

Demand Report

The Training and Education Market in Mexico

Prepared for



NEIGHBORS

Aug 28, 2018

Overview

- The employment market is not only the key driver of opportunities in education and training; its also the most accessible for exporters.
- What value can **Virginia exporters** add to education and training in Mexico?

- Understanding demand
 - Sources and market context
- Services and products in demand
- How to meet demand
 - Routes to market
 - Key players
 - Trade shows

More than half of employers in Mexico report difficulty finding qualified employees.

They say they would offer up to **22% higher salaries** to candidates who met their needs.

Source: Manpower Group 2018 Talent Shortage Survey

Some areas of export opportunity

- Technological tools to enhance productivity, training, accountability
- Certification
- Quality assurance
- Remote learning
- Apprenticeship models, tools and services
- Adaptable skills programs / tools
- Vocational education equipment

- KPI/metrics services and tools
- Process modeling and management
- Continuing professional development for teachers / professors / instructors
- Train-the-trainer
- HR support tools and services
- Graduate employability tools for schools
- Support linking employer feedback to educational centers

Understanding Demand

Demand stimuli and the market landscape

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Rich talent base, poorly utilized

Higher ed enrollment has taken off, yet failed to translate to better jobs or wages.

*Mexico's labor market **strengths** indicate talent and drive to work...*

- Know-how: economic complexity
- Low un- and underemployment
- Availability of basic-skilled employees

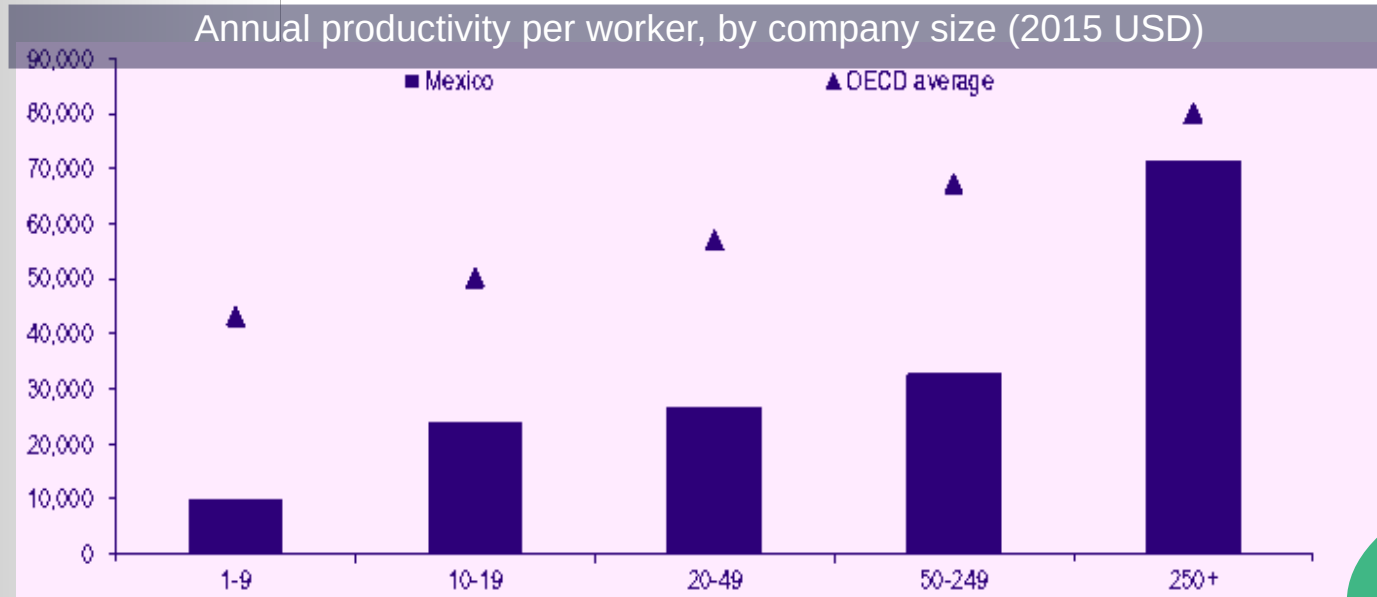
In a recent global evaluation of human capital, Mexico ranks lower than it should, #69 of 130 countries. Despite being the wealthiest Spanish-speaking country, its job quality and wages are below average for LatAm.
See: IADB Better Jobs Index Mexico

