An Economic Profile of the Professional Turfgrass and Landscape Industry in Georgia

W.J. Florkowski¹ and G. Landry²

¹ Department of Agricultural and Applied Economics, University of Georgia College of Agricultural and Environmental Sciences, Griffin Campus, Griffin, Georgia.
² Department of Crop and Soil Sciences, University of Georgia College of Agricultural and Environmental Sciences, Griffin Campus, Griffin, Georgia.
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The professional turfgrass and landscape industry in Georgia is part of a larger urban agricultural industry. This industry combines sales of individual commodities or plant materials such as turfgrasses, shrubs, trees and flowers with the services associated with the installation and maintenance of these plant materials. The services begin with design and construction and include installation, maintenance and production from greenhouses, nurseries, sod and seed producers, wholesalers and retail garden centers. Three surveys since 1989 have recorded changes in segments of this industry (Hubbard et al., 1989; Garber and Bondari, 1996; and Florkowski et al., 1996). All these surveys have identified professional turfgrass and landscape industries as being relatively young and growing rapidly in volume and types of services. Because of rapid growth, surveys documenting the observed and anticipated changes are important.

The landscape and turfgrass industry is mainly a service industry; the supply of services is the fastest growing activity within the industry. Between 1990 and 1998 the population of Georgia increased by 1.16 million or 15 percent. Newcomers attracted by the strong regional economy stimulated the local real estate market. An estimated 70 percent of this growth is occurring in 42 Georgia counties in eight statistical metropolitan areas. In 1998, the rate of home ownership in Georgia reached 71.2 percent, exceeding the national average (Statistical Abstract of the United States, 1999). Homeowners represent a significant consumer segment that purchases landscape design and installation services and lawn care and landscape maintenance (LCLM) services.

Although many homeowners do their own landscaping, about 10 percent of Southerners purchase LCLM services according to the National Gardening Survey (2000). However, another survey revealed that 24 percent of Georgia homeowners purchase LCLM services (Jordan et al., 1999). The relatively high percentage of homeowners buying LCLM services reflects the increasing incomes. Between 1990 and 1997, personal income increased at an annual rate of 4.7 percent — faster than the national average of 2.8 percent. The average Georgia household income was 44 percent higher in 1998 than in 1990. According to the National Gardening Survey (2000), buyers of LCLM services were about 50 years old with a college degree, and their annual household income exceeded $75,000. In such households the opportunity cost of time, or the implicit value of time spent performing LCLM tasks, is relatively high. Based on economic theory, hiring a LCLM firm becomes relatively inexpensive for this type of household given the time constraint. The purchase of LCLM services also meets expectations of convenience, a major trend driving purchase behavior of goods and services among modern consumers.

The combination of favorable economic and demographic trends and the high population density in Georgia urban and suburban areas encouraged the development of professional turfgrass and landscape industries and continues to drive their growth. This report’s objective is to provide information on both industries in Georgia. The report describes their major characteristics, including the distribution of firms according to the level of annual revenues, importance of residential or commercial accounts as a source of revenue, length of business experience, number of employees and expenditure on major viable inputs. These survey results are presented in a format consistent with an earlier report (Hubbard et al., 1989), although the surveyed population of firms does not allow direct comparisons.
The survey was conducted at the request of three professional organizations: the Metropolitan Atlanta Landscape and Turfgrass Association (MALTA), the Georgia Turfgrass Association (GTA) and the Georgia Turfgrass Foundation Trust (GTFT). Another association, the Georgia Green Industry Association (GGIA), also participated in the survey. Members of the three associations include firms providing landscape design and installation, turf installation, lawn care, tree care, seasonal color installation and related services. The survey instrument was mailed to all members of these associations. A total of 612 questionnaires were mailed in February 1999; a postcard reminder followed. A second mailing occurred in March 1999. During the survey’s implementation, several addresses were deleted from the list for lack of forwarding address/address change (9 firms), members no longer in business (1 firm) and address duplication or misidentification (25 firms). In addition, 25 members indicated that they did not want to provide any information. A total of 245 completed questionnaires were returned, which represented a respectable 45 percent return rate. The support of the organizations’ leadership and the industry’s interest in the survey caused the high return rate.

