

A hand holding a magnifying glass over an industrial plant. The magnifying glass is held over a complex industrial facility with tall distillation columns and piping. The scene is viewed through the lens of the magnifying glass, which is held by a hand. The background is a light, textured surface.

outlook 2000

*CP readers see
bright future
for their plants*

Chemical companies should continue to grow, but deferred investment could hurt some plants

The economy will keep buzzing along this year, but top management could cause lots to go awry at chemical plants, according to the second annual "Reader Outlook" survey of 1,000 *Chemical Processing* subscribers.

What else do *CP* readers see ahead in the economy and in the workplace? How big a pay increase do they expect this year? How well do they think industry leaders are preparing for the future? Keep reading.

CP'ers look at the world more optimistically now than a year ago. Reach for some binoculars and take a look at what readers say the year 2000 has to offer:

- The economy will improve;
- Business activity will increase for their companies and their plants;
- Training budgets will grow;
- Equipment purchases will increase;
- The industry has made a commitment to sustainable development;
- The industry is getting safer.

But readers also pointed to what they see as problems:

- The number of employees in many plants is inadequate for the workload;
- A third of company leaders are not doing a good job of preparing for factors that will determine the health of the chemical industry in five years;
- 30% of readers feel that equipment purchases will be insufficient;
- 20% said maintenance and equipment upgrades are not adequately addressed;
- 40% maintain that plant-level employees do not have sufficient say in how plant equipment expenditures are allocated.

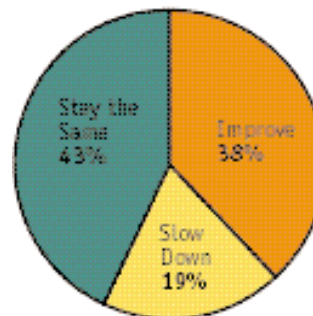
CP readers look at the world more optimistically now than they did a year ago, according to the second 'Reader Outlook' survey of a 1,000 subscribers.

Now put down the binoculars and get out the microscope for a closer look at those and other results.

The economy

Fully 81% of the survey respondents said they expect the economy to improve or stay the same this year (Fig. 1). The vote of confidence came from all of the major areas of *CP* readership, including industrial inorganic chemicals; plastics materials and synthetic

State of the Economy
(year 2000 vs. 1999)



Source: *Chemical Processing*

fig. 1

resins; drugs and pharmaceuticals; cosmetics and related preparations; paints, varnishes and allied products; industrial organic chemicals; agricultural chemicals; petroleum refining; industrial gases; specialty chemicals; and soaps and detergents.

Factors that will determine the health of the chemical industry in 2000, readers said, include the Asian recovery, environmental regulations, innovation, oil prices and globalization. This year, for the first time, a few mentioned "e-commerce" as an important factor.

Their outlook for individual companies is even more optimistic than their prediction for the overall economy, with 92% predicting their companies will

“increase” business activity or “stay the same” (Fig. 2).

The cosmetics sector and the paints and varnishes market are the most bullish in predicting increased activity in their plants, followed by the plastics materials and synthetic resins; drugs and pharmaceuticals; specialty chemi-

cal; and soaps and detergents sectors.

Enough pay?

How satisfied are CP readers with their jobs? Are they paid what they're worth? How do they get along with their bosses?

While the preponderance are at least

“somewhat satisfied” (60%) in their jobs and a lucky 22% count themselves “very satisfied” (Fig. 3), nearly half believe they're not paid what they're worth (Fig. 4).

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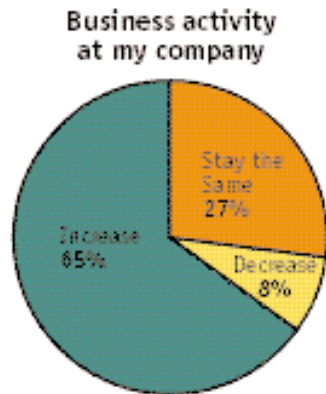
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Source: Chemical Processing

fig. 2

“Challenging work” is by far the most important factor in providing a sense of job satisfaction, according to the survey. “Good salary/benefits” and the “feeling of being appreciated” tied for second place.

