markets for printing papers: FAO report

Despite the downturn in paper, Chinas importance as a producer and consumer of other forest products continues to grow.

Saskatchewan to launch province-wide Multi-Material Recycling Program, requiring businesses, organizations that distribute packaged goods, paper to share responsibility for cost of recycling; municipal recycling currently only paid for by municipalities

Small businesses are exempt from participating.

UPM, nanotechnology start-up Indicatorium to commercialize food freshness indicator, a smart label that reacts to chemicals, helps determine whether food is still fresh, safe to eat; label can attach to packaging, be integrated into NFC, RFID technology

The food freshness indicator technology was developed by UPM.

Pike County, Mississippi, to get US$1M from state to install water, sewer services at site of Drax's planned US$100M Pike Bioenergy plant, which will convert pine pulpwood into wood pellets to ship to UK; facility will employ 47 people

Pike BioEnergy has an option to buy 158 acres of county-owned land.

US Government Printing Office renamed Government Publishing Office to better reflect agency's role, which includes providing access to government information in digital, e-book formats as needs of the public and agencies have evolved beyond only print

The office's director points out that publishing defines a broad range of services that includes print, digital, and future technological advancements.

AF&PA Statistics

Since our last reporting of American Forest and Paper Association statistics releases, the Association has issued its November printing and writing report, as well as its November and December kraft paper, paperboard and containerboard reports.

Printing and Writing

Total shipments decreased 8 percent in November compared to November 2013, with total paper inventories increasing 5 percent compared to October.

Uncoated free sheet (UFS) paper shipments in November decreased 14 percent compared to November 2013. YTD shipments were down 9 percent in 2014. Imports of UFS increased 27 percent in October and were up 23 percent year-to-date in 2014.

November coated free sheet (CFS) paper shipments decreased 3 percent compared to 2013. YTD shipments of coated freesheet grades decreased 3 percent. Exports of CFS papers were down 4 percent for the year compared to the first 10 months of 2013, with imports increasing 17 percent in October and 4 percent for the year.

Uncoated mechanical (UM) paper shipments decreased 1 percent in November, following nine consecutive months of year-over-year increases. Year-to-date shipments of UM were up 4 percent compared to 2013.

Coated mechanical (CM) shipments in November decreased 4 percent relative to November 2013 and were down 4 percent for the year. Exports of CM grades decreased 9 percent year-over-year in October but were up 6 percent compared to the first 10 months of 2013. Imports were down 18 percent year-to-date.

Kraft Paper

December: Total shipments were 128.4 thousand short tons, 11.9 percent higher than in November. Bleached kraft paper shipments increased to 9.7 thousand tons compared to November's 8.6, while unbleached kraft paper shipments increased from 106.1 thousand tons to 118.7. Overall, shipments in 2014 were 2.3 percent lower than in 2013. Total month-end inventories increased to 79.3 thousand tons in December.

November: Total shipments were 115.5 thousand tons, 7.7 percent lower than in October. Bleached kraft paper shipments remained essentially flat compared to October at 8.6 thousand tons, while unbleached kraft paper shipments decreased from 116.5 thousand tons to 106.8. Overall, year-to-date shipments in 2014 are 2.8 percent lower than in the same period last year. Total month-end inventories increased to 71.5 thousands short tons in November.

Paperboard

December: Total boxboard production decreased 2.6 percent when compared to December 2013 and decreased 3.2 percent from November. Unbleached kraft boxboard production increased over the same month last year but decreased compared to last November. Total solid bleached boxboard & liner production decreased when compared to December 2013 and decreased compared to November. The production of recycled boxboard decreased compared to December 2013 and decreased when compared to November.

November: Total boxboard production increased 0.9 percent when compared to November 2013 and increased 2.1 percent from October. Unbleached kraft boxboard production increased over the same month last year and increased compared to October. Total solid bleached boxboard & liner production increased when compared to November 2013 and increased compared to October. The production of recycled boxboard increased compared to November 2013 but decreased when compared to October.

Containerboard

December: Production was 5.3 percent higher compared to November 2014, 6.9 percent higher than December of last year, and 1.8 percent higher year-to-date. The month-over-month average daily production was 1.9 percent higher. The containerboard operating rate for December increased slightly to 94.7 percent from November's 94.3 percent.

November: Production was 4.8 percent lower compared to October 2014, 5.9 percent higher than November of last year and 1.4 percent higher year-to-date. The month-over-month average daily production was 1.6 percent lower. The containerboard operating rate for November dropped to 94.3 percent from October's 96.9 percent.

The full reports can be purchased by contacting Caroline Nealon, Statistics_Publications@afandpa.org or 202-463-2448.

