



Economic Development Report



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The Economic Contribution of Colorado's Green Industry

By

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Total green industry employment was almost 34,000 jobs in 2002, an increase of 11,000 jobs since 1994 (6% growth per year), with \$825 million in payroll (up \$450 million from 1994 or 18% annual growth).

73% of the green industry's economic output (\$1.67 billion) is value added, which tends to benefit local households and businesses.

- A recent US study estimates that consumers spent nearly \$40.7 billion on garden-related products in 2001, up 12.1% from \$36.3 billion in 2000, with the average U.S. household spending \$444 on lawn and garden goods in 2001 (Danziger).
- Colorado expenditures on garden-related products, landscape and lawn service and other related green industries (irrigation, botanical gardens, outdoor equipment) have followed a similar trajectory, averaging 10% growth per year since 1993, for a total of \$1.731 billion in 2001.
- Based on multipliers generated through the IMPLAN input/output model, total economic contributions of Colorado's green industry totals:
 - \$2.1 billion (using a Type I multiplier that includes indirect activity with other local businesses), to
 - \$3.3 billion dollars (using a type II multiplier that includes indirect activity and expenditures from wage payments to households), to
 - \$5 billion (using a SAM multiplier that includes indirect activity and wages and factor payments made to broader economic agents)
- Total green industry employment was almost 34,000 jobs and for every million dollars in green industry output, the industry generates between 24 and 43 jobs, depending on which multiplier was used.
- Assuming total direct green industry output of \$1.67 billion, 27% of industry spending goes to intermediate inputs and 73% is value added, which is the basis for the relatively high multiplier to statewide economic activity.

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- In 2002, the green industry in Colorado experienced a decline in economic activity, but still accounted for \$1.668 billion directly, or \$1.953 billion when you consider its impact on broader economic activity in the Colorado economy.
 - There was a significant decrease in revenues from 2001 of over \$60 million, which corresponds to about a 4% drop in revenues
 - One could argue that the decrease in revenue would have been more substantial if not for sustained consumer demand (for plant materials and new irrigation/garden equipment) and new business strategies, such as willingness to provide snow removal by landscape companies and more year-round activity (Christmas trees) by nursery and garden centers
 - When considering previous growth patterns, the drought restrictions and economic downturn had a more compounded effect (the drop in revenues plus the forgone growth of about 10% per year)
 - The green industry provides almost 34,000 jobs, an increase of 11,000 jobs since 1994 (6% growth per year), with \$825 million in payroll (up \$450 million from 1994 or 18% annual growth)
 - These increases are indicative of the demand for green services and the ability to hire workers on a more year-round basis
 - There was also a drop in workers between 2001 and 2003 (350, then 1550 workers) but payroll increased in 2002 (\$40 million) before a decline of \$20 million in 2003
 - This study includes, production, wholesale and retail sales for floriculture, nursery, and trees; inputs including garden supplies, irrigation equipment and outdoor equipment; and, the development and care of landscapes including golf courses, landscape design/construction, landscape maintenance (for homes, businesses, public gardens and cemeteries).
 - A Texas study that found mass merchants and retail stores added about 42% in additional green industry sales and the USDA suggests this trends leads to under reporting for the retail nursery sector by almost 40%. As a conservative estimate, this study assumed that 35% of retail sales were lost to mass retailers and this figure is used to adjust some sales to account for out-of-sector activity.
 - An Illinois study found that out-of-sector end-user payrolls suggest a 17% undercounting of economic contributions from the green industry. In this study, we assume that 20% of relevant end-user values are not reported for several sectors; a number used to adjust landscaping activity upwards.
 - Most green sectors show growth for the years 1993 to 2001, except floriculture production which was significantly affected by international trade competition
 - The highest growth sectors during the 1990's were landscape design and maintenance, public and private golf courses, and nursery/garden centers
 - Florists and nursery and tree production were important sectors but reported flatter revenue trends
 - A few sectors actually showed modest growth from 2001 to 2002 but appear to have lost sales in 2003 including landscaping architectural services, golf courses, flower and nursery stock wholesale, nursery and tree production, nursery and garden centers, and golf courses.
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Figure 1