“Challenging work” was most important in every sector except industrial organic chemicals, where “good salary/benefits” rated highest.

While “Challenging work” ranked highest across all plant sizes, the feeling was four times more important than “good salary/benefits” for people in the larger plants (1,000-plus staffs), compared with about two times more impor-



Source: Chemical Processing

fig. 3

tant for people in all other sized plants. "Challenging work" was also prized

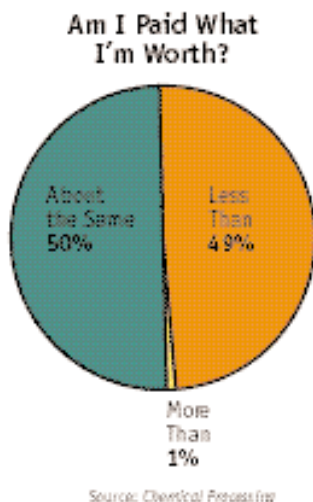


fig. 4

by the cosmetics sector and the soaps and detergents sector. It ranked three times higher in those sectors than "feeling of being appreciated." "Good salary/benefits" didn't show up in their ratings.

Job satisfaction ratings were highest in the industrial gases, paints and varnishes sector and in the drugs and pharmaceuticals sector. Two sectors, however, show higher than average problem areas; petroleum refining (13% dissatisfied) and drugs and pharmaceuticals (11% dissatisfied)

The most disgruntled respondents, regarding their pay vs. their perceived worth, were in the paints and varnishes sector, agricultural chemicals and specialty chemicals.

Greener pastures? People in the larger plants (more than 1,000 employees) were most likely to rate themselves "very satisfied" in their jobs (38% in those plants, compared with 22% across all plant sizes). While 28% of the people in larger companies think big is the best size for job satisfaction, 56% think that mid-sized firms are the best, which is also what 63% of all survey respondents said.

The average pay increase expected in year 2000 is 3.5% (Fig. 5).

Who's giving the best pay increases? Well, readers predict annual pay raises of more than 5% for 20% of employees

in the cosmetics sector and the soaps and detergents sector. Perhaps that's why "challenging work" and "feeling of being appreciated" were top on their list for job satisfaction ratings (above) because they are already being taken care of on the financial side.

Does a bigger pay increase translate into greater job satisfaction? It might seem so, but analysis of the survey respondents reveals some surprising results. What are the characteristics of people who expect to receive year 2000 pay increases of more than 7%:

- First, they rate "good salary/benefits" as the most important factor in overall job satisfaction (71% of respondents) with "challenging work" in second place (29%). The "feeling of being appreciated" by the company

doesn't even show up in their rankings.

- Most respondents in that category are "somewhat satisfied" (72%) in their jobs with 14% "very satisfied" and 14%

While the preponderance of CP readers count themselves at least 'somewhat satisfied' with their jobs (60%) and a lucky 22% count themselves 'very satisfied,' nearly half believe they're not paid what they're worth.

"somewhat dissatisfied."

- All respondents in this category say they have a good relationship with their boss! In fact, 95% of all survey respondents gave a positive rating to that important category.

Good leadership?

Nearly three-quarters of the respondents felt that company leaders were doing a good job of preparing for

