Sixty Members of Congress or their staffs, including nearly one-third of the U.S. Senate, heard the printing industry speak with one clear and loud voice during the PRINT’S VOICE ‘14 Capitol Hill Fly-In.

Over 50 industry leaders gathered on Capitol Hill May 6-7 calling on Congress to enact urgently needed postal and patent reform before the end of 2014. They also stressed first-year expensing of capital equipment purchases as an essential element of comprehensive tax reform, and that advertising costs should remain fully deductible as an ordinary and necessary business expense. Congress was also pressed to enact international trade legislation and ratify international trade agreements that foster U.S. manufacturers’ ability to successfully compete in the global marketplace.

NPES member, David Currie, Senior Industry Consultant, Natomas ES LLC, gave this report on his experience at the two-day event.

“This year’s Fly-In was well planned and well structured. The NPES and Printing Industries of America Government Affairs staffs arranged a significantly greater number of meetings with House and Senate members and staff this year than last year. We heard directly from:

U.S. Senator Tammy Baldwin (D-WI) on her strong backing for postal and patent reform, as well as the support of over 200,000 jobs in her state of Wisconsin directly related to printing and paper production. She is leading the effort in the Senate to craft a postal reform bill that will properly balance the interests of all mailing industry stakeholders.

U.S. Senator Patrick Leahy (D-VT), Chairman of the Senate Judiciary Committee, who comes from a family of printers, spoke of his strong support for the industry, the need for proper patent reform legislation, and his intimate understanding of the need for a strong, viable U.S. Postal Service.

U.S. Congresswoman Tammy Duckworth (D-IL) who, beyond her inspiring life as an Iraq War veteran, spoke of her active support of postal and patent reform. Her district has more NPES members (21) than any other in the country.

U.S. Congressman Michael Michaud (D-ME), a co-founder of the Congressional Paper Caucus and a strong supporter of economic development, is the third generation member of his family involved in the paper industry and understands the need for a viable printing industry. Postal reform is high on his agenda and his presentation to the group confirmed his commitment.

U.S. Congresswoman Cathy McMorris Rodgers (R-WA), Chairman of the House Republican Conference (4th highest ranking Republican

continued on page 5
Adapt and Survive!

Adaptation has never been easy for people or animals. Usually it happens by necessity rather than choice. Charles Darwin noted in his theory of evolution that “It is not the strongest of the species to survive, nor the most intelligent that survives. It is the one that is most adaptable to change.”

We have been seeing that same theory of evolution occur substantially in our industry for the last six to seven years. In 1998 there were 32,600 commercial printers in the U.S.; today, that number is less than 26,000. Medium-sized companies buy up small companies, and big companies buy up medium companies. Corporate Darwinism at its best!

We are seeing our customer base shrink and the demand for our equipment do the same — if the U.S. is the only market for your equipment, or if commercial print is your only sector.

But the most adaptable have managed to “double down” in international markets that expect growth to surpass the U.S. Countries like India, South Africa, Indonesia, Poland, China, Brazil and Romania all show growth trends of 3% or more annually through 2017 (see Exhibit 1).

When we move to sectors, it will come as no surprise that those involved in packaging will do well. Packaging worldwide is expected to grow at over 4% annually between now and 2017, boosted by economic recovery in developed countries and rising prosperity in emerging markets.

Packaging worldwide is expected to grow at over 4% annually between now and 2017, boosted by economic recovery in developed countries and rising prosperity in emerging markets.

While packaging is the fastest-growing sub-segment today, there is still room to tap into the U.S. $14.1 billion smart packaging market.
Emerging countries are catching up to developed countries in ways that affect demand for the written word through rising income, rising literacy and improved access to cities that give rise to higher consumption.

(see Exhibit 2). The recent “World-wide Market for Print” study reminds us that emerging countries are catching up to developed countries in ways that affect demand for the written word through rising income, rising literacy and improved access to cities that give rise to higher consumption.

We also know that an increasing push from public and private sectors for eco-friendliness, as explored in Exhibit 3, will put downward pressure on business and transactional printing, but will also lead to greater sales of more sustainable substrates, inks and equipment that foster ecofriendly print.

