

# MONTANA Policy Review

A Publication of the Local Government Center

Volume 2, Number 1 Spring 1992

## LOOKING TO THE FUTURE

The Potential Development of a Rocky Mountain Trade Corridor

*Larry Swanson*

The Missoula Region Study: Rethinking the Concept of Community

*Patrick Edgar and Rohn Wood*

Collection and Disposal of Solid Waste: Public and Private Options

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*A biannual analysis of public policy issues confronting Montana's communities and those who serve them.  
Made possible by the Northwest Area Foundation.*

# MONTANA Policy Review

## RELECTIONS ON LOCAL GOVERNANCE

Shall the State of Montana create an "...endowment fund to provide local governments coal severance tax trust fund interest for water, sewer, solid waste and bridge projects"? That question will be answered during this year's primary elections. We understand that a similar question (with a different funding mechanism) will again be asked of the voters during the November general election.

If the voters answer yes to either or both of these questions, the future of Montana's cities and counties will brighten considerably. The 1993 Legislature and a new governor will then have to wrestle with the implementation procedures. But when the dust settles, our county commissioners, mayors, and council members will have the tools they need to begin rebuilding the foundations of their communities. Montana will have taken one giant step toward a brighter economic future. After all, what business is likely to make a major new investment in a Montana community that has a "boil order" in effect?

But suppose our voters reject both of the pending infrastructure proposals, as a result of partisan posturing or the indifference of local leadership. Montana's counties, cities, and towns will again have to hunker down and hope that the federal tooth fairy shows up. In the meantime, we note a recent story in a local newspaper. It reports that no less than 100 of Montana's community water systems are or will be considered as contaminated under new federal safe drinking water standards. Our own research and on-site work with many of these same communities suggests that few can afford to fix the problem without some financial assistance. To rephrase an old cliché, "It's broke and they can't fix it", at least not by themselves.

We are not so naive as to believe that there is no significant difference between the funding mechanisms of the two infrastructure proposals. Each reflects a fundamental and generally partisan belief in the appropriate purposes of Montana's Coal Severance Tax Trust Fund. Nor do we advocate that one proposal is inherently "better" than the other. The "Treasure State Endowment Program" and the "Big Sky Dividend Program" each has its own advantages and its own disadvantages. In arguing the respective merits of the favored solution, we trust that the advocates won't forget about the fundamental problem that needs fixing.

We believe that if one or both of these proposals are adopted by the voters this year, the 1993 legislative process will inevitably find an imperfect but workable middle ground. We also believe that if neither proposal is adopted the foundations of Montana's communities will continue to decay. If so, can "This House of Sky" be far behind?

Kenneth L. Weaver, Director  
Local Government Center

*The Local Government Policy Center is funded, in part, by the Northwest Area Foundation.*

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## FROM THE EDITOR'S DESK

### *A Modest Proposal*

Anyone who's been to Washington D.C. can attest to its physical beauty, and can understand its hold on those in public service. Today's outsider is tomorrow's insider. They become mossbound, as can happen to any stationary object in southern climes, encumbered by the vines of special interests.

The solution? I propose to do what Brazil, and Germany have already done. We move the capital to the middle of the country; specifically to the geographical center of the continent. This happens to be Rugby, North Dakota. Rugby is a small city of 2909 people, the county seat of Pierce County, conveniently situated some 50 miles east of Minot, on the Seattle-to-Chicago Amtrack line. There is plenty of farmland surrounding Rugby, lots of room to grow. Housing could be a problem; perhaps White House officials, congressmen, and federal bureaucrats could experience some of that nice, low-cost housing stock built in the cities and on Indian reservations (utilities extra). Monuments could be moved like London Bridge was moved to Arizona.

Some clever speechwriter could call the move "rural development policy", a symbol of our return to small-town roots. At least one small chunk of rural America would experience some economic revitalization if the capital were moved to Rugby. Given the number of people who are drawn to the federal trough, Rugby would soon begin experiencing the problems of any other urban center.

Some Montanans are fond of telling North Dakota jokes. But North Dakota ranks at the top in educational achievement

scores, despite relatively low spending per student. Schools are at the center of prairie life, along with civic institutions. When national politicians and the media are forced by this great move to enter into the daily life of a prairie community, they may discover that all governments and politics are not as sick as they presume. There is still a good measure of voluntarism and civic spirit alive at the local level.

This is true not just of small towns on the Great Plains, but also of big cities across the county; indeed, in this age of budget cutbacks and crumbling infrastructure, it is the only thing keeping many communities afloat. They will also discover that community politics cannot be based on dividing people into "special interests". Instead, local leaders must discover the common interests of diverse groups, and incorporate them into the social fabric of the community, if they are to succeed in governing.

This is not to say that politics at the local level is as an innocent babe. There is as much bickering and nitpicking there as in the House of Representatives. But decisions eventually have to be made, budgets passed, projects prioritized. Citizens are more willing to pay taxes when they know where their money's going. Maybe they'll feel better about sending it to North Dakota.

A final reason for moving the capital to Rugby: a few Siberian fronts should send the fair-weather friends packing. But reform can be dangerous. Should long underwear be provided by a nonpartisan authority, lest they become an accepted lobbying tool? □

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# THE POTENTIAL DEVELOPMENT OF A ROCKY MOUNTAIN TRADE CORRIDOR

LARRY SWANSON  
University of Montana



MONTANA  
Policy Review

The single most dominant trend among the world's advanced economies is their increasing internationalization. Borders between countries are more open, trade between nations is increasing, and continental trading blocs are forming. Within these trading blocs, regions of important economic interaction and interdependency are becoming larger, extending across once somewhat impervious national borders.

In the midst of this economic globalization and new regionalization, no single trading relationship between any two nations in the world is larger and more important than the one between Canada and the United States. Furthermore, this long-standing trade relationship should continue to expand under provisions of the Canada-U.S. "Free Trade Agreement" (FTA), adopted in January, 1989.<sup>1</sup>

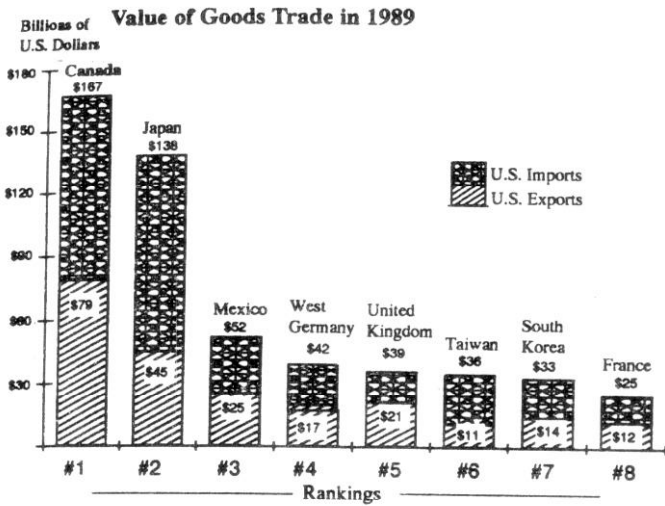
Historically, trade between Canada and the United States has been concentrated in the East, involving trade between suppliers and buyers in eastern states and provinces. However, several factors point to considerable expansion in north-south trade among western states and provinces in the post-FTA era.<sup>2</sup> The extent to which U.S.-Canada trade expansion in the West may already be occurring is part of the analysis which follows.

If U.S.-Canada trade does expand in the West, it will not happen in a random fashion. Transportation grids link resources and input suppliers, manufacturers and processors, wholesalers and distributors, and retailers and consumers. The movement of materials, goods, and people involved in trade tends to become channeled into a few particularly favorable routes having particularly favorable transportation systems. As regional trade expands and becomes routine, these transportation routes and systems become well-defined "trade corridors."

The economies of cities and towns lying in and along major continental trading corridors are heavily affected by this constant flow of trade and economic activity. Since most Canada-U.S. trade has been concentrated in the East, the principal corridors through which this trade moves are in the East, between major population centers. These corridors link economic activity in and around Detroit and Toronto, Toronto and Buffalo, and Montreal and New York.

*Dr. Swanson is Director of Economic Analysis for the Bureau of Business and Economic Research and Associate Professor, School of Business Administration, The University of Montana. He was assisted in this work by Neil Moisey, a doctoral candidate in natural resources, and Jon Harvala, a graduate student in community and regional planning, both at The University of Montana. Research by the Bureau of Business and Economic Research on U.S.-Canada trade receives funding support from the President's Office, The University of Montana; The Canadian Embassy, Washington, D.C.; and the Northwest Area Foundation through a contract with the Local Government Center, Montana State University.*

### The United States' Biggest Trading Partners



Source: International Trade Administration, U.S. Dept. of Commerce (figures include end use trade in products, commodities only, not services trade).