SURVEY PROCEDURE

The survey procedure was handled in a way assuring the anonymity of respondents. Responses were based on the 1998 business year. This section provides a summary of frequencies from the survey with respect to selected firm characteristics and expectations of business growth. All characteristics correspond to those reported in earlier survey summaries. However, because this study and the previous surveys have been based on a different sample of firms, the results are not directly comparable. For example, Hubbard et al. (1989) used a randomly drawn sample of firms. Florkowski et al. (1996) surveyed lawn care and landscape maintenance firms licensed by local governments of counties composing the Atlanta Statistical Metropolitan Area. The current survey was limited to members of the three professional associations. Methods of survey implementation also differed and resulted in different numbers of returned questionnaires and gross rates of return.

SURVEY RESULTS

Completed questionnaires were handled in a way assuring the anonymity of respondents. Responses were based on the 1998 business year. This section provides a summary of frequencies from the survey with respect to selected firm characteristics and expectations of business growth. All characteristics correspond to those reported in earlier survey summaries. However, because this study and the previous surveys have been based on a different sample of firms, the results are not directly comparable. For example, Hubbard et al. (1989) used a randomly drawn sample of firms. Florkowski et al. (1996) surveyed lawn care and landscape maintenance firms licensed by local governments of counties composing the Atlanta Statistical Metropolitan Area. The current survey was limited to members of the three professional associations. Methods of survey implementation also differed and resulted in different numbers of returned questionnaires and gross rates of return.

Years of Business Experience

The number of years a company had been operating was an indirect measure of the successful economic performance and the ability to earn a profit on a sustainable basis. Figure 1 shows the distribution of companies according to six categories measuring years of business experience. A sizable majority (61 percent) of companies has been operating for at most 10 years. This was consistent with earlier studies addressing a similar topic (Florkowski et al., 1996) and indicates that the industry is relatively young and has grown rapidly in recent years. Such growth corresponds to the influx of immigrants from other states and abroad to Georgia and the subsequent growth of suburbia.

The relatively young companies have limited business experience. An economic recession or even a slow down may force some firms to exit the industry. To reduce the possibility of failure, firms may benefit from sustained efforts in learning and adopting new technology and methods of service delivery ranging from new plant varieties to cost saving alternative methods of maintaining landscapes.

Firm’s Revenue

Of the eight categories, the largest number of firms (17 percent) reported annual revenue between $100,001 and $200,000 (Figure 2). However, 53 percent of firms reported greater earnings, with 28 percent generating more than $1 million in revenues. Relatively few firms (20 percent) earned $100,000 or less. In comparison to earlier studies (e.g., Hubbard, et al., 1989), firms surveyed in 1999 reported a considerably higher level of revenue. Two factors may
explain this difference. First, the current survey included landscape installation; Hubbard et al. (1989) surveyed maintenance firms only. Second, the green industry earnings’ growth reflects the increasing demand for services.

**Job Creation**

The green industry has become a major employer in Georgia. The long growing season and increasing demand for services provides employment opportunities on a full-time and part-time basis. These jobs are either permanent or seasonal. Figure 3 shows the distribution of firms according to eight categories measuring the number of workers employed full time year-round or on full time seasonal positions. The majority of firms (54 percent) employed at least six people full time year-round, and nearly one-half of firms (49 percent) reported a similar level of seasonal employment. In contrast, if a firm employed more than 10 individuals, it was more likely to have permanent rather than seasonal jobs.

The professional turfgrass and landscape industry seems to consist of small businesses in terms of job creation. These types of firms play an important role in the labor market. Earlier surveys reported that the number of employees per firm was usually between one and five, but this survey indicates that the average number of employees per firm has increased. Firms participating in the survey employed a total of 3,598 and 1,242 full time year-round and seasonal workers, respectively.

**Expenditure on Major Material Inputs**

Expenditures covered by the survey were cost of fertilizer, pesticides, plant material, sod and grass seed purchases. Fifteen percent of firms made the bulk of pesticide purchases in 1998. This result is consistent with the distribution of fertilizer purchases shown in Figure 4. Fifty-seven percent of firms spent no more than $5,000 on fertilizer (Figure 4). About a third of the firms spent no more than $1,000; however, another third spent $10,000 to more than $50,001. Thus, most fertilizer application services are supplied by a limited number of firms, which should facilitate the dissemination and adoption of proper nutrient management techniques. Therefore, nutrient management is important in some areas of Georgia because of the potential for nitrogen and phosphorus runoff and contamination of surface waters, although no major contamination has been attributed to this industry (Shuman, 2000). Surface waters are a major source of potable water for North Georgia residents.