Summary Findings on Economic Contribution of the Green Industries

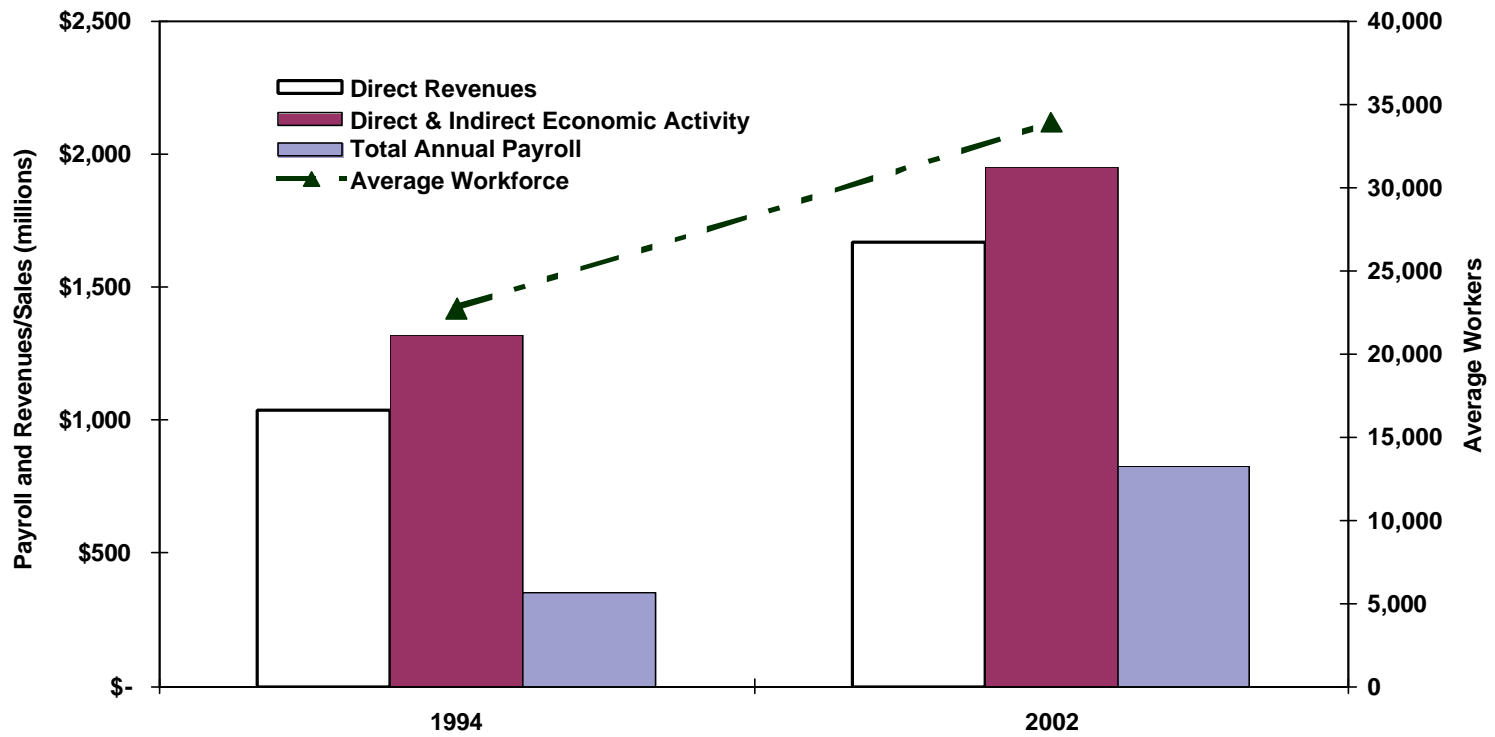
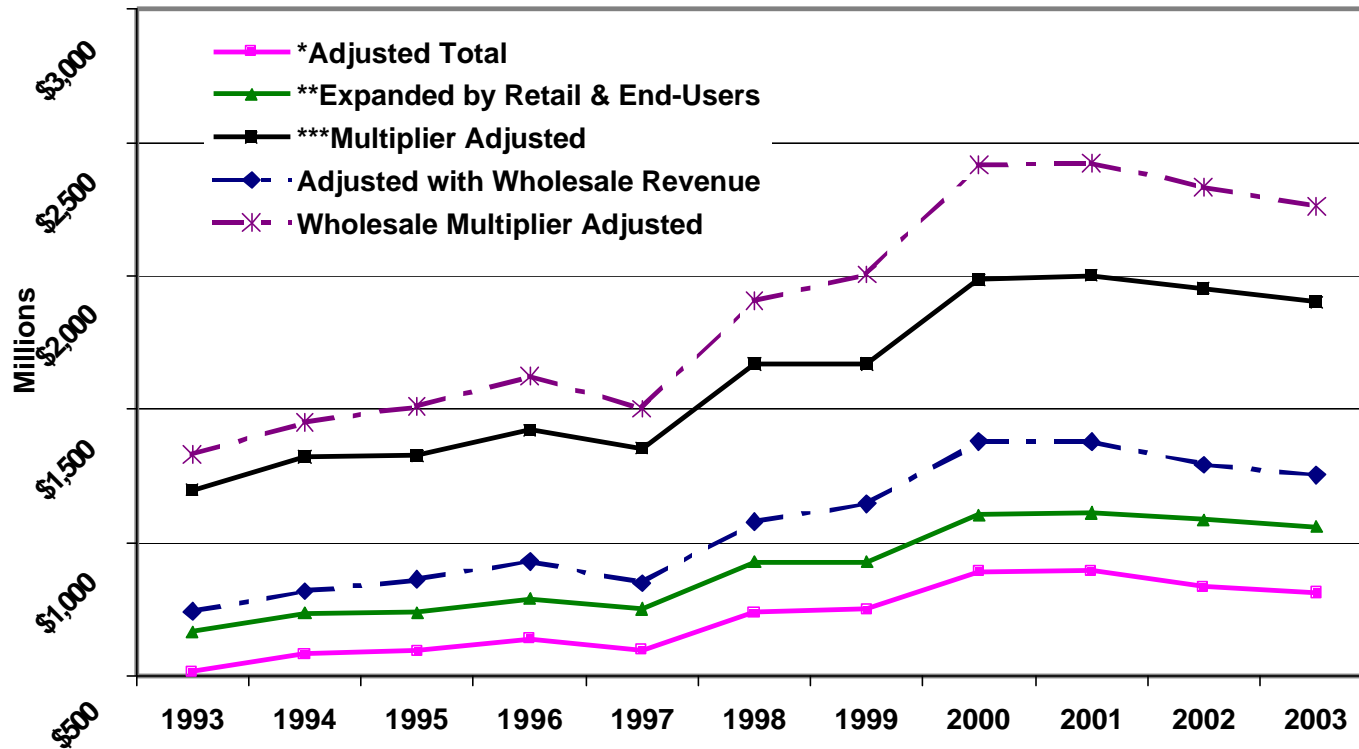