My Expected Pay Raise in 2000

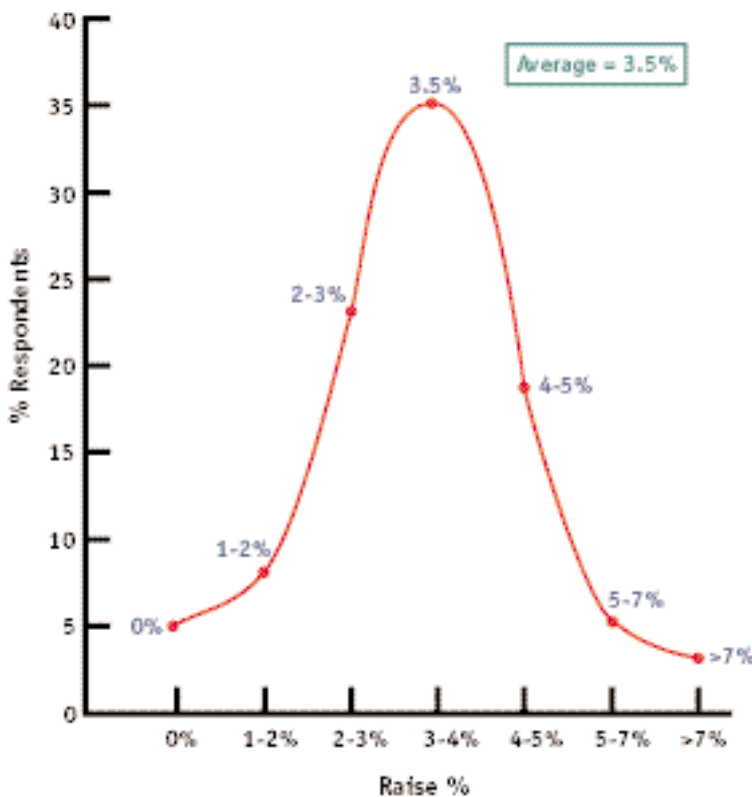


fig. 5

changes that would affect the chemical industry in 2000. That confidence rating drops to two-thirds, however, when the window is extended to planning for the next five years.

The highest ratings for company leaders and their efforts to prepare for year 2000 challenges were in 1. cosmetics; 2. industrial gases; 3. soaps and detergents; and 4. drugs and pharmaceuticals.

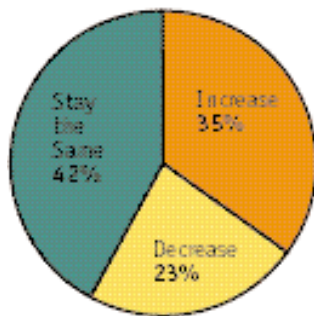
Numerous readers cited the need for better long-term planning. One suggested "focusing on longer-term growth and goals," while another urged management to "focus on growth—not tomorrow's stock price" and a third wanted to see his company "investing more in projects that will pay off in five to 10 years." One chided the bosses, urging them to "have long-term vision instead of short-term profits." E-business came up in comments like "improve Internet purchasing operations" and a suggestion for "e-commerce partnering vs. consolidations.

Could e-business partnerships actually change the dynamics and need for some of the ongoing mergers and acquisitions? (See CP's February cover story for more on that emerging subject.)

Workplace challenges

Equipment purchases are expected to grow or remain the same, 77% of respondents indicated (Fig. 6). The

My Expected Plant & Equipment Purchases for 2000 vs. 1999



Source: Chemical Processing

fig. 6

top three investment drivers for the purchases are lower operating costs, increased productivity and increased capacity (Fig. 7).

Are these investments adequate, though? One-third of the readers said "no."

The biggest percentage increases in purchasing are predicted in paints and varnishes; specialty chemicals; and plastics materials and synthetic resins plants.

While three-quarters of CP readers think that routine maintenance and equipment upgrades are adequately addressed, a fourth disagree and think more should be done.

Besides, 40% indicated that plant level employees do not have sufficient say in equipment expenditures

Mid-sized plants, with 100 to 249

employees, reported the biggest problems with routine maintenance and also had the biggest complaints about plant-level employees' lack of say in equipment expenditures. People in those plants said the number of employees is inadequate for the workload but predicted the workforce would grow this year. Four sectors stand out from the pack in complaining about an inadequate number of employees. They include industrial

The average pay increase expected this year by CP readers is 3.5%.

gases (67% of respondents), industrial inorganic chemicals (55%), industrial organic chemicals (54%), and drugs and pharmaceuticals (53%).