All this provides as much opportunity as threat to the adaptable company. It is clear that the technology developed, manufactured and sold by U.S. companies is highly sought after around the world if delivered with a local mindset.

Adaptation and evolution is never easy, but it certainly beats the alternative!
One on One with GORDON KAYE

Gordon Kaye is editor and publisher of Graphic Design USA magazine. He joined GDUSA in 1990 after a first career as communications attorney for a private law firm, and then for the NBC Television Network where assignments included NBC News and Saturday Night Live. He received a B.A. from Hamilton College, and a joint degree in Law and Public Policy from Princeton University and Columbia Law School.

Back in 1990, just as our print-centric world was racing into the “digital age,” what (on earth!) inspired you to leave a successful career in law to become publisher of Graphic Design USA?

It is less a mystery than a love story. Yes, I had an interesting law career; first working for a large Wall Street law firm representing publishing and advertising clients. Then I moved in-house at NBC, the television network, practicing media, communications and entertainment law, as well as appearing on the set at 30 Rock to vet Saturday Night Live for potential legal problems. On paper (and at cocktail parties) my legal career looked pretty good. But here’s the rub. Starting in the early 1950s, my father worked at or owned various design, printing and ad industry magazines. Even as a young child, I came to love the feel and smell of print, its beauty and power. And though my father was not a designer, nor am I, we both shared a respect—make that fascination—for the ability of graphic artists to tell a story, sell a product, advance an idea. I never got over that feeling, and most days as a lawyer I fantasized about being a publisher. On the other hand, participating in a small family business is fraught with problems, and so I pursued my own career. Then, for good or ill, my dad had serious personal struggles and his ventures hit hard times; by 1990 his business was essentially a shell. I jumped in to try and turn things around—maybe for a year or two, with no particular skills, just a passion for print. Luckily, passion—and lots of sweat—has been enough. Nearly a quarter century later, I wake up every morning anxious to get to work because publishing is what I did, what I did well, and what I love. So how do you feel about GDUSA today?

I love printing. While many publications are shrinking or stopping, we are generating lots more pages, on heavier paper stock, with better design than ever. I have no deep pockets and no secret sauce. I simply start from the fundamental belief that people still love print for its classic strengths—touch, feel, permanence, portability—and that a magazine can stand out from the digital noise if it delivers relevant content and high production values. Of course, in 2014 no magazine can stand alone; our company lives because we also deliver information and have income streams from websites, e-newsletters, an app, several design contests, and other activities. Integrating print with digital media is absolutely necessary. But, honestly, the print magazine is the brand; it gives us the gravitas and provides the authenticity. I am investing more in design and production elements because the brand matters, and the experience of receiving GDUSA had better be special and memorable. My advice to brand owners of any kind: invest more in print because it has transcendent value.

Graphic Design USA hosts several “best in industry” design contests, and you are also a judge for GAERF’s 2014 Student Design Competition. From this perspective and in today’s multichannel, mixed-media environment, how have design client expectations changed?

I know what design clients should want: effective, expressive and strategic communications; aesthetically presented and produced; and delivered across multiple media calibrated to meet the needs of the project. Professional graphic designers and commercial printers understand this instinctively. My fear is that clients—battered by tight budgets, under pressure for quick turnarounds, steeped in a digital culture, and less educated in the craft of graphic arts—too often understand the cost of everything and the value of nothing. In contests, I look for the pieces, projects and campaigns that define the design problem and craft a thoughtful, strategic and relevant solution. If we’re lucky, it might even be beautiful. Such projects exist; you just have to look harder. Such clients exist; you just have to look harder.

Looking ahead, what do you see for the industry in the next three to five years? And why are you optimistic about the future?

