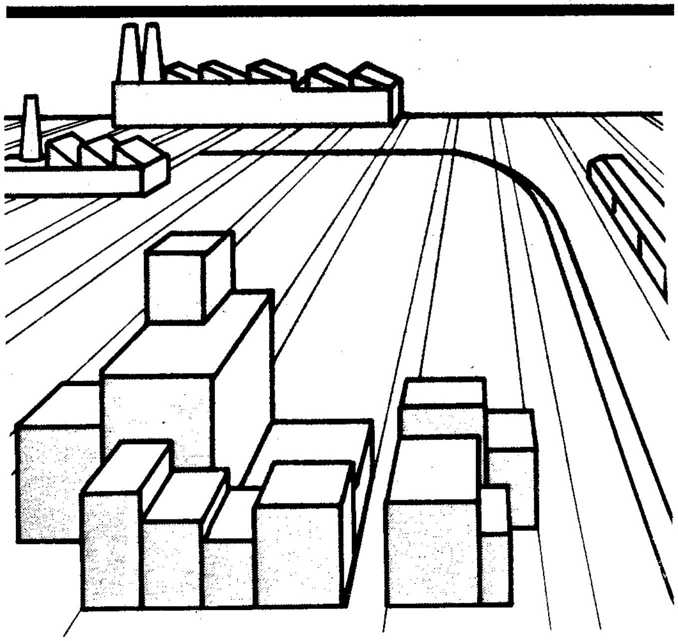
Characteristics of New or Expanding, Export-Oriented Firms in the Upper Great Plains

F. Larry Leistritz and Brenda L. Ekstrom*



Department of Agricultural Economics•Agricultural Experiment Station
North Dakota State University•Fargo, ND 58105-5636

The development of rational policy aimed at revitalizing rural America must recognize the changing economic structure of the country as a whole and how these changes influence potential sources of economic growth for rural areas. Recent analyses clearly indicate that the industries that have traditionally been the mainstays of the rural economy (e.g., agriculture, forestry, mining, and manufacturing) may not be major sources of future employment growth (Pulver 1988; Ekstrom and Leistritz 1988). Indeed, if the United States is to be competitive in an increasingly international economy, these industries will feel pressure to become even more efficient, which is likely to lead to even less employment in these sectors in the future. Rural areas seeking economic growth or revitalization will have to consider a wider range of export-oriented activities than the manufacturing branch plants that have been the focus of most previous economic development programs.

The need for economic revitalization is evident in many parts of rural America, but perhaps nowhere is that need more apparent than in the Upper Midwestern states. Because their economies are heavily dependent on agriculture and natural resources (e.g., mining), these states have experienced a severe economic downturn in the 1980s. Although the need for economic development is broadly accepted, state policymakers and local leaders often lack a clear understanding of which factors are most important in influencing firms' decisions to locate in one area rather than another. Indeed, information available to these decision makers is often contradictory and confusing. While some observers indicate that the key factors in location decisions are such traditional items as low state and local tax rates, low wage rates, and availability of nonunion labor (see for example, Grant Thornton and Company 1988), others contend that a "new economy" has emerged in the 1980s and that the conditions important to

*The authors are, respectively, professor and research associate, Department of Agricultural Economics, North Dakota State University, Fargo.

economic development have changed as well (The Corporation for Enterprise Development 1988). In fact, state and local leaders as well as concerned citizens have recently been confronted with the perplexing phenomenon that many states whose business climates were ranked most highly by one of the two major rating organizations received very low ratings from the other group (compare Grant Thornton and Company 1988 to The Corporation for Enterprise Development 1988).

Not only is there disagreement about the factors that are critical for economic development success in the 1980s, there is even considerable controversy regarding the types of businesses that are responsible for most of the job creation that has occurred in recent years.

OBJECTIVES AND PROCEDURES

The purpose of this study was to identify the types of new export-oriented businesses and industries in the Upper Midwest and to determine both their economic contribution and factors critical to their location decisions. Only firms that (1) sell more than 10 percent of their product or service to out-of-state markets, and (2) either began operations since 1977 or expanded their work force by 10 percent or more since that time were included in the analysis. A total of 314 firms met these requirements and constitute the data base of this study. A mailed questionnaire was used to obtain information about each firm's current operations, its history, and the factors that were important in location, relocation, or expansion decisions.

