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CAUTIOUS COMPENSATION

2017 EMC-PLANT salary survey reveals conservative executive pay increases

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IT PAYS TO BE CAUTIOUS

EXECUTIVE SALARIES ADVANCE AT A CONSERVATIVE PACE

The 2017 EMC-PLANT Manufacturing Salary Survey shows an average 2.6% increase over 2016.

BY JOE TERRETT, EDITOR

Disruption is the buzzword du jour now commonly overused to describe technological change and/or disorder and turmoil; nonetheless, there has been plenty of it since the year began, which is leaving manufacturers a bit bewildered.

One the one hand, economic prospects appear to be positive. Business is picking up in the US where 60% of Canada's manufacturing output goes, GDP for the year is projected to be 2.7% followed by 1.9% next year, and the Canada-European Union Comprehensive Economic and Trade Agreement (CETA) is tracking nicely. Assuming CETA goes into effect, Canada will have more open access to the world's second-largest market.

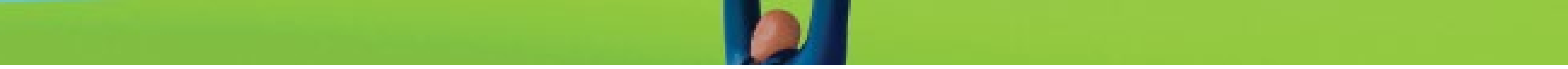
Contrast these positives with the antics of the Donald Trump administration south of the border, the world's largest market. The real estate tycoon, reality show actor, cum Republican president has – in six months – created diplomatic turmoil on the international stage, espoused protectionism to "Make America Great Again," threatened to rip up the North American Free Trade Agreement (NAFTA) and has expoused tax reforms that could negatively impact Canadian manufacturing.

This dichotomy creates a lot of uncertainty for manufacturers of all sizes, but especially the smaller enterprises that comprise the majority of the Canadian industrial segment.

Yet Canadian companies have proved themselves to be a cautious bunch, not prone to panic or for taking huge risks. So it's not surprising that when asked by the 2017 EMC-PLANT Manufacturing Salary Survey about compensation and their expectations, representatives from executive management ranks were, for the most part, looking at conservative increases for the year.

This national benchmark study conducted through April and May by the Excellence in Manufacturing Consortium (EMC), a not-for-profit organization based in Owen Sound, Ont., and **PLANT** magazine, an Annex Business Media publication, gathered a total of 1,435 responses from executives and

FOTOLIA



senior managers. Of those, 966 answered all of the questions, sharing personal information about salaries and bonuses, and how their businesses are faring. Most of the respondents (81%) come from small and medium-sized enterprises.

Each year's sample is different for a variety of reasons (employment churn, variances in bonuses), so results don't always align with the previous year's group, but the responses do provide a general measure that will give you an idea how your pay compares.

This year's sample shows average remuneration across manufacturing (all categories) rising 2.6% to $105,808, compared to 0.9% in 2016.

What do our average manufacturing leaders look like?

Mostly male (85%), almost 66% between 46 and 65 years of age; and 72% of them have management roles rather than ownership or partnership positions. The typical manufacturer has been in the business 24 years, 15 of those at his/her current company and 11 in the same job.

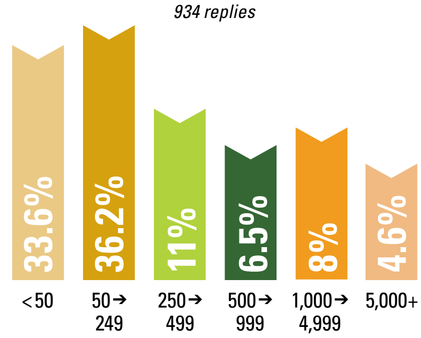
Breaking down age in more detail, most respondents (72%) are 46 to 65 or older. Of the total, 36% are 46 to 55, 30% are 56 to 65 and 6% are older. Twenty per cent are in the 36 to 45 group and just 7% are 26 to 35. Under 25s account for 1% of the total.

