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# The 2005 Harvard University Residential Building Supply in Transition Survey

Division-Level Builder Survey

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## JOINT CENTER FOR HOUSING STUDIES

Harvard Design School • John F. Kennedy School of Government • Harvard University



Prepared by Abt Associates, Inc. for the Harvard Distribution Study.

### **Additional Information**

The survey will take you approximately 20 minutes to complete per section. Although your participation in the survey is entirely voluntary, we strongly encourage you to participate. There are no job-related or other consequences for not participating. You may also choose to answer some questions on the survey and not others—although we urge you to complete as many questions as possible. Your answers to these questions will be combined with dozens of other companies and the resulting information will be grouped together when used to write reports. All individual identifying information will be kept confidential and used only by persons on the research team.

**Instructions**

Unless otherwise noted, your responses should reflect your location’s experiences during the **2004** fiscal year.

You are sometimes asked to skip over some questions in the survey. When this happens, you will see an arrow with a note that tells you what question to answer like this:

- <sub>1</sub> Yes
- <sub>2</sub> No → Skip to E4

This survey is divided into four sections. It can be completed all at once, or by section. You may find it helpful for different members of your organization to complete different sections. We present some guidelines below, should you choose to complete the survey by section type.

- A. Company Background Information.** This section provides an overview of operations, describes the types of homes built, and how these operations compare with practices from five years ago. This section is best completed by your division’s president or chief financial executive.
- B. Land and Subcontracting.** This section describes subcontracting and subcontractor relations. It is best completed by the person coordinating subcontracting activities or field operations at your division.
- C. Supply Chain Management.** This section describes your supplier relations, supplier services, and purchasing activities. It is best completed by the person handling product purchasing for your division.
- D. Information Technology / Information Practices.** This section is best completed by either the head of information technology or by the chief financial executive of your division.

**A. Background Information for this Business Unit**

Please answer the questions on this survey for your construction activities at this location (business unit) only.

A1. How many employees were on your company’s payroll at this location as of December 2004 in each of the following areas:

<b>Employee Type:</b>	<b>Enter # below...</b>
a. on-site production/construction (including supervision)	# _____
b. sales and marketing	# _____
c. product and materials purchasing	# _____
d. land assembly and entitlement	# _____
e. general administration	# _____
f. other (Please Specify:) _____	# _____
Total employees on payroll as of December, 2004	# _____

A2. Approximately, how many employees in total did this location have on payroll at the end of fiscal year 1999?

# \_\_\_\_\_

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A3. What were total sales for your company at this location? How many housing units were sold?

	Enter number for each row below ...	
	in dollars (millions)	in housing units sold
a. in fiscal year 2004?	\$ _____	# _____
b. in fiscal year 1999?	\$ _____	# _____

A4. Approximately what share of single-family homes sold at this location in fiscal years 2004 and 1999 were **speculative** (your company initiated the construction, and the home was sold during or after construction) vs. **presold** (the home was presold before construction began)?

Approximate Share of homes that were...	Insert % below...	
	2004	1999
a. Speculative- not presold before beginning construction	____%	____%
b. Presold- before beginning construction	____%	____%
c. Other (Please Specify) _____	____%	____%
<b>Shares should total:</b>	<b>100%</b>	<b>100%</b>

A5. Please describe the areas served out of this office.

\_\_\_\_\_

\_\_\_\_\_

A6. Which single-family housing market segments did this location actively target in fiscal year 2004? For each segment selected in column A:

- What was the approximate average sales price for home you sold in each of these segments in 2004?
- What share of all homes sold at this location in 2004 was in this segment?

	A. Target segment (Check all that apply)	If target segment, answer items below for each ...	
		B. Average sales price for this type of home in 2004	C. % of all homes sold by your company in 2004
a. Entry-level/first-time buyer	<input type="checkbox"/>	\$ _____	____%
b. First move-up	<input type="checkbox"/>	\$ _____	____%
c. High-end/upper-income/luxury	<input type="checkbox"/>	\$ _____	____%
d. Second home/vacation home	<input type="checkbox"/>	\$ _____	____%
e. Retirement/seniors	<input type="checkbox"/>	\$ _____	____%
f. Assisted	<input type="checkbox"/>	\$ _____	____%
g. Other (Please Specify) _____	<input type="checkbox"/>	\$ _____	____%

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A7. How much land, in years, does your company currently **own outright** at this location, given your projected production levels?

Years # \_\_\_\_\_ (include decimal points as necessary)

Don't own land / less than one month supply

A8. For how much land, in years, does your company currently **have options for or otherwise control**, given your projected production levels?

Years # \_\_\_\_\_ (include decimal points as necessary)

Don't have options for or otherwise control / less than one month supply

A9. In general, for the homes you build, how much time is required for the activities listed below? (Note: The timing of some of these practices may overlap).

	Fill in for each row below...	
	# of Months (include decimals if necessary)	N/A
a. subdividing and entitlement.	# _____	<input type="checkbox"/>
b. site preparation.	# _____	<input type="checkbox"/>
c. site improvement (including utilities).	# _____	<input type="checkbox"/>
d. Other (Please Specify: ) _____	# _____	<input type="checkbox"/>

A10. Given your responses to the question above, what is the typical **total** time, in months, for the **pre-construction** process (i.e. from the decision to build until the slab or basement is poured)?

Months # \_\_\_\_\_ (include decimal points as necessary)

A11. Have land acquisition strategies at your company substantially changed in recent years?

Yes

No →Skip to A12

A11a. (If yes:) How have land acquisition strategies at your company changed in recent years?

(Check all that apply)

Increased land development activities by our company

Decreased land development activities by our company

Increased land inventory (all types)

Decreased land inventory (all types)

Increased participation in land-related joint ventures

Greater reliance on off-balance sheet arrangements

Greater reliance on options

Other (Please Specify) \_\_\_\_\_

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A12. For your 2004 homebuilding expenses at this location, please allocate the approximate share that was devoted to the following items:

	<b>Enter Percent below...</b>
a. On-site labor on payroll of your company	____ %
b. Payments to subcontractors (include materials that subcontractors purchase directly)	____ %
c. Products and materials purchased by you	____ %
d. Sales and marketing	____ %
e. Corporate overhead	____ %
f. Land purchase	____ %
g. Land development/entitlement/preparation	____ %
h. Financing	____ %
i. Other (Please Specify:)	____ %

**Shares should total: 100%**

A13. In fiscal year 2004, what was your company's annual average cost of money borrowed (i.e. average annual interest rate for all company debt)?

Average cost of borrowing (bank borrowing and other debt) = \_\_\_\_ . \_\_\_\_%

Not applicable/ didn't borrow in fiscal year 2004

A14. (For publicly traded companies only) In fiscal year 2004, what was your company's annual average cost of capital (i.e. average cost of debt and equity financing)?

Average cost of capital (debt and equity) = \_\_\_\_ . \_\_\_\_%

Not applicable

A15. In fiscal years 1999 and 2004, what is your best estimate of your company's net income (profit), before taxes, as a share of total revenue?

(Please consider net income as total revenue -- sales of homes, land, and other revenue -- minus all operating costs, including but not limited to: land, direct and indirect construction costs, sales and marketing, and overhead.)

2004 net income (profit) before taxes = \_\_\_\_ . \_\_\_\_% **of revenue**

1999 net income (profit) before taxes = \_\_\_\_ . \_\_\_\_% **of revenue**

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A16. Please rank the importance of each of the following in terms of **profitability** at your company over the past 5 years, on a 1 to 7 scale, with 1 being the most important and 7 being the least important.