Earlier this year we conducted GDUSA’s 51st Annual Reader Survey. Several points make me feel reasonably optimistic. First, hype aside, the survey finds that print remains crucial as to how professional designers make a living. More than 9 in 10 designers work in print as part of their mix, nearly 3 in 4 projects involve a print component, and roughly 9 in 10 buy printing and specify paper. Second, the results affirm a key point made earlier: designers still value print for its classic strengths.
in the House), spoke of her belief in the American Dream and the need to assure that everyone has opportunity.

U.S. Congressman Reid Ribble (R-8-WI), a co-founder of the Congressional Paper Caucus, spoke of how important it is for Members of Congress to hear directly from constituents, and praised those in attendance for their commitment to good government and the well-being of their industry.

U.S. Congressman Lee Terry (R-2-NE), Chairman of the House Energy and Commerce Subcommittee on Commerce, Manufacturing and Trade, stressed the importance of manufacturing to the U.S. economy.

PRINT’S VOICE shows there is a strong and continuing effort within the industry to put appropriate effort into enacting needed legislation.

In addition to featured program speakers, Fly-In attendees also met with other senators and representatives in scores of congressional office visits.

Before the office visits, attendees were briefed on the printing industry’s government affairs priorities by several panels of issue experts drawn from congressional committee staffs, Washington think tanks and industry experts. (See issue briefs at: www.npes.org/PV14_Policy-Briefs.)

Co-sponsored by NPES The Association for Suppliers of Printing, Publishing and Converting Technologies and Printing Industries of America, PRINT’S VOICE, now in its fourth year, has grown into a signature event that brings printers and suppliers together for a powerful program of public policy education, issue advocacy, and interaction with Members of Congress. This year’s Fly-In was also supported for the first time by the National Association of Printing Ink Manufacturers (NAPIM) and the Association of Independent Mailing Equipment Dealers (AIMED).

Fly-In participants gave the program high marks, citing its educational value and the opportunity to advance industry priorities by meeting directly with elected officials and their staffs. NPES member and Fly-In participant Greg Salzman, CEO at Aleyant Systems, LLC, shared his enthusiasm following the event: “My time at PRINT’S VOICE ’14 was a fascinating glimpse of the “sausage making” that occurs in Washington. Overall, I was struck by these key points:

• It’s important to be involved! It’s all too easy to not think about the laws being passed at a federal level, but there are very important laws being considered by Congress that will absolutely impact our industry.

• Be part of a trade association that lobbies in Washington. I highly recommend NPES or Printing Industries of America.

• It's easy to be involved. In my case, it was easy, because NPES arranged everything. I showed up, got a great education, and quickly found myself on Capitol Hill talking about these issues.

 Foremost among these strengths is touch—the promise of the tangible, sensual, physical, real. Print works, they say, because it creates a human connection missing from the virtual world. Third (and this is important!), designers sense that the pendulum swing away from print communications has gone a bit too far. Their premise is that, in the digital clutter, effective printed pieces can be fresh, surprising, welcome, personal, special.

Fourth, print’s evolution to a smarter and leaner profile—think, for example, digital printing and sustainable paper making—is helping keep the medium a relevant option when hard choices are being made about economics, effectiveness, and ethics.

Fifth and finally, our readers expect print to continue to be important in the media mix because designers and printers are increasingly adept at utilizing it in ways that complement and enhance integrated marketing programs. One of the survey respondents sums the point up nicely: “Print is far from dead. It just requires more creative solutions than designers and printers have given it in the past.”

This year’s Fly-In was well planned, well structured...with a significantly greater number of meetings with House and Senate members than last year. —David Currie, Senior Industry Consultant, Natomas ES LLC

NPES and Printing Industries of America Government Affairs Chairman Ron Rose (l) and Brad Thompson (r).
U.S. Senator Barbara Boxer (D-CA) flanked by California constituents David Currie (l) and Nick Bruno (r), with NPES and Printing Industries of America leaders, left to right: Ralph Nappi, Brad Thompson, Ron Rose, Jeff Ekstein, and Michael Makin.

Congresswoman Cathy McMorris Rodgers, (R-5-WA) Chairman, House Republican Conference, addresses PRINT’S VOICE ’14 Fly-In participants.