Almost two-thirds of respondents (62%) report no change to their employ-

Demographics

EMPLOYEES

934 replies



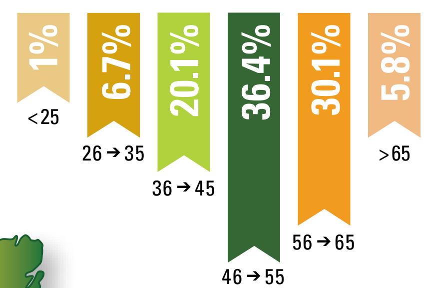
REVENUE

895 replies

$1M → <$5M	19.6%
$5M → <$10M	14.5%
$10M → <$30M	22.8%
$30M → <$50M	10.7%
$50M → <$100M	9.6%
$100M → <$250M	7.3%
$250M → <$500M	3.9%
$500M → <$1B	4%
$1B plus	7.6%

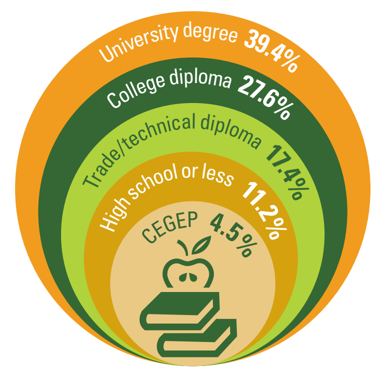
AGE

947 replies



EDUCATION

950 replies

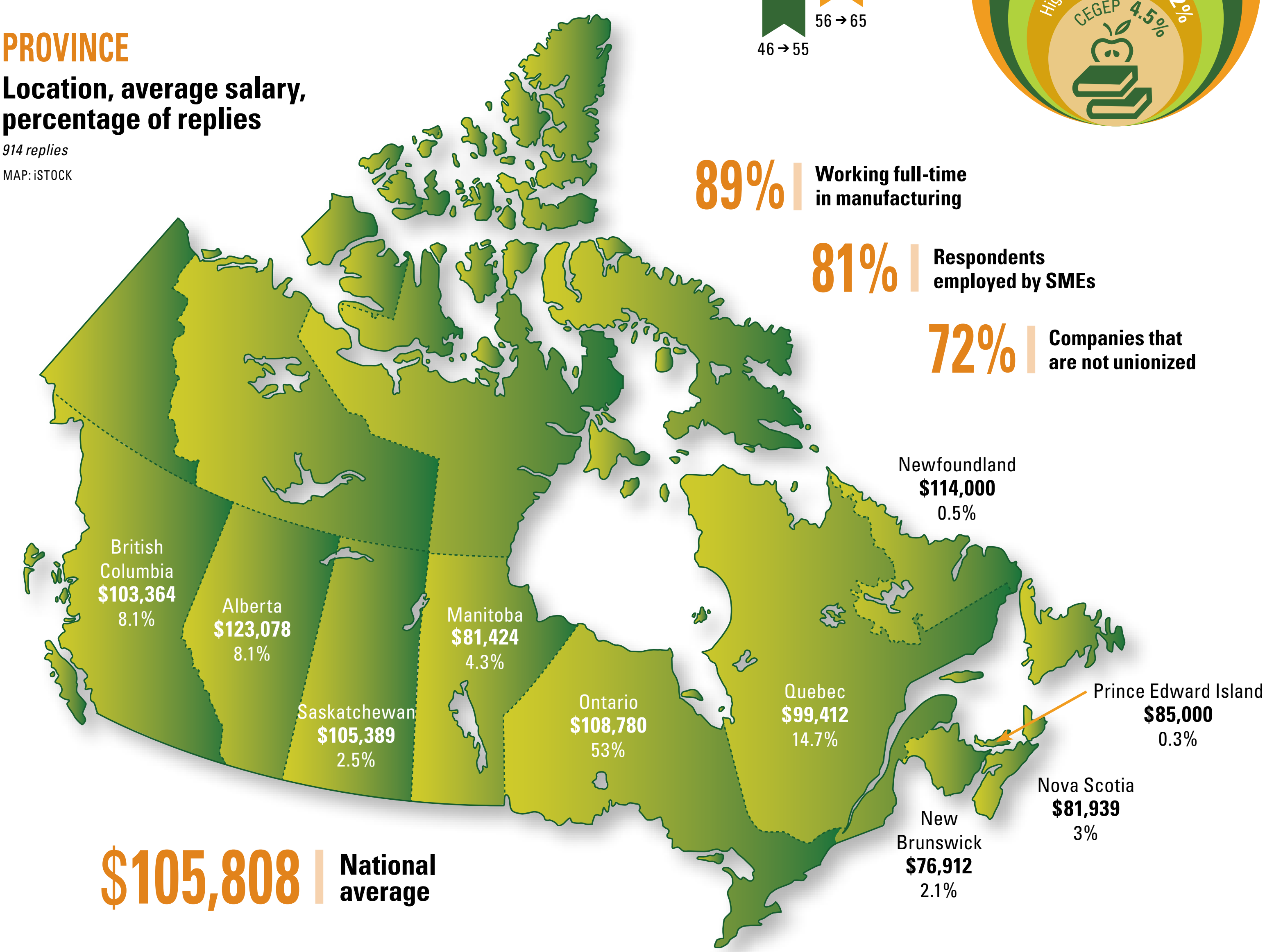


PROVINCE

Location, average salary, percentage of replies

914 replies

MAP: iSTOCK



89% | **Working full-time in manufacturing**

81% | **Respondents employed by SMEs**

72% | **Companies that are not unionized**

$105,808 | **National average**

Salary Comparisons

JOB TITLE
966 replies

	2017	2016	2015	Hours/ Week	%
CEO/President	$171,916	$165,497	$159,536	49	6%
Vice-president	$152,894	$147,332	$138,076	49	5%
Director	$134,550	$129,182	$122,195	49	6%
Plant Manager	$125,218	$120,104	$116,583	49	9%
Owner/Partner	$119,310	$115,251	$128,182	47	7%
Design Engineering	$99,405	$96,071	$107,069	43	6%
Plant Engineering	$98,170	$97,535	$95,053	44	4%
Maintenance Manager	$95,948	$93,647	$92,570	45	8%
Production/Operations Manager	$93,332	$92,750	$92,250	46	15%
Purchasing/Supply Manager	$88,504	$85,832	$84,735	45	6%
Administrative Management	$86,715	$83,835	$80,367	44	10%
Safety Manager	$80,944	$81,894	$78,207	44	3%
Quality Assurance Manager	$81,764	$81,789	$76,562	43	5%
Materials Manager	$81,442	$79,150	$80,229	44	1%
Technician/Technologist	$80,324	$82,485	$83,601	43	6%
Logistics Manager	$66,875	$62,438	$60,063	46	2%

GENDER
946 replies

INDUSTRY
908 replies

	2017	2016	2015	% replies
Aerospace product and parts	$101,552	$99,556	$97,125	5%
Beverage and tobacco product	$116,355	$110,618	$112,127	1%
Chemical	$123,275	$120,859	$117,438	3%
Clothing manufacturing	$78,163	$73,600	$70,925	1%
Computer and electronic product	$102,618	$100,464	$99,131	4%