Rank	(1 = most important; 7 = least important)
___	More efficient/successful land assembly strategy
___	Savings in purchases of building products
___	Savings in on-site construction costs; callbacks
___	Improved customer perception/customer satisfaction
___	Increased margins in our home sales prices due to stronger market conditions
___	Increased use of information technology and web based systems
___	Reduction in construction cycle time
	Other (Please Specify) _____ (* "other" should not be ranked)

A17. Did you serve the **Entry-level/ first-time buyer** market in 2004?

- Yes  
 No → Skip to A21

A18. Please **estimate** how well your location performed along the following dimensions for the **Entry-level/ first-time** homes you built in **2004**:

	Complete items below...
a. Average Construction Cycle-time (days)	___ days
b. Average Gross Margin(%)	___ . ___%
c. Average Construction cost /sq. ft. – excluding basement, slab, and land.	\$ ___ /sq. ft
d. Customer Satisfaction (Willingness to Recommend)	___%
e. Typical number of models made available to a customer?	# _____
f. Approximate number of structural/floor layout options available, within a given model, made available to a customer?	# _____

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A19. For each of the following product categories, please estimate the typical number of product options offered to customers within a given housing market segment (for a given model, and a given layout option) for the **Entry-level/ first-time** homes you built in **2004**.

<b>Product Categories</b>	<b>2004 Entry-level/first-time buyer</b>
a. Interior doors and other interior millwork	# _____
b. Kitchen/ bathroom cabinets	# _____
c. Windows	# _____
d. Siding (all types)	# _____
e. Roofing (all types)	# _____
f. Plumbing fixtures	# _____
g. Electrical fixtures	# _____
h. HVAC	# _____
i. Appliances	# _____
j. Interior paint options	# _____

A20. What is the difference between the average sales price and the base price of a home, as a percent of the base price, for your **Entry-level/first-time buyer** homes (for a given model and a given layout option)?

Enter % (average options package price / base price) \_\_\_\_\_%

A21. Did you serve the **Entry-level/first-time** buyer market in **1999**?

- Yes
- No → Skip to A24

A22. In **1999**, please **estimate** how well your location performed along the following dimensions for the **Entry-level/ first-time** homes you built:

	<b>Complete items below...</b>
a. Average Construction Cycle-time (days)	_____ days
b. Average Gross Margin(%)	____ . ____%
c. Average Construction cost /sq. ft. – excluding basement, slab, and land.	\$ _____/sq.ft
d. Customer Satisfaction (Willingness to Recommend)	_____%
e. Typical number of models made available to a customer?	# _____
f. Approximate number of structural/floor layout options available, within a given model, made available to a customer?	# _____

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A23. Please estimate the number of product options you typically offered five years ago for the **Entry-level/ first-time** homes you built in **1999**.

<b>Product Categories</b>	<b>1999 Entry-level/first-time buyer</b>
a. Interior doors and other interior millwork	# _____
b. Kitchen/ bathroom cabinets	# _____
c. Windows	# _____
d. Siding (all types)	# _____
e. Roofing (all types)	# _____
f. Plumbing fixtures	# _____
g. Electrical fixtures	# _____
h. HVAC	# _____
i. Appliances	# _____
j. Interior paint options	# _____

A24. Did you serve the **First move-up** buyer market in **2004**?

- Yes  
 No → Skip to A29

A25. Please **estimate** how well your location performed along the following dimensions for the **First move-up** homes you built in **2004**:

	<b>Complete items below...</b>
a. Average Construction Cycle-time (days)	_____ days
b. Average Gross Margin(%)	____ . ____%
c. Average Construction cost /sq. ft. – excluding basement, slab, and land.	\$ _____/sq.ft
d. Customer Satisfaction (Willingness to Recommend)	_____%
e. Typical number of models made available to a customer?	# _____
f. Approximate number of structural/floor layout options available, within a given model, made available to a customer?	# _____

A26. For each of the following product categories, please estimate the typical number of product options offered to customers within a given housing market segment (for a given model, and a given layout option) for the **First move-up** homes you built in **2004**.

<b>Product Categories</b>	<b>2004 – First move-up buyer</b>
a. Interior doors and other interior millwork	# _____
b. Kitchen/ bathroom cabinets	# _____
c. Windows	# _____
d. Siding (all types)	# _____



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A27. For each of the following product categories, please estimate the typical number of product options offered to customers within a given housing market segment (for a given model, and a given layout option) for the **First move-up** homes you built in **2004**.

<b>Product Categories</b>	<b>2004 – First move-up buyer</b>
e. Roofing (all types)	# _____
f. Plumbing fixtures	# _____
g. Electrical fixtures	# _____
h. HVAC	# _____
i. Appliances	# _____
j. Interior paint options	# _____

A28. What is the difference between the average sales price and the base price of a home, as a percent of the base price, for your **First move-up** homes (for a given model and a given layout option)?

Enter % (average options package price / base price) \_\_\_\_\_%

A29. Did you serve the **First move-up** buyer market in **1999**?

- Yes
- No → Skip to B1

A30. In **1999**, please **estimate** how well your location performed along the following dimensions for the **First move-up** homes you built:

	<b>Complete items below...</b>
a. Average Construction Cycle-time (days)	_____ days
b. Average Gross Margin(%)	____ . ____%
c. Average Construction cost /sq. ft. – excluding basement, slab, and land.	\$_____/sq.ft
d. Customer Satisfaction (Willingness to Recommend)	_____%
e. Typical number of models made available to a customer?	# _____
f. Approximate number of structural/floor layout options available, within a given model, made available to a customer?	# _____

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A31. Please estimate the number of product options you typically offered five years ago for the **First move-up** homes you built in **1999**.

Product Categories	1999 First move-up
a. Interior doors and other interior millwork	# _____
b. Kitchen/ bathroom cabinets	# _____
c. Windows	# _____
d. Siding (all types)	# _____
e. Roofing (all types)	# _____
f. Plumbing fixtures	# _____
g. Electrical fixtures	# _____
h. HVAC	# _____
i. Appliances	# _____
j. Interior paint options	# _____

**B. Labor and Subcontracting**

This section asks about the coordination of labor and subcontractors on homes built by your location. Please complete this section for this location/business unit only ...

B1. Please estimate the number of personnel at this location in 2004 and 1999 that you had on your payroll (not subcontractors) in the following positions.

	Fill in number below...	
	2004	1999
a. On-site sales representatives and administrative	# _____	# _____
b. Construction managers / superintendents	# _____	# _____
c. Carpenters and helpers—Framing	# _____	# _____
d. Carpenters and helpers—Finish	# _____	# _____
e. Electricians	# _____	# _____
f. Plumbers	# _____	# _____

B2. If you currently directly hire any on-site construction workers for any of the activities listed under B1b-B1f, please indicate the **primary reason** why your division chooses to directly hire these workers rather than use subcontractors. (Choose only one).

- Cost
- Quality of work performed
- Advantages of scale
- Risk reduction
- Other (Please Specify:) \_\_\_\_\_

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B3. Please estimate the number of subcontracting firms your company hired to undertake work on homes your division built in fiscal year 2004.

	<b>Total # of sub-contracting firms in 2004</b>	<b>% of work by top 3 subcontracting firms in 2004</b>
a. Construction managers / superintendents	# _____	_____ %
b. Carpenters and helpers—Framing	# _____	_____ %
c. Carpenters and helpers—Finish	# _____	_____ %
d. Electricians	# _____	_____ %
e. Plumbers	# _____	_____ %
f. Bricklayers / masons / tile setters	# _____	_____ %

**Note: These items do not need to total at 100%, but the column should not exceed 100%.**

B4. Please estimate the number of subcontracting firms your company hired to undertake work on homes your division built in fiscal year 1999.