Nearly two-thirds of firms spent no more than $5,000 on the purchase of all types of pesticides (Figure 5). Earlier studies (Florkowski et al., 1994) showed that herbicides represented the majority of pesticides applied by LCLM industry. Unlike annual crops, turfgrasses are used as a permanent vegetative cover and are subject to a variety of weeds that germinate and grow at different times of the year (Murphy, 1998). Insecticides are the second most often used pesticide. Fire ants are well established in Georgia and commonly found on lawns; insecticides provide the most effective control. In addition, several insect species feed on turf and may occasionally require insecticidal control. Professionals seldom apply fungicides on residential lawns.

Plant material purchases showed a very different pattern. More than 40 percent of firms spent in excess of $50,000 on plant material (Figure 6). Nearly another 30 percent spent between $10,001 and $50,000; fewer than 20 percent reported expenditures less than $5,000. Plants seem to be a major input for the surveyed firms, which reflects the demand for new landscaping likely caused by sustained residential construction and for landscape renovations. Furthermore, Georgia nurseries likely meet the derived demand for plant material, which extends positive economic influence to other segments of the industry.

Seventy percent of firms spent no more than $5,000 on grass seed (Figure 7). However, 10 percent of the firms spent more than $20,000 on seed. Thus, a relatively small percent of firms specializes in turf seeding and reseeding. However, sod installation was popular because it provides an instant visual effect and improves the chances of permanent establishment of a quality lawn (Georgia Agricultural Statistics Service, 1995). Sodding may also be required as part of new construction loan closings or as housing development covenants; it is also cost effective in reducing soil erosion (Carroll, 1992). Sixty percent of firms spent in excess of $10,000 on sod (Figure 8), and the total amount
spent on sod was $5.85 million. As shown on Figure 8, very few firms were classified in the lowest expenditure category. The use of sod obviously is becoming more affordable. In 1999, Landry reported that the 1997 Georgia farmgate value of sod was $52.1 million from 17,134 acres — a 50 percent increase over the 1992 value (Landry, 1999b). The good economic environment and the improved techniques of sod production and installation have helped stimulate the University of Georgia to examine sod usage on roadsides in conjunction with the Georgia Sod Producers Association and the Department of Transportation (Landry, 1999a).

Hubbard et al. (1989) reported that labor costs were the major expense of the industry. According to our survey, 58 percent of firms spent in excess of $100,000 on labor (Figure 9). In addition, seven percent of firms reported gross revenues of more than $1 million in 1998. Such spending has a considerable effect on Georgia’s economy. The industry is primarily one of service; labor costs effect the profitability, pricing strategies and competitiveness. In recent years, the strong demand for services has supported industry growth, indicating generally good economic performance. The prolonged drought of 1998-2000 will likely have immediate and negative effects on industry revenues and profits. However, assuming the general economic climate continues to be favorable and real incomes keep growing, the demand for services may increase because customers may want to repair any visible damage caused by the drought.

Business Growth Expectations

The survey collected information about expectations for business growth in 1999, 2000 and 2001. Thirty percent of respondents expected growth of more than 20 percent; another 55 percent expected growth between six percent and 20 percent in 2000. These optimistic expectations are unlikely to materialize because of the severe drought stretching through most of 2000. However, a similar optimism existed in 1987 (Hubbard et al., 1989) and may reflect the positive experiences of companies.

Growth expectations for 2001 were similar to those for the year 2000. Because the data were collected in the early part of 1999, the expressed views can be considered optimistic. The anticipated rate of growth, which exceeded the projected growth rate of the regional and the state economies, differed almost none. Although the possible slowdown in new home construction and, consequently, in the demand for new landscape design and installation could slow the growth rate, the respondents did not feel that this would occur before the end of 2001. However, the demand for LCLM services should continue to grow because it focuses on established turf and landscapes around homes and businesses.

Acreage Serviced

Firms were classified into six categories according to the number of serviced acres (Figure 10). Overall, the majority of firms (63 percent) serviced at least 100 acres. Approximately one-fourth of surveyed firms serviced 25 acres or less; another one-third provided maintenance to 26 acres to 100 acres. The remaining firms were closely split between those servicing 100 acres to 200 acres and those servicing more than 200 acres.

