# Chapter 8
# Standardizing Knowledge Work:
## How "Homegrown" Standards Overcome Resistance among Professional Employees

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## ABSTRACT

*This chapter analyzes how standards were implemented among design engineers in two divisions of the same corporation. Although both divisions achieved ISO 9000 certification, engineers in one of the divisions resisted the standard work practices and a culture of cynicism developed. In the other division, the standardized work practices were internalized by engineers and are still voluntarily, and often enthusiastically, followed. Analysis of the contrasting cases results in three recommendations for managers who wish to increase the acceptance of external work standards among professional workers.*

## INTRODUCTION

The management of standardization has its roots in the late 1800s, when the first management theorists – predominantly engineers – sought to codify methods for controlling far-flung railroad operations or enforcing manufacturing efficiencies (Chandler, 1977; Taylor, 1993 [1903]). Now, in the second decade of the 21$^{st}$ century, standardization is increasingly applied in non-traditional settings such as product design, software engineering, and other types of knowledge work (Sandholtz, 2012; Timmermans & Epstein, 2010). This migration of standard work from the assembly line to professionals' cubicles raises a number of new questions: First, is it possible to standardize an abstract activity such as knowledge work? If so, how do the targets of the effort – well-educated and highly autonomous knowledge workers – feel about having their specialized, creative work standardized? And given their feelings, how can managers best proceed when attempting to introduce work standards in professional contexts?

This chapter will address these questions by examining a unique pair of case studies. Between 1997 and 2002, two engineering divisions of the same large manufacturer achieved ISO 9000 certification. In one of the divisions, the ISO 9000 initiative met stiff resistance from the engineers, who interpreted the standard as a threat to their professional autonomy and complied only symbolically. In the other

division, engineers created their own version of standardized engineering that exceeded ISO requirements, and the division's employees now follow the standard work not only willingly, but in many cases, enthusiastically. Analysis of the two cases yields a set of practical guidelines for managers tasked with implementing work standards among professional employees. As will be shown below, this chapter suggests that when knowledge workers can internalize standard practices *before* being "ordered" to do so, the substantive adoption of standards is a *fait accompli*.

The chapter is organized as follows. First, I touch briefly on two concepts from organization theory that have bearing on the management of standardization. Next, I describe the empirical setting and the fieldwork that documented the case studies. Third, I reconstruct the implementation of ISO 9000 in the two engineering groups and chronicle how the standards were rejected in one of the groups but accepted in the other. Finally, I present practical tips for managers who face the challenge of implementing professional work standards.

## BACKGROUND

## Standards as Unique Forms of Social Control

A fundamental characteristic of organizations is that they seek to control and coordinate the behavior of their members. Social scientists theorize three different ways that organizations can exert this control. (See Brunsson & Jacobsson, 2000a for a complete discussion.) First, the organization can issue directives, then impose rewards for compliance and sanctions for non-compliance. A directive is typically an order or command, sometimes presented as a request or an action plan, made by a manager who possesses formal authority. Second, organizations can foster (or import) informal norms that guide behavior. In this context, a norm is a social rule that rarely appears in written form, yet is accepted as natural in the organization. As Brunsson and Jacobsson (2000a: 12) put it, 'Norms are internalized rules that we can follow without having to reflect on them. . . . We appear to be following them because we want to, and not because we are exposed to any outside pressure to do so.' Third, organizations can voluntarily adopt and implement standards. Standards are unique in that they exhibit properties of both formal directives and informal norms (see Table 1). Like directives, standards are characterized by formal authorship; an individual or group somewhere articulated and recorded the standard. Like norms, however, standards are voluntarily adopted. Both of these aspects – authorship and volition – hold important lessons for managers wishing to implement standards in professional settings.

*Table 1. Comparing Different Forms of Social Regulation*

|  | Norms | Directives | Standards |
| --- | :---: | :---: | :---: |
| **Voluntarily Adopted?** | Yes | No | Yes |
| **Explicitly Stated?** | No | Yes | Yes |
| **Identifiable Author?** | No | Yes | Yes |

Source: Adapted from Brunsson and Jacobsson 2000a

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