Figure 1

The U.S. and Canada have the largest trading relationship in the world. In 1989 prior to economic downturns in both countries, U.S.-Canada goods trade totaled \$167 billion. Trade in services adds another \$37 billion to this trade relationship.

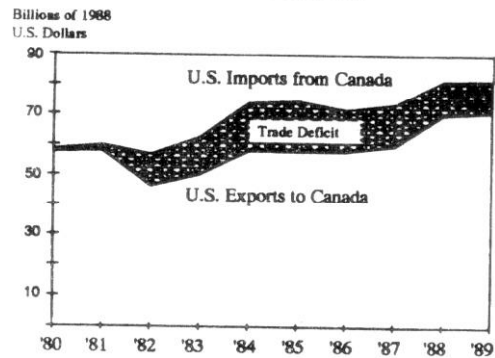
U.S. goods exports to Canada exceed its exports to Japan by 75 percent. And while Canada is the U.S.'s largest export market, Canadian exports to the U.S. are even greater.

With U.S.-Canada trade expansion, several north/south transnational trade corridors are likely to develop in the West. To assess the potential development of a "Rocky Mountain Trade Corridor," this article examines several factors that will shape that development: (1) regional dimensions and spatial features of existing trade flows between the two countries, (2) trends in growth or decline in regional trade since FTA adoption, and, (3) emerging trends in population growth in Canada and the United States.

### Composition of U.S.-Canada Product Trade

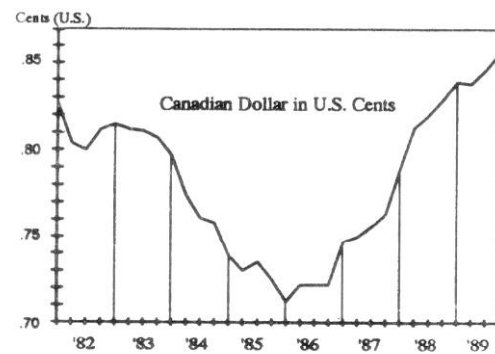
Commercial shipments of materials and semi-processed and finished goods moving across the border in both directions are recorded by U.S. and Canadian customs in hundreds of different product categories. Data on these shipments has been condensed into the eleven general product groups contained in Table 1. The data are in millions of Canadian dollars, and are not adjusted for inflation.<sup>3</sup> U.S.-Canada trade in services is not included.

### U.S. Goods Trade with Canada



Source: Statistics Canada

### U.S.-Canada Currency Exchange Rate, 1982-89



Source: International Monetary Fund, International Financial Statistics

Figures 2 and 3

About 25 percent of Canada's gross product is exported with 70 percent going to U.S. markets. Canada-U.S. trade continues to grow, up about 50 percent since 1982 (adjusted for inflation).

The Canadian dollar has risen in value from as low as 72 cents (U.S.) in 1986 to 86 cents in 1990, narrowing the U.S. trade deficit with Canada.

There is a heavy concentration of trade in both directions in motor vehicles, engines and parts. This reflects the long-standing Canada-U.S. "Auto Pact" and the presence of a large, integrated, transborder auto industry in Ontario and the Great Lakes region. Major U.S. exports to Canada also include a wide array of electronics and electrical equipment, measuring and control instruments, industrial machines, and metals and nonfuel minerals. Other significant Canadian exports to the U.S. include wood and paper products, assorted energy commodities and products (crude oil and petroleum products, natural gas, electricity, etc.), and metals and nonfuel minerals. Agricultural trade between the two nations is somewhat limited, accounting for 8 percent of U.S. exports to Canada and only 6 percent of Canada's exports to the U.S.

During the two full years after FTA adoption (1988-90), overall U.S.-Canada trade increased by 5 percent. Gains by Canada are concentrated in electronics and instruments, energy commodities, agricultural products, and transportation equipment other than motor vehicles. Gains by the U.S. are concentrated in electronics and instruments; agricultural, energy, and chemical products; and a somewhat ambiguous category called "special trade transactions" (indicated as consumer goods/trade). Trade losses are concentrated in the auto industry, largely attributable to nationwide recessions in both countries. Two-way motor vehicles trade fell by \$4.6 billion, partially offsetting large gains in other trade areas.

The value of Canada's exports to the U.S. increased by 7 percent, U.S. exports to Canada grew by 4 percent, and two-way goods trade between the countries approached \$200 billion in 1990. Excluding the depressed auto industry trade, Canada's exports increased by over 12 percent while U.S. exports increased by over 11 percent in the first two free-trade years.

**Table 1**

**U.S./Canada Trade by Product Groups**

Million \$, Canada			Change, 1988-90	
	1988	1990	Amount	%
<b>Ag products &amp; materials</b>				
U.S. exports	\$ 6,307	\$ 7,244	+ 937	+15%
Can. exports	5,141	6,194	+ 1,053	+21%
TOTAL	\$ 11,448	\$ 13,438	+ 1,990	+17%
<b>Wood &amp; paper products</b>				
U.S. exports	\$ 2,014	\$ 2,187	+ 173	+ 9%
Can. exports	14,580	14,570	- 11	- 0%
TOTAL	\$ 16,594	\$ 16,757	+ 163	+ 1%
<b>Metals &amp; nonfuel minerals</b>				
U.S. exports	\$ 8,730	\$ 9,034	+ 304	+ 4%
Can. exports	12,184	10,720	- 1,464	-12%
TOTAL	\$ 20,914	\$ 19,754	- 1,160	- 6%
<b>Energy commod. &amp; prod.</b>				
U.S. exports	\$ 1,703	\$ 2,508	+ 805	+47%
Can. exports	10,062	12,491	+ 2,429	+24%
TOTAL	\$ 11,765	\$ 14,999	+ 3,234	+27%
<b>Chemicals &amp; chemical prod.</b>				
U.S. exports	\$ 5,439	\$ 6,290	+ 851	+16%
Can. exports	4,978	5,519	+ 541	+11%
TOTAL	\$ 10,417	\$ 11,809	+ 1,392	+13%
<b>Industrial equipment</b>				
U.S. exports	\$ 9,346	\$ 9,158	- 188	- 2%
Can. exports	3,855	4,456	+ 601	+16%
TOTAL	\$ 13,201	\$ 13,614	+ 413	+ 3%
<b>Motor vehicles, engines &amp; parts</b>				
U.S. exports	\$ 27,865	\$ 23,933	- 3,932	-14%
Can. exports	33,870	33,214	- 656	- 2%
TOTAL	\$ 61,735	\$ 57,147	- 4,588	- 7%
<b>Other transportation equipment</b>				
U.S. exports	\$ 3,976	\$ 3,242	- 734	-19%
Can. exports	2,540	3,650	+ 1,010	+38%
TOTAL	\$ 6,616	\$ 6,892	+ 276	+ 4%
<b>Electronics, instrum., elec. equip.</b>				
U.S. exports	\$ 16,820	\$ 19,965	+ 3,145	+19%
Can. exports	6,875	9,801	+ 2,926	+43%
TOTAL	\$ 23,695	\$ 29,766	+ 6,071	+26%
<b>Consumer goods/trade transact.</b>				
U.S. exports	\$ 7,974	\$ 9,730	+ 1,756	+22%
Can. exports	3,873	4,665	+ 792	+20%
TOTAL	\$ 11,847	\$ 14,395	+ 2,548	+22%
<b>Total Goods Trade</b>				
U.S. exports	\$ 90,173	\$ 93,292	+ 3,119	+ 4%
Can. exports	98,060	105,279	+ 7,219	+ 7%
TOTAL	\$188,233	\$198,571	+10,338	+ 5%

**Regional Trade Flows**

Table 2 shows the value of U.S.-Canada trade according to where goods enter both countries (by whatever mode of transport) as they move through customs (or according to the province of border clearance). This "passthrough" border trade for the four western provinces (British Columbia, Alberta, Saskatchewan, and Manitoba) is shown, and totals for these western provinces are compared with totals for trade moving across borders in the East. This provides one indication of the regional configuration of U.S.-Canada trade (and varying involvement in trade by different regions of both countries).

The "north-south axis" along which most U.S.-Canada trade is conducted clearly lies in the East (Figure 4). In 1990, only 15 percent of U.S. exports to Canada, and only 18 percent of Canada's exports to the U.S., moved across borders in the West. The largest concentration of western trade moves across the British Columbia border in the Pacific Northwest region, with two-way trade valued at \$15.5 billion. This accounted for 8 percent of total U.S.-Canada trade in 1990. A sizeable concentration of trade also moves across Manitoba's border in the Upper Great Plains region, where two-way trade totaled \$7.8 billion. In terms of total value, Canadian exports exceed U.S. exports in both B.C. and Manitoba border trade.

About \$3.6 billion in U.S. exports moving north and \$3.1 billion in Canadian exports moving south cleared customs along the Alberta border. This accounted for just over 3 percent of total U.S.-Canada trade in 1990. Trade across the Saskatchewan border is relatively light.