*...while its **weaknesses** indicate lingering systemic shortcomings.*

- Low completion of high-school, tertiary education; vocational underutilized
- Education focused on accumulating information rather than learning to learn
- Low skill diversity
- Teacher professional development
- Low number of high- and medium-skilled employees
- Low wages for all workers
- Gender gap in employment
- Large informal economy

Labor productivity: the case for improvement

Smaller companies obtain much lower performance per worker, and labor productivity in Mexico is 60% lower than the OECD average. There are several factors involved, but skills is one of the biggest.



Sources: OECD Mexico Policy Brief: Raising Productivity in Small Traditional Enterprises. Calculations based on OECD (2016), excludes financial sector. Entrepreneurship at a Glance, OECD Publishing, Tradingeconomics.com

Low productivity in Mexico is reflected in average salaries:

- Highly skilled: 11k USD per year
- Low skilled: 4k USD per year

Low productivity is despite 2nd-longest working hours in the OECD (after Korea)

If companies designated an additional 22% 11% 5% of a worker's salary on skills development, what could that mean for productivity?

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The landscape of employers

5.1 million companies in Mexico

- Formal and informal
- 11,500 Large (250+ employees)
~ 1,300 employ more than 1,000
- 49,000 Medium (50-250)
- 261,000 Small (10-50)
- 4.8 million Micro (< 10)

Companies employ 7 in 10 Mexican workers

- 20% of workers are on temporary contracts

Sectors by share of national workforce

- Service 42%
- Industrial 36%
- Agricultural, forestry and fishing 18%

“Informality” refers to economic activity that takes place without registration before authorities. 57% of Mexico’s workforce is informal.

Informal companies employ 26% of the population

Another 31% of informal workers are domestic and farm workers, independent contractors, or individuals who work for formal companies off the books

Inadvertently reinforced by current fiscal policy, informality undermines ability of employers and employees to invest in training

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Sources: Manpower; INEGI; Interamerican Development Bank
VP of Sectors and Knowledge Santiago Levy;
Encuesta Nacional de Ocupación y Empleo and
Directorio de Empresas y Establecimientos; LinkedIn

The working population

Overall pop. 125 million

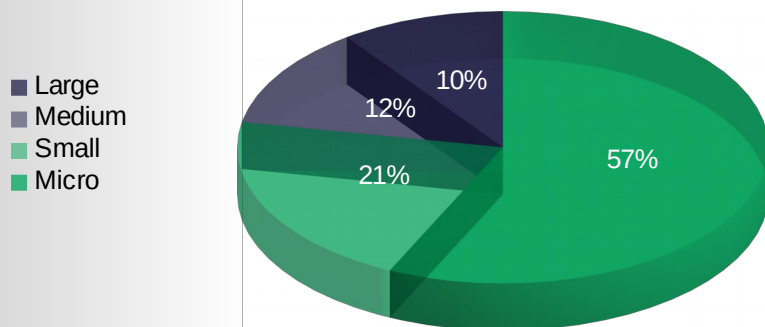
- Median age is 28; growth rate 1%, 2.24 children per woman; “Aging population” labor market effects projected to hit in 2033

Working age pop. 78 million, labor force 52 million

- Women and 20-somethings are the largest inactive worker segments

1 in 3 Mexican workers is self-employed

Workers in market by size of employer



75% of Mexicans are considered to be “base of the pyramid” (BoP)

- Roughly the 4k USD / year and below earners
- Typically working in the informal economy
- 8th grade education
- 23 million households total

3 million BoP households expected to cross over to higher income segments in the next 10 years

- 20% have internet service connected to their homes, 85% have smartphones
- 60% urban, 40% rural

Sources: IADB 2015 BASE Forum, CIA World Factbook, OECD Policy Brief, The Dialogue, OECD Skills Strategy Diagnostic Report: Mexico

Equating education with social mobility

53%

Population considered middle class in terms of consumer beliefs, prominently belief in education

-23%

Population considered to have attained middle class status in terms of income level and stability

30%

Population with “middle class beliefs” that has not yet attained the status in economic terms

The incoming President of Mexico, who won in June 2018 with a 30% margin, has proposed improving labor productivity to the business sector and better jobs to workers.

