# Chapter 32
# Improving Workforce Education Learning Outcomes:
## Lessons from Soviet Educator A. S. Makarenko

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## ABSTRACT

*Despite numerous attempts over the past few decades to prepare the U.S. workforce for the increasing challenges of a global economy, educators hear the same complaints from industry about how difficult it is to find highly skilled workers. The growing need to have a higher level of education and different knowledge, skills, and attitudes than in the past brought on by globalization makes the task of preparing workers for tomorrow's workplace even more daunting. Whatever the reason for dropping out, many young people have clearly not responded to the attempt to educate them through full-time schooling, no matter how innovative the program. This chapter argues that more adolescents can be educated in a school system that no longer emphasizes full-time schooling but instead combines part-time school with part-time real-world work experience. To carry out such an approach, it may be time to expand our horizons in the search for solutions, and we can find some guidance in a rather unexpected place, the work of Soviet educator Anton Semyonovich Makarenko. Makarenko's success in training young people to become productive workers includes several concepts and methods that may be useful in improving today's workforce education system.*

## INTRODUCTION

"I don't want you to improve education. Then there'd be nobody to drive the cabs." The late astronomer and science popularizer Carl Sagan presented this statement as one of the feedback responses he received to an article of his on science illiteracy and the need to reform American educa-

tion that had been published in *Parade* magazine (Sagan, 1996). Although Sagan stated he simply wanted to present the passion with which his correspondents held their diverse opinions, one cannot help feeling that he chose this example to illustrate one of the probable causes of the educational conundrum we find ourselves in today.

Sagan's respondent appeared to tout the benefit of having workers with limited education and, presumably, of not finishing high school. That may have worked several decades ago when even high school dropouts were often able to find employment that may not have allowed them access to luxuries but at least provided enough to support themselves and their families. Such an assumption, however, is more and more difficult to sustain. Although it is true that a college education does not guarantee stable employment and an adequate salary and that some people with limited formal education have used their intelligence, creativity, drive, and business acumen to make successes of themselves, high school dropouts on average have a median annual income of 29% less than high school graduates (Chapman, Laird, & KewalRamani, 2012).

Dropouts are also less likely than high school graduates to be employed, with 58.9% of them overall not working and an unemployment rate of 17.3% (11.6% for high school graduates, 5.5% for Bachelor degree holders) (Hauser & Koenig, 2011). Specifically among those 16-24-year-olds no longer in school and without a diploma, the so-called *status dropouts*, only 60.4% worked as opposed to 79% of high school graduates and 89% of Bachelor's degree holders. Dropouts will earn between $200,000 and $690,000 less over a lifetime depending on how the total amount is calculated (Chapman, Laird, & KewalRamani, 2012; Dynarksi, Clarke, Cobb, Finn, Rumberger, & Smink, 2008; Hauser & Koenig, 2011). They pay $60,000 less in taxes over their working lives, which adds up to an annual loss of $26 billion. At the same time, their low wages and low employment rates force them to rely more on government support such as food stamps, housing assistance, Medicare/Medicaid, and welfare payments (Dynarksi et al., 2008).

Health disparities exist as well. Compared with high school graduates, dropouts have higher rates of smoking, obesity, heart disease, respiratory ailments, and diabetes. They are less likely to exercise and more likely to make poor decisions about their health, resulting in a lifespan six to nine years shorter than that of high school graduates (Hauser & Koenig, 2011). Another statistic that shows disparities is that of motherhood. Of all young women 16-24 years old, 38% of those without a high school diploma were mothers as opposed to 6% of those with a Bachelor's degree (Chapman, Laird, & KewalRamani, 2012).

Furthermore, dropouts are six times more likely than high school graduates to be imprisoned. High school dropouts were incarcerated at a rate of 63 in 1,000, high school graduates at 10 in 1,000, and Bachelor's degree holders at 1 in 1,000. The National High School Center reported that if male high school completion rates were increased by only 5%, the United States could save $7.7 billion annually because of reduced costs related to crime and higher income from more taxpaying workers (Monrad, n.d.). As a result of all the above factors (lower tax contributions, more reliance on federal programs, more incarceration), each dropout costs the United States economy $240,000 over a lifetime (Chapman, Laird, & KewalRamani, 2012).

Why is this focus on the economic impact of dropouts so important? The reason lies in the dynamics of the global economy. The continuing development of new technologies will require a shift in the skills needed by workforce entrants. The Business Higher Education Forum (2012) reported that by 2020, there would be a worldwide shortage of 85 million skilled workers and a shortage of 1.5 million college graduates in the United States alone. The problem then becomes that in order to remain competitive with increasingly powerful global rivals such as India and China, the United States economy needs to continue growing, meaning more and more workers will need technology skills to either manufacture high-technology products or use those products as part of their tasks. However, employers already struggle to find competent workers despite rising

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