THE EFFECT OF FORESTRY CONSULTANTS ON TIMBER SALE PRICES

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Abstract.—Mean per acre prices for timber sales handled by consultants are $409 greater than non-consultant sales for a sample of private sales in North Carolina. Employing a method used by labor economists to analyze wage differences, this price difference is broken down into two components: (1) differences in timber volumes and other tract characteristics and (2) differences in the valuation of these tract characteristics. Differences in timber volumes and other tract characteristics are found to account for about seventy percent of the total difference. Differences in the valuation of tract characteristics when consultants handle the sales account for the remaining thirty percent.

INTRODUCTION

Timber supplied by private landowners is an important source of raw material for forest products industries. In North Carolina, non-industrial private landowners provided 80 percent of the total volume and 83 percent of the pine sawtimber harvested during the period 1984-1989 (Johnson, 1991). Most of these landowners seldom sell timber from their lands and are relatively uninformed about stumpage markets. Many are ignorant about current stumpage prices, the volume and quality of the various timber commodities on their tract, logging conditions or other physical characteristics of their tract that may affect timber prices, and the identities of potential buyers for their timber.

In contrast, timber buyers are daily players in the market and are very familiar with market prices and appraisal techniques. Due to this informational asymmetry, landowners are often at a disadvantage when negotiating prices and contract terms. There are, however, services available to landowners that can reduce this disadvantage. State foresters provide a variety of services for private forest landowners at minimal cost. At the very least, they will supply a list of potential buyers or forestry consultants active in the area. Private forestry consultants will, for a fee, appraise and sell timber. Most of these consultants also offer long-term timber management services.

Several studies examine the effects of participation by state or consulting foresters on prices landowners receive. Although these studies indicate that landowners receive higher prices for their timber if they receive assistance from a professional forester, a number of issues remain to be resolved. This study specifically targets the effects of private consultants. Hedonic price functions for consultant and non-consultant sales are estimated and the difference in mean prices for the two categories is calculated. Price decomposition, a technique used by labor economists to evaluate wage differences, is then used to examine the difference in the mean sale prices.

LITERATURE REVIEW

Private landowners can seek professional forestry assistance from three sources: private forestry consultants, industry foresters and public agency foresters. Most of the research on the effects of professional forestry assistance has examined the effects of public agency foresters. Typically, these studies evaluated the benefits of forester assistance on the basis of criteria such as adherence to best management plans, condition of the residual stand, provisions for regeneration and financial returns to the landowner. In general, these studies of public forester assistance found that landowners’ financial returns were greater if a public forester participated in the sale. See, for example, Henly et al. (1990), Callahan et al. (1979), Budelsky et al. (1989), Cubbage et al. (1985), Jackson (1985), Bullard and Moulton (1988).

These studies share a number of weaknesses. As a rule, small samples of matched pairs were the basis for the analyses. Selected sales were not necessarily representative of the population as a whole. Volume estimates were based on post harvest stump cruises, which can be very inaccurate. Statistical analyses were, for the most part, restricted to comparisons of means. Differences due to species and commodity composition, sales procedure (sealed-bid auction versus negotiation) and silvicultural prescription were

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