- Low or no-cost educational centers growing in number
- Facing bottlenecks with public school improvement, the number of private establishments dedicated to educational services grew 34% between 1999 and 2009
- Jobs in educational services increased 81%
- Expansion occurred in middle-class and “middle-class-minded” communities
- All of the above concurrent to declining national birth rate (decrease in the number of school-aged individuals)

Sources: *The Mexico Institute, Woodrow Wilson Center, INEGI*

Academic education: market segmentation & volume

Preschool, primary and secondary school are mandatory, but high school enrollment is lacking. Post-secondary enrollment has increased dramatically in 10 years.

STUDENTS 5,128,518
TEACHERS 417,745
SCHOOLS 20,718
% PRIVATE 33%
AGES 15-17

3,762,679
388,310
5,311
42%
18+

Source: www.inee.edu.mx

STUDENTS
TEACHERS
SCHOOLS
% PRIVATE
AGES

4,931,986
234,635
88,939
16%
3-5

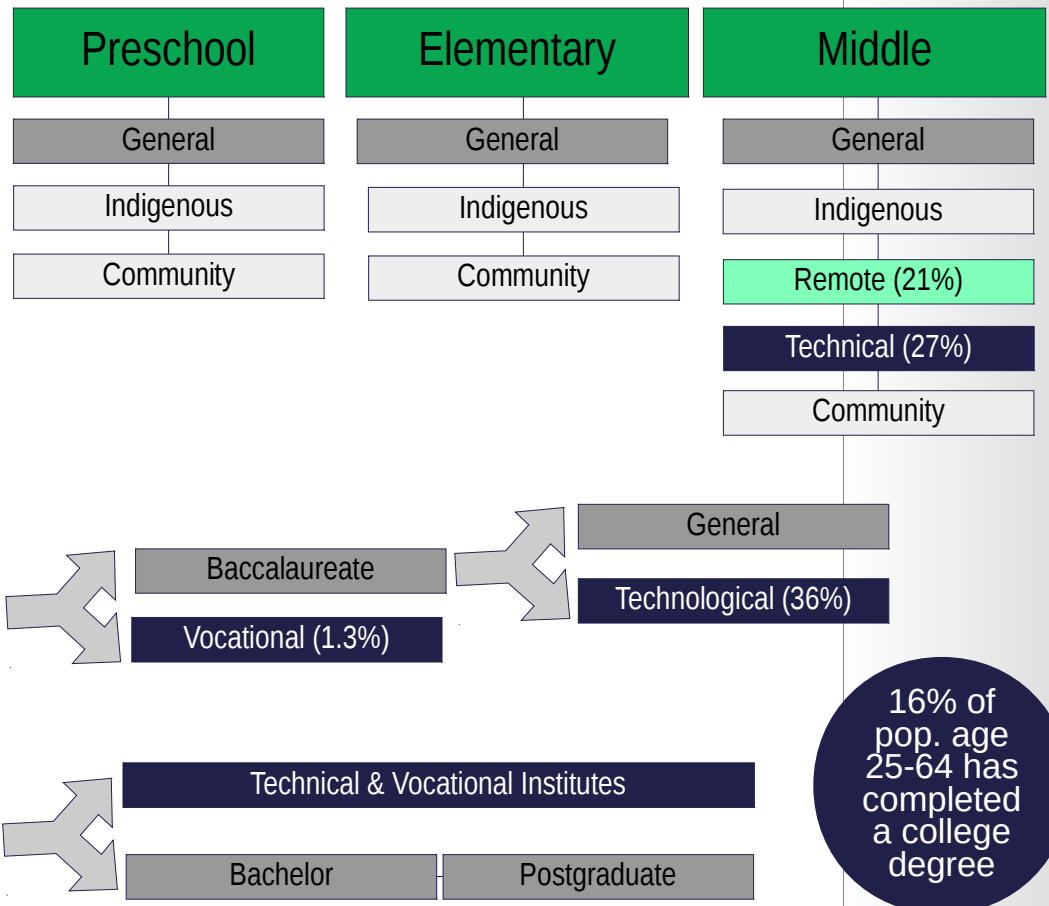
14,137,862
573,284
97,553
9%
6-11

6,710,845
409,272
39,265
13%
12-14

Basic Ed
Compulsory
 95% of K-9 age kids enrolled

High School
Compulsory as of 2012
 62% enrollment

Post-secondary
Optional
 37% enrollment



16% of pop. age 25-64 has completed a college degree

Employer pain points

- Large companies report most difficulty in recruitment (62%)
- Over half of medium companies (53%) report problems
- Smaller companies less likely to complain (30-39%)