Figure 2: Allied Green Industry Revenues: Trends with Varying Data Assumptions

Green Industry Revenues and Economic Impact



*Direct Total was Adjusted to account for estimated shares in certain industry codes (irrigation, outdoor equipment, design).
 **The Expanded estimates account for retail sales made through mass merchandisers, home improvement stores and groceries, as well end-user provided services allied
 ***The Multiplier impact includes direct revenues attributable to the industry as well as indirect economic activity fueled by the direct impact.

Figure 3

Share of Green Industry Revenues, 2002
Total Revenues \$1.668 Billion, Wholesale, Retail and End-User Adjusted

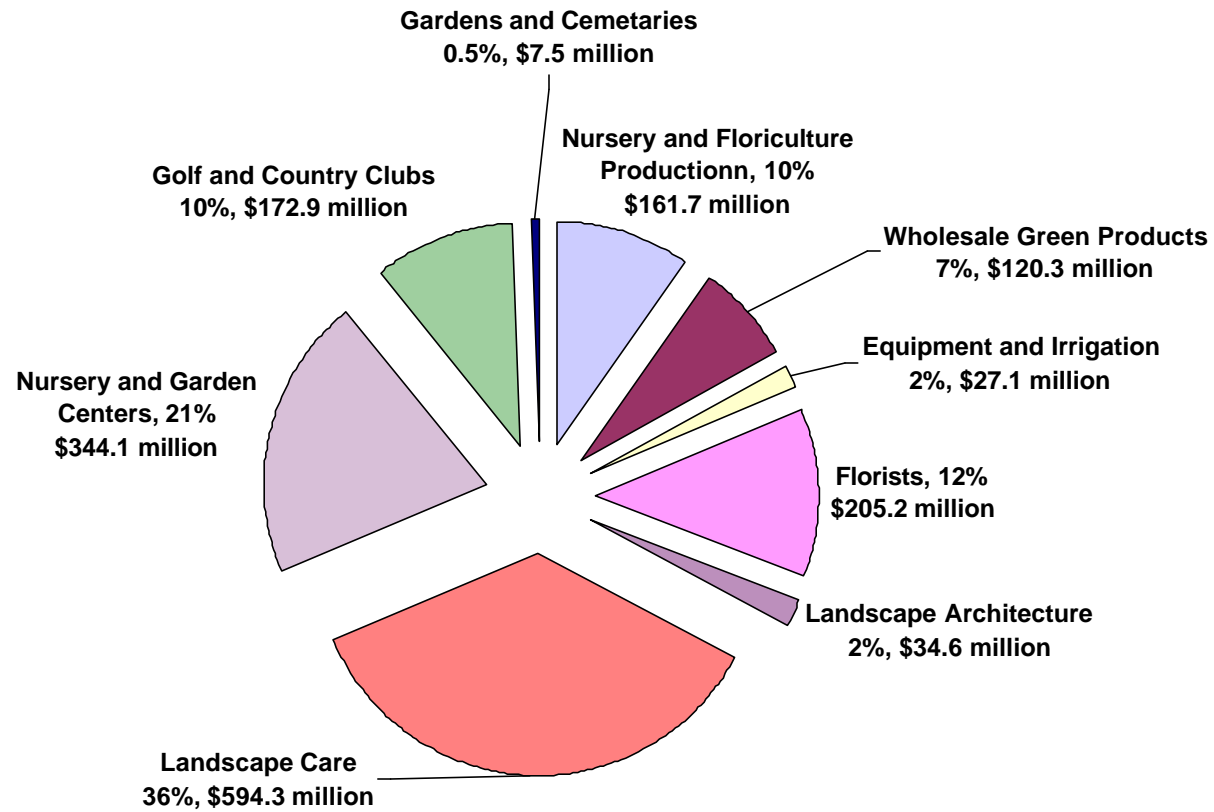
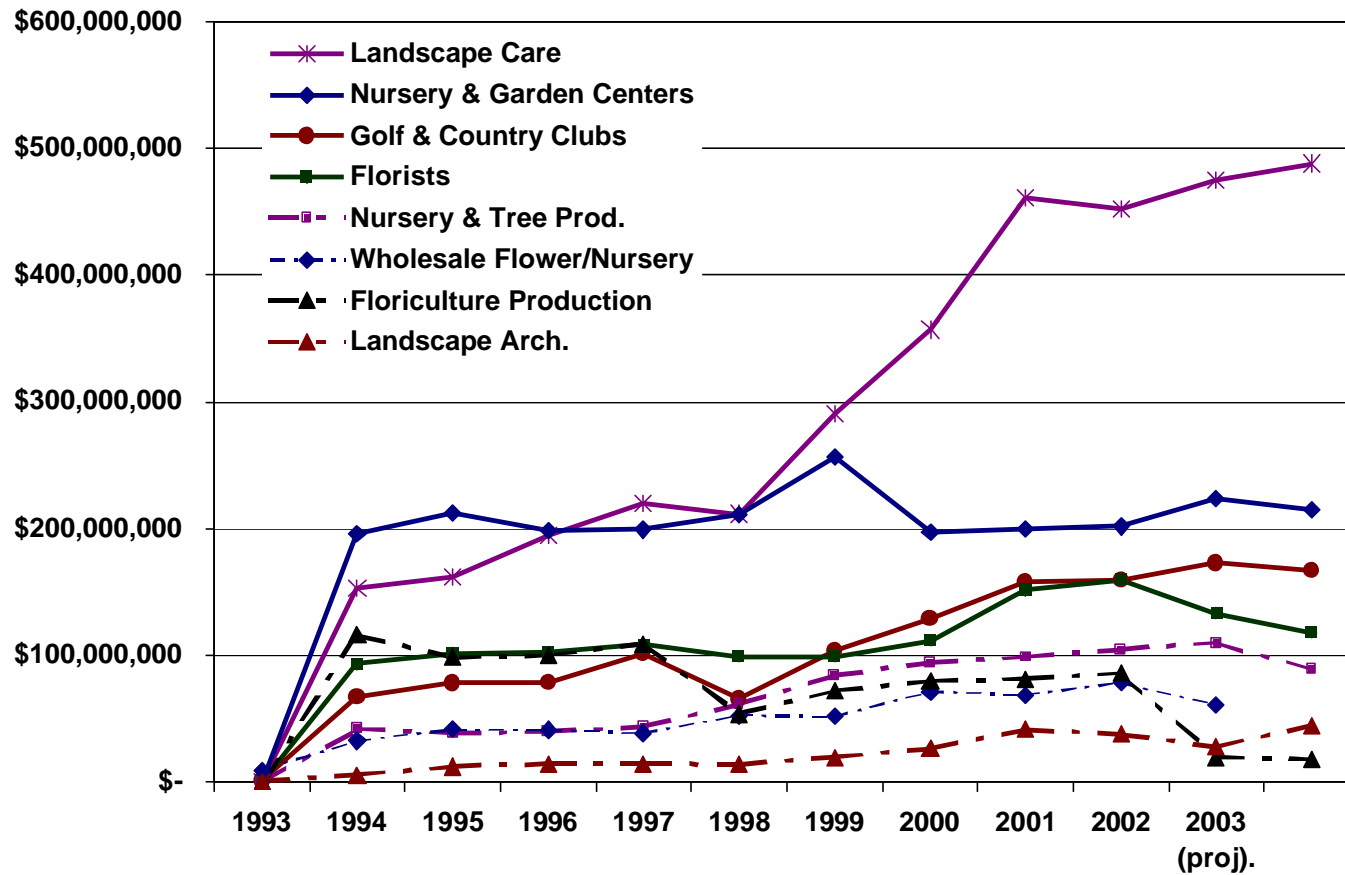