U.S.-Canada cross-border trade did see greater expansion in the West than in the East between 1988 and 1990. The value of U.S. exports moving north across western borders increased by 16 percent (up almost \$2 billion), while increasing by only 2 percent in the East. Most of this increase was in B.C. and Manitoba.

Canadian exports to the U.S. clearing at western borders increased by 8 percent (up \$1.4 billion), while increasing by 7 percent in the East. Alberta saw the largest increase in the value of border trade with a 45 percent increase in total two-way trade. A \$1.9 billion increase in Canadian exports moving across its border accounted for most of the gain. Two-way trade along the Manitoba and Saskatchewan borders declined, resulting from reductions in Canadian exports (particularly in Manitoba).

**U.S.-Canada Trade in the West**

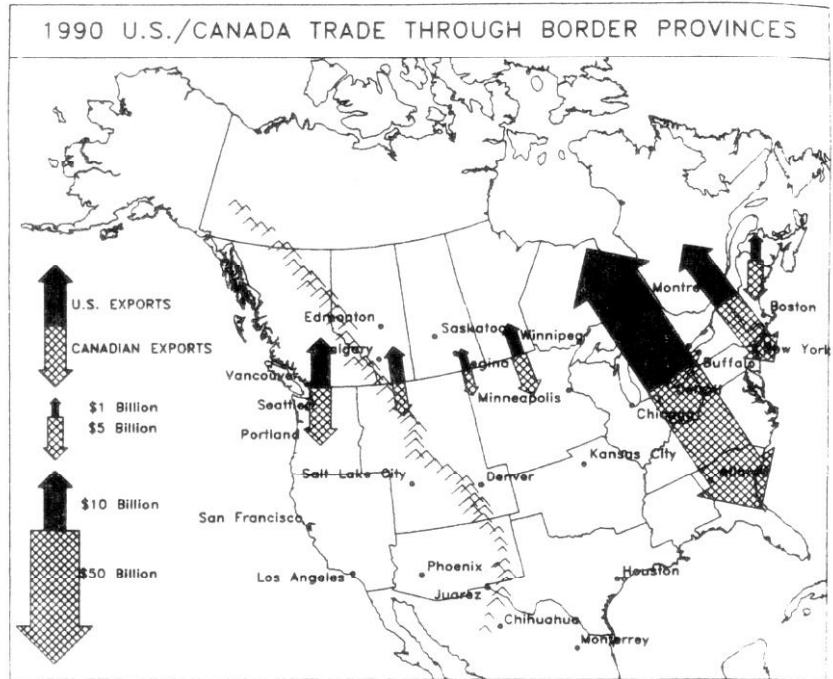
Table 3 shows the composition of Canadian exports to the U.S. through these western provinces in 1990. The \$18.7 billion in exports are concentrated in two categories. Nearly 40 percent are energy commodities and products (\$7.4), which is nearly 60 percent of Canada's total energy exports to the U.S. The second

SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).

Figure 4

Reflecting the large auto industry and other industrial trade between the two nations, U.S.-Canada goods trade has been historically concentrated in the East. In 1990 about 85 percent of U.S. exports to Canada and 80 percent of Canada's exports to the U.S. moved north and south across the border in the East. Much of this trade is focused between Ontario, Canada's industrial heartland, and Upper Midwest states, particularly Michigan, Ohio, and Illinois. Detroit and Buffalo serve as "gateways" through which much of this trade is conducted.

North-south trade across the borders of western states and provinces has been more limited. However, in the two full years after FTA adoption, two-way trade in the West has grown by 11 percent, while increasing by only 4 percent in the East. The greatest increase in border trade is through Alberta, with two-way trade up 45 percent led by a 171 percent increase in Canadian exports.



largest category is wood and paper products, representing over 20 percent of Canada's western export trade. Significant amounts of agricultural and chemical products also are exported from Canada through these western provinces (each accounting for 9 percent of the exports).

Nearly half of Canada's exports in the west move south through British Columbia, with over 60 percent of this \$8.9 billion in trade in energy commodities and wood and paper products. Sixteen percent of the trade moves south through Alberta (valued at \$3.1 billion), with over 65 percent of this in energy commodities and products (valued at \$2 billion). The next largest category of Canadian exports passing through Alberta is agricultural products, valued at \$276 million.

Table 4 shows changes in this western export trade between 1988 and 1990. Increases in Canadian exports are concentrated in ag products (up \$379 million), energy (up \$364 million) and chemicals (up \$315 million). Shipments of electronics, instruments, and electrical equipment and transportation equipment other than motor vehicles also significantly increased.

Canadian exports clearing in Manitoba and Saskatchewan declined, primarily because of reductions in energy exports. Canadian exports clearing in B.C. and Alberta increased, with about \$1.4 billion of the \$1.9 billion increase through Alberta accounted for by increased energy trade (largely crude petroleum and natural gas). Trade through Alberta also increased in electronics and instruments, special transactions trade, and ag, wood/paper, and metals/nonfuel minerals trade.

Table 2

U.S./Canada Trade Through Border Provinces

Million \$, Canada			Change, 1988-90	
	1988	1990	Amount	%
<b>British Columbia</b>				
U.S. exports	\$ 5,393	\$ 6,645	+\$ 1,252	+ 23%
Can. exports	8,011	8,898	+ 888	+ 11%
TOTAL	\$ 13,404	\$ 15,543	+\$ 2,139	+ 16%
<b>Alberta</b>				
U.S. exports	\$ 3,446	\$ 3,566	+\$ 120	+ 4%
Can. exports	1,129	3,063	+ 1,934	+171%
TOTAL	\$ 4,575	\$ 6,629	+\$ 2,054	+ 45%
<b>Saskatchewan</b>				
U.S. exports	\$ 1,252	\$ 1,307	+\$ 55	+ 4%
Can. exports	2,230	1,872	- 358	- 16%
TOTAL	\$ 3,482	\$ 3,179	-\$ 303	- 9%
<b>Manitoba</b>				
U.S. exports	\$ 2,376	\$ 2,901	+\$ 525	+ 22%
Can. exports	5,918	4,855	- 1,063	- 18%
TOTAL	\$ 8,294	\$ 7,756	-\$ 538	- 6%
<b>Four Western Provinces</b>				
U.S. exports	\$ 12,467	\$ 14,419	+\$ 1,953	+ 16%
Can. exports	17,288	18,688	+ 1,400	+ 8%
TOTAL	\$ 29,755	\$ 33,107	+\$ 3,353	+ 11%
<b>Eastern Provinces</b>				
U.S. exports	\$ 77,706	\$ 78,873	+\$ 1,167	+ 2%
Can. exports	80,772	86,591	+ 5,819	+ 7%
TOTAL	\$158,478	\$165,464	+\$ 6,986	+ 4%

SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).



Tables 3 and 4

### Composition of Western Province Trade of Canada Exports to U.S. According to Province of Border Clearance, 1990

Million \$, Canada	B.C.	Albta	Sask	Man	Total	Share	% of Can. Total
Ag materials & products	778	276	185	453	1,692	9.1%	27%
Wood & paper mat. & prod.	2,720	73	458	712	3,963	21.2%	27%
Metals & nonfuel minerals	485	82	177	198	942	5.0%	9%
Energy commod. & products	2,842	2,015	298	2,230	7,385	39.5%	59%
Chemicals & chem. products	533	154	492	494	1,673	9.0%	30%
Industrial mach. & equipment	249	63	42	197	551	3.0%	12%
Motor vehicles & parts	444	32	41	96	613	3.3%	2%
Other transpt. equipment	277	26	20	58	381	2.0%	10%
Electronics, instruments, electrical equipment	255	186	107	306	854	4.6%	9%
Consumer goods/trade	315	156	52	112	635	3.4%	14%
TOTALS	8,898	3,063	1,872	4,855	18,689	100%	18%
SHARE % of Canada Total	47.6% 8%	16.4% 3%	10.0% 2%	26.0% 5%	100% 18%		

### Change in Canada Exports to the U.S. in the West According to Province of Border Clearance, 1988-90

Million \$, Canada	B.C.	Albta	Sask	Man	Total	% Change
Ag materials & products	+ 118	+ 75	+ 82	+ 104	+ 379	+29%
Wood & paper mat. & prod.	- 354	+ 39	+ 6	+ 177	- 132	- 3%
Metals & nonfuel minerals	+ 26	+ 24	-101	+ 66	+ 15	+ 2%
Energy commod. & products	+ 805	+1,482	-499	-1,424	+ 364	+ 5%
Chemicals & chem. products	+ 115	+ 76	+ 82	+ 42	+ 315	+23%
Industrial mach. & equipment	+ 35	+ 5	- 12	+ 5	+ 33	+ 6%
Motor vehicles & parts	n.c.	+ 10	- 21	- 19	- 30	- 5%
Other transpt. equipment	+ 78	+ 19	+ 14	+ 2	+ 113	+42%
Electronics, instruments, electrical equipment	+ 30	+ 104	+ 51	- 15	+170	+25%
Consumer goods/trade	+ 35	+ 100	+ 39	n.c.	+ 174	+38%
TOTALS	+ 888	+1,934	-358	-1,063	+1,401	+ 8%

n.c. (no change)

SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).