Readers predicted the biggest employment increases in 2000 in the

Leading Reasons for Equipment Investments in 2000

Lower Operating Costs	52.9%
Increased Productivity	52.4%
Increased Capacity	48.0%
Process Improvement	42.7%
Enhancing Manufacturing Flexibility	41.8%
Environmental Improvements	34.7%
Replacing Obsolete Equipment	32.0%
Health & Safety	30.7%
Remaining Cost Competitive	29.8%
Lower Manpower Requirements	21.3%
Quality Improvements	19.1%
Maintenance Costs	18.2%
Energy Savings	13.3%
Precise Process Control	12.4%

Source: Chemical Processing

fig. 7

Give plants more say

Readers said plant-level employees don't have enough say in equipment decisions because corporate-level employees decide how to spend money, going so far as to negotiate with vendors. Here's the diagnose for improvement, in the words of plant workers:

1. '[We need] Improved, more-involved leadership.'
2. 'Support employees by acting on their ROI analysis.'
3. 'Solve routine maintenance and equipment problems, and the situation will go away.'
4. 'Increase management involvement at the plant level.'
5. 'Nothing until top management changes.'
6. 'Change management and corporate culture.'
7. 'Too many lawyers and accountants in senior positions'

drugs and pharmaceuticals sector (63% of sector respondents say "yes"), cosmetics (50%), and paints and varnishes (50%).

A modest increase in training is expected this year, with people at a third of the companies expecting more, compared with a tenth anticipating a cutback. Workers at smaller plants (50 to 99 people) predicted the greatest increase in training budgets. Training is expected to increase the most in the drugs and pharmaceuticals sector and the soaps and detergents sector.

Industry issues

How important are sustainable development, industry safety, "enhanced" Responsible Care® and e-commerce to readers, to the way they work and to the chemical industry at large?

Almost three-quarters said they believe the industry has at least a good commitment to sustainable development. Respondents from larger companies give the highest ratings to that commitment.

Most readers (93%) said the industry is getting safer. But the view is not unanimous—7% declared that the industry is not getting safer. The biggest potential problem areas may lie in plants with 100 to 250 people, where 12% indicated that the industry is not getting safer.

While the cosmetics and soaps and detergents sectors received high ratings for having leaders that are preparing their companies for year 2000 challenges, nearly 20% of the respondents

a bigger impact on them in the future (i.e., 58%) compared with mid-sized plants (44%) or small plants

Two-thirds of CP's readers believe their companies are doing a good job of planning for the next five years.

(31%). See CP's February cover story for more information on how e-commerce will reshape the chemical industry and its impact on you and the way you work!

Advice from the plant

Readers had these thoughts to express:

1. 'The focus is only on short term goals—not team effort. There's only talk.'
2. "Hiring, retention and training of good people at all levels in the company is the most important critical success factor."
3. 'Cancelled major plant expansion—only 85% right first time batches [a lot of rework].'
4. 'You can always improve on plant level personnel input.'
5. 'Responsible Care® will be very effective when senior management in the chemical industry takes a more active role.'

in those categories indicated that the chemical industry isn't getting safer, compared with 7% from all sectors combined.

Almost half (44%) of those responding were not aware of the enhanced Responsible Care® program which started in early 1999. And of those that were aware, 3/4 felt it would only be marginally effective.

Only a small percent of you (10.7%) see e-commerce having a major affect on the way you work now but a much larger group (44%) see e-commerce having a major affect on your jobs in the future. Respondents from larger plants see e-commerce having

Note of caution

While most respondents look favorably on the future of the chemical industry, a significant minority had serious concerns about:

- Deferred maintenance (26%);
- Inadequate workforce (39%);
- Insufficient equipment purchases (33%);
- Failure to consult plant-level employees about equipment purchases (38%);
- Lack of confidence in the "enhanced" Responsible Care® program (78%).

Equipment needed!

Here's why readers said routine maintenance and equipment upgrades aren't adequately addressed at their plants:

1. Inadequate engineering
2. JIT repairs
3. Management focuses on bottom line now—not tomorrow
4. Trying to keep costs down
5. Inexperienced leaders
6. Maintenance staffing is too low
7. Lack of manpower

As the new millennium begins, plants need to address those concerns or face the possibility of major setbacks.

By Peter Knox, editor-in-chief and associate publisher