

Title: Effects of Radiation Therapy on Breast Cancer Patients

Authors: N. Meltem Daysal (University of Southern Denmark and IZA), William N. Evans (University of Notre Dame and NBER), Mikkel Hasse Pedersen (University of Southern Denmark) and Mircea Trandafir (University of Southern Denmark and IZA)

Abstract: In this paper, we investigate the effect of radiation therapy (RT) on mortality and labor market outcomes of women with invasive breast cancer. In order to address the endogeneity in receipt of RT, we implement an instrumental variables strategy that exploits exogenous changes in eligibility criteria. Using clinical and administrative data from Denmark for the period 1990-1998, we find that the change in the eligibility criteria led to a 75 percentage point increase in the probability of receiving RT among the affected groups relative to those who were not impacted by the changing guidelines. The higher take-up in RT leads to substantial reductions in mortality 5 to 15 years after diagnosis. While RT receipt does not affect employment status or income in the very short-run, we find economically large positive effects on both labor market outcomes up to 15 years after diagnosis. We provide evidence suggesting that the primary channel for improved labor market outcomes is reduced likelihood of remission.