

network analysis

Network analysis is a powerful, flexible tool that delivers practical workplace insights as well as a clearer view of your people. This analysis helps identify inclusive workplaces, critical positions and influential individuals.

A leader in forging specialty components for use in aviation, power generation, space exploration and chip manufacturing, Weber Metals wanted to take a closer look at its workplace and its people. Dawn K., Vice President of Human Resources at Weber Metals, knows the value of network analysis: "Our sales, engineering and production units must work together in a dynamic environment to meet exacting customer requirements. We need to know who our key influencers are, and we want to ensure that we have an inclusive work environment where all can contribute."

With Mercer's help, Weber Metals undertook a network analysis using both survey responses and internal email traffic data as sources of insights. Before the analysis, the company had installed a new enterprise resourced planning (ERP) system that appeared to be driving a high volume of email. The company therefore chose to focus primarily on the survey responses.

welcome to brighter



Figure 1 shows the flow of communications. Dense connectivity among individuals within two particular units — the production shop floor and the front office — was unsurprising. Within those units, the analysis revealed specific individuals who, by the nature and extent of their colleague connections, stand out as most critical to the flow of information. Further, the analysis identified which individuals stand out as the most important “connectors” between the front office — where engineers, sales, purchasing and other functions reside — and the production shop floor.

The company used these insights in several ways. They identified potential candidates for special communication roles based on their positions in the network. In addition, insights emerged into improving efficiency and coordination. The company also plans to use the analysis to inform new office space layouts to avoid disrupting key working relationships and to encourage cross-functional collaboration.

Weber Metals further examined their networks to assess workplace gender inclusiveness. The company operates in a historically male-dominated manufacturing sector. It wanted to know if this characteristic was expressing itself in unwanted ways — for example, by women having smaller at-work networks or occupying less central roles in their networks. The analysis revealed no evidence of such gender differences, indicating that the company had in fact created a gender-inclusive workplace.

Network analysis has surfaced inclusiveness problems in other companies. For example, in a health sciences company’s research unit, analysis exposed unwanted age-based gaps in work relationships, as illustrated in Figure 2. Specifically, younger scientists — who had most recently completed their training and who best understood the latest developments in their disciplines — were not directly connecting with older, long-tenured scientists who were most familiar with the firm’s proprietary library of findings and procedures. While each age group linked well to Gen X employees, the lack of direct connections prevented critical opportunities for collaboration, hurting innovation and productivity. With this knowledge, Mercer and the company jointly identified new ways to increase the contact between the new and experienced segments of this workforce.

Figure 1

Unit

- Front office
- Shop floor



Figure 2

Unit

- Baby boomers
- Gen X (hidden)
- Millennials