Importance of Residential and Commercial Accounts

Forty percent of firms derived more than three-quarters of their revenue from servicing residential accounts in 1998 (Figure 11). This was the largest percentage of firms among the five categories considered. In the case of income derived from commercial accounts, the distribution showed concentration in the lowest and the highest categories. The lowest category included about 20 percent of firms, while the highest category accounted for 30 percent. Clearly, the surveyed firms seemed to specialize in servicing either residential or commercial accounts. Such a division implies that firms may supply a different service mix to their customers, care for a different acreage and require labor with different skills.
CONCLUDING COMMENTS

The professional turfgrass and landscape industry continues to exhibit the fast growth of other segments of the green industry in Georgia. The growth results from the state’s increasing population, economic prosperity and increased home ownership. A high rate of home ownership contributed to sustained purchases of lawn care services and landscape design, installation and maintenance services. A favorable economy, a desire for recreation, a mild climate and a long growing season will stimulate the expansion of the LCLM industry in the near future.

Results indicate the large economic impact of the industry in terms of employment and purchase of material inputs by LCLM firms. The total wage bill reported by survey participants approached $60 million in 1998 for about 5,000 full-time year-round or seasonal jobs. In addition, the industry employs more than 500 part-time workers. The industry also shows signs of growing stability as reflected in the increasing years of business experience and the average number of employees per firm. Furthermore, the average gross revenues seem to be higher than in previous surveys even after accounting for inflation.

The LCLM firms are major buyers of plant material, sod and grass seed. The derived demand for plant material supports the state’s turfgrass and nursery sector. Furthermore, fertilizer and pesticide distributors benefit from the sale of lawn care and maintenance services. The value of purchased equipment, tools and fuel used in the supply of LCLM services was outside the scope of this survey, but it is another economic benefit.

This publication is based on information volunteered by 245 firms, which represent only a fraction of the LCLM industry in Georgia. The green industry is very heterogeneous, and its evolving structure presents a challenge to estimate its full economic impact accurately. Furthermore, because of its focus on providing services, the service mix offered by companies changes in response to customer needs, environmental conditions and new plant material introductions.

Future research is needed to gauge the industry’s growth and direction. As the industry grows, it will continue to exert pressure on the research and extension components at the state’s land-grant institutions to assist in providing practical, cost-reducing and environmentally sustainable solutions. The development of new knowledge and its effective transfer will determine the quality of future services. Unforeseen events, such as the prolonged drought of 1998-2000, will continue to redefine the research agenda. The improvement of management skills, ranging from the application of cultural techniques to financial planning and marketing of services, will require close cooperation between the industry and research and education personnel.
REFERENCES


• Two out of five firms reported larger than $500,000 in 1998.

Figure 1. Years of Experience in Business

- The majority of firms, 61 percent, has not been in business for more than 10 years. This is a young, dynamic industry.

Figure 2. Approximate Revenue Reported for 1998

- Two out of five firms reported larger than $500,000 in 1998.
Almost half of surveyed firms employed six or more people on a full-time basis during the season.

More than one half of surveyed firms employed six or more people full-time year-round. Eight percent of firms permanently employed more than 50 people year-round.

Almost half of surveyed firms employed six or more people on a full-time basis during the season.
Figure 4. Fertilizer Expenditure in 1998

- The bulk of fertilizer was purchased by fewer than one-third of the surveyed firms.

Figure 5. Pesticide Expenditure in 1998

- Nearly two-thirds of firms spent no more than $5,000 on purchase of all types of pesticides in 1998.
The majority of firms, 63 percent, spent more than $20,000 annually on purchase of plant materials supplied by nurseries.

Every 10th firm spent more than $20,000 on grass seed in 1998.
• Three out of five firms spent in excess of $10,000 on sod. The total amount spent on sod by firms participating in the survey was $5.85 million.

• More than half the surveyed firms spent in excess of $100,000 on labor alone.
• Three out of five firms (63 percent) serviced at least 100 acres of lawns and landscapes.

**Figure 10. Total Acreage Serviced**

- 201 acres or more: 21%
- 15 acres or less: 16%
- 16-25 acres: 11%
- 26-50 acres: 10%
- 51-100 acres: 24%

- 101-200 acres: 18%

• Two out of five firms depend heavily on revenue from servicing residential accounts, and one out of three firms derived most of its revenue from commercial accounts.

**Figure 11. Percentage of Revenue Derived From Serving Residential and Commercial Accounts**

- Residential
- Commercial

- Percentage of revenue

- 1-10
- 11-25
- 26-50
- 51-75
- 75-100