Table 5 shows the composition of U.S. exports entering Canada across these western borders. Here trade is focused in manufactured goods, including \$2.5 billion in industrial machines and equipment, \$2.3 billion in electronics and instruments, and \$2 billion in motor vehicles/parts and other transportation equipment. The \$14.4 billion in U.S. exports also includes significant amounts of ag products (\$1.7 billion) and metals and nonfuel minerals (\$1.6 billion).

In 1990, 46 percent of these U.S. exports moving north in the West did so across the B.C. border. Twenty-five percent (or \$3.6 billion in goods) moved north in Alberta, while about 20 percent (\$2.9 billion) cleared customs in Manitoba. Changes in this U.S. export border trade between 1988 and 1990 are shown in Table 6. U.S. exports increased considerably in metals and nonfuel minerals (up \$532 million), electronics and instruments (up \$487 million), industrial machines and equipment (up \$367 million), and in special trade transactions (which includes large mail order shipments of consumer and other goods).

Most of the nearly \$2 billion increase was in B.C. border trade (up almost \$1.3 billion, an increase of 23 percent). U.S. export trade through Manitoba increased by 22 percent (up \$526 million). U.S. export trade clearing customs in Alberta increased by only \$120 million. However, aside from lost trade in other transportation equipment (which, in this case, is "aircraft complete with engines"), U.S. export trade north through Alberta increased significantly (particularly in electronics and instruments).

### States and Provinces as Export Producers and Export Markets

Another indication of the regional configuration of U.S.-Canada trade is the relative participation of states and provinces as producers of exports and as purchasers of exports (or as importers). The map in Figure 5 shows the distribution of Canadian exports to the U.S. among individual states in 1988, the last year prior to FTA adoption. Here states are compared as destinations for Canadian exports.

As can again be seen, this trade is heavily concentrated in the East. Five states had imports in excess of \$4 billion and four of these are in the East--Michigan with imports of \$25 billion, New York (\$15 billion), Illinois (\$5.2 billion), and Ohio (\$4.4 billion).

In the West, Washington had imports valued at \$4.2 billion followed by California with \$3.5 billion in imports. The Rocky Mountain states of Montana, Idaho, Wyoming, Utah, and Colorado combined for \$1.5 billion in imports, led by Montana with \$720 million (primarily in the form of Alberta crude oil piped to Montana petroleum refineries for processing).

The map in Figure 6 shows relative changes among states as markets for Canadian exports between 1988 and 1990, a period in which these exports grew by over 7 percent. Imports by states east of the Mississippi River changed very little while imports by western states increased over

Tables 5 and 6

### Composition of Western Province Trade of U.S. Exports to Canada According to Province of Border Clearance, 1990

Million \$, Canada	B.C.	Albta	Sask	Man	Total	Share	% of U.S.
							Total
Ag materials & products	957	337	110	315	1,719	11.9%	24%
Wood & paper mat. & prod.	391	43	13	82	529	3.7%	24%
Metals & nonfuel minerals	791	388	142	251	1,572	10.9%	17%
Energy commod. & products	161	23	10	21	215	1.5%	9%
Chemicals & chem. products	324	269	119	275	987	6.9%	16%
Industrial mach. & equipment	755	693	453	611	2,512	17.4%	27%
Motor vehicles & parts	780	481	273	403	1,937	13.4%	8%
Other transpt. equipment	601	161	22	150	934	6.5%	29%
Electronics, instruments, electrical equipment	1,059	770	95	408	2,332	16.2%	12%
Consumer goods/trade	827	399	68	386	1,680	11.7%	17%
TOTALS	6,645	3,566	1,307	2,901	14,419	100%	15%
SHARE	46.1%	24.7%	9.1%	20.1%	100%		
% of U.S. Total	7%	4%	1%	3%	15%		

### Change in U.S. Exports to Canada in the West According to Province of Border Clearance, 1988-90

Million \$, Canada	B.C.	Albta	Sask	Man	Total	%
						Change
Ag materials & products	+ 160	+ 97	+ 9	+ 5	+ 271	+ 19%
Wood & paper mat. & prod.	+ 85	+ 22	+ 2	+ 4	+ 113	+ 27%
Metals & nonfuel minerals	+ 314	+ 111	+ 11	+ 96	+ 532	+ 51%
Energy commod. & products	+ 61	+ 14	- 1	- 19	+ 55	+ 34%
Chemicals & chem. products	+ 77	+ 75	+ 13	+ 80	+ 245	+ 33%
Industrial mach. & equipment	+ 85	+ 37	+ 64	+ 181	+ 367	+ 17%
Motor vehicles & parts	- 89	+ 31	- 51	+ 62	- 47	- 2%
Other transpt. equipment	+ 105	- 586	- 4	+ 2	- 483	- 34%
Electronics, instruments, electrical equipment	+ 249	+ 226	+ 13	- 1	+ 487	+ 26%
Consumer goods/trade	+ 205	+ 94	- 2	+ 116	+ 413	+ 33%
TOTALS	+ 1,253	+ 120	+ 54	+ 526	+ 1,953	+ 16%

SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).

28 percent (up over \$5 billion). Four of the five states with gains of more than 50 percent are in the West, including Colorado, Kansas, Alaska, and Texas. Imports by California, Oregon, Idaho, and North Dakota also increased significantly.

The map in Figure 7 shows how U.S. states compare as producers of exports to Canada (or as "origins" of U.S. exports to Canada). The four biggest

exporting states in 1988 are the same states with the largest Canadian imports--all states in the East. Michigan's exports to Canada totaled \$15 billion in value, while Ohio's totaled \$8.7 billion, New York's totaled \$7 billion, and Illinois's totaled \$6.7 billion.

In the West, California's exports were valued at \$5.7 billion followed by Texas with \$3.6 billion. Washington and Minnesota also produced significant exports to Canada. The five Rocky Mountain states produced \$1.2 billion in exports to Canada, led by over \$400 million worth by both Utah and Colorado.