NPES President Ralph Nappi (l) introduces U.S. Senator Tammy Baldwin (D-WI) (c) at the PRINT’S VOICE ’14 Senate Breakfast. Baldwin, a leading advocate of postal reform, is a champion of the paper, printing and mailing industries, all of which have a huge presence in Wisconsin.

NPES Executive Committee member, Chris Payne, Director & Vice President, Commercial Marketing, Eastman Kodak Company poses a question in one of the congressional briefing sessions at PRINT’S VOICE 14.

NPES Board member, John Copeland, President & COO, Toyo Ink America gains an update on key industry issues during a congressional briefing.

NPES Board member Mark Karmenber, RBP Chemical Technology, Inc. (l), with Congressman Michael Michaud (D-2-ME) (r), co-founder of the Congressional Paper Caucus, during the PRINT’S VOICE ’14 Congressional Reception.

U.S. Senator Tammy Baldwin (D-WI), with Wisconsin constituents, left to right: Michael Aumann, Brandtjen & Kluge; Pat Henderson, Quad/Graphics, Inc.; John Berthelsen, Suttle-Straus, Inc.; and, Mark Karmenber, RBP Chemical Technology, Inc.
I concluded immediately that I will attend this event next year. The issues at hand are too important to our industry not to. Please consider joining us next year!

—Greg Salzman, CEO, Alevant Systems
Apprenticeships: Beating the Skills Gap
Grow Your Own Talent!

Manufacturers in today’s increasingly technically sophisticated and automated facilities are coping with a shortage of skilled workers, not only in our industry, but across the board. Contributing to this skills gap is the “re-shoring” of jobs returning to the United States from other countries, and the economic recovery that’s generating the need for more highly skilled workers.

Some innovative graphic communications industry companies are facing this skills gap head-on turning to apprenticeship programs as a solution—growing their own talent. Apprenticeship in our industry has a long history. In 1908 RR Donnelly established a School for Apprentices, modeled on a similar endeavor begun by a French printing firm in 1863. After a seven-year course of training, including a five-year apprenticeship under the guidance of master craftsmen, apprentices graduated with a diploma, a journeyman’s certificate, and were offered full-time positions in the company.

Nowadays colleges across the country offer graphic communications degree courses, among them Cal Poly, Clemson and RIT, with varying versions or elements of on-the-job involvement. Despite the availability of creative opportunities for many graphics communications graduates, attracting those for whom a career in manufacturing would be a better fit is more difficult.

Roseville, CA-based Harris & Bruno International began its own community apprenticeship program because of a shortage of qualified “seasoned” electrical engineers and other skilled experienced professionals. President Nick Bruno says that some “70% of high school students will not get a four-year degree. We need to reach down to the high school level featuring ‘mechatronics’ as a lead-in to attract young people to our industry and company.”

Benefits to any company may take time to be seen, but overall, according to Bruno, “Our apprenticeship program tends to generate longevity with the company. Young people tend to think about the future and that helps us to keep moving forward.” He adds, “We have a variety of opportunities for them to enter and grow within the company.” Furthermore, “The program makes our company very competitive due to the low wages for these entry positions and our factory is open seven days a week, so there are numerous potential openings, but we must ensure that systems, procedures, and video training are very well documented.”

Bruno takes a personal interest in the Harris & Bruno program, leading tours of the facility for high school and college students. The company also participates in orientation/recruitment activities in the community. “Because we cannot find seasoned electrical engineers, we have to draw them in from high schools, junior colleges…and from engineering colleges by networking with instructors to get the cream of the crop. What we’ve also found is that if we mention ‘print,’ the interest drops, so we’ve learned to brand our company at these events as a ‘manufacturing company that does a lot of exporting.’”

For those selected, Bruno adds, “Initially, there is a lot of turnover—weeding through those with the attitude that ‘just good enough’ is okay. We talk a lot about work ethic and as CEO, I try to instill WHY we come to work every day.”