	<b>Total # of sub-contracting firms in 1999</b>	<b>% of work by top 3 subcontracting firms in 1999</b>
a. Construction managers / superintendents	# _____	_____ %
b. Carpenters and helpers—Framing	# _____	_____ %
c. Carpenters and helpers—Finish	# _____	_____ %
d. Electricians	# _____	_____ %
e. Plumbers	# _____	_____ %
f. Bricklayers / masons / tile setters	# _____	_____ %

**Note: These items do not need to total at 100%, but the column should not exceed 100%.**

B5. For a typical home built at this location, please indicate the breakdown of construction costs in the following categories for fiscal year 2004 (direct costs of building a home on a site and not including overhead, land, and sales costs, etc.).

<b>In 2004...</b>	<b>Enter % of total construction costs to the builder below...</b>	
	<b>Entry / First-time buyer</b>	<b>First move-up</b>
a. Site preparation	_____ %	_____ %
b. Foundation construction	_____ %	_____ %
c. Framing carpentry	_____ %	_____ %
d. Finish carpentry (including cabinetry)	_____ %	_____ %
e. Electrical	_____ %	_____ %
f. Plumbing	_____ %	_____ %
g. Brick, masonry, and tile	_____ %	_____ %

**Note: These items do not need to total at 100%, but the column should not exceed 100%.**

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B6. For a typical home built at this location, please indicate the breakdown of construction costs in the following categories for fiscal year 1999 (direct costs of building a home on a site and not including overhead, land, and sales costs).

In 1999...	Enter % of total construction costs to the builder below...	
	Entry / First-time buyer	First move-up
a. Site preparation	_____ %	_____ %
b. Foundation construction	_____ %	_____ %
c. Framing carpentry	_____ %	_____ %
d. Finish carpentry (including cabinetry)	_____ %	_____ %
e. Electrical	_____ %	_____ %
f. Plumbing	_____ %	_____ %
g. Brick, masonry, and tile	_____ %	_____ %

**Note: These items do not need to total at 100%, but the column should not exceed 100%.**

B7. For a typical home built by your company, please indicate the approximate number of days actively spent on each phase of construction from the beginning to the end of that phase in each of the following categories for fiscal year 2004. Please provide the approximate on-site duration of activities in each phase, not the actual level of effort for that activity. Note: these activities may overlap during construction.

In 2004...	Fill in Number of Days for completion of activity in 2004 below ...	
	Entry / First-time buyer	First move-up
a. Site preparation	# _____	# _____
b. Foundation construction	# _____	# _____
c. Framing carpentry	# _____	# _____
d. Finish carpentry (including cabinetry)	# _____	# _____
e. Electrical	# _____	# _____
f. Plumbing	# _____	# _____
g. Brick, masonry, and tile	# _____	# _____

B8. For a typical home built by your company, please indicate the approximate number of days actively spent on each phase of construction from the beginning to the end of that phase in each of the following categories for fiscal year 1999. Please provide the approximate on-site duration of activities in each phase, not the actual level of effort for that activity. Note: these activities may overlap during construction.

In 1999 ...	Fill in Number of Days for completion of activity in 1999 below ...	
	Entry / First-time buyer	First move-up
a. Site preparation	# _____	# _____
b. Foundation construction	# _____	# _____
c. Framing carpentry	# _____	# _____
d. Finish carpentry (including cabinetry)	# _____	# _____
e. Electrical	# _____	# _____
f. Plumbing	# _____	# _____
g. Masonry & tile	# _____	# _____

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B9. For each item below, estimate whether the amount of time on-site spent for each activity has significantly increased or decreased since 1999.

Since 1999 time spent has ...	Check one box below for each item ...		
	Increased	Decreased	No change
a. Site preparation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Foundation construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Framing carpentry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Finish carpentry (including cabinetry)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Electrical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Plumbing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Masonry & tile	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Total Cycle Time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B10. Who has primary responsibility for **coordination of labor** including handling disputes among subcontractors at a home building site? (Check only one).

- Home builder
- Developer (other than home builder)
- Architect
- General contractor / construction manager subcontractor hired by homebuilder
- Building products distributor (e.g. lumber dealer)
- Other party (Please Specify: ) \_\_\_\_\_

B11. Of the subcontractors you hire, are they paid for labor and materials, or labor only? (Check the box that most accurately captures the practice of your division / market).

	Basis of price paid to subcontractor...	
	Check one per row below...	
	Labor and materials	Labor only
a. Construction managers / superintendents	<input type="checkbox"/>	<input type="checkbox"/>
b. Carpenters and helpers—Framing	<input type="checkbox"/>	<input type="checkbox"/>
c. Carpenters and helpers—Finish	<input type="checkbox"/>	<input type="checkbox"/>
d. Electricians	<input type="checkbox"/>	<input type="checkbox"/>
e. Plumbers	<input type="checkbox"/>	<input type="checkbox"/>
f. Bricklayers / masons / tile setters	<input type="checkbox"/>	<input type="checkbox"/>

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B12. In what way is work usually awarded to your subcontractors? (Check the box that most accurately captures the practice of your division / market).

	Method of awarding work to subcontractors...			
	Check one per row below...			
	An open competitive bid system	Competitive bids among a group of selected subcontractors	Independent subcontractors already affiliated with homebuilder	Captive subcontractors (e.g. partially or wholly owned by builder)
a. Construction managers / superintendents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Carpenters and helpers—Framing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Carpenters and helpers—Finish	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Electricians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Plumbers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Bricklayers / masons / tile setters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B13. What issues, after price, are most important in awarding work to subcontractors? Please rank the following criteria for each type of subcontractor, from most important (1) to least important (6).

	For each row, rank the following categories from 1 – 6 ...						N/A
	Overall quality of work completed	Ability to meet project deadlines	Prior experience with the subcontractor	Ability to install products on schedule	Knowledge of / competency about products installed	Provide service to homeowner after home is completed	
a. Construction managers / superintendents	_____	_____	_____	_____	_____	_____	<input type="checkbox"/>
b. Carpenters and helpers—Framing	_____	_____	_____	_____	_____	_____	<input type="checkbox"/>
c. Carpenters and helpers—Finish	_____	_____	_____	_____	_____	_____	<input type="checkbox"/>
d. Electricians	_____	_____	_____	_____	_____	_____	<input type="checkbox"/>
e. Plumbers	_____	_____	_____	_____	_____	_____	<input type="checkbox"/>
f. Bricklayers / masons / tile setters	_____	_____	_____	_____	_____	_____	<input type="checkbox"/>

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B14. Does your company provide **workers compensation insurance** (e.g. under an umbrella policy) to any of the following subcontractors? For each type, indicate: always or usually; sometimes; rarely or never.

Workers compensation provided...	Check one below for each row...		
	Always / usually	Sometimes	Rarely /Never
a. Construction managers / supervisors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Carpenters and helpers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Electricians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Plumbers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Bricklayers / masons / tile setters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B15. Does your company provide **training on skills, building procedures, or other construction-related issues** to any of the following subcontractors? For each type, indicate: always or usually; sometimes; rarely or never.

