

PIPELINE CONSTRUCTION INSPECTION: WORKFORCE FACTS

SERIES 1 | REPORT 8

POTENTIAL CANDIDATES

In the absence of a standardized training program, recruiters should focus on attracting mid-career workers and foreign-trained engineers to bring in younger and more diverse inspectors. These groups of people are mature and have many of the foundational skills needed for pipeline construction inspection. For foreign-trained engineers, work experience as an inspector could lead to future engineering roles.

Independent research shows that there is a need to provide a structured pathway for new talent in pipeline construction inspection

REFERENCES

¹ Jiva Consulting. (2019). Pipeline construction inspection benchmarking survey.

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Supporting Workforce Competency and Diversity

TODAY'S DEMOGRAPHICS

Today's demographics are a product of historical hiring practices and the absence of a standardized training program. Three characteristics of workforce demographics are explored below.

1. Aging Workforce

Based on a survey of 100 pipeline construction inspectors¹, the average inspector is 54 years old and 68% of inspectors are over the age of 50 (Figure 1). The average age is high because, in the absence of a standardized training program, industry experience is a proxy for training. Therefore, junior staff are rarely recruited to become inspectors. In fact, most inspectors enter the career near the age of 45 after spending decades working in the oil and gas industry.

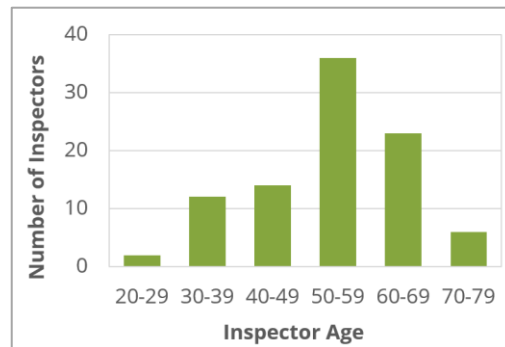


Figure 2. The age distribution of surveyed pipeline construction inspectors.

In the next 15 years, over half of inspectors will reach retirement age. If these inspectors are not replaced, project delivery (e.g., construction quality) may be negatively impacted by a lack of inspectors. Furthermore, the retiring workforce needs to share its experience with younger inspectors to ensure essential knowledge is not lost.

2. Gender Inequality

Only 3% of pipeline construction inspectors are women. The lack of female inspectors is mainly because inspectors are usually hired from within the oil and gas industry, which is male dominated.

3. Variable Education

Pipeline construction inspectors enter the career with different levels of education, ranging from less than Grade 12 to a university graduate degree (Figure 1). Education levels are inconsistent because a standard level of education is not required to become an inspector.

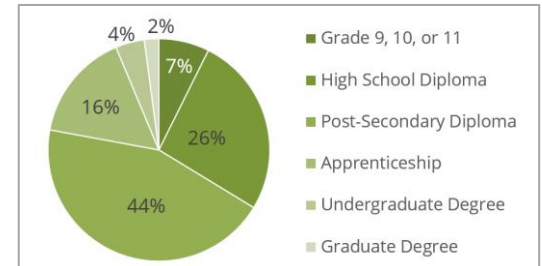


Figure 1. The highest level of education achieved by pipeline construction inspectors.

OPPORTUNITY TO DIVERSIFY

The best way to ensure an adequate supply of diverse, competent pipeline construction inspectors is to standardize the career path and create a training program. By doing this:

- more people will become aware of the career, increasing its diversity (e.g., women, minorities);
- people will enter the career at a younger age, decreasing the average inspector's age; and
- all new inspectors will achieve a specified level of education, ensuring basic competency.

A standardized training program will allow the industry to draw from a larger labour pool and develop new entrants more rapidly.