RESULTS

Key findings from the survey are presented in the sections that follow. Results are presented for all firms and in many cases by major firm types, by relocation status of the facility, by expected employment growth of the facility, or by whether the facility is a branch or an independent entity.

TABLE 1. SELECTED CHARACTERISTICS OF RESPONDENT FACILITIES, 1989.

Item	Value
	(percent)
State where facility is located:	
Nebraska	30.9
North Dakota	39.8
South Dakota	29.3
Primary product or service:	
Mining/construction[a]	2.3
Agri-products/sales[b]	8.3
Manufacturing, nondurable[c]	28.6
Manufacturing, durable[d]	50.3
Miscellaneous sales[e]	3.2
Miscellaneous services[f]	5.7
Total Annual Sales:	
Mean	$8,539,000
Median	$1,750,000
Distribution:	*(percent)*
$100,000 or less	5.7
$100,001 to 500,000	20.1
$500,001 to 1,000,000	13.3
$1,000,001 to 5,000,000	30.8
$5,000,001 to 10,000,000	11.8
$10,000,001 to 50,000,000	5.1
$50,000,001 or more	3.2
Percentage of expenditures to labor:	
Mean	27.8
Median	25.0
Percentage of remaining expenditures made in state:	
Mean	38.2
Median	30.0

[a]Gold processing, construction/repairs.
[b]Handling sales, grain/pellets, animal supplies, live animals, plants, food sales, grain dealers.
[c]Food processing, clothing products, wood products, furniture products, paper products, printing, film developing.
[d]Chemical products, rubber/plastic, concrete/stone, steel/metal products, farm equipment parts, electrical products, transport equipment, precision instruments, sporting equipment, tools-- hydraulic, miscellaneous parts.
[e]Sales, hardware, auto supply, clothing, sporting.
[f]Vehicle repair, miscellaneous repairs, telemarketing, weld/machine service, miscellaneous service, truck services.

General Characteristics

The respondent facilities were relatively evenly distributed among the three states (Table 1). Manufacturing firms made up more than 78 percent of the qualifying respondents. Total annual sales averaged about $8.5 million for all firms, $7 million for durable manufacturers, and $6.1 million for nondurable manufacturers. Median values, which may be more representative of the typical firm, were considerably smaller and ranged from $1.5 to $1.9 million for these three groups. About 65 percent of sales for all firms were made to out-of-state markets. Most of the respondents (56 percent) perceived no barriers to expanding out-of-state sales. Others stated that the expense of marketing and the difficulty of raising capital for expansion barred them from marketing more of their product out of state.

The average firm reported annual expenditures within the state of $3.8 million or 55 percent of its total outlays. Branch plants had a lower percentage of in-state purchases than other facilities (50 percent vs. 57 percent), but their total in-state expenditures per plant were much greater ($5.3 million vs. $3.4 million).

When expenditure patterns are compared by the firm's age and location status, new firms (i.e., those that had begun operations since 1977) were found to have the highest percentage of in-state purchases (58 percent of their total sales) followed closely by existing firms that had expanded (57 percent).

Comparison of in-state expenditures between the durable and nondurable manufacturing firms revealed that nondurable manufacturers made a much higher percentage of their expenditures within the state (63 percent vs. 50 percent).

The firms projecting rapid growth tended to be dominated by new or relocated enterprises; more than 43 percent had begun operations at their present location since 1980. The high-growth firms also had a higher percentage of local ownership (78 percent vs. 62 percent) and a higher percentage of out-of-state sales (70 percent vs. 57 percent). The high-growth firms tended to be smaller, however, with total sales averaging $7.3 million compared to $9.0 million. High-growth firms made a slightly higher percentage of their expenditures to labor, but the percentage of their other expenditures that were made in-state was substantially less.

