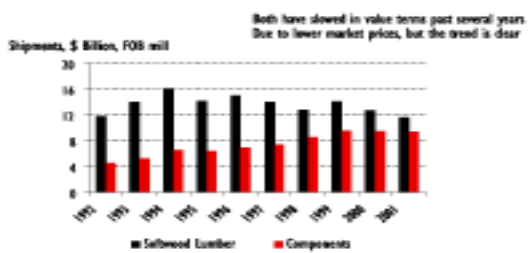


### Economic Environment

#### The Factory Built Components Industry Is Almost as Large as the Softwood Lumber Industry by Al Schuler

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##### U.S. Shipments: Softwood Lumber versus Residential Components\*



\*Components used by the housing industry, as defined in Table 1. Excludes components used by FBO code manufacturing firms.

Source: U.S. Census

FIGURE 1.

The building components industry is growing for a variety of good reasons, as noted in the March and May 2002 issues of SBC Magazine. More recently, Craig Adair, Director of Market Research for APA-The Engineered Wood Association and I discussed homebuilding trends with marketing executives from some of the largest North American forest products industry companies. An article summarizing the executives' assessments appeared in Spring 2003 issue of APA's The Engineered Wood Journal. Our discussions were centered on four subjects—labor shortages, jobsite waste, builder consolidation and componentization, and how these trends may impact the industry in the future. The executives agreed the

current labor shortages will continue; jobsite waste, although not good, is not yet a major problem for most regions; consolidation is happening among homebuilders; and componentization is accelerating and is being driven by the other three trends. Related to these issues, the executives suggested that builders are pushing for more “installed sales” beyond just windows and doors. In fact, some are asking pro dealers for installed floor systems and complete framing packages. The survey suggested that builders want to spend more effort on financing and customer relations, and less on finding and training jobsite labor. Finally, the executives suggested that the trend toward industrialization means the components industry will become more influential in encouraging primary mills into better quality and semi-finished components. For example, better drying and precision cut parts with tighter tolerances.

Table 1. Trends in Shipments of Structural Wood Building Components and Prefabricated Buildings (million \$, FOB mill)	1996	1998	2000	2001
Wood Trusses (NAICS 321214)	\$4,225	\$3,953	\$4,372	\$4,215
Engineered Wood members*(321213)	**	1,501	1,722	1,835
Total Trusses & EWP's	\$4225	\$5,454	\$6,094	\$6,050
Prefabricated wood buildings(321992)	2,715	3,084	3,354	3,336
Precut pkgs (log homes, etc)	433	671	612	532

Panelized form (full wall units)	491	518	561	597
Modular	900	1,219	1,525	1,560
Components, other prefab bldg	991	675	656	646
Total	\$6,940	\$8,538	\$9,448	\$9,386
Softwood Lumber (3211133)	\$15,050	\$12,760	\$12,650	\$11,600

\* includes LVL, I-Joists, glulam, etc. Source: U.S. Census 2001 ASM (AS) - 2

\*\* In 1997, Census switched from SIC code designation to NAICS. At that time, engineered wood products and wood trusses were identified separately. Prior to 1997, engineered wood members and trusses were combined under the old SIC code: 2439

<b>Table 2. Site-Built Demand* for Factory-Built Housing Components (Million dollars)</b>	1992	1996	2001	2006	2011
Total** Factory-Built Component Demand	6230	10350	13050	16900	22550
Factory-Built Comp. for Site-Built only	4950	7590	10600	12850	17100
Roof trusses	3355	4900	6315	7040	8620
Floor trusses	445	745	1135	1500	2050
Walls & Partitions	450	775	1345	1780	2590
I-Joists	135	310	555	900	1460
All Others	565	860	1250	1630	2380

\* demand equals U.S. shipments plus imports minus exports, all valued at the manufacturers level (does not reflect any retail or distributor mark-ups, but includes delivery costs) \*\* total demand includes demand by prefabricated housing (HUD code,, precut, modular, and panelized housing), plus demand by site-built or stick built housing (Source: Table IV-3 in "Factory Built Housing Components." Study prepared by The Freedonia Group, Inc., 767 Beta Drive, Cleveland, OH. For further details on this report, contact Corrine Gangloff at 440/684-9600.)