Skills training provided...	Check one below for each row...		
	Always / usually	Sometimes	Rarely / Never
a. Construction managers / supervisors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Carpenters and helpers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Electricians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Plumbers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Bricklayers / masons / tile setters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B16. Does your company provide **training on product or material installation** to any of the following subcontractors? For each type, indicate: always or usually; sometimes; rarely or never.

Product training provided...	Check one below for each row...		
	Always / usually	Sometimes	Rarely / Never
a. Construction managers / supervisors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Carpenters and helpers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Electricians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Plumbers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Bricklayers / masons / tile setters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B17. Does your company provide **training on safety, health, hazardous material handling** to any of the following subcontractors? For each type, indicate: always or usually; sometimes; rarely or never.

Safety training provided...	Check one below for each row...		
	Always/ usually	Sometimes	Rarely/ Never
a. Construction managers / supervisors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Carpenters and helpers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Electricians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Plumbers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Bricklayers / masons / tile setters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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B18. How much of a problem is it finding an adequate **supply of skilled workers** (subcontractor or payroll) for each of the following types of construction trades?

	Check one below for each row...		
	Very difficult to find.	Somewhat difficult to find.	Not difficult to find.
a. Construction managers / supervisors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Carpenters and helpers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Electricians	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Plumbers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Bricklayers / masons / tile setters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

B19. Please indicate how important a problem each of the following issues are for **your company** at this location in regards to the workforce employed by your subcontractors / the workforce you directly employ.

	Check one box below for each row...		
	Not a problem	Minor problem	Major problem
a. Workers compensation costs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Ability to communicate with the workforce (language barriers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Health and safety at the workplace	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Cost of pension coverage for workers on the job site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Cost of health coverage for workers on the job site	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**C. Supply Chain Management**

The next series of questions ask about suppliers and supplier services for a few products used in your home building operations. Please complete this section for this location/business unit only.

C1. What type of distributor is your principal supplier of **OSB/ plywood/ sheathing**? (Check one)

- Lumber / building material dealer
- Specialty dealer – (offers focused product offerings)
- Wholesale distributor (offering 1-step and 2-step distribution)
- Direct from manufacturer
- Subcontractor provides
- Other (Please Specify:) \_\_\_\_\_

C2. What type of distributor is your principal supplier of **wallboard**? (Check one)

- Lumber / building material dealer
- Specialty dealer – (offers focused product offerings)
- Wholesale distributor (offering 1-step and 2-step distribution)
- Direct from manufacturer
- Subcontractor provides
- Other (Please Specify:) \_\_\_\_\_



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- C3. What type of distributor is your principal supplier of **siding** (all types of materials)? (Check one)
- Lumber / building material dealer
  - Specialty dealer – (offers focused product offerings)
  - Wholesale distributor (offering 1-step and 2-step distribution)
  - Direct from manufacturer
  - Subcontractor provides
  - Other (Please Specify:) \_\_\_\_\_
- C4. What type of distributor is your principal supplier of **windows**? (Check one)
- Lumber / building material dealer
  - Specialty dealer – (offers focused product offerings)
  - Wholesale distributor (offering 1-step and 2-step distribution)
  - Direct from manufacturer
  - Subcontractor provides
  - Other (Please Specify:) \_\_\_\_\_
- C5. Did you check **Lumber/building material dealers** as a principal supplier for any of these product categories (i.e. OSB / plywood / sheathing; wallboard; siding; windows)?
- Yes
  - No → Skip to C14
- C6. (If yes: ) In the next section, please indicate which of the following services are provided by **Lumber/building material dealers**, whether you are charged separately for that service, and how you would rate the value of each service provided.
- Is **delivery to job site** offered by Lumber/building material dealers?
- Yes
  - No → Skip to C8
- C6a. (if yes: ) Are you charged separately for **delivery to job site**?
- Yes
  - No
  - N/A – don't use this service → Skip to C7
- C6b. How would you rate the value of the **delivery to job site**?
- High
  - Medium
  - Low
  - No value
- C7. Is **next-day or same-day delivery** of materials offered by Lumber/building material dealers?
- Yes
  - No → Skip to C8
- C7a. (if yes: ) Are you charged separately for **next-day or same-day delivery** of materials?
- Yes
  - No
  - N/A – don't use this service → Skip to C8

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C7b. How would you rate the value of the **next-day or same-day delivery** of materials?

- High
- Medium
- Low
- No value

C8. Is **helping to resolve product disputes with customers** offered by Lumber/building material dealers?

- Yes
- No → Skip to C9

C8a. (if yes: ) Are you charged separately for **helping to resolve product disputes with customers**?

- Yes
- No
- N/A – don't use this service → Skip to C9

C8b. How would you rate the value of the **helping to resolve product disputes with customers**?

- High
- Medium
- Low
- No value

C9. Are **e-commerce capabilities** (e.g. web-based, EDI) offered by Lumber/building material dealers?

- Yes
- No → Skip to C10

C9a. (if yes: ) Are you charged separately for **e-commerce capabilities**?

- Yes
- No
- N/A – don' use this service → Skip to C10

C9b. How would you rate the value of the **e-commerce capabilities**?

- High
- Medium
- Low
- No value

C10. Is product **installation** offered by Lumber/building material dealers?

- Yes
- No → Skip to C11

C10a. (if yes: ) Are you charged separately for having the installation services offered by lumber / building materials dealers?

- Yes
- No
- N/A – don't use this service → Skip to C11

C10b. How would you rate the value of the **installation**?

- High
- Medium
- Low
- No value

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C11. Is **co-op advertising or marketing support** offered by Lumber/building material dealers?

- Yes
- No → Skip to C12

C11a. How would you rate the value of the **co-op advertising or marketing support**?

- High
- Medium
- Low
- No value
- N/A – don't use this service

C12. Are **training programs for your employees** offered by Lumber/building material dealers?

- Yes
- No → Skip to C13

C12a. (if yes: ) Are you charged separately for **training programs for your employees**?

- Yes
- No
- N/A – don't use this service → Skip to C13

C12b. How would you rate the value of the **training programs for your employees**?

- High
- Medium
- Low
- No value

C13. Are **training programs for your subcontractors** offered by Lumber/building material dealers?

- Yes
- No → Skip to C14

C13a. (if yes: ) Are you charged separately for **training programs for your subcontractors**?

- Yes
- No
- N/A – don't use this service → Skip to C14

C13b. How would you rate the value of the **training programs for your subcontractors**?

- High
- Medium
- Low
- No value

C14. Did you check **Specialty dealers** (offer focused product offerings) as a principal supplier for any of the product categories listed (i.e. OSB / plywood / sheathing; wallboard; siding; windows)?

- Yes
- No → Skip to C23

C15. (If yes: ) In the next section, please indicate which of the following services are provided by **Specialty dealers** (offer focused product offerings), whether you are charged separately for that service, and how you would rate the value of each service provided. Is **delivery to job site** offered by Specialty dealers?

- Yes
- No → Skip to C17

C15a. (if yes: ) Are you charged separately for **delivery to job site?**

- Yes
- No
- N/A – don't use this service → Skip to C16

C15b. How would you rate the value of the **delivery to job site?**

- High
- Medium
- Low
- No value

C16. Is **next-day or same-day delivery** of materials offered by Specialty dealers?

- Yes
- No → Skip to C17

C16a. (if yes: ) Are you charged separately for **next-day or same-day delivery of materials?**

- Yes
- No
- N/A – don't use this service → Skip to C17

C16b. How would you rate the value of the **next-day or same-day delivery of materials?**

- High
- Medium
- Low
- No value

C17. Is **helping to resolve product disputes with customers** offered by Specialty dealers?