Walter Siegenthaler, Executive Vice President of Max Daetwyler Corporation, Huntersville, NC, found that, “Unfortunately a lot of students and parents have a stigma against apprenticeships. They feel that manufacturing is low pay, dirty jobs, and very little opportunity to make a ‘real’ career out of it. Our challenge in recruiting is to overcome this stigma. We spend a lot of time interacting with high schools to
introduce our program and show career counselors, students and parents that advanced manufacturing is high-tech, clean and exciting.” Daetwyler is one of the co-founders and a main driving force behind the Apprenticeship 2000 program in the Charlotte area. There is a rigorous selection process for the four-year program and initial requirements include a minimum GPA of 2.8 with a strong emphasis in science, technology, engineering and math. For successful participants the process is 8,000 hours in all—divided into 6,400 hours of hands-on training and 1,600 hours of classroom/community college. Participants graduate with an Associate’s Degree in Mechatronics.

Siegenthaler adds that, “All partner companies in Apprenticeship 2000 guarantee their apprentices a job after graduation. After that the opportunities are endless; either within the company or with continued education.” Ramp-up costs and establishment of the program can be a significant long-term investment for any company. The Daetwyler program has been running since 1996 and Siegenthaler points out, “Struggling with unskilled labor can also cost a company a lot more money. Unfortunately most companies do not realize the cost of not having the skilled labor they need.”

And the good news for the apprentices who pass through the program says Siegenthaler is that, “Our apprentices graduate without college debt and with four years’ work experience.”

This fall, North Carolina compatriot, Madern USA, Inc. is set to launch its own program as a partner company in the North Carolina Triangle Apprenticeship Program (NCTAP), closely modeled on the Apprenticeship 2000 program. The program is centered around businesses within the Raleigh area that have shared personnel interests and a quality community college that can cater a curriculum to meet the partners’ needs. Mark Bertoncino, Manager of Operations and Business Development for Madern, champions the company’s program: “The benefits are a renewed source of skilled manufacturing personnel, which has missed a couple of generations, mostly because of the IT boom as well as the four-year degree is a must’ ideology coming from most parents these days. This new pool of talent will be well educated, and interested in a career in advanced manufacturing, ready to produce and improve our company’s bottom line.”

Bertoncino sums it up aptly: “The [NCTAP] program is a tailor-made résumé build. If the apprentices do not accept the offer from their host company, they should have no trouble finding a job in manufacturing with their FREE credentials.”

Bertoncino estimates, “We will spend four years paying for the apprentices’ wages and the lost efficiency from the trainer, as well as covering their tuition payments. The investment is calculated at well over $140,000 in wages/tuition. However, the program allows us to create the talent we need from the ground up.”

For more information about the programs mentioned herein visit:
www.apprentice2000.org
www.nctap.org
www.harris-bruno.com
Unquestionably, India continues to be a predominant emerging country within the region and globally, and poses a unique set of socio-economic and structural dynamics, well worth NPES members’ investigation for market entry or sales expansion strategies.

India—Pathway to Emerging Asian-Pacific Print Market

The recently released, comprehensive NPES and PRIMIR study, "World-wide Market for Print: Identifying Global Opportunities for the Print Industry," conducted by the Economist Intelligence Unit (EIU), offers a roadmap of potential profit opportunities for savvy manufacturers and printers willing to negotiate the fragmentary nature of emerging and developed markets outside the U.S.

In 2017, the Asian-Pacific print industry will be the largest in the world by region, with total product revenues projected to grow from 29% in 2012 to 40.5% of the global market at U.S. $270.8 billion (see Exhibit 1).

Unquestionably, India continues to be a predominant emerging country within the region and globally, and poses a unique set of socio-economic and structural dynamics, well worth NPES members’ investigation for market entry or sales expansion strategies.

**Consumer & Business Environment**

At almost 1.3 billion people by 2017, India is one of the largest global markets, where incomes continue to rise, giving a boost to the consumer market and expanding the growth of its economic base. Recent 2014 national elections, with a landslide victory, bring into office the pro-business Bharatiya Janata Party (BJP) in both the country’s parliament and executive branches—where broad economic reforms are promised. Foreign investors have poured more than U.S. $16 billion into Indian stocks and bonds in the past six months and now hold over 22% of Mumbai-listed equities, a stake estimated by Morgan Stanley at almost U.S. $280 billion. Prime Minister-elect Narendra Modi promises to usher in profound economic changes, build greater infrastructure, and attract further foreign investment to advance the region’s third-largest economy.