Employment

The average firm reported 57 full-time employees (Table 2). A few firms with large work forces affected the average substantially, however; the median value was 17.5. The firms surveyed had experienced substantial employment growth over the past few years. The average firm reported an 80-percent increase in full-time employees in the last five years and a 246-percent increase in the last ten years. Part-time employment also increased, on average, during this period with the percentage changes being similar to those for full-time employment.

Operators and fabricators were the largest occupational category, followed by laborers and precision production crafts (Table 3). Women made up 31 percent of the work force. Nondurable manufacturers and firms that projected higher-than-average growth rates had a slightly smaller-than-average work force.

When the work force composition of branch plants was compared to that for other facilities, branches were found to have substantially smaller percentages of executive and managerial personnel and sales representatives but a much higher percentage of operators and fabricators.

Survey respondents also were asked about their minimum requirements and recruiting efforts for new employees. Some postsecondary education was typically required for executive and professional positions, but a high school diploma was often deemed sufficient for clerical workers and operators or

TABLE 2. PREVIOUS AND CURRENT WORKFORCE CHARACTERISTICS OF RESPONDENT FACILITIES, UPPER MIDWEST STATES, 1989

Item	Value	Item	Value
Number currently employed full-time:	*(number)*	Percent change in full-time employment in last 5 years:[a]	*(number)*
Mean	57.3	Mean	+79.7
Median	17.5	Median	+50.0
Number currently employed part-time:	*(number)*	Percent change in full-time employment in last 10 years:[a]	*(percent)*
Mean	5.3	Mean	+245.5
Median	1.0	Median	+115.5

aApplies only to those firms that were in business five or ten years ago, respectively.

TABLE 3. OCCUPATIONAL COMPOSITION OF WORKFORCE BY FIRM TYPE, UPPER MIDWEST STATES, 1989.

Occupational Category	All Firms Average Number Employed in 1988			
	Men	Women	Total	Percent
Executive, administrative, or managerial	4.4	1.7	6.1	10.3
Professional specialty (i.e., engineers, scientists, computer programmers, accountants, architects, physicians, etc.)	2.5	0.9	3.4	5.7
Sales Representatives	2.6	0.4	3.0	5.1
Clerical workers (i.e., secretaries, typists, stenographers, word processor specialists).	0.9	3.7	4.6	7.8
Precision production craft, and repair (i.e., mechanics, repairers, machinists and metal craftsmen, construction craftsmen, etc.)	6.9	1.3	8.2	13.8
Operators, fabricator (i.e., machine operators, assemblers, inspectors, truck drivers, material handlers)	16.2	7.4	23.6	39.9
Laborers	5.9	2.9	8.8	14.9
Other: Not elsewhere categorized	1.2	0.3	1.5	2.5
Total	40.6	18.6	59.2	100.0

TABLE 4. CHARACTERISTICS OF EMPLOYEES, ALL RESPONDENT FACILITIES, UPPER MIDWEST STATES, 1989

Occupational Category	Minimum Requirements for New Employees: Prior work experience	Some high school	High school diploma	Some college/ tech. training	College degree or more	Prior work only	No requirements	Difficulty Finding Employees Locally: Mean Score[a]	DIFF[b]	Difficulty Attracting Employees to Area: Mean Score[a]	DIFF[b]
	percent yes								(percent)		(percent)
Executive, administrative, or managerial	51.6	1.4	16.0	36.9	36.2	7.3	2.1	3.5	52.9	3.4	49.2
Professional specialty (i.e., engineers, scientists, computer programmers, accountants, architects, physicians, etc.)	39.4	0	7.3	35.2	50.9	6.1	0.6	3.5	55.0	3.3	47.6
Sales Representatives	61.1	2.3	24.0	41.1	10.9	19.4	2.3	3.2	39.6	3.2	33.1
Clerical workers (i.e., secretaries, typists, stenographers, word processor specialists)	42.9	3.4	48.7	36.1	1.7	5.0	5.0	2.3	38.2	2.6	17.6
Precision production craft, and repair (i.e., mechanics, repairers, machinists and metal craftsmen, construction craftsmen, etc.)	50.5	4.2	28.0	42.1	2.3	14.5	8.9	3.2	40.9	3.2	36.3
Operators, fabricators (i.e., machine operators, assemblers, inspectors, truck drivers, material handlers)	52.0	18.9	44.4	9.9	1.3	19.7	10.8	2.6	17.2	2.7	18.8
Laborers	41.0	21.9	37.1	1.7	--[c]	20.8	18.5	2.2	34.8	2.4	11.2
Other: Not elsewhere classified	59.3	11.1	33.3	25.9	7.4	18.5	3.7	2.5	28.6	2.8	28.0