- Yes
- No → Skip to C18

C17a. (if yes: ) Are you charged separately for **helping to resolve product disputes with customers?**

- Yes
- No
- N/A – don't use this service → Skip to C18

C17b. How would you rate the value of the **helping to resolve product disputes with customers?**

- High
- Medium
- Low
- No value

C18. Are **e-commerce capabilities:** (e.g. web-based, EDI) offered by Specialty dealers?

- Yes
- No → Skip to C19

C18a. (if yes: ) Are you charged separately for **e-commerce capabilities?**

- Yes
- No
- N/A – don't use this service → Skip to C19

C18b. How would you rate the value of the e-commerce capabilities?

- High
- Medium
- Low
- No value

C19. Is product installation offered by Specialty dealers?

- Yes
- No → Skip to C20

C19a. (if yes: ) Are you charged separately for having the installation services offered by Specialty dealers?

- Yes
- No
- N/A – don't use this service → Skip to C20

C19b. How would you rate the value of the installation?

- High
- Medium
- Low
- No value

C20. Is co-op advertising or marketing support offered by Specialty dealers?

- Yes
- No → Skip to C21

C20a. How would you rate the value of the co-op advertising or marketing support?

- High
- Medium
- Low
- No value

C21. Are training programs for your employees offered by Specialty dealers?

- Yes
- No → Skip to C22

C21a. (if yes: ) Are you charged separately for training programs for your employees?

- Yes
- No
- N/A – don't use this service → Skip to C22

C21b. How would you rate the value of the training programs for your employees?

- High
- Medium
- Low
- No value

C22. Are training programs for your subcontractors offered by Specialty dealers?

- Yes
- No → Skip to C23

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C22a. (if yes: ) Are you charged separately for **training programs for your subcontractors?**  
 Yes  
 No  
 N/A – don't use this service → Skip to C23

C22b. How would you rate the value of the **training programs for your subcontractors?**  
 High  
 Medium  
 Low  
 No value

C23. Did you check **Wholesale distributors** (offering 1-step and 2-step distribution) as a principal supplier for any of the product categories listed (i.e. OSB / plywood / sheathing; wallboard; siding; windows)?  
 Yes  
 No → Skip to C32

C24. (If yes: ) In the next section, please indicate which of the following services are provided by **Wholesale distributors** (offering 1-step and 2-step distribution), whether you are charged separately for that service, and how you would rate the value of each service provided.

Is **delivery to job site** offered by Wholesale distributors?  
 Yes  
 No → Skip to C26

C24a. (if yes: ) Are you charged separately for **delivery to job site?**  
 Yes  
 No  
 N/A – don't use this service → Skip to C25

C24b. How would you rate the value of the **delivery to job site?**  
 High  
 Medium  
 Low  
 No value

C25. Is **next-day or same-day delivery of materials** offered by Wholesale distributors?  
 Yes  
 No → Skip to C26

C25a. (if yes: ) Are you charged separately for **next-day or same-day delivery** of materials?  
 Yes  
 No  
 N/A – don't use this service → Skip to C26

C25b. How would you rate the value of the **next-day or same-day delivery** of materials?  
 High  
 Medium  
 Low  
 No value

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- C26. Is **helping to resolve product disputes with customers** offered by Wholesale distributors?  
 Yes  
 No → Skip to C27
- C26a. (if yes: ) Are you charged separately for **helping to resolve product disputes with customers**?  
 Yes  
 No  
 N/A – don't use this service → Skip to C27
- C26b. How would you rate the value of the **helping to resolve product disputes with customers**?  
 High  
 Medium  
 Low  
 No value
- C27. Are **e-commerce capabilities**: (e.g. web-based, EDI) offered by Wholesale distributors?  
 Yes  
 No → Skip to C28
- C27a. (if yes: ) Are you charged separately for **e-commerce capabilities**?  
 Yes  
 No  
 N/A – don't use this service → Skip to C28
- C27b. How would you rate the value of the **e-commerce capabilities**?  
 High  
 Medium  
 Low  
 No value
- C28. Is product **installation** offered by Wholesale distributors?  
 Yes  
 No → Skip to C29
- C28a. (if yes: ) Are you charged separately for having the installation services offered by Wholesale distributors?  
 Yes  
 No  
 N/A – don't use this service → Skip to C29
- C28b. How would you rate the value of the **installation**?  
 High  
 Medium  
 Low  
 No value
- C29. Is **co-op advertising or marketing support** offered by Wholesale distributors?  
 Yes  
 No → Skip to C30

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- C29a. How would you rate the value of the **co-op advertising or marketing support?**
- High
  - Medium
  - Low
  - No value
  - N/A – don't use this service
- C30. Are **training programs for your employees** offered by Wholesale distributors?
- Yes
  - No → Skip to C31
- C30a. (if yes: ) Are you charged separately for **training programs for your employees?**
- Yes
  - No
  - N/A – don't use this service → Skip to C31
- C30b. How would you rate the value of the **training programs for your employees?**
- High
  - Medium
  - Low
  - No value
- C31. Are **training programs for your subcontractors** offered by Wholesale distributors?
- Yes
  - No → Skip to C32
- C31a. (if yes: ) Are you charged separately for **training programs for your subcontractors?**
- Yes
  - No
  - N/A – don't use this service → Skip to C32
- C31b. How would you rate the value of the **training programs for your subcontractors?**
- High
  - Medium
  - Low
  - No value
- C32. Did you check **direct purchases from manufacturers** as a principal supplier for any of the product categories listed (i.e. OSB / plywood / sheathing; wallboard; siding; windows)?
- Yes
  - No → Skip to C41
- C33. (If yes:) In the next section, please indicate which of the following services are provided by **direct purchases from manufacturers**, whether you are charged separately for that service, and how you would rate the value of each service provided. Is **delivery to job site** offered by Manufacturer direct suppliers?
- Yes
  - No → Skip to C35
- C33a. (if yes: ) Are you charged separately for **delivery to job site?**
- Yes
  - No
  - N/A – don't use this service → Skip to C34



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C33b. How would you rate the value of the **delivery to job site?**

- High
- Medium
- Low
- No value

C34. Is **next-day or same-day delivery** of materials offered by Manufacturer direct suppliers?

- Yes
- No → Skip to C35

C34a. (if yes: ) Are you charged separately for **next-day or same-day delivery** of materials?

- Yes
- No
- N/A – don't use this service → Skip to C35

C34b. How would you rate the value of the **next-day or same-day delivery** of materials?

- High
- Medium
- Low
- No value

C35. Is **helping to resolve product disputes with customers** offered by Manufacturer direct suppliers?

- Yes
- No → Skip to C36

C35a. (if yes: ) Are you charged separately for **helping to resolve product disputes with customers?**

- Yes
- No
- N/A – don't use this service → Skip to C36

C35b. How would you rate the value of the **helping to resolve product disputes with customers?**

- High
- Medium
- Low
- No value

C36. Are **e-commerce capabilities**: (e.g. web-based, EDI) offered by Manufacturer direct suppliers?