- Top-valued skills: written and verbal communication, collaboration, problem-solving
- Combination of these professional skills with the right mix of technical skills a challenge
- 24-30% of employers say applicants lack some or all of the above or that the workforce is inadequately educated (40% for entry-level positions)

- Qualified candidates want salaries higher than what is offered
- Candidate “going rates” may not be too high, but rather risky for employers due to:
 - burdensome labor law
 - difficulty ensuring candidates truly have the skills they need
- Ultimately the salary question is symptomatic of rampant skills mismatch
 - Over half of employees are either under- or over-educated for their positions
 - 40% of all workers are employed in a job they didn’t study for: not inherently bad, but can be detrimental for those who are also overqualified

The path forward

Public policy:

- Reforms made metrics, long-term goals, a core learning philosophy shift, and a autonomous implementation and monitoring bodies statutory requirements in 2012
- Reforms take into account recommendations (and loans contingent) on long-term continuity from international organizations such as the OECD
- Early successes: subsidized apprenticeship / job placement programs, teacher and curriculum support implementation

Steps by private sector:

- Internal skills development and management at companies
- Outsourcing with HR firms / agencies
- Change job requirements
- Career development courses driven independently by individual workers
- Expansion of university careers centers
- Industrial cooperation with local government, trade associations, schools

Example job matching & training initiatives by govt:

www.gob.mx/vinculate

www.talentos.sep.gob.mx

www.empleo.gob.mx/sne/becas-capacitacion-trabajo-becate

www.dgcft.sems.gob.mx/#oferta

Demand areas

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Demand for certification

Manpower Group's top Mexico job shortage areas 2018

1 OPERADORES DE MAQUINARIA

Operadores de maquinaria especial



2 REPRESENTANTES DE VENTAS

Ejecutivos de ventas, Consultores de ventas, Vendedores de retail



3 PERSONAL DE APOYO EN OFICINA

Recepcionistas, Asistentes personales



4 OFICIOS CALIFICADOS

Electricistas, Mecánicos, Soldadores



5 CHOFERES

De camión, de construcción, Mensajería



6 TÉCNICOS

Control de calidad, Staff técnico



7 INGENIEROS

Químicos, Eléctricos, Civiles



8 PERSONAL DE CONTABILIDAD Y FINANZAS

Contadores, Auditores, Analistas de finanzas



9 PROFESIONISTAS CALIFICADOS

Investigadores, Abogados, Gerentes de proyecto



10 GERENTES Y EJECUTIVOS



- Employers rely on personal references rather than reliably documented training certification
- For many of the hard-to-fill jobs, it's not that capable candidates don't exist (see below), but rather that their skill sets haven't been assessed or aligned with a defined methodology
- The Mexican government's set of certifiable standards CONOCER is comprehensive across 704 specializations, but it can be difficult for workers to access and does not cover standards developed outside the agency, despite its network of approved external training and certification bodies

Among shortage areas are project managers, researchers, office support, tradesmen, QA technicians, machinists, auditors, middle managers, engineers, lawyers and sales personnel

Graphic: Manpower

Demand for human resources support

HR professionals can take a leadership role in bringing practices that increase skill utilization

- High-performance work practices: mentoring, job rotation, autonomy, teamwork, bonus pay and flexible working hours
- Develop and manage continuing professional development programs (“a culture of curiosity”)
- Help management understand how improvements to work environment can increase productivity
- Metrics and analytics
- Work with entry-level applicant pipelines on desirable skill combinations
- Adopt new recruitment tools and techniques
- Introduce agile recruitment profiles
- Forecasting transformation: changes to worker roles and how to help existing talent adapt