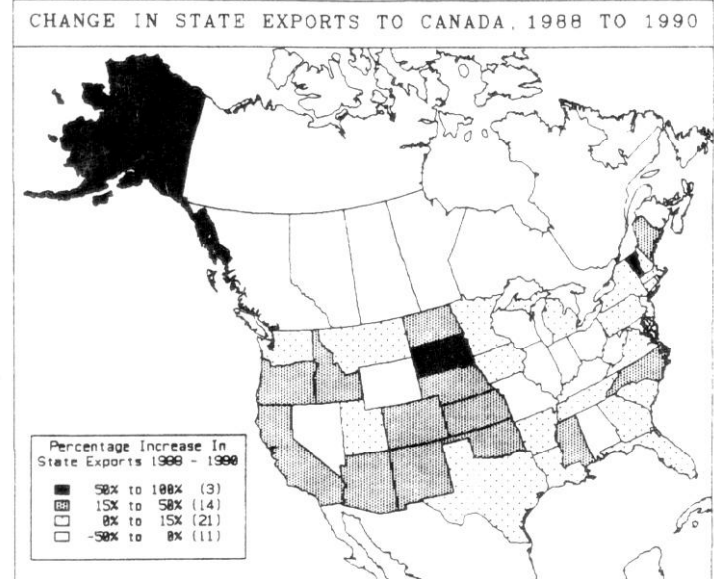
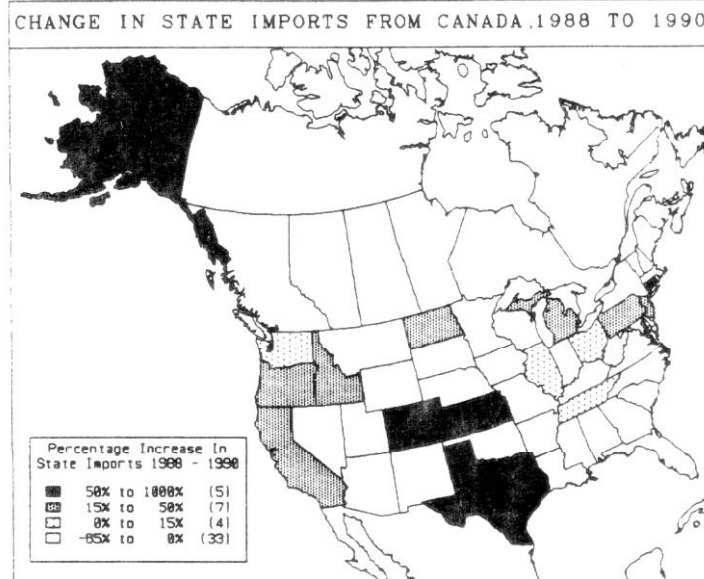
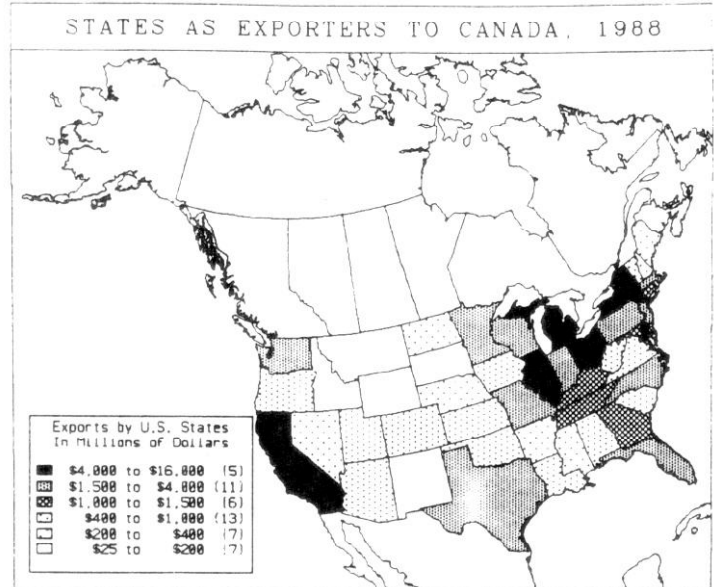
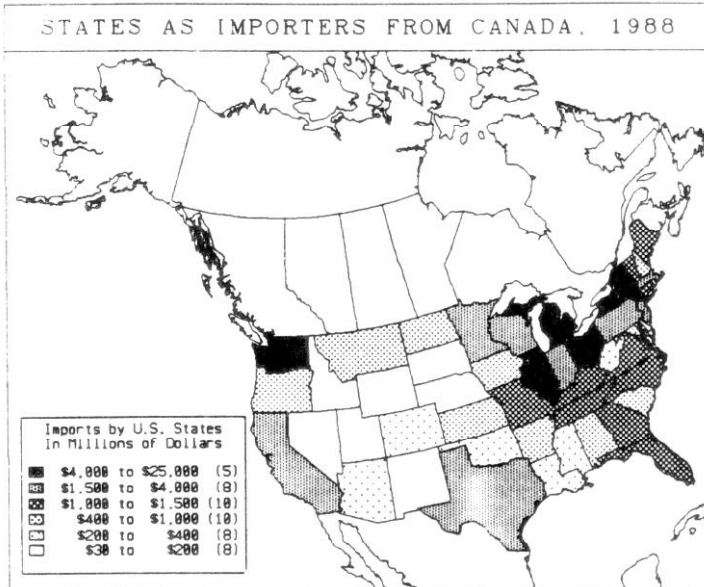
In the period from 1988 to 1990, states west of the Mississippi River increased the value of their exports to Canada by nearly 9 percent (again, in Canadian dollars unadjusted for inflation). Meanwhile, exports produced in eastern states grew by only 3 percent. Of the 17 states with export gains exceeding 15 percent, 12 are in the West (Figure 8). So, as both importers of goods from Canada and producers of exports to Canada, western states are clearly increasing their role.

Data tracking U.S. exports to destination provinces in Canada are not available. However, data does exist on provinces as origins or producers of exports to the U.S. Table 7 shows the value of exports produced in the western provinces according to product categories. The four western border provinces produced nearly \$23 billion in exports in 1990 or 22 percent of Canada's total. Of this, 43 percent (totaling nearly \$10 billion) was energy commodities and products and another 23 percent was wood and paper products (valued at \$5.3 billion). Manufactured goods are currently only a small share of western Canada's production of U.S. exports.

The largest producer of U.S. exports in western Canada is Alberta with \$11.5 billion, representing over 50 percent of the combined export production of the four provinces and 11 percent of Canada's total. Much of Alberta's export production are energy items, including \$4.6 billion in crude petroleum and \$3 billion in natural gas. It also produces and exports significant amounts of chemical products (such as synthetic rubber and plastic products, organic chemicals, and fertilizers), agricultural products (such as live animals and processed meat), and wood products (such as wood pulp and softwood lumber).

Between 1988 and 1990 these western provinces increased their production of U.S. exports by 12 percent, compared with a 6 percent increase in the rest of Canada. This gain was largely accounted for by

Figures 5 and 6



SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).

berta. As indicated in Table 8, exports by both B.C. and Manitoba declined slightly, while increasing in Saskatchewan and Alberta. Saskatchewan's export production increased by \$471 million, while Alberta's increased by \$2.4 billion (a 26 percent increase).

Much of the increase was from higher energy exports by Alberta. Alberta's export of manufactured goods is relatively limited. However, these increased substantially between 1988 and 1990. In the category of electronics and instruments, Alberta's exports increased 125 percent (primarily through increased exports of various telecommunication equipment).

Just as western states are increasing their role in U.S.-Canada trade, so are western provinces as producers of U.S. exports. Because trade flows to and away from growing regions, this westward shift of Canada-U.S. trade should continue. As indicated in Figure 9, current and emerging population trends in both countries show a westward shift in population growth. Canada's fastest growing provinces are British Columbia and Alberta. Two of the fastest growing census regions in the U.S. are the Pacific Region and eight-state Mountain Region.

## North-South Trade Through Alberta

Regional features of U.S.-Canada trade in the West are further examined by using maps that combine information on where goods are produced (origins) and where they are sent (destinations) with information on where they cross the border in moving from suppliers to markets (provinces of border clearance). These maps are useful in visualizing the intensity and regional focus of U.S.-Canada trade flows along the 49th parallel (the two nations' border in the West).

Figure 10 shows provinces of origin and U.S. regions of destination for the \$3.1 billion in Canadian exports clearing customs in Alberta in 1990. The screened circles over Canadian provinces show the origins of this Alberta pass-through trade according to the value of exports originating in various provinces. The screened circles in Figure 10 on the U.S. side of the border show where these Canadian exports go and in what amounts.

About 95 percent of the Canadian exports that clear customs in Alberta originate in Alberta. Very little comes from other provinces (only \$161 million worth, with the largest category being crude oil from Saskatchewan). Destinations for these exports are spread throughout the U.S. The New York area is the single largest market area with imports valued at \$485 million. Other large markets are the Rocky Mountain region (\$407 million), Upper Midwest (\$406 million), Lower Plains (\$405 million), and Texas/Louisiana (\$346 million). Exports into California also are sizeable.

The pie chart in Figure 10 indicates how these Canadian exports through Alberta are actually transported. Mode types include road (motor carriers), rail, air, and "other" (pipelines and electrical transmission lines). Because much of this trade is energy (mainly crude oil and natural gas), 65 percent of the value of this trade is transported by pipeline. About 29 percent is transported by road. Less than 4 percent moves by rail and less than 3 percent is air-shipped.

The map in Figure 11 shows origins of the \$3.6 billion in U.S. exports to Canada that clear customs in Alberta. Destination provinces in Canada for these are not indicated because this data is not available. While Canadian export trade passing south through Alberta almost entirely originates in Alberta (and is heavily concentrated in energy commodities), U.S. export trade moving north through Alberta originates in regions throughout the U.S. (and is a wider array of goods, including many manufactured goods). The largest supplying regions of these exports are the California region and Texas/Louisiana in the West, and the Great Lakes region in the East. Midwestern and Rocky Mountain states also are significant suppliers of these U.S. exports.

### Tables 7 and 8

#### Composition of Western Province Production of Canada Exports to U.S., 1990

Million \$, Canada	B.C.	Albta	Sask	Man	Total	% of Can.	
						Share	Total
Ag materials & products	507	707	301	396	1,911	8.4%	31%
Wood & paper mat. & prod.	4,396	551	187	173	5,307	23.4%	36%
Metals & nonfuel minerals	473	261	74	207	1,015	4.5%	9%
Energy commod. & products	484	8,336	836	198	9,854	43.5%	79%
Chemicals & chem. products	161	964	847	114	2,086	9.2%	36%
Industrial mach. & equipment	199	76	39	187	501	2.2%	11%
Motor vehicles & parts	174	57	43	90	364	1.6%	1%
Other transpt. equipment	55	29	9	162	255	1.1%	7%
Electronics, instruments, electrical equipment	238	297	30	152	717	3.2%	7%
Consumer goods/trade	294	194	62	96	646	2.9%	14%
TOTALS	\$6,981	\$11,473	\$2,428	\$1,774	\$22,656	100%	22%
SHARE % of Canada Total	30.8%	50.6%	10.7%	7.8%	100%		22%