Durable goods industries	$96,279	$92,636	$88,329	2%
Electrical equipment, appliances, components	$111,268	$108,612	$131,374	6%
Environmental	$142,667	$127,333	$117,667	1%
Fabricated metal product	$106,241	$104,278	$100,530	13%
Food manufacturing	$100,316	$97,400	$91,289	8%
Furniture and related product	$93,755	$88,605	$84,235	2%
Leather and allied product	$71,667	$69,167	$67,833	<1%
Life Sciences	$109,986	$107,819	$102,620	2%
Machinery	$117,300	$113,951	$115,037	7%
Miscellaneous manufacturing	$91,323	$88,212	$83,332	9%
Motor vehicle	$120,000	$121,222	$116,889	1%
Motor vehicle body and trailer	$90,208	$87,100	$237,267	1%
Motor vehicle parts	$106,558	$104,717	$104,396	5%
Non-durable goods industries	$88,438	$82,375	$80,875	1%
Non-metallic mineral product	$124,560	$119,870	$113,660	1%
Paper manufacturing	$118,162	$115,622	$109,558	3%
Petroleum and coal product	$135,627	$147,661	$149,286	2%
Plastics and rubber products	$108,660	$106,408	$102,331	9%
Primary metal	$116,200	$117,858	$118,192	3%
Printing and related support activities	$85,067	$81,989	$80,381	5%
Railroad rolling stock	$80,000	$62,000	$62,000	<1%
Ship and boat building	$98,000	$93,000	$92,500	<1%
Textile mills	$90,333	$81,333	$75,000	<1%
Textile product mills	$129,050	$137,600	$127,800	1%
Transportation equipment	$110,480	$106,080	$99,640	2%
Wood product	$101,377	$95,185	$90,313	4%

Less than 2% represents a small sample of respondents and should be considered with caution.

ment situation, but 18% say more responsibilities have been added to the workload because of reduced staff, which is consistent with previous surveys. Most (39%) have a university degree that is likely a bachelor of arts (63%) and they put in a 46-hour workweek.

Aside from those that have a management role only in their companies, 8% have a controlling ownership stake, 5% are equal partners and 5% are minority owners.