Demand for on-the-job training

3/4 of firms look to technical training

- certifications, internships and courses

Half look to professional training (sales, communication, etc)

In-house training by large firms covers most employees; about half those of medium firms; very few in small firms

Although some firms express hesitation to invest in training that could be taken elsewhere through employee turnover, most offer a mix of general and specific

- “General” examples: leadership, writing, problem-solving, enterprise technology, customer service, foreign languages
- “Specific” training is training customized to tasks specialized for company processes
- Traditional, online and blended training



Image source: Jóvenes con Rumbo

Demand for vocational training

- Migration patterns following temporary trade work could be taken as an export opportunity to Virginia's many vocational training programs
- 180 higher ed programs in Virginia are registered with DHS to sponsor student visas, including 40 vocational schools and 9 flight schools
 - Yet, 0 Virginia vocational programs are recruiting internationally on Studyusa.com
- In Mexico, despite high potential benefit from accredited or certified vocational training, programs do not receive a lot of support
- Programs lack modern equipment and technology for relevant training
- Only 10% of vocational resources comes from interested local industry (compared to 40% in Germany)
- Low-hanging fruit is building partnerships in industries with talent scarcity issues

Demand for improved schooling



While noting that only 40% of schools in the country have internet access, there are many areas in which teaching can be better supported.

- Curriculum development guidance, including to bridge information gaps on in-demand skills
- Ongoing training to existing teachers, including training in utilizing new classroom tools
- Assistants and integration programs for new teachers
- Metrics and evaluation, long-term planning and goals now formally encouraged as part of 2012 reform
- Virtual classrooms are widely used from middle school on up: how can these be made more effective?
- Student and career counseling services, other ways to involve students in making decisions about education
- Develop formal ways for families to participate in school communities

Image source: UAP15

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Demand for employability tools

- Employability techniques and metrics are nascent
 - Motivator, particularly among the mid- and lower-priced schools, is social mobility
 - A school whose graduates get good jobs is a school engaged in social progress
 - Employability is a tool for recognition if used correctly
 - Requirements and results data are not well coordinated; tools and services could help
 - At higher-priced schools employability may be perceived as ROI
- What can be done to support internships and practicums?
 - Most middle-class students work to pay their tuition. Are there tools to help them combine work and study more effectively?
 - Vocational education, with a few important sections in automotive and aerospace manufacturing, has not attracted the support it deserves from interested local employers in Mexico.
 - How can these schools optimize their acquisition of updated equipment?
 - Are there methods for creating synergy with employers, considering the employers are ultimately who benefits?

The new presidential administration has proposed that roughly half of high school students receive apprenticeships; while observers say not enough companies are prepared to handle this role, COPARMEX, the national council of employers, lauds interest by the government in bringing academia and companies, two groups historically at odds with each other in Mexico, into better sync. Source: *Manufactura* magazine

Demand for information sharing

The government, employers, schools, workers and students ultimately suffer from a lack of skills *articulation*

- Who has what skills, to what level, and what is a common reference point for communicating skill levels (evaluation and certification)?
 - IMPORTANT for this market: Is there a way to quantify skills that have been studied informally or incompletely?
- What do these skills and skill levels mean for workers, companies and other productive enterprises (platforms for organization and feedback)?
- What does this mean for longer term resource and industry planning? Government policy? (information synergy and cross-pollination)

Existing information platforms from the Mexican government

- www.observatoriolaboral.gob.mx: statistics relating paths of study, careers and earnings
- imco.org.mx/comparacarreras: career comparison tool for students from the Mexican Competitiveness Institute

Beyond a good old-fashioned conference gathering, a national platform to achieve information synergy —whether technological, social, a process framework or otherwise— may be technically ambitious at this point. However, successful efforts to approximate this type of information exchange can be seen clearly in the industrial clusters that have undertaken human capital training initiatives.