## THE COMPONENTS INDUSTRY: SIZE AND TRENDS

This article will focus on the market for factory built wood components by the conventional housing sector. We will not address, in the same degree of detail, structural component demand by the manufactured or HUD code housing sector, or demand for non-wood factory-built components although the recent Freedonia Group's study addresses both subjects (Table 2). The

wood components industry is large, and according to data from the U.S. Census, domestic shipments have increased almost 40 percent since 1996 while the value of softwood lumber shipments has fallen 23 percent during the same period (Table 1). In Figure 1, we compare softwood lumber (NAICS 32111133) with structural wood building components (on a domestic shipments basis). Based on value of shipments, one can see that the domestic wood component industry is almost as large as the softwood lumber industry. This is due to the fact that the value of component shipments has doubled over the past decade while domestic softwood lumber shipments have remained constant. There have been ups and downs, but value of lumber shipments today is about the same as they were a decade earlier. Before long, the components industry should eclipse the size of the primary softwood industry.

## **OUTLOOK BY THE FREEDONIA GROUP'S SURVEY**

We can't compare, per se, the Freedonia outlook to Census data in Figure 1 and Table 1 for several reasons. First, Freedonia's analysis is at the demand level (demand equals domestic shipments plus imports minus exports), while Census data in Table 1 and Figure 1 are shipments only. Secondly, Freedonia addresses residential markets only while the Census data includes a small amount of wood components used in non-residential buildings. Thirdly, Freedonia includes non-wood factory-built components such as light gauge steel framing, while the Census data includes only wood components. Finally, the goal of using both is to confirm trends. Table 2 outlines the Freedonia Group's total demand forecast for factory-built components in prefabricated housing (HUD code, panelized, precut, and modular) and site-built/stick-built housing combined, along with a detailed forecast for components used solely in site-built housing. The outlook suggests that demand for components by the site-built housing sector will increase by 3.9 percent annually over the next decade. Factors driving demand are similar to what we have mentioned in earlier issues of SBC, and in the introduction to this article.

## **CONCLUDING THOUGHTS**

The factory-built components industry will keep growing, continuing to outpace the softwood lumber industry, as it now exists. Some important issues will accompany this growth. One issue is how will components get to the homebuilder in the future? What sort of distribution channels will evolve? Who will be the dominant distributor? Pro-yards, large do-it-yourself players like Home Depot and Lowe's, or large existing component manufacturers like Universal Forest Products, Inc.; Truss way, Ltd.; Builders First Source; Stock Components; BMC West Corporation; 84 Components; Wickets Components; Stark Truss Company, Inc.; United Building Centers; and Carpenter Contractors of America. Will larger framing contractors or builders make more of their own components if no one else steps up to the plate? Secondly, what are the implications for the primary and sawmill industry? Will primary processors align themselves more closely with component manufacturers by producing better quality products (perhaps seasoned to customer needs and not simply grading rules), and maybe producing semi-manufactured components like precut or high precision parts?

These same issues are being faced by the non-structural components industry that supplies our domestic furniture and kitchen cabinet manufacturers. The business relationship between primary hardwood lumber mills, component manufacturers and the furniture/cabinet industry is in a process of evolution, akin to the evolutionary process (lean manufacturing, just in time

supply, etc.) experienced by the auto industry over the past two decades. Today's auto industry "assembles" autos from components, often delivered just hours before use. The drivers are familiar—reduce labor costs, reduce waste, help your customer deal with problems, and so on. Today's domestic furniture industry is being inundated by inexpensive imports from China and elsewhere (Sweden's Ikea for example) and many believe they will have to adopt a "new business model" if they are going to survive. Components and outsourcing are an integral part of this paradigm shift. The auto industry and the furniture industry, like the housing industry, want to focus on profitability and customer satisfaction, spending less time on the "nuts and bolts" of manufacturing.

There are opportunities for the primary industry if they align themselves properly with the right partners, understand intimately who their customers truly are and then focus thoroughly on serving their specific targeted customer's needs to help them refine their products and manufacturing processes for improved profitability for both companies. Obviously, this process also applies to component manufacturers as they serve builders/contractors/framers. For those who do their homework and in particular focus on serving their specific customer's needs, the end result will be a more profitable business environment. This includes the primary industry, components industry and homebuilders.

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Publisher's Note: The numbers presented in this article are consistent with numbers presented previously in the [August 2001](#) and [May 2002](#) issues of SBC Magazine. They are not strictly compar-able due to differences in valuation basis.

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