Analysis of the impacts of retraining programs-PITD, Merced County

by Dr. Kelvin Jasek-Rysdahl
Associate Professor of Economics
Research Associate of the Center for Public Policy Studies
California State University, Stanislaus

This is a report of an impact analysis of worker retraining programs that are offered by the Private Industry Training Department in Merced County. The programs covered are Adult, Dislocated Workers, and Older Youth. The analysis is of those who exited these programs from July 2000 through June 2001, and the data were taken from the Performance Detail Reports that were provided by the Private Industry Training Department in Merced County. The staff at the Private Industry Training Department was quite helpful. I would especially like to thank Andrea Baker, Dave Cramer and Ralph Ward for their assistance with obtaining and interpreting the data. Chuck Purcell were also helpful in getting access to the required materials.

The study compared the potential impacts of the earnings of participants prior to participation in the program to the potential impacts of the earnings of those same participants after completion of a program. Aggregated earnings of participants for both periods were run through an input-output model in order to estimate output and employment impacts. After earnings for each period were run through the model, the changes in output and employment were calculated.

Data on earnings, both pre-program and post-program, were for a six-month period. The input-output model works on an annual basis so the earnings were annualized by multiplying by two. Per capita earnings were calculated by dividing the annualized earnings by the number of participants. The per capita earnings numbers were used to identify household earnings categories, which determine spending patterns. The per capita earnings will influence the magnitude of the impacts. Spending patterns differ across earnings categories. People with lower earnings will focus on necessities. Those with higher earnings will still buy the necessities, but will also be able to buy luxury items.

The spreadsheets that follow report the results of the analysis for the Adult, Dislocated Worker, and Older Youth programs. The data in the first row are from the Performance Detail Reports. The results of the impact analysis are reported below that. The impacts of the pretraining earnings of participants are reported in the first two columns. Post earnings impacts are to the right. The changes from pre to post are listed directly below the post impact statistics. The total and county changes are reported. The total impact includes output that is generated in the county and outside the county. The county changes subtract the output generated outside the county.

The direct effects in these reports represent the impacts on output and employment from the spending of the participants generated by those earnings. The indirect effects are the output and employment that are generated in the industries that are supplying the firms that are directly affected by the earnings. The induced effects are what are generated by the earnings of those working in firms affected by the direct and indirect rounds.

The change in earnings from those participating in all three programs in Merced County generate about $2,114,570 in total output, $1,309,089 of this is within the County. This increase in output translates to 16.4 jobs in the county. Of the total impact, 10 industry sectors (owner-occupied dwellings, real estate, eating & drinking, food stores, automotive dealers & service stations, doctors & dentists, hospitals, banking, communications, state/local government) accounted for over 32% of the impacts.

It is important to note that these changes are for one year only. The individuals who went through these programs may continue to earn more for years to come. It is also possible that their earnings will increase at a faster rate in the future compare to if they had not had the training. The data that exist do not allow one to test these ideas though.

The magnitude of the impacts depends on a number of different variables. The first is the magnitude of the change in earnings that occur. Higher earnings will result in more spending and a larger impact on output and jobs in the county.

The structure of the economy will also affect the magnitude of the output and employment impacts. The model that was used for this study separates businesses into 524 industry sectors. Merced had business in 188 of the possible 524. The number of sectors is important because it will affect the size of the multipliers. An area with few sectors will have to import more of its goods and services from outside the region. This will reduce the impact of any change that goes through the economy. Some of the spending will leak out of the county. The multiplying effect of the linkages will be smaller.

One way to change this would be to diversify the economy. As more firms are added in sectors that are not currently in the economy, more spending can stay local. This will increase the size of the impact generated by increased incomes. Diversification of the economy would increase the total impact, and cause the gap between the total impact and the county impact to get smaller.