[a]Based on a scale from 1 (very easy) to 5 (very difficult).
[b]DIFF=Percent difficult or very difficult.
[c]This choice was not listed for laborers.

fabricators (Table 4). Prior work experience was most often required for sales representatives, operators or fabricators, and executives. The respondents believed it was most difficult to locally recruit qualified employees for professional, executive, and sales positions. About half the respondents reported it was also difficult to attract executive and professional candidates to their geographical area.

A major current issue in rural development policy concerns the role of different types of firms in generating new jobs. The firms included in the survey had created a total of 11,133 jobs in the last ten years, an average of 39 per firm. Of this total, expansion of existing firms accounted for 45 percent of the jobs, firms that relocated or opened new branches were responsible for about 33 percent, and new firms were credited with almost 23 percent. As a group, branch plants (including some that had been operating for more than ten years) accounted for 38 percent of the total employment growth in the last ten years. Among existing firms that had expanded, those with fewer than 20 employees ten years ago had accounted for only 26 percent of the total jobs created by this group.

Location of Business

Of the firms included in the study, about 25 percent had relocated to their present site. About 68 percent of these had moved from an out-of-state location, and 59 percent had relocated the entire company. Minnesota was the most frequent origin of relocating firms, and South Dakota the most frequent destination (Figure 1).

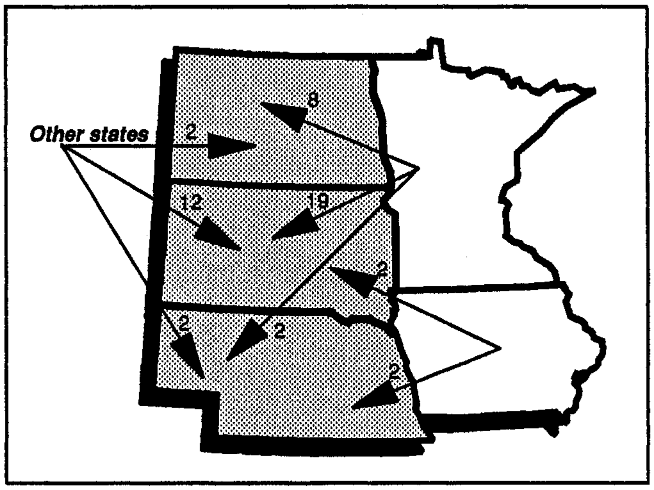


Figure 1. Origin and destination states of relocating firms.

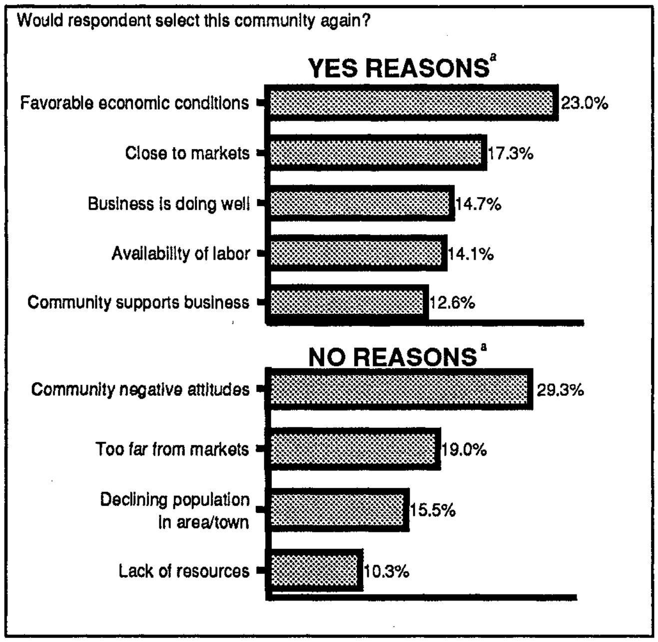
The communities where these firms had previously been located varied greatly in size; 12.5 percent came from communities with less than 1,000 people, nearly 30 percent came from communities with a population between 1,000 and 10,000 people, and only 9.4 percent from cities with more than 500,000 people. When asked why they had chosen their present location, favorable prices for land and buildings was the reason most often given. Other factors often mentioned were lower labor costs, labor quality, and a more favorable location relative to markets and supplies.