Cooperation between industry and education most apparent where there are research and technology transfer initiatives

- CONCACYT, and the Chihuahua and Queretaro aerospace clusters (Honeywell, Safran) could be good places to start building and organizing databases on skills, are models for growing other such initiatives
- Financially and commercially driven databases and reporting from transnational professional services firms, Interamerican Development Bank, Organization for Economic Cooperation & Development

The case of Raul Beyruti and GINgroup

GINgroup, a Mexican conglomerate of 9,000 employees, is providing supplemental education to its own employees, specifying two goals for 2019:

- No employee has less than a high-school degree
- No employee has an unfinished education program

- 250 employees have finished 90-100 hours of study per person, to finish incomplete elementary, middle or high-school educations
 - The next step, scheduled to be complete by March 2019, is for those individuals with elementary and middle to go onto the next level until they pass a high-school equivalency
 - GINgroup is currently spending about 70,000 USD per month on the initiative
- Employees wishing to complete unfinished post-secondary programs or embark on new study, through doctorate level, are offered scholarships up to 100%

- Implementing the program, the conglomerate, which has many business lines in HR solutions and outsourcing, started an education division
 - offering online and in-person degrees, scholarships, and educational franchises
- Raul Beyruti, CEO of the company, has personally led the initiative
 - Beyruti migrated from Puebla to Mexico City when he was 12 to work odd jobs to send money home for his siblings to study

Routes to Market

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Market entry models: faster

- **Direct investment**

- Greenfield and hire locally
- Buy an existing company and adapt it to your product or service
- Good for when logistics, production or delivery / service costs are reduced if done locally

- **Joint venture**

- Create a company with a Mexican player already in the market
- Share responsibilities according to capabilities

These two options cost the most up front but carry the lowest risk.

- **Licensing agreement**

- A Mexican company replicates and sells your product/service for a percentage or annual fee. Example: franchises are popular.
- Need to ensure controls in place for accurate monetization

- **Distribution / channel partner agreement**

- A Mexican company incorporates your services or products into the portfolio they offer in Mexico
- Varying degree of local responsibility for delivery/ Implementation

Mid-range options. If handled well with your Mexican partner, these can be faster and less expensive.

Market entry models: lower upfront cost

Agents or Representatives

- A local team or individual promotes your product or service, provides customer service and develops sales
- Shared responsibility for ensuring your product or service is properly received by customer
- Important to see representatives periodically in person, show you are invested in their service

Selling to government

- Virginia companies are advised to work with Mexican individuals and companies who have previous experience in selling to the Mexican government.

Sell from Virginia

- Promote locally
 - Advertising and trade shows, networking
- Spanish-speaking staff in US, travel frequently to market, telephone customers often
 - From a sales development standpoint it should feel to customers as if you were based in Mexico
- Deliver service remotely or via trips to Mexico, or your customers travel to Virginia to receive service.

More lightweight to implement, these options represent higher costs and risk in the long term, with slower results that are less guaranteed. Evaluate whether to sell at a higher price point than in the US

Giving courses and training

- US schools and training institutes opening in Mexico
 - Private schools with more than 49% foreign ownership must seek prior approval
- Customized courses provided to Mexican clients, workers and students in person, online or a combination
 - Look to local certification bodies relevant to topic
- Cooperation with Mexican institutes and academies to deliver through them
- Licensing training modules, selling training support tools

Or, bring learners to you

- The U.S.-Mexico Bilateral Forum on Higher Education, Innovation and Research (FOBESII)
- Proyecta 100Mil: 150 thousand US-Mexico student exchanges; bi-national research and innovation centers; language teaching.

Spanish language (or if in US, ESL) adaption is necessary. Consider what other “tropicalization” will be beneficial before you translate.

Events, networking and more information

Events and exhibiting in market

- eduexpos.edufindme.com/mexico
- www.gessmexico.com
- International Training & E-Learning Congress:
www.congresocapacitacion.com.mx
- International HR Congress
www.congresorh.mx
- National HR Directors Association Annual Conference www.congresoamedirh.com
- International Education Innovation Congress
ciie.itesm.mx

Education, Training and HR Associations

- Mas por Mexico, a foundation
- www.mexicanosprimero.org, a monitoring and advocacy group
- National Institute for Education Evaluation: www.inee.edu.mx
- Coparmex, the National Employers Association (very important and vocal group in many business policy areas)
- National HR Directors Association

Tip: to find out who the biggest commercial interests are, more companies like GINgroup and Manpower, check for sponsors or board members in the associations and trade shows.

Gracias, y estamos a sus órdenes.

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