Predictably, top executives and senior plant floor leaders put in the most time. CEOs and presidents, vice-presidents and plant managers are averaging 49 hours per week. Owners and partners register 47 hours.

Confident but cautious

Respondents are a little more optimistic about earning higher revenues this year (56% see improvement over 2016 revenues compared to 55% over 2015), and just 16% are looking at a decrease from 2016 levels, but 58% intend to invest in new production equipment and processes over the next five years, 52% say they will hire new employees and 36% say they will add new lines of business.

Taking in the view at ground level, Al Diggins, EMC's president and general manager, says manufacturers are pretty optimistic, noting Statistics Canada numbers show manufacturing sales in many industry sectors on the rise.

"With Trump thinking, manufacturing is going down the tubes. In fact, it's going the other way. There's a lot of chatter from Trump that's so convoluted, you don't know what's what, so people are just carrying on…," Diggins says.

All the same, it's not a surprise that executives are for the most part looking at modest salary increases (mostly on either side of 4%) this year.

"Conservative is what we were expecting," says Scott McNeil-Smith, EMC's director of strategic planning and communications, and president of the Canadian Manufacturing Network.

He heads up EMC's ManufacturingGPS project, which is developing a comprehensive database that provides real-time labour market information (**www.emccanada.org**).

The GPS shows manufacturing respondents are tracking inflation at just over 2%. "Management insights were reflecting that. Where there was more competition for certain skill sets you're seeing the higher wages on

REVENUE
966 replies

	2017	2016	2015	%
$1M ➔ <$5M	$84,146	$81,575	$83,346	17%
$5M ➔ <$10M	$99,220	$96,079	$102,221	13%
$10M ➔ <$30M	$111,835	$108,678	$106,813	21%
$30M ➔ <$50M	$107,381	$105,547	$102,198	10%
$50M ➔ <$100M	$111,176	$110,047	$108,243	9%
$100M ➔ <$250M	$122,160	$119,591	$114,914	7%
$250M ➔ <$500M	$131,041	$129,084	$123,600	4%
$500M ➔ <$1B	$111,432	$109,018	$104,465	4%
$1B plus	$122,108	$121,914	$118,085	7%

No response from 9%

EDUCATION
966 replies

	2017	2016	2015	%
University degree	$120,322	$116,709	$116,293	39%
College diploma	$98,616	$97,019	$98,675	28%
Trade/technical diploma	$96,339	$95,299	$91,589	17%
High school or less	$92,824	$89,125	$85,567	11%
CEGEP	$82,618	$80,193	$77,697	5%

the management side," he says.

Indeed, Toronto-based recruitment specialist Hays Canada has its own salary guide and it's seeing fewer increases over 3% in all sectors, says Andy Robling, vice-president of business development. "It's more up to 3%, and some no increases at all."

CEOs and presidents continue to score at the higher end of the EMC-PLANT survey with 3.9% after a 3.7% advance last year, while owners and partners finished several spots lower with a 3.5% increase, behind vice-presidents and directors. This follows a 10% decrease last year. Vice-presidents are up 3.8% compared to a 6.7% increase last year, while plant managers will get a 4.3% raise compared to the 3% they received in 2016. Directors are expecting 4.2% following a 5.7% increase in 2016.

Logistics managers are looking at a 7.1% increase, while design engineers anticipate 3.5% followed by administrative management (3.4%), purchasing/supply managers (3.1%) and materials managers (2.9%).

On the low end (less than 1%) or in the negatives are plant engineers, production operations managers, quality assurance managers, safety managers (-1.2%) and technicians/technologists (-2.6%).

In addition to the 39% of respondents with a university degree, 28% have a college diploma, 17% a trade or technical diploma, 11% a high school education or less and 5% a CEGEP.

Higher education is good for income. University grads score the highest wage rate at $120,322, 22% ahead of the next best-paid group, college grads who average $98,616.

Looking at salaries based on industry, many show modest increases, but textile product mills, primary metals, petroleum and coal products, and motor vehicles registered decreases (although the samples for each were very low) and several sectors were virtually unchanged.

Owners, senior executives, plant managers and materials managers top the $100,000 a year mark. CEOs and presidents are the highest earners averaging $171,916, followed by vice-presidents ($152,894), directors ($134,550) and plant managers ($125,218). Owners/partners aren't taking a lot out of their businesses this year, averaging $119,310. Design engineers were just under $100,000 ($99,405), followed by plant engineering ($98,170). Logistics managers are at the bottom (almost $67,000).