#### Change in Western Border Province Production of Canada Exports to the U.S., 1988-90

Million \$, Canada	B.C.	Albta	Sask	Man	Total	% Change	
Ag materials & products	+ \$118 (+30%)	+ \$173 (+32%)	+ \$95 (+46%)	+ \$41 (+12%)	+ \$426	+ 29%	
Wood & paper mat. & prod.	- 195 (-4%)	- 28 (-5%)	+ 57 (+44%)	+ 16 (+10%)	- 150	- 3%	
Metals & nonfuel minerals	- 309 (-39%)	+ 71 (+37%)	- 22 (-22%)	- 16 (-23%)	- 322	- 24%	
Energy commod. & products	- 94 (-16%)	+1,955 (+31%)	+ 106 (+14%)	+ 98 (+98%)	+2,065	+ 27%	
Chemicals & chem. products	+ 18 (+13%)	- 97 (-9%)	+ 133 (+19%)	+ 5 (+5%)	+ 60	+ 3%	
Industrial mach. & equipment	- 3 (-1%)	- 3 (-4%)	- 4 (-9%)	+ 17 (+10%)	+ 6	+ 1%	
Motor vehicles & parts	- 49 (-22%)	+ 22 (61%)	+ 31 (+280%)	- 29 (-25%)	- 24	- 6%	
Other transpt. equipment	- 3 (-6%)	+ 15 (+108%)	+ 7 (+484%)	+ 55 (+51%)	+ 74	+ 41%	
Electronics, instruments, electrical equipment	+ 30 (+14%)	+ 165 (+125%)	+ 19 (+170%)	- 158 (-51%)	+ 57	+ 9%	
Consumer goods/trade	+ 29 (+11%)	+ 114 (+142%)	+ 48 (+348%)	- 10 (-10%)	+ 181	+ 39%	
TOTALS	- \$459 (-6%)	+ \$2,387 (+26%)	+ \$471 (+24%)	- \$28 (-2%)	+ \$2,371	+ 12%	

SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).

Reflecting their composition, a large share of these U.S. goods are transported north through Alberta overland, both by road (65 percent) and by rail (12 percent). Many high-valued manufactured items are regularly transported by air, and almost 16 percent of these U.S. exports to Canada through Alberta are air-shipped. Maps of Canada-U.S. trade through Alberta according to individual transport modes further highlight the nature of north-south border trade in this region (Figures 12-19).

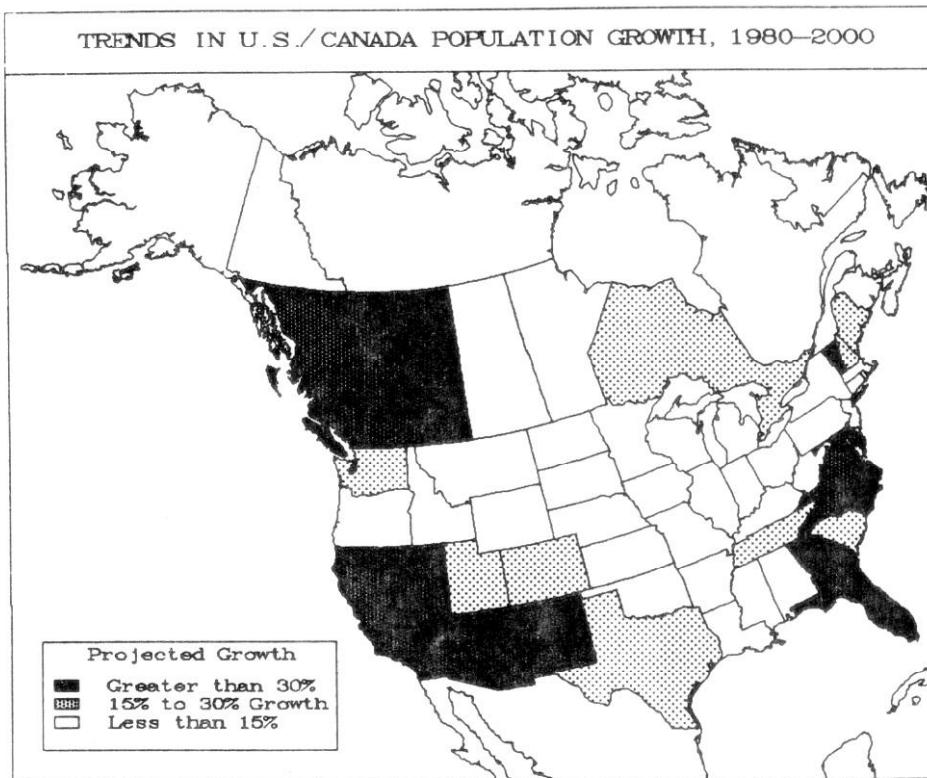
### North-South Trade Through Other Western Provinces

Similar trade flow maps have been constructed for the three other western provinces. Figures 20 and 21 show origins and destinations of Canada-U.S. goods trade through British Columbia. The spatial configuration of two-way trade through B.C. is heavily focused in the Pacific Northwest region on both sides of the border. Canadian exports moving south largely originate in B.C. and

neighboring Alberta, mostly destined for U.S. markets along the Pacific Coast. Pacific Coast states also are large suppliers of U.S. exports moving north into Canada through B.C. (Figure 21).

Over 60 percent of the Canadian exports through B.C. are energy items and wood and paper products. Another 20 percent are agricultural products, chemicals, and metals and nonfuel minerals. In contrast, U.S. exports through B.C. are more diverse, including a broad array of manufactured goods. Transport modes used in

Figure 9

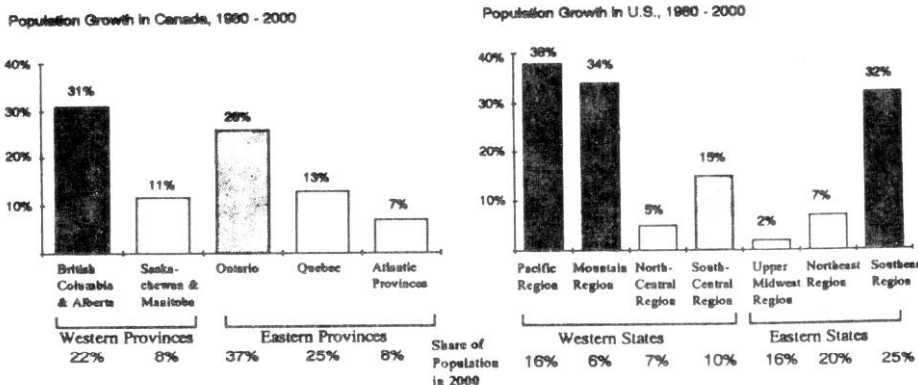


A westward shift in population growth is occurring in both Canada and the United States. Population trends in the 1980s and as projected for the 1990s indicate Canada's 1980 population should grow by about 20 percent during the 20-year period, up from 24 million in 1980 to 29 million by the year 2000. The fastest growth is expected in British Columbia and Alberta in the West (both with over 30 percent growth), followed by Ontario (26 percent growth) in the East.

Alberta's population is expected to grow from 2.2 million in 1980 to almost 2.9 million by the year 2000. Two of Canada's six largest metropolitan centers are in Alberta including Edmonton with a population of 820,000 and Calgary with a population of 720,000.

The U.S. population is expected to grow by about 18 percent, up from 226 million in 1980 to 268 million by the year 2000. Among multi-state census regions, the Pacific Region--stretching from California to Washington--is projected to grow by 38 percent, making it the nation's fastest growing region. Next is the eight-state Mountain Region--stretching from Arizona and New Mexico to Montana and Idaho. It is projected to grow by 34 percent.

The Rocky Mountain states of Colorado, Utah, Wyoming, Idaho, and Montana are expected to increase their population from 6.6 million in 1980 to over 7.4 million by 2000; led by increases in Utah and Colorado. These two states also have the region's two largest metro centers--Salt Lake City with a current population of 1.1 million and Denver with a population of 1.6 million.



Source: Canada estimates are from Statistics Canada, Ottawa ("Scenario III" projections). U.S. estimates are from the U.S. Census Bureau (Aug. '89 "Series A" projections). Alaska and very sparsely populated provinces in the north are excluded.