- Yes
- No → Skip to C37

C36a. (if yes: ) Are you charged separately for **e-commerce capabilities?**

- Yes
- No
- N/A – don't use this service → Skip to C37

C36b. How would you rate the value of the **e-commerce capabilities?**

- High
- Medium
- Low
- No value

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- C37. Is product **installation** offered by Manufacturer direct suppliers?  
 Yes  
 No → Skip to C38
- C37a. (if yes: ) Are you charged separately for having the installation services offered by Manufacturer direct suppliers?  
 Yes  
 No  
 N/A – don't use this service → Skip to C38
- C37b. How would you rate the value of the **installation**?  
 High  
 Medium  
 Low  
 No value
- C38. Is **co-op advertising or marketing support** offered by Manufacturer direct suppliers?  
 Yes  
 No → Skip to C39
- C38a. How would you rate the value of the **co-op advertising or marketing support**?  
 High  
 Medium  
 Low  
 No value  
 N/A – don't use this service
- C39. Are **training programs for your employees** offered by Manufacturer direct suppliers?  
 Yes  
 No → Skip to C40
- C39a. (if yes: ) Are you charged separately for **training programs for your employees**?  
 Yes  
 No  
 N/A – don't use this service → Skip to C40
- C39b. How would you rate the value of the **training programs for your employees**?  
 High  
 Medium  
 Low  
 No value
- C40. Are **training programs for your subcontractors** offered by Manufacturer direct suppliers?  
 Yes  
 No → Skip to C41
- C40a. (if yes: ) Are you charged separately for **training programs for your subcontractors**?  
 Yes  
 No  
 N/A – don't use this service → Skip to C41

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C40b. How would you rate the value of the training programs for your subcontractors?

- High
- Medium
- Low
- No value

C41. Over the past five years, has the share of your material purchases (across all categories you purchase) increased, remained the same, or decreased for each of the following supplier categories?

	Check one box per row ...			
	Increased	Remained the Same	Decreased	N/A Don't Use
a. Lumber/building material dealer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Specialty dealer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Wholesale dealer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Home center/ hardware store	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Direct from manufacturer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Subcontractor provides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Other (Please Specify: ) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Product Selection**

In this section we would like to know how you decide which products to use in the homes that you build in the following product categories.

C42. Who generally has the greatest influence over Specifying OSB/ plywood/ sheathing?

- We do → Skip to C42b
- Subcontractors
- Homebuyer preference → Skip to C43

C42a. If subcontractors have the greatest influence, which of the following apply? (Please select most accurate description)

- Subcontractor has complete choice over product choice
  - Subcontractor selects from a list of distributors set by you
  - Subcontractor selects from a list of product manufacturers set by you
  - Subcontractor selects from a list of specific products specified by you
- } → Skip to C43

C42b. (If you Specify: ) Do you rebid regularly (e.g. every community/subdivision; every year) for OSB/plywood/sheathing?

- Yes
- No
- Depends

C42c. (If you Specify:) Do you currently conduct formal annual product reviews?

- Yes
- Depends → Skip to C42d
- No → Skip to C42d

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C42c1. (If yes to current reviews) Does this review cover... (Check all that apply)

- Pricing
- Product performance
- Manufacturer performance
- Dealer performance
- Customer satisfaction
- Other (Please Specify:) \_\_\_\_\_
- Do not conduct regular reviews

C42d. (If you Specify) Did you conduct formal annual reviews of product and alternatives 5 years ago?

- Yes
- No

C43. Who generally has the greatest influence over Specifying **wallboard**?

- We do→ Skip to C43b
- Subcontractors→ Skip to C43a
- Homebuyer preference → Skip to C44

C43a. If subcontractors have the greatest influence, which of the following apply?

- Subcontractor has complete choice over product choice
  - Subcontractor selects from a list of distributors set by you
  - Subcontractor selects from a list of product manufacturers set by you
  - Subcontractor selects from a list of specific products specified by you
- } → Skip to C44

43b. (If you Specify) Do you rebid regularly (e.g. every community/subdivision; every year) for **wallboard**?

- Yes
- No
- Depends

C43c. (If you Specify:) Do you currently conduct formal annual product reviews?

- Yes
- Depends→ Skip to C43d
- No → Skip to C43d

C43c1. (If yes to current reviews) Does this review cover...(Check all that apply)

- Pricing
- Product performance
- Manufacturer performance
- Dealer performance
- Customer satisfaction
- Other (Please Specify:) \_\_\_\_\_
- Do not conduct regular reviews

C43d. (If you Specify) id you conduct formal annual reviews of product and alternatives 5 years ago?

- Yes
- No

C44. Who generally has the greatest influence over specifying **Siding products**?

- We do→ Skip to C44b
- Subcontractors→ Skip to C44a
- Homebuyer preference→ Skip to C45

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- C44a. If subcontractors have the greatest influence, which of the following apply?
- Subcontractor has complete choice over product choice
  - Subcontractor selects from a list of distributors set by you
  - Subcontractor selects from a list of product manufacturers set by you
  - Subcontractor selects from a list of specific products specified by you
- } → Skip to C45

- C44b. (If you Specify:) Do you rebid regularly (e.g. every community/subdivision; every year) for **Siding**?
- Yes
  - No
  - Depends

- C44c. (If you Specify:) Do you currently conduct formal annual product reviews?
- Yes
  - Depends → Skip to C44d
  - No → Skip to C44d

- C44c1. (If yes to current reviews:) Does this review cover... (Check all that apply)
- Pricing
  - Product performance
  - Manufacturer performance
  - Dealer performance
  - Customer satisfaction
  - Other (Specify) \_\_\_\_\_
  - Do not conduct regular reviews

- C44d. (If you Specify: ) Did you conduct formal annual reviews of product and alternatives 5 years ago?
- Yes
  - No

- C45. Who generally has the greatest influence over Specifying **windows**?

- We do → Skip to C45b
- Subcontractors → Skip to C45a
- Homebuyer preference → Skip to C46

- C45a. If subcontractors have the greatest influence, which of the following apply?
- Subcontractor has complete choice over product choice
  - Subcontractor selects from a list of distributors set by you
  - Subcontractor selects from a list of product manufacturers set by you
  - Subcontractor selects from a list of specific products specified by you
- } → Skip to C46

- C45b. (If you Specify:) Do you rebid regularly (e.g. every community/subdivision; every year) for **windows**?
- Yes
  - No
  - Depends

- C45c. (If you Specify:) Do you currently conduct formal annual product reviews?
- Yes
  - Depends → Skip to C45d
  - No → Skip to C45d

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C45c1. (If yes to current reviews) Does this review cover... (Check all that apply)

- Pricing
- Product performance
- Manufacturer performance
- Dealer performance
- Customer satisfaction
- Other (Specify: ) \_\_\_\_\_
- Do not conduct regular reviews

C45d. (If you Specify: ) Did you conduct formal annual reviews of product and alternatives 5 years ago?

- Yes
- No

**Pre-assembly /Installation**

---

In the next section, we would like to know if you typically use preassembled components in your homes.

C46. Do you typically use preassembled **floor trusses**?

- For all or most of our homes
- For some of our homes
- Don't use → Skip to C47

C46a. (If you use) Who does the preassembly of the **floor trusses**?

- We do our own
- Dealer
- Both

C46b. Has your use of these preassembled **floor trusses** changed for the past five years?

- More now
- About the same
- Less now

C46c. What is the **major** reason that you use preassembled **floor trusses**? (Check only one).

- Cost
- Labor availability
- Local customs
- Faster on-site construction
- Other (Please Specify: ) \_\_\_\_\_

C47. Do you typically use preassembled **roof trusses**?

- For all or most of our homes
- For some of our homes
- Don't use → Skip to C48

C47a. (If you use) Who does the preassembly of the **roof trusses**?

- We do our own
- Dealer
- Both

C47b. Has your use of these preassembled **roof trusses** changed for the past five years?