Most (68%) put work-life ahead of all other desired work conditions, just ahead of compensation (59%) and job security (58%). A comprehensive benefits package and vacation time also rate highly for 51% of executives and managers.

Sixty-nine per cent of the companies pay for educational courses, 51% cover memberships in professional associations and 43% pay for professional certification programs. Twenty-two per cent of companies don't pay for any education upgrades or association memberships.

Attraction, retention

With talent in short supply, manufacturers are challenged to find and retain the right people. But salary, benefits and perks help.

Fifty-eight per cent of those responding to the EMC-PLANT survey reported a portion of their pay made up of bonuses and incentives with those showing the highest percentage (20% or more) going to those earning $171,178. Most respondents are in the 6% to 10% range, with salaries averaging $107,539.

Forty-eight per cent report perks or extras such as profit sharing (38%), a vehicle of some kind (28%), other enticements (36%), access to private health care (10%), stock options (10%) and club memberships (8%).

Robling says larger companies are able to increase salaries to retain the better people, while smaller companies struggle to compete. "They [those employed by large companies] may be at a lower level than [their peers] at a smaller company, but the pay is better. That makes it harder for them to move."

Smaller companies have to think more about how they can keep employees happy by offering enticements to offset salary, such as three weeks vacation. "And more companies are fully funding benefits, which can have less impact on cost than putting the money into salary," he says.

Having benefits kick in on the first day of work also helps to attract people.

More flexible hours, including RSPs and offering bonuses in the compensation package, while providing an environment that promises challenges, learning, and skills development, all help to augment pay.

But be aware of the generational shift. He says millennials

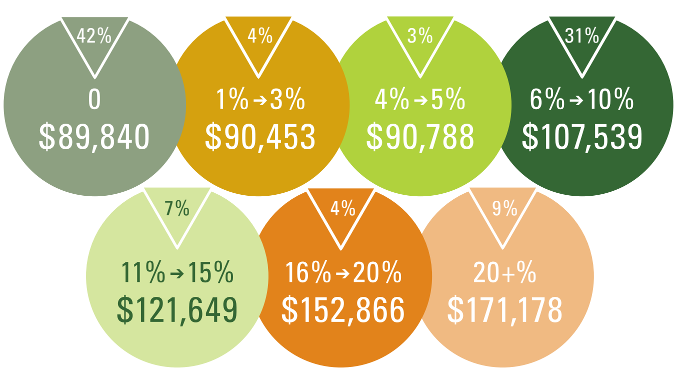
WAGE UPDATE

Manufacturing's average wage is tracked by Statistics Canada and its report for April puts the weekly take at $1,080.95, a 0.9% increase over March and a 2.8% increase over 12 months.

Trading Economics (**https://tradingeconomics.com**), a global economics research firm based in New York, tracks Statistics Canada and other manufacturing data. It reports pay has averaged $19.85 per hour from 1991 to 2017, and it pegs April's hourly rate at $26.55. Looking ahead 12 months, the hourly rate will average $26.68. Longer term (2020), its models predict $26.23.

2017 BONUSES AND INCENTIVES

960 respondents



YEARS OF EXPERIENCE

926 replies

	2017	2016	2015	%
1 → 4 years	$71,019	$68,386	$62,818	5%
5 → 9 years	$89,199	$86,673	$86,060	7%
10 → 14 years	$93,486	$89,682	$86,710	9%
15 → 19 years	$105,206	$99,768	$106,342	12%
20 → 24 years	$102,743	$100,177	$104,766	16%
25 → 35 years	$113,739	$111,235	$106,707	34%
36+ years	$121,441	$120,965	$118,992	15%

AGE

966 replies

	2017	2016	2015	%
Under 25	$55,263	$50,200	$39,555	1%
26 → 35	$68,122	$64,975	$61,534	7%
36 → 45	$98,361	$94,580	$102,510	19%
46 → 55	$109,503	$106,583	$103,308	35%
56 → 65	$112,521	$110,899	$108,115	29%
Over 65	$121,163	$121,341	$119,606	5%

No response from 4%

think salary is important but they're also looking for engagement and career growth.

"Sometimes they move on more quickly. [Employers] need to accept and adapt to that."

When recruiting for management positions in manufacturing, Hays Canada is finding a more common demand for people who lean to inclusion and teamwork, which is a shift away from a more directive management style.

"The expectation is to be more collaborative, engaging and attentive," says Robling. "We'll find [people] with the technical skills who have been in the job a long time, able to run big teams and certain functions within the operation. But if they don't have that level of adaptability and awareness to manage a team, we're finding they're less fit for purpose. That's making it harder for companies to recruit."

That means longer lead times. But he says employers are demonstrating they'd rather keep a job open than compromise their requirements.

"That tells us clients are really serious about how they manage their workforce in a more engaging way."

With an aging workforce, companies will have to bring younger people in.

"Some will have the skill set you need, some will have to be trained and we advise our clients to look at the right fit for their organization as well as the skill set," he says.

Forward thinking companies look for the right fit with the culture and values as well as skills. If candidates are light on the skills, companies are training them.

Robling emphasizes career progression doesn't have to be vertical: it can be horizontal. It's about variety. Can you cross-train for something? Can you learn skills during a project while doing the same job?

"We find with more automated manufacturing, updating and using the latest technology gives people the interest."

A sense of community is also important. Is it a social place? Does it give you flexibility when it's needed? Can you work from home? Are there social events? "It's the culture you build that will help keep people longer."

Robling says an engaging workplace is key to retaining talent. "It's a combination of things, it's never just one thing."

For some it's as simple as having a softball day, or a summer family party.

"Something like that as part of a package of things will keep people engaged, which helps attraction and retention. A good selling point if you're not necessarily offering top salary. "

Culturally, manufacturers are not necessarily doing a good job of engaging the production workforce (shop floor is the biggest problem), says Jean-Pierre Giroux, EMC's director of human capital development (based in Ottawa).

One indicator cited by the GPS survey is the involuntary turnover rate, which is very high at 6.1% for manufacturing versus 3.7% nationally.

Management Issues

WHAT COMPANIES PAY FOR

943 replies

Educational courses	69%
Professional certification programs	43%
Membership in professional associations	51%
None of these	22%

SKILLS TRAINING

953/891 replies

	Most important skills	More training needed
Management/Supervisory	46%	20%
Communication	36%	17%
Interpersonal/Problem Solving	33%	17%
Productivity/Continuous improvement (lean etc.)	33%	25%
Industry specific technical skills	31%	23%
Project management	24%	20%
Analysis	21%	14%
Planning (forecasting, demand)	18%	17%
Negotiation skills	17%	19%
Financial (budgeting, accounting)	15%	25%
Technical skills (software, programming)	14%	22%
Sales skills	10%	13%

CHANGES NEXT FIVE YEARS

930 replies

Investing in new production equipment/processes	58%
Hiring new employees	53%
Added/entering new lines of business	36%
Expanding plant size	26%
Enter new geographic markets	25%
Acquiring other companies or lines of business	22%
Downsizing employees	10%
Merging with another company	10%
Downsizing lines of business	6%
Downsizing plant size	4%
Closing of company	2%

SALARY FEEDBACK

Manufacturing executives responding to the 2017 EMC-PLANT Manufacturing Salary Survey were invited to add comments about compensation issues and their remarks ranged from salaries progressing (very few) to stagnanting (a lot), depending on the fortunes of their industry segments. There were 471 observations. Here are a few of the respondents' insights:

Talent

- Difficult to recruit skilled employees.
- Demand for more skills is increasing while salaries stay about the same.
- Companies are looking for engineering skills with most management positions.
- In my 40 + years in industry I have learned that you never stop learning. Grab all the skills offered and put them in an imaginary toolbox for the next job.
- Frozen wage environment; front line supervisors don't want to train unskilled workers to acquire specialized skills.
- Our company requires advanced software skills. Universities and colleges and even high schools need to train students for PLM careers to meet demand…
- Supply chain management in all aspects, purchasing, logistics in high demand.

Compensation

- Cost of living is increasing and salary aren't always.
- We now do more work and have more responsibilities and liabilities for less pay.
- Salaries are not keeping pace with industry trends. Skilled trades are hard to find and bidding wars occur.
- [Salaries] are increasing, field is being more automated, skills are more technical based.
- Compensation has to evolve to an innovative formula … to reward high achievers-performers.
- Constant pressure to downgrade salaries through reposting jobs at lower grade levels and having employees repost for their previous role.
- Salaries are dropping as many women join the purchasing field.
- Starting salaries in technical fields have been too low to attract personnel to live locally where real estate and rents are high. Long commutes mean less job satisfaction and employee turnover.

Trends

- Economic downturn has curtailed salary advancement. Variable pay is more prevalent. The field is changing as the customer gets more options and technology solutions.
- Continuing emphasis on work/life balance.
- Many systems moving more towards pay for performance as a total awards system.
- More focus on cultural fit than on technical skills and experience.
- We must produce and perform much more in production and maintenance with as few people as possible and increase productivity.

"Progressive companies (early adopters) are getting all kinds of teamwork happening and continuous improvement at the shop floor level," he says.

Challenges and priorities

The survey highlights the usual list of executive concerns, which is topped by cost control for 48% of respondents, while 43% identified skills. Technology upgrades (32%) and capacity utilization (as well as reorganization) follow for 24%.

Investing in the business is the highest priority for executives over the next five years. Fifty-eight per cent will put money into new production equipment and processes, 53% will hire new employees, 36% are adding lines of business, 26% are expanding their plants and 25% intend to enter new geographic markets.

Keeping costs in check is an ongoing issue for manufacturers of all sizes, and there are many points of contact that are of concern. They include payroll costs, inescapable taxes or regulatory demands from various levels of government (such as changes to labour laws, climate change measures) and in Ontario few subjects raise as much ire among manufacturers as the cost of electricity.

Diggins notes manufacturers are running out of places to save money. Meanwhile, US states offer enormous incentives to locate there: low energy costs, huge future tax breaks and hard money.

"Going to the US may be a good idea for some of them. A few companies are opening branch plants. Others are looking over the fence…that lure is always out there."

In fact, the Canadian Federation of Independent Business (CFIB) says 34% of SMEs are considering fleeing the US or closing up shop over the Ontario government's plan to raise the minimum wage from $11.40 to $15 an hour by Jan. 1, 2019.

"You take a 50-person facility, that can be $300,000 (or 30%) increase. You have to take that all through your building," Diggins explains. "All the salary ranges (longer-term employees, the more skilled) are going to have to move. I don't think anybody has thought that through."

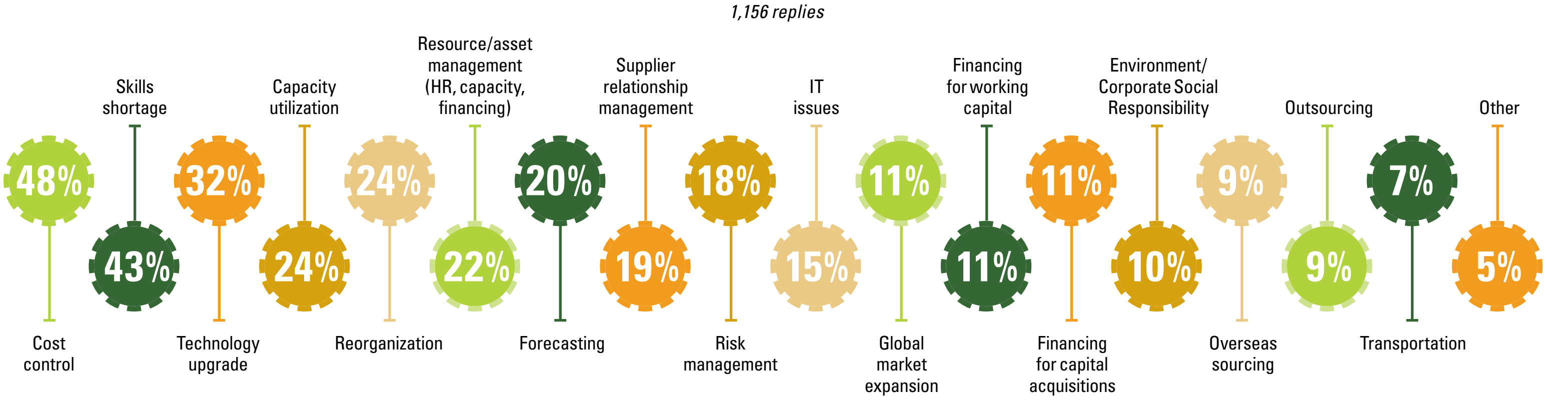
Robling says it's important for smaller businesses to take the time to plan and phase in the increases.

While raising everyone's else's compensation to maintain the pay levels is one response, he suggests another is to take out levels.

"For example, you take out some team lead roles and

MOST SIGNIFICANT ISSUES

1,156 replies



WORKFORCE

What millennials want

They're looking for perks over pay

Millennials want more from employers than a way to pad their wallets.

This may be the result of stagnated wage growth across the country, which in April reached a low last seen in 1998 – 1.1% compared to 2016, according to Statistics Canada.

It's not an easy time for this age group (born in the early 1980s to early 2000s). Job prospects tend to be contract or temporary, and housing costs across the country are at a record high, as are costs for food and transportation.

Millennials, who as of 2014 took became Canada's largest workforce cohort at 36.8%, are unfairly seen as disloyal for changing jobs more than previous generations. But research shows this isn't necessarily the case.

Advisory firm PwC says millennials are looking for more than "just a job." They seek "worthwhile" opportunities and consider a company's values important when considering a position. That's not to say pay isn't important – 44% of respondents to a PwC survey say want competitive wages. But the results show career progression is the most important factor driving employment decisions.

Also note millennials are very similar to past generations in key areas: they want job security, to save some money for retirement, purchase a home and start a family.

Glassdoor, an employer review and jobs website, says almost 80% of employees seek out new or additional benefits more than a pay increase, including younger employees aged 18 to 34 (89%) and 35 to 44 (84%), compared to older workers aged 45 to 54 (70%) and 55 to 64 (66%).

Young workers prefer jobs that allow them to work remotely. PHOTO: FOTOLIA

Here's a list of benefits and perks millennials find most to least attractive:

- 40% – healthcare insurance (medical, dental)
- 37% – vacation/paid time off:
- 35% – performance bonus
- 32% – paid sick days
- 31% – retirement and/or pension
- 30% – flexible schedule (work from home)
- 19% – office perks (free lunch, casual dress)
- 19% – employee development programs (on-the-job training)
- 18% – tuition reimbursement
- 17% – employee discounts
- 16% – gym membership or wellness program
- 16% – stock, stock options and/or equity
- 13% – paid parental leave (maternity leave, adoption assistance)
- 13% – childcare assistance (on-site childcare, financial assistance)
- 9% – commuter assistance (company shuttle, commuter checks)
- 3% – diversity program

Millennials are the most educated generation. Attracting and retaining them must be a priority for manufacturers.

Thinking outside the box on complete compensation packages will help the process and ensure your company is staffed to succeed, especially as manufacturing shifts into a more digital-focused business environment.

stretch from a junior level to a senior level. Restructuring management roles, fewer team roles and expanding responsibilities could potentially absorb any increase in cost."

Demand for skills

Skills continue to be an issue for management. Asked about what skills they need most to do their jobs, 46% of senior executives and managers cited management/supervisory, followed by communication (36%), interpersonal problem solving (33%), productivity (33%) and industry-specific technical (31%).

Additional training requirements include financial (for 25%) productivity/continuous improvement (25%) and industry-specific technical skills (23%).

Demand for certain skills is also reflected in EMC's GPS data.

"We are seeing it in prominent functional skills needed for production and supervisors, that deals directly with productivity," McNeil-Smith says.

With 20% of the workforce expected to retire over the next decade (based on data compiled from 2,500 manufacturers and 100 post-secondary institutions), the job vacancy rate in manufacturing is higher at 3.9% than the Canadian average of 2.5%.

"Seventeen per cent of the workforce needs to be recruited next year to fill basic requirements and that's a big chunk if you look at manufacturing," says Giroux.

Maintenance trades and machine operators face the highest replacement rates, while the most difficult positions to hire for are production manager, engineer and development, engineer quality control staff, sales and business development.

"One thing we ask [on the GPS survey] is: Do you offer structured training? Seventy-four per cent said yes, so 26% are not doing so. Digging deeper, they're asked how much they spend per employee. It's about $530 per per year. The national average is about $800. A lot needs to be done there," Giroux says.

In addition to examining labour market requirements, the GPS also looks at what colleges and universities are doing. It's not surprising, there are skills shortages in just about every community that provides data, but the shortages aren't the same in every community.

The skills available in a region don't necessarily correlate with the demand side so the GPS also looked at the programs offered and the skills students have when they graduate.

"One of the things revealed was colleges and universities are cutting back on some courses that actually relate to producing in-demand workers," McNeil-Smith says.

The top growing programs are mechanical engineering, computer engineers, mathematics, chemistry, and biochemistry plus related technologies. Programs that are in high demand but being pulled back by colleges and universities are pipefitting, power engineering, electrical and electronics engineering and millwrighting.

So there is work to be done to align demand and skills, along with the many other issues manufacturers must deal with. Confident but cautious is prudent but companies would also be wise to add progressive to the manufacturing lexicon as a counter to the "disruption" (especially the chaotic kind).

As manufacturing executives tackle the noise emanating from the Trump universe and the global tremors or issues that are closer to home, compensation will be driven by how creatively they exploit opportunities to grow their businesses, whatever the challenges.

Comments?
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