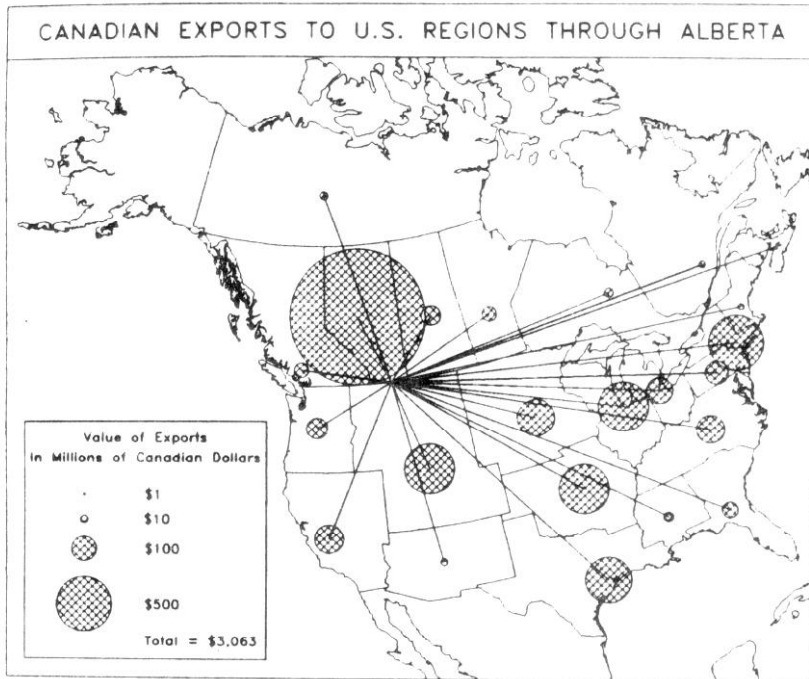
moving these goods reflect their varying compositions. Pipelines and transmission lines (25 percent) and water transport (19 percent) are heavily used in moving Canadian goods south (in addition to road and rail transport). Road transport is the dominant mode used in moving U.S. goods north (69 percent).

crude oil (\$550 million) exported to U.S. markets through B.C. account for much of this B.C. trade. Other Alberta products included in this are \$190 million in petroleum products, \$145 million in "live animals", and processed meat, fertilizer materials, wood products, and chemicals.

While B.C. is the largest producer of Canadian exports clearing customs in B.C., 30 percent of this export trade originates in Alberta (\$2.7 billion worth). Alberta natural gas (\$1.3 billion) and

Figures 22 and 23 show the spatial configuration of two-way trade through Saskatchewan. Whereas U.S.-Canada trade through B.C. is focused along the Pacific Coast and is truly "north-south" in its

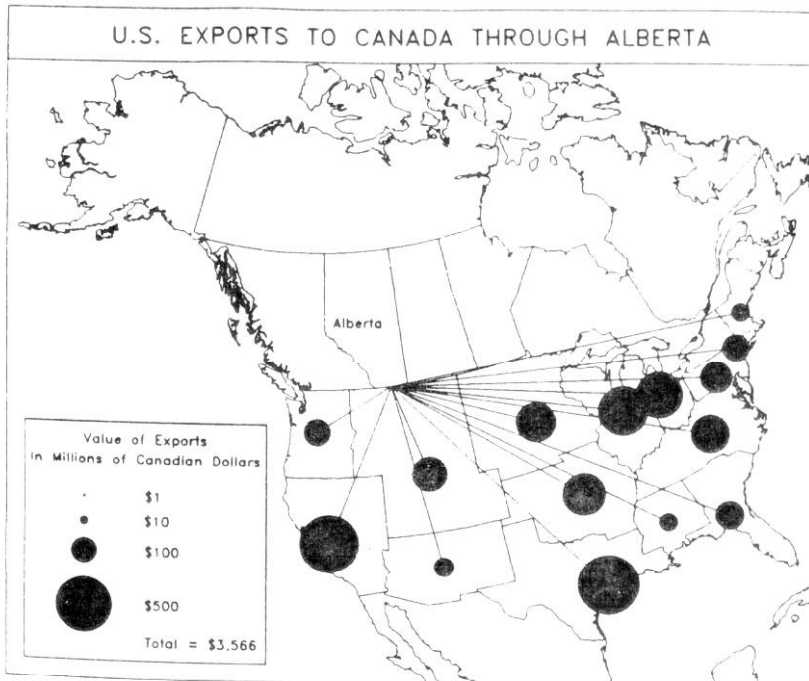
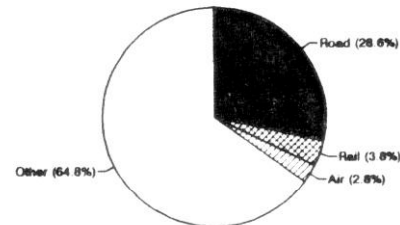
Figures 10 and 11



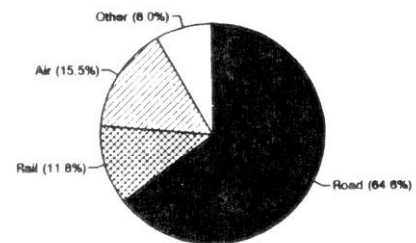
Product Composition (\$Mil., C)

1. Energy products	\$2,015 mil.	66%
2. Ag products	\$276	9%
3. Electronic, instrum., electrical equipment	\$186	6%
4. Consumer goods/trade	\$156	5%
5. Chemicals	\$154	5%
6. Metals & nonfuels	\$82	3%
7. Wood & paper	\$73	2%
8. Industrial equipment	\$63	2%
9. Motor vehicles & parts	\$32	1%
10. Other transpt. equipment	\$26	1%

Transport Modes Used



Transport Modes Used



Product Composition (\$Mil., C)

1. Electronics, instrum. & electrical equipment	\$770 mil.	22%
2. Industrial equipment	\$693	19%
3. Motor vehicles & parts	\$481	14%
4. Consumer goods/trade	\$399	11%
5. Metals & nonfuels	\$388	11%
6. Ag products	\$338	10%
7. Chemicals	\$269	8%
8. Other transpt. equip.	\$161	5%
9. Wood and paper	\$43	1%
10. Energy products	\$23	--

SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).

orientation, two-way trade through Saskatchewan is more "east-west" in its orientation. It largely involves trade between Saskatchewan and provinces further west with states further east in the Upper Plains and Great Lakes regions.

Canadian exports through Saskatchewan are concentrated in commodities: chemicals (largely fertilizers), wood and paper products, energy, agricultural products, and metals and nonfuel minerals. Most of these products are moved overland either by road or rail transport. In contrast, over half of the U.S. exports entering Canada through Saskatchewan are either industrial equipment or motor vehicles and parts. The dominant modes used in moving these are road and rail transport.

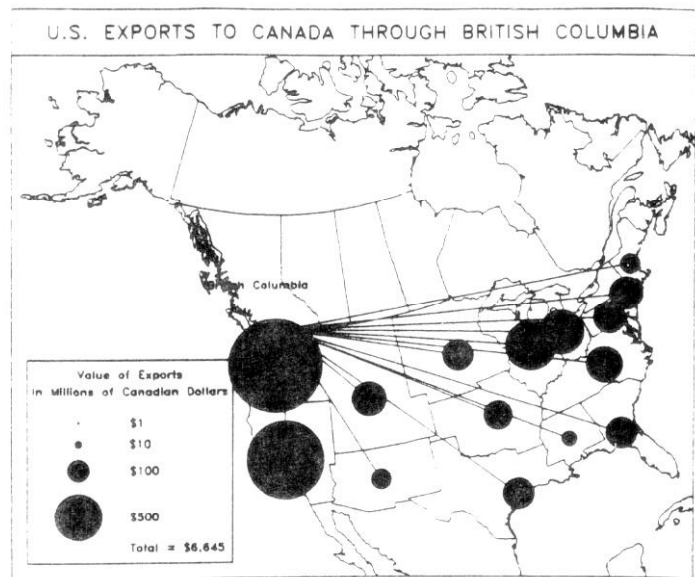
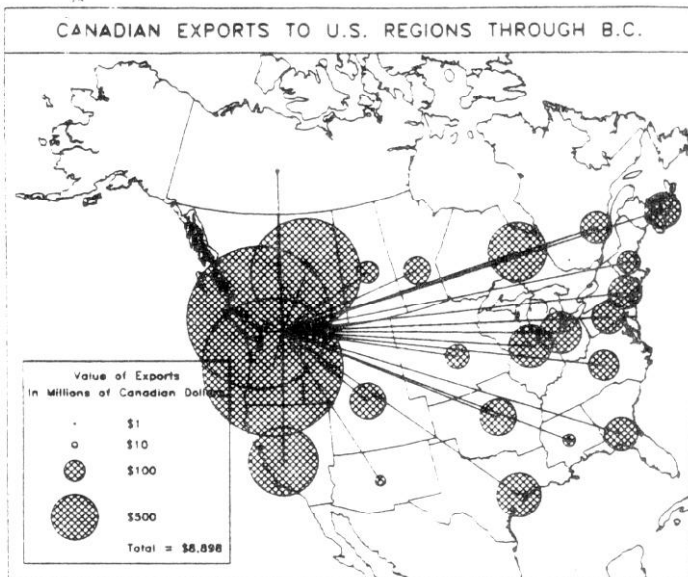
Of the \$1.9 billion in Canadian exports moving south through Saskatchewan, about 36 percent (or \$680 million) originates in Alberta. These Alberta exports actually exceed the value of exports leaving Canada through Saskatchewan that originate in Saskatchewan. The Alberta products are largely crude oil (\$186 million), chemicals and fertilizers, lumber, petroleum products,

and live animals. However, they also include \$80 million in telecommunication equipment and \$27 million in synthetic rubber and plastic materials.