**India Print Market Summary**

Although print market growth in India has decelerated since the global financial crisis, the EIU forecasts the size of India’s print market to be U.S. $29.3 billion in 2017, up from U.S. $21.1 billion in 2012. Total print product revenues in India grew at a rate of 11.3% between 2007 and 2011, and are projected to grow at 6.8% annually, between 2012 and 2017 (see Exhibit 2).

The growth rate of the print market will not be as rapid as other countries, due to a shortage of skilled labor and the poor quality of print products manufactured in India.

**Print Product Revenues**

The greatest growth opportunities for print products are concentrated around revenues from print packaging and print publishing (specifically newspaper printing), with the greatest growth potential in package printing, which will increase 7.8% between 2012 and 2017. The market size of the package printing sector will increase from U.S. $8.7 billion in 2012 to U.S. $12.7 billion in 2017, and will make up 43% of total print product sales in 2017. The growth of package printing will be driven by increasing demand for non-commodity consumer goods in more developed countries in the Asia-Pacific region that are

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**Exhibit 1**

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Product Revenues by Region 2017 (US$ m)</th>
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<tbody>
<tr>
<td>Central and Eastern Eastern, 20,411 (3.1%)</td>
<td></td>
</tr>
<tr>
<td>South America, 29,030 (4.3%)</td>
<td></td>
</tr>
<tr>
<td>North America, 165,999 (24.8%)</td>
<td></td>
</tr>
<tr>
<td>Western Europe, 178,508 (26.7%)</td>
<td></td>
</tr>
<tr>
<td>Middle East and Africa, 4,251 (0.6%)</td>
<td></td>
</tr>
<tr>
<td>Asia Pacific, 270,843 (40.5%)</td>
<td></td>
</tr>
</tbody>
</table>

Source: NPES 2013 study “World-wide Market for Print: Identifying Global Opportunities for the Print Industry” by Economist Intelligence Unit
slowly shifting from producer countries to consumer countries, especially China.

Within the package printing sector, label and tags printing is expected to grow the most quickly of any product, at a rate of 11%, a result of increased demand from the emerging middle class in the region and India itself. Insert printing and corrugated packaging printing are also forecast to have high growth rates, again reflecting the expanding segment of the population in the region capable of, and interested in, greater consumer consumption. This factor also accounts for the rapid growth of magazine printing, which is expected to grow 8.4% between 2012 and 2017.

The publishing printing market size will grow from U.S. $3.4 billion in 2012 to U.S. $4.5 billion in 2017 with population increase, rising literacy rates, and a growing economy to undergird rapid growth; however, most of India’s publishing firms are very small and ill-equipped with the necessary infrastructure such as printing presses and distribution networks. Only 10% of publishing firms publish more than 50 titles annually.

**Equipment Sales**

Though dominated by the sheer size of China’s marketplace for consumption of printing equipment sales, at 41% of the nearly U.S. $5.5 billion projected for the region by 2017, China will actually fall to third place, in compound annual growth rate (CAGR) of equipment sales at 3.4%, behind growth rates in India of 5.9% and Indonesia at 3.6% (see Exhibit 3). Sheetfed offset lithographic equipment and web offset lithographic equipment will continue to be the main revenue generators in India. Collectively these two print equipment sectors will account for almost 50% of sales in 2017, with total revenue of U.S. $330.8 million.

All types of equipment sales are expected to post positive growth rates between 2012 and 2017; postpress equipment sales are predicted to have the highest growth rate at 10.2%, well over the category average of 5.9%. The poor quality of printing equipment produced in India means that advanced machines for producing high-quality print products will still require importation.

