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Using input-output data for 1987 and 1990, this study identifies the demographic characteristics of trade-affected workers in U.S. manufacturing and service industries. Trade-affected workers are defined as employees in industries that experienced a change (positive or negative) in net total (direct and indirect) trade-related employment between 1987 and 1990. For the period 1987–1990, three industry categories were examined: (a) industries that experienced an increase in positive net trade-related employment; (b) industries that experienced a decline in positive net trade-related employment; and (c) industries that suffered net trade-related employment losses in both years yet experienced an improvement over the period. The study finds that, while manufacturing industry workers in the most favorably affected industry group (i.e., group "a") were more likely to be highly skilled (i.e., scientists & engineers), highly educated (i.e., over four years of college education), unionized, married and white males, corresponding service sector workers were predominantly unskilled (laborers), less educated, non-unionized, young (i.e., aged 16–24) and male (black and white). Furthermore, the service sector was associated with greater mean trade-related employment and output gains and lower mean employment and output losses than was the manufacturing sector.

INTRODUCTION

Although trade liberalization policies are motivated by a desire to raise world incomes, they are also associated with adjustment pressures. Within the context of current U.S. initiatives to liberalize world trade in goods and services (e.g., North American Free Trade Agreement, Uruguay Round of the General Agreement on Trade and Tariffs), this exercise seeks to reveal those groups most likely to be favorably or unfavorably affected by a policy of trade liberalization. Despite its obvious importance, few studies have focused on this issue, particularly as it relates to the service
sector. The current study estimates trade-related employment and output trends in the manufacturing and services industries during the 1987–1990 period. It is based on the most recent input-output data (i.e., 1987 and 1990) available. The latter is disaggregated to 228 sectors and comprises 80 service and 115 manufacturing sectors. The study also compares the demographic characteristics of manufacturing and service sector workers at risk of trade-related employment displacements, using input-output and Current Population Studies (CPS) data. Service and manufacturing industries are classified on the basis of their trade-related employment performance between 1987 and 1990. Three industry categories were identified: (a) industries that experienced an increase in positive net trade-related employment between 1987 and 1990; (b) industries that experienced a decrease in positive net trade-related employment between 1987 and 1990; and (c) industries that suffered net trade-related employment losses in both years, yet experienced an improvement between the two reference years.

**TRADE AND DOMESTIC EMPLOYMENT**

In the extended Heckscher-Ohlin-Samuelson (H-O-S) model of comparative advantage, trade patterns are explained by variations in national resources and human capital among economies. Hence, the relative abundance of capital (both human and physical) in the U.S. suggests a comparative advantage in products that are both physical and human capital-intensive. Despite the intangible nature of services, most scholars² are of the opinion that the theory of comparative advantage is equally applicable in predicting the pattern of service trade. While the determinants of service sector comparative advantage remains an empirical issue, it is generally conceded that skill-intensity, or knowledge, is a critical component of most service activities.³ To the extent that these conditions hold true, we should expect international trade in goods and services to disproportionately benefit skilled workers in the services and manufacturing industries.⁴ The corresponding effect of trade on various demographic groups will depend on their level of human capital endowments and their ability to translate such endowments into employment in skill-intensive industries.

It should be noted, however, that differences in factor endowments alone do not explain trade patterns. Improved access to information and the presence of scale economies can also lower unit costs and thus enhance international competitiveness.⁵ Alternatively, excessive trade bar-