- More now
- About the same
- Less now

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C47c. What is the **major** reason that you use preassembled **roof trusses**? (Check only one).

- Cost
- Labor availability
- Local customs
- Faster on-site construction
- Other (Specify: ) \_\_\_\_\_

C48. Do you typically use preassembled **wall panels**?

- For all or most of our homes
- For some of our homes
- Don't use → Skip to C49

C48a. (If you use) Who does the preassembly of the **wall panels**?

- We do our own
- Dealer
- Both

C48b. Has your use of these preassembled **wall panels** changed for the past five years?

- More now
- About the same
- Less now

C48c. What is the major reason that you use preassembled **wall panels**? (Check only one).

- Cost
- Labor availability
- Local customs
- Faster on-site construction
- Other (Specify: ) \_\_\_\_\_

### Installation Services

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In the next section, we would like to know what products you generally purchase installed.

C49. Do you generally purchase **OSB/ plywood/ sheathing** installed?

- Yes, purchase installed → Skip to C50
- No, don't purchase installed
- Don't purchase at all → Skip to C50

C49a. Would you purchase this product installed if it was reliably available at a competitive price?

- Yes
- No

C50. Do you generally purchase **wallboard** installed?

- Yes, purchase installed → Skip to C51
- No, don't purchase installed
- Don't purchase at all → Skip to C51

C50a. Would you purchase this product installed if it was reliably available at a competitive price?

- Yes
- No

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C51. Do you generally purchase **siding products** installed?

- Yes, purchase installed → Skip to C52
- No, don't purchase installed
- Don't purchase at all → Skip to C52

C51a. Would you purchase this product installed if it was reliably available at a competitive price?

- Yes
- No

C52. Do you generally purchase **windows** installed?

- Yes, purchase installed → Skip to C53
- No, don't purchase installed
- Don't purchase at all → Skip to C53

C52a. Would you purchase this product installed if it was reliably available at a competitive price?

- Yes
- No

C53. In 2004 and 1999, approximately what percent of your purchases for each of the product lines listed below were from your top three suppliers?

Product Categories	Percent of purchases from top 3 suppliers in 2004	Percent of purchases from top 3 suppliers in 1999
a. OSB/plywood/sheathing	____%	____%
b. Wallboard	____%	____%
c. Siding	____%	____%
d. Windows	____%	____%

In this next section, we would like to learn about your direct price negotiations with manufacturers for the following product categories. Please refer to the activities of your location—independent of corporate negotiations.

C54. At this location, do you negotiate directly with manufacturers for **OSB/ plywood/ sheathing**?

- Yes → Skip to C55
- No
- Don't purchase → Skip to C56

C54a. Are you considering negotiating price directly with manufacturers for **OSB/ plywood/ sheathing**?

- Yes
- No

C55. Do you currently have any “preferred” buying programs with manufacturers (e.g. added services) for **OSB/ plywood/ sheathing**?

- Yes
- No → Skip to C56



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- C55a. What are the elements of the preferred program? (Check all that apply)
- Guaranteed supply
  - Automatic lowest pricing available
  - Rebate programs
  - Free products for model home program
  - Showroom support
  - Warranty service provided directly by manufacturer
  - Marketing assistance/ support
  - Other (Please Specify:) \_\_\_\_\_

- C56. Do you negotiate directly with manufacturers for **wallboard**?
- Yes → Skip to C57
  - No
  - Don't purchase → Skip to C58

- C56a. Are you considering negotiating price directly with manufacturers for **wallboard**?
- Yes
  - No

- C57. Do you currently have any “preferred” buying programs with manufacturers (e.g. added services) for **wallboard**?
- Yes
  - No → Skip to C58

- C57a. What are the elements of the preferred program? (Check all that apply)
- Guaranteed supply
  - Automatic lowest pricing available
  - Rebate programs
  - Free products for model home program
  - Showroom support
  - Warranty service provided directly by manufacturer
  - Marketing assistance/ support
  - Other (Please Specify:) \_\_\_\_\_

- C58. Do you negotiate directly with manufacturers for **siding products**?
- Yes → Skip to C59
  - No
  - Don't purchase → Skip to C60

- C58a. Are you considering negotiating price directly with manufacturers for **siding products**?
- Yes
  - No

- C59. Do you currently have any “preferred” buying programs with manufacturers (e.g. added services) for **siding products**?
- Yes
  - No → Skip to C60

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C59a. What are the elements of the preferred program? (Check all that apply)

- Guaranteed supply
- Automatic lowest pricing available
- Rebate programs
- Free products for model home program
- Showroom support
- Warranty service provided directly by manufacturer
- Marketing assistance/ support
- Other (Please Specify: ) \_\_\_\_\_

C60. Do you negotiate directly with manufacturers for **windows**?

- Yes → Skip to C61
- No
- Don't purchase → Skip to C62

C60a. Are you considering negotiating price directly with manufacturers for **windows**?

- Yes
- No

C61. Do you currently have any “preferred” buying programs with manufacturers (e.g. added services) for **windows**?

- Yes
- No → Skip to C62

C61a. What are the elements of the preferred program? (Check all that apply)

- Guaranteed supply
- Automatic lowest pricing available
- Rebate programs
- Free products for model home program
- Showroom support
- Warranty service provided directly by manufacturer
- Marketing assistance/ support
- Other (Please Specify: ) \_\_\_\_\_

C62. In general, who handles the distribution of products for which you negotiated directly with the manufacturer?

- Manufacturer
- Dealer/distributor
- Contracted third party
- Subcontractor
- Don't negotiate prices with manufacturer

C63. In general, who provides product servicing for products purchased directly from the manufacturer?

- Manufacturer
- Dealer/distributor
- Contracted third party
- Subcontractor
- Don't negotiate prices with manufacturer

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- C64. Over the next **five years**, do you intend to expand programs where you negotiate pricing directly with the manufacturer?
- Yes
  - No
  - Depends (Please explain) \_\_\_\_\_

In this next section, we would like to learn about your negotiated volume discount or rebate programs with dealers or manufacturers for the following product categories. Please refer to the activities of your location—independent of corporate negotiations.

- C65. Did you have any negotiated volume discount or rebate programs with dealers or manufacturers for **OSB/ plywood/ sheathing** in place for 2004?
- Yes, negotiated at this location
  - Yes, negotiated corporately
  - No → Skip to C66

C65a. About what percent of your **OSB/plywood/sheathing purchases** were covered by these negotiated volume discount or rebate programs in 2004?

\_\_\_\_\_ %

C65b. Were any of these programs negotiated with only the dealer, the manufacturer, or both?

- Dealer
- Manufacturer
- Both

C65c. Were these programs critical to your selection of these products?

- Yes
- No
- Selected corporately

C66. Did you have any negotiated volume discount or rebate programs with dealers or manufacturers for **wallboard** in place for 2004?

- Yes
- No → Skip to C67

C66a. About what percent of your **wallboard** purchases were covered by these negotiated volume discount or rebate programs in 2004?

\_\_\_\_\_ %

C66b. Were any of these programs negotiated with only the dealer, the manufacturer, or both?

- Dealer
- Manufacturer
- Both

C66c. Were these programs critical to your selection of these products?

- Yes
- No
- Selected corporately

C67. Did you have any negotiated volume discount or rebate programs with dealers or manufacturers for **siding products** in place for 2004?