Figure 4

Sectoral Revenue/Sales Trends, 1993-2003 (projected)



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Figure 5

Green Industry Employment and Payroll 1994-2003 (projected)

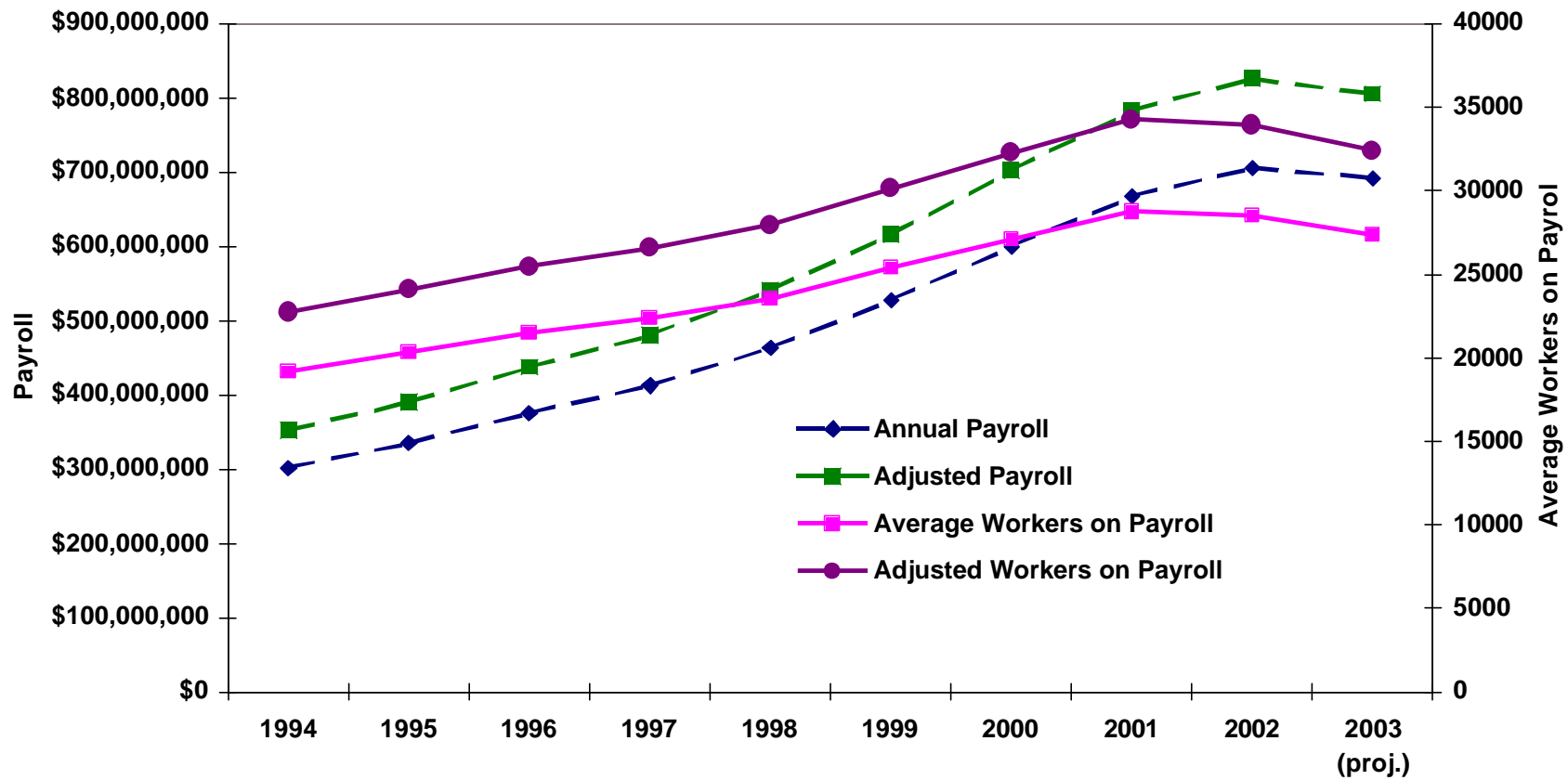


Figure 6: Green Industry Workers, by Sector, 2002

**2002 Sector Employment: 33,937 workers
(average part- and full-time jobs)**

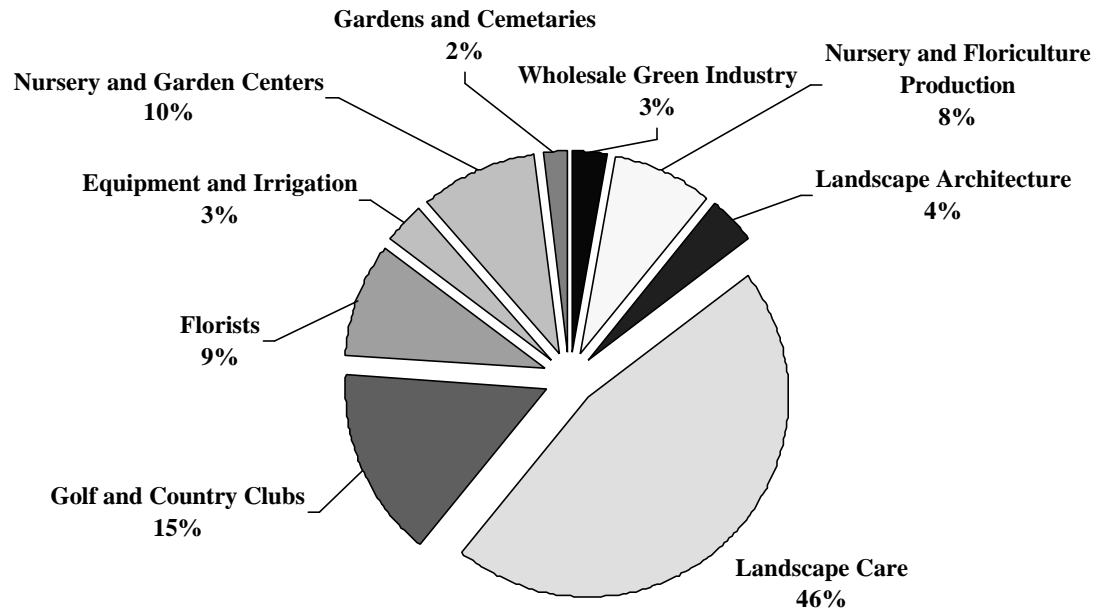


Figure 7: Green Industry Payroll, by Sector

2002 Payroll by Sector: \$825.5 million