Paper Quotes

"We continue to face increased competition from electronic substitution for print and from international producers, but as a larger, more efficient organization with a sustainable capital structure, we are better positioned to deliver solid results despite the industry's continuing challenges." – *David J. Paterson, Verso CEO, while announcing the recent completion of Verso's acquisition of NewPage*

"With the addition of the Rumford and Biron mills, Catalyst becomes a larger and stronger company with five facilities across North America and an estimated production capacity of 2.1 million tons of paper and 500 thousand tons of pulp." – *Joe Nemeth, CEO, Catalyst Paper Corporation, while announcing the recent completion of Catalyst's acquisition of Biron, Wisconsin, and Rumford, Maine, pulp and coated paper mills from NewPage*

"Newspapers continue to reign supreme, however, in the delivery of local news. If you want to know what's going on in your town – whether the news is about the mayor or taxes or high school football – there is no substitute for a local newspaper that is doing its job. A reader's eyes may glaze over after they take in a couple of paragraphs about Canadian tariffs or political developments in Pakistan; a story about the reader himself or his neighbors will be read to the end. Wherever there is a pervasive sense of community, a paper that serves the special informational needs of that community will remain indispensable to a significant portion of its residents." – *Warren Buffet, in his 2012 letter to Berkshire Hathaway shareholders*

Statistics Corner: China's Dissolving Pulp Imports

According to a June 20, 2014 post on Yahoo Finance (https://uk.finance.yahoo.com/news/china-dissolving-pulp-market-witnessing-000000183.html), "… in 2002 China imported 200kt of dissolving pulp. By 2008 this figure totaled 499kt and by 2012, imports of this fibre source reached 1.6 million metric tonnes. What's more, by 2012, China imported a third of all the pulp and wastepaper traded in the world (by value).

In 2013, global dissolving pulp capacity reached 6.3 million tonnes. The main producers were countries where forest resources are abundant, namely Canada, Brazil, United States and South Africa.

The period 2009 - 2011 witnessed a strong rise in dissolving pulp projects in China. This resulted in a rise in total dissolving pulp capacity to approximately one million tonnes in 2013, putting it in second place worldwide."

It is against this backdrop that "In April of this year, China Ministry of Commerce has announced definitive anti-dumping duties for pulp imports from the United States of between 16.9% to 33.5%. Canadian companies are subject to rates ranging from 0% to 23.7%, while Brazilian companies will have to pay 6.8% to 11.5%. The implementation period of these policies would span 5 years since April 2014. This has had a significant impact on the market and the economic consequences will require detailed observation. Moving forward, as China continues to "fine tune" its antidumping regime, its policy context and regulatory framework will continue to evolve.

Figure 1, below, summarizes data on Chinese imports of dissolving pulp during the period January 2008 – September 2012.■

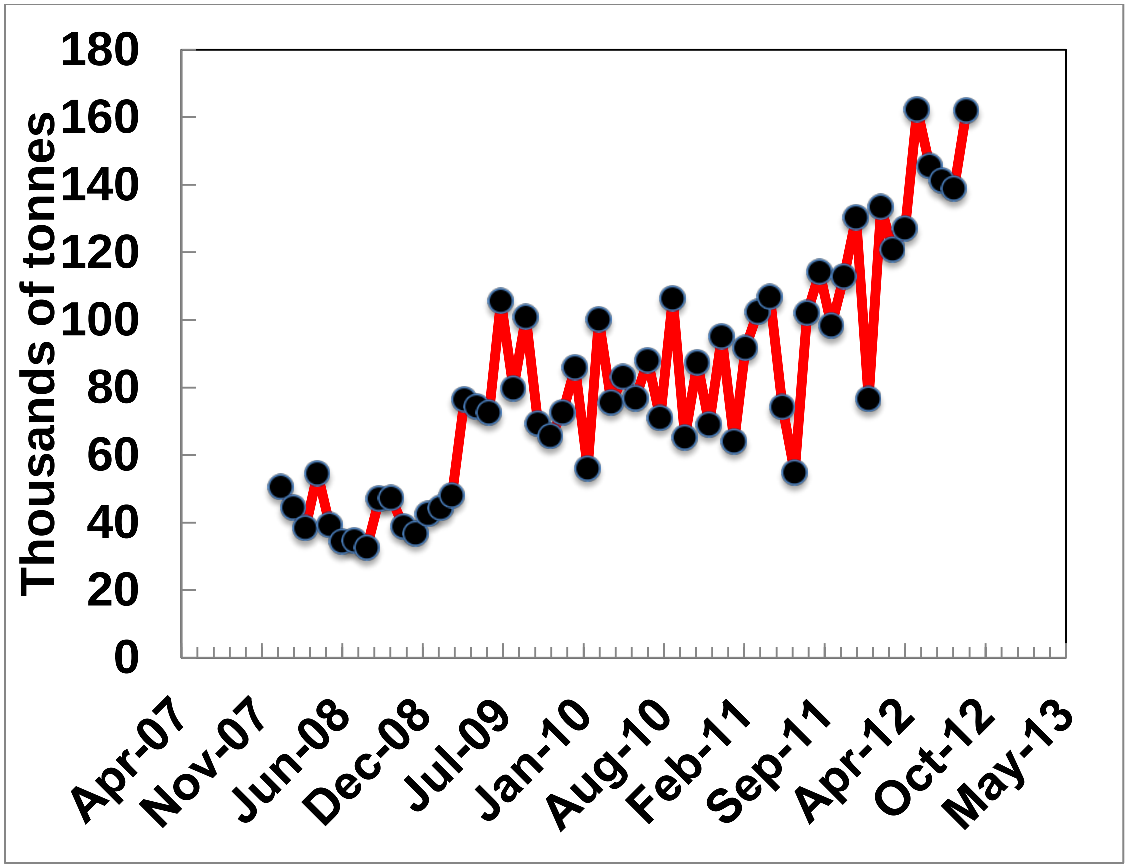

Figure 1. China's Monthly Imports of Dissolving Pulp, Jan. 2008 – Sept. 2012

(*Source: tradetracing.com*)