- Yes
- No → Skip to C68

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C67a. About what percent of your **siding product** purchases were covered by these negotiated volume discount or rebate programs in 2004?  
 \_\_\_\_\_%

C67b. Were any of these programs negotiated with only the dealer, the manufacturer, or both?  
 Dealer  
 Manufacturer  
 Both

C67c. Were these programs critical to your selection of these products?  
 Yes  
 No  
 Selected corporately

C68. Did you have any negotiated volume discount or rebate programs with dealers or manufacturers for **windows** in place for 2004?  
 Yes  
 No → Skip to C69

C68a. About what percent of your **window** purchases were covered by these negotiated volume discount or rebate programs in 2004?  
 \_\_\_\_\_%

C68b. Were any of these programs negotiated with only the dealer, the manufacturer, or both?  
 Dealer  
 Manufacturer  
 Both

C68c. Were these programs critical to your selection of these products?  
 Yes  
 No  
 Selected corporately

C69. Please rank the aspects of supply-chain management you consider important to improve this year. Rank from 1 through 5, with 1 being the item on the list below that you **consider to be the most important** and **5 the least important**.

Rank	(1 = most important; 5 = least important)
_____	Coordination with manufacturers
_____	Coordination with distributors
_____	Coordination with subcontractors
_____	Software development for estimation and procurement
_____	Other (Please Specify) _____

**D. Information Technology (IT)**

This section asks about the digital electronic business systems used in your business. In addition, there are questions on the level of product detail and other information stored in these digital systems.

D1. Please identify (with a **yes** or a **no**) which of the operation areas are computerized at this business location.

Operation areas...	Check one for each item ...	
	Yes	No
a. Any of the following functions: accounting, job cost, general ledger, and payroll.	<input type="checkbox"/>	<input type="checkbox"/>
b. Estimating.	<input type="checkbox"/>	<input type="checkbox"/>
c. Purchase orders.	<input type="checkbox"/>	<input type="checkbox"/>
d. Scheduling – project management.	<input type="checkbox"/>	<input type="checkbox"/>
e. Sales and marketing.	<input type="checkbox"/>	<input type="checkbox"/>
f. Option selection.	<input type="checkbox"/>	<input type="checkbox"/>

D2. Do you use **EDI** (electronic data interchange) protocol for any electronic communications?

- Yes
- No
- Don't know

D3. Do you have a **computerized system** that allows you to handle purchasing and invoicing of products from distributors and/or manufacturers?

- Yes
- No → Skip to D4

D3a. Is the system WEB based?

- Yes
- No

D3b. Does the system have a SKU based item level catalogue system with real time information?

- Yes
- No

D4. Do you have a system that tracks your usage and the price of all of the specific products you have used in building homes in your local markets?

- Yes
- No → Skip to D5

D4a. Are the individual product costs automatically updated?

- Yes
- No

D5. Do you have a computer-based construction cost estimating system that can produce an estimated build price for a home from a bill-of-material?

- Yes
- No → Skip to D8

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- D5a. How many years of history of locally procured product and installation cost does the system use in making its estimates? (Check one)
- 1 year
  - 2 years
  - More than 2years

- D5b. What is the average % difference between you actual construction costs and your computer based projections of construction costs? (Check one)
- (+/-) 1%
  - (+/-) 2%
  - (+/-) 3 or more %

- D6. Are most product costs electronically shared between your procurement system and your estimating system?
- Yes
  - No

- D7. Do you have an electronic scheduling software package?
- Yes →Continue to D7a below
  - No →Skip to D8

(If yes: )	Check one for each item below...	
	Yes	No
D7a. Is there a user access fee for the status and scheduling information?	<input type="checkbox"/>	<input type="checkbox"/>
D7b. Is the scheduling package web based?	<input type="checkbox"/>	<input type="checkbox"/>
D7c. Does the scheduling package give current scheduled installation begin and finish date?	<input type="checkbox"/>	<input type="checkbox"/>
D7d. Does your production scheduling software automatically share a proposed schedule with subcontractors and suppliers?	<input type="checkbox"/>	<input type="checkbox"/>

- D7e. What year was the electronic scheduling program first installed?

Year \_\_\_\_\_

- D8. Do your subcontractors and installers have access to your scheduling information?
- Yes
  - No → Skip to D9

- D8a. (If yes:) Do your subcontractors/installers regularly access this scheduling information?
- Yes, regularly
  - Yes, occasionally
  - Rarely
  - Never

- D9. Do you have a standard process for arriving at a final build schedule?
- Yes
  - No → Skip to D10

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- D9a. On average, how many weeks from start to finish does it take to arrive at the actual build schedule?
- One week
  - Two weeks
  - More than two weeks

### Information Practices

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This section asks about who has access (subcontractors, suppliers and home buyers) to specific digital information systems you use in your home building activities. In addition, there are questions about your information updating practices.

- D10. Do you generally share detailed information on your planned building activities with your dealers/distributors and suppliers?
- Yes, always → Skip to D11
  - Yes, occasionally → Skip to D11
  - No, not usually

- D10a. (If no:) Would you share information on planned building activities if asked to?
- Yes
  - Depends (Please elaborate:)
  - No

- D11. Do you share planned building activities with all dealers and suppliers that you use, just those with which you have a special arrangement, or something else?
- All dealers and suppliers
  - Just those with special arrangement
  - Other – (Specify:)

- D12. How far into the future do you share your planned building activity with your dealers and suppliers?  
(Check all that apply)
- 1-2 weeks
  - 1-3 months
  - For the coming year
  - For the next several years

- D13. Do you generally share information on your planned building activities with your subcontractors?
- Yes, always → Skip to D14
  - Yes, occasionally → Skip to D14
  - No, not usually

- D13a. (If no) Would you share information on planned building activities if asked to?
- Yes
  - Depends (Please elaborate)

- D14. Are all current subs and suppliers automatically notified of changes in the production schedule?
- Yes → Skip to D15
  - No

- D14a. How then are notices of schedule changes transmitted? (Check all that apply)
- By phone/fax
  - Only some subs/suppliers are notified of schedule changes
  - Their responsibility to remain current with the current production schedule

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- D15. How frequently is the job site production status updated? (Check one)
- Daily
  - Several times a week
  - At least once a week
  - Less frequently than once a week
- D16. What is your principal method of communication for production status updates? (Check one)
- Visit to sites
  - Phone calls
  - Written reports (faxed / dropped off)
  - Emails
  - Other (Please Specify:) \_\_\_\_\_
- D17. Who has access to production status reports? (Check all that apply)
- Subcontractors
  - Materials suppliers
  - Home buyers/prospective buyers
  - Other (Please Specify:) \_\_\_\_\_
- D18. Is the production status reports for subcontractors and suppliers Web based?
- Yes
  - No → Skip to D19
- D18a. Are the subcontractors require to pay a monthly access few for the Web service?
- Yes
  - No
- D19. Do your homebuyers have access to information on the construction status of their home?
- Yes
  - No → Skip to D20
- D19a. (If yes:) Is this information available on a website?
- Yes
  - No
- D19b. Is this information available to them automatically, only on request, or some other way?
- Available automatically
  - Only on request
  - Other (Please Explain:) \_\_\_\_\_
- D19c. Are status updates available? (Check all that apply)
- Live up date
  - Daily
  - Weekly
  - Monthly
  - Regularly as the closing date approaches
  - Other (Please Explain:) \_\_\_\_\_



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D20. Thank you for the time you have spent completing this survey. If you have completed it on paper, please complete the information below:

**Your Name:** \_\_\_\_\_ **Email address:** \_\_\_\_\_

**Company Name:** \_\_\_\_\_ **or web survey login ID** \_\_\_\_\_