**NPES Member Opportunities**

Armed with key country demographics, printing industry trends, and the benefit of established market penetration services and advance investigative work, available through NPES—the rewards can be great. NPES and PRIMIR members should refer to the “World-wide Market for Print” study provided to them earlier this year for: much greater data on the growing India print market; in-depth data and research for the entire Asia-Pacific region and others; and, all 51 individual country reports encompassed in the landmark NPES/PRIMIR study.

**Exhibit 2: Top Line Print Market Data – India 2007-2017**

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</thead>
<tbody>
<tr>
<td>Total print product revenues</td>
<td>14,795.7</td>
<td>22,697.0</td>
<td>21,099.4</td>
<td>29,304.3</td>
<td>11.3%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Total equipment sales</td>
<td>625.0</td>
<td>566.8</td>
<td>511.9</td>
<td>681.4</td>
<td>-2.4%</td>
<td>5.8%</td>
</tr>
<tr>
<td>Total prepress consumable sales</td>
<td>152.5</td>
<td>164.2</td>
<td>166.6</td>
<td>205.3</td>
<td>1.9%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Total ink sales</td>
<td>468.4</td>
<td>385.7</td>
<td>368.9</td>
<td>512.4</td>
<td>-4.7%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Total substrate sales</td>
<td>7,300.7</td>
<td>9,884.2</td>
<td>9,431.9</td>
<td>13,289.6</td>
<td>7.9%</td>
<td>7.1%</td>
</tr>
</tbody>
</table>

Source: NPES 2013 study “World-wide Market for Print: Identifying Global Opportunities for the Print Industry” by Economist Intelligence Unit

**Exhibit 3**

![Total Equipment Sales - Asia Pacific CAGR 2012-2017](source: NPES 2013 study “World-wide Market for Print: Identifying Global Opportunities for the Print Industry” by Economist Intelligence Unit)
Developing markets will drive most growth in packaged goods, but mature markets will still grow.

IT’S A FACT!
PACKAGING—THE LARGEST PRINT SEGMENT TODAY—WILL CONTINUE TO BE STRONG INTO 2017

- Print packaging is the largest products segment today, and will continue to be strong.
- Not as much divergence between developed and developing countries.
- Developing markets will drive most growth in packaged goods, but mature markets will still grow.
- Rising incomes will lead to a rise in demand for consumer packaged goods.

Total packaging: $288 billion by 2017

<table>
<thead>
<tr>
<th>Product Type</th>
<th>CAGR 2012-2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrugated packaging</td>
<td>4.8%*</td>
</tr>
<tr>
<td>Labels and tags</td>
<td>4.3%*</td>
</tr>
<tr>
<td>Flexible packaging</td>
<td>4.0%*</td>
</tr>
<tr>
<td>Folding carton/paperboard</td>
<td>3.1%*</td>
</tr>
</tbody>
</table>

Source: NPES 2013 study, “World-wide Market for Print,” conducted by Economist Intelligence Unit

Share of print packaging products - 2017

- Corrugated packaging: 45%
- Flexible packaging: 24%
- Folding carton/paperboard: 18%
- Labels and tags: 13%

New GAERF Board Appointees

GAERF, the Graphic Arts Education and Research Foundation, recently announced the appointment of two experienced educators to its Board of Directors, Dr. Jerry Waite and Laura Roberts.

Dr. Waite is Professor of Technology at the University of Houston, Houston, TX and has a distinguished career in post-secondary graphic communications education. He also served as President for the International Graphic Arts Education Association, and President of the Accrediting Council for Collegiate Graphic Communications.

Ms. Roberts is Printing Technology Instructor at Mattoon High School in Mattoon, IL. She teaches Print Media Technology/Graphic Arts introduction and advanced classes. Prior to teaching she worked for 18 years in various capacities in the print industry and is currently completing her Master’s Degree in Educational Administration.

DID YOU KNOW?
The U.S. mailing industry—including paper, printing, paper and printing suppliers, graphic design and mail management and distribution—supports 8.4 million jobs. That’s 8% of all U.S. jobs.

—Envelope Manufacturers Association Foundation Mailing Industry Jobs Study, 2012