The firms were also asked what is the minimum size of community that companies in their industry consider in choosing a location. The median population cited was 10,000, and responses did not differ substantially by firm type.

The ratings of different factors that might be important in making location decisions were generally similar among all types of firms. Work attitudes and labor productivity, the absence of a union, and existence of right to work laws were generally rated more highly than wage levels. Labor availability was viewed as a very important factor by about one-third of the firms, and executive and professional personnel were often reported to be both hard to find locally and difficult to attract to the area. Motor freight service was substantially the most important transportation dimension. Proximity to customers was viewed by expanding firms as more important than close proximity to suppliers or to others in the industry, whereas new and relocating firms rated proximity to suppliers and raw materials as most important. About half of both groups of firms viewed the availability and cost of electricity as very important or critical to location decisions. Other utilities were less important.

State and local taxes were of concern to many of the respondents. Of the new or relocating firms, 67 percent viewed the overall tax burden as a very important or critical factor, while 60 percent of the expanding firms held this view. Worker's compensation and unemployment insurance were both regarded as very important by both groups of firms. Local property taxes and state personal income taxes also were viewed as important, but particularly by new or relocating firms.

Incentives and assistance programs, available land and buildings, and state business and regulatory climate also influence location decisions. Within this general category of factors, survey respondents gave the highest rating to the overall community attitude toward business development. The cost of property, the availability of local financing, and development incentives were identified as very important or critical factors by about half of the firms. Availability of suitable buildings was a very important or critical factor for the new and relocating firms. State incentives and the state regulatory climate also were important to many firms. When asked whether they would choose this community again, almost 78 percent responded affirmatively. Reasons most frequently cited among those who would choose the community again were favorable economic conditions and proximity to markets (Figure 2). For those who would not choose their community again, reasons most frequently mentioned were the community's negative attitude and being located too far from markets.



a Includes only responses mentioned by 10 percent or more of respondents.

Figure 2. Reasons for and against selecting the same community for their business, respondent facilities in Upper Midwest states, 1989.

Start-up Capital

Many recent state and local development initiatives have focused on making capital more accessible to rural entrepreneurs. Of the firms represented in this survey, 144 had begun operations since 1977 and provided information about their initial financing. These firms reported an average of $1.6 million in total start-up capital; the median value was $140,000. More than 84 percent reported that their start-up capital was $1 million or less; nearly 30 percent stated it was less than $50,000.

Personal funds and commercial loans were the sources of financing reported most frequently (Table 5). More than 72 percent of the respondents reported using personal funds as a source of financing, and about 30 percent of their total funding came from this source. Commercial loans were received by 55 percent of the respondents, and only 6.0 percent of the respondents reported that they had applied for a commercial loan but had not received one. Small Business Administration loans and financing from a variety of government programs each were reported by about 19 percent of the respondents, respectively, while personal loans from family and friends were also used by 18.1 percent. Credit from suppliers and sale of corporate stock were other sources reported. Personal funds and personal loans generally became less important as sales increased, while government programs, commercial investors, and sales of stock became more important.

Outlook

The firms surveyed expected substantial future growth in sales and employment. The typical (median) firm expected a 35 percent increase in sales over the next five years and 70 percent in ten years. The median firm also expected its employment to grow by 23 percent in five years and 38 percent in ten years. About 11 percent of the firms planned to relocate within the next five years (46 percent of these would relocate out-of-state), while more than 57 percent plan to expand their physical facilities.

Economic Development Policy

Survey respondents were asked to rate the supportiveness of state and local government with respect to their business needs. Most respondents rated both state and local governments

TABLE 5. SOURCES OF START-UP CAPITAL FOR BUSINESSES THAT BEGAN OPERATIONS AFTER 1977

Sources	Percent of Respondents Who Received Funds From This Source	Percent of Total Funding
Personal funds	71.5	30.2
Personal loans from family and friends	18.1	4.7
Commercial loans (commercial banks, S & Ls, credit unions, finance companies)	54.8	29.7
Small Business Admin. loan	19.4	9.1
Commercial investors (venture capital firms, insurance companies)	2.1	0.7
Supplier or dealer credit	11.8	2.3
Government programs (Industrial Revenue Bonds, Urban Development Action Grant, Economic Development Administration, state and city loans.)	20.8	7.5
Sale of corporate stock	11.1	4.6
Other sources[a]	11.3	8.4

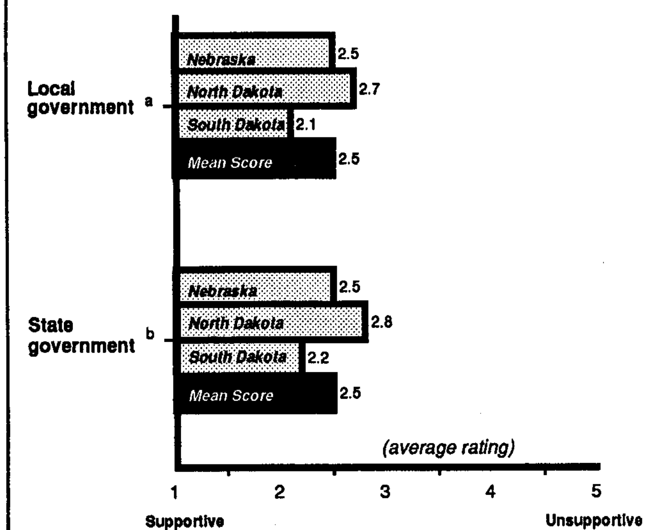
[a]Includes loans from the previous owner and monies from the parent company.

as neutral; about 15 percent rated state and local government as somewhat unsupportive or unsupportive. When asked how the situation could be improved, respondents indicated a need for greater awareness of the needs of existing businesses and for fairness in the use of financial incentives.

When asked about the top strengths of their state from a business perspective, the respondents most often noted reasonable taxes and quality work force. In identifying shortcomings, they most frequently cited the need for more cooperation between business and government and for lower taxes.

While differences in average rankings are slight, firms located in South Dakota seem to have a somewhat more favorable attitude toward state and local government than their counterparts in the other states (Figure 3).

Marketing and product development were the areas in which research and development help was most often desired. Few businesses saw research and development as a major bottleneck, because more than 80 percent of those that indicated a need for research and development assistance also reported that they had experienced no problems in obtaining this help.



a Scores are significantly different between North and South Dakota.
b Scores are significantly different between North Dakota and South Dakota and between South Dakota and Nebraska.

Figure 3. Average rating of local and state government support of businesses by state.

References

Ekstrom, Brenda, and F. Larry Leistritz. 1988. *Rural Community Decline and Revitalization: An Annotated Bibliography*. New York: Garland Publishing, Inc.

Grant Thornton and Company. 1988. *Ninth Annual Grant Thornton Manufacturing Climates Study*. Chicago: Grant Thornton and Company.

Pulver, Glen C. 1988. "The Changing Economic Scene in Rural America." *In Proceedings of Conference on Setting a New Economic Agenda for the States*. Lexington: Council of State Governments.

The Corporation for Enterprise Development. 1988. *Making the Grade: The 1988 Development Report Card for the States*. Washington, D.C.: The Corporation for Enterprise Development.

Agricultural Economics Report No. 256-S. Printed at North Dakota State University, Fargo, March 1990.