Figures 24 and 25 show the spatial configuration of two-way, Canada-U.S. trade through Manitoba. Although much greater than two-way trade through Saskatchewan, this trade also is east-west in orientation, largely involving Canadian exports originating in Manitoba, Saskatchewan, and Alberta being sent to U.S. markets in the Upper Plains and Great Lakes regions. Two-way trade through Manitoba is regionally focused, with these same U.S. regions supplying most of the U.S. exports moving into Canada through Manitoba (Figure 25).

Canadian exports moving south through Manitoba are 70 percent greater in value than U.S. exports moving north through Manitoba (\$4.9 billion versus \$2.9 billion). Energy items account for 46 percent of these Canadian exports, much of which originates in Alberta (including crude oil, petroleum products, and natural gas). The value of Alberta exports to the U.S. leaving Canada through Manitoba (\$2.3 billion) is nearly twice the value of Manitoba-produced exports leaving Canada through Manitoba. Another

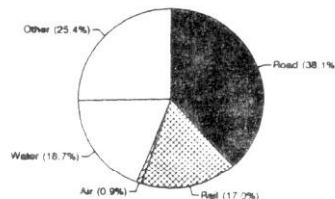
Figures 20 and 21



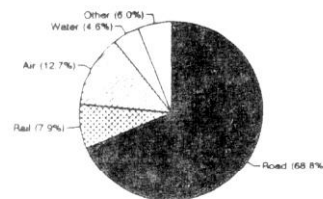
Product Composition (\$Mil. C)

1. Energy products	\$2,842 mil.	32%
2. Wood and paper	\$2,720	31%
3. Ag products	\$778	9%
4. Chemicals	\$533	6%
5. Metals & nonfuels	\$485	5%
6. Motor vehicles & parts	\$444	5%
7. Consumer goods/trade	\$315	4%
8. Other transp. equipment	\$277	3%
9. Electronics, instrum., electrical equipment	\$254	3%
10. Industrial equipment	\$249	3%

Transport Modes Used



Transport Modes Used



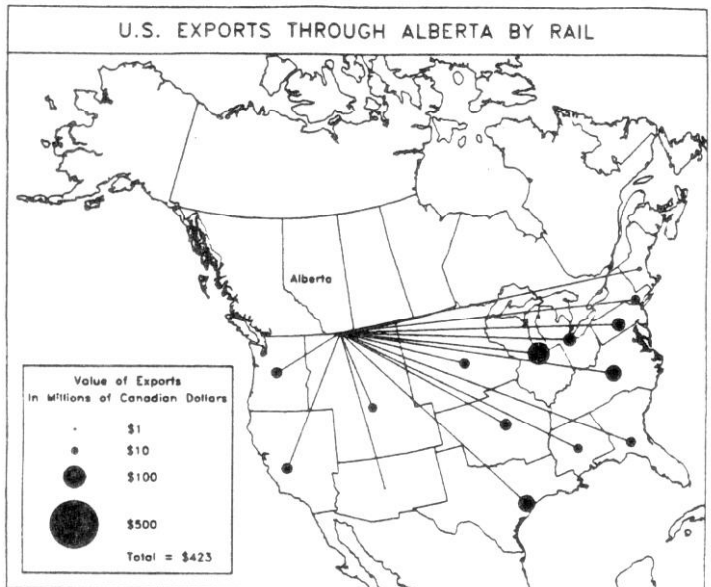
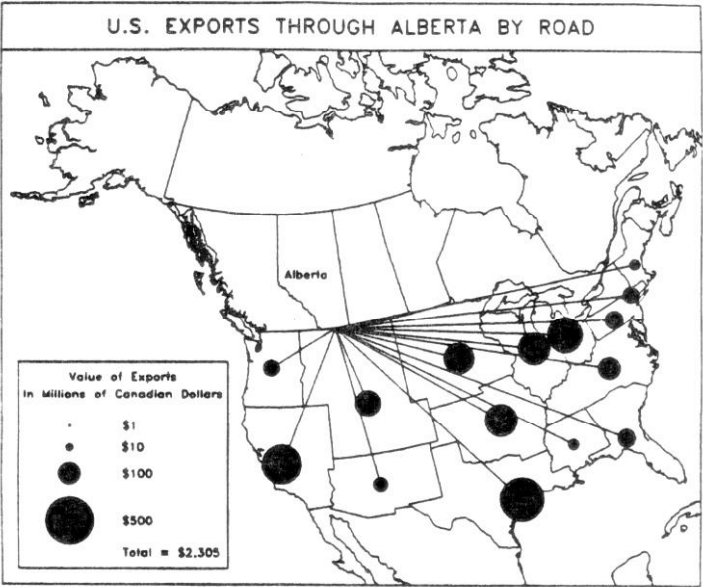
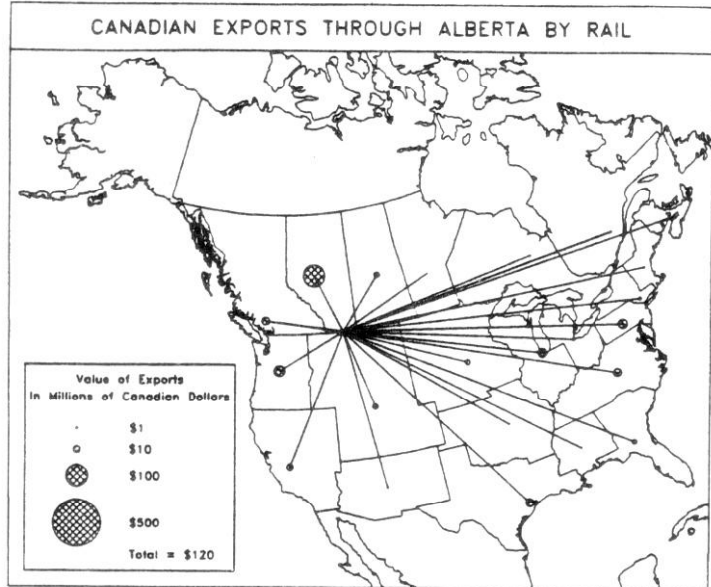
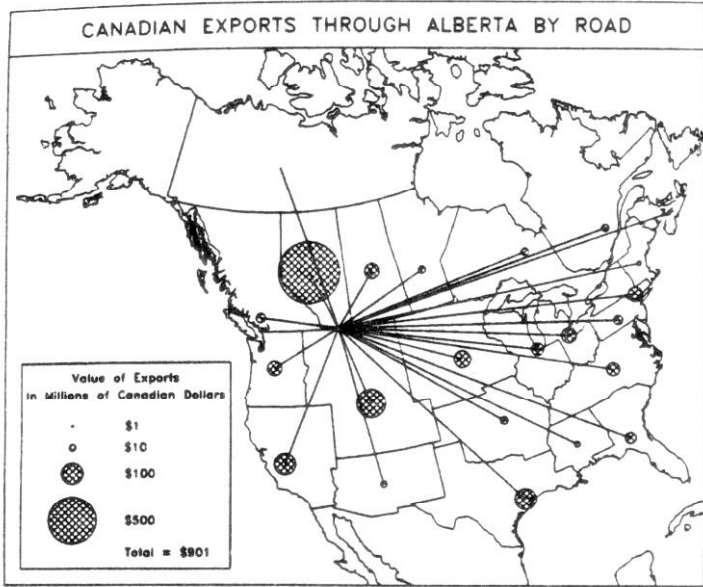
Product Composition (\$Mil. C)

1. Electronics, instrum., electrical equipment	\$1,059 mil.	16%
2. Ag products	\$957	14%
3. Consumer goods/trade	\$827	12%
4. Metals & nonfuels	\$791	12%
5. Motor vehicles & parts	\$780	12%
6. Industrial equipment	\$755	11%
7. Other transp. equipment	\$601	9%
8. Wood and paper	\$391	6%
9. Chemicals	\$324	5%
10. Energy products	\$161	2%

SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).

Figures 12 and 13

Figures 14 and 15



**Canada Exports by Road**

Major Items	Value
1. Special transact., trade	\$127 mil.
2. Live animals	\$114
3. Telecommunication equip.	\$93
4. Meat (fresh, chilled, frozen)	\$81
5. Fertilizer material	\$31
6. Petro & coal products	\$29
7. Softwood lumber	\$21
8. Whiskey	\$21
9. Drilling & excavatg equip.	\$20
10. Trucks (tractors & chassis)	\$19

**U.S. Exports by Road**

Major Items	Value
1. Passenger autos & chassis	\$226 mil.
2. Special transact., trade	\$153
3. Trucks (tractors & chassis)	\$152
4. Other meas., lab equip.	\$79
5. Other chemical products	\$62
6. Drilling machines & bits	\$62
7. Valves	\$60
8. Other fresh veg.	\$50
9. Electronic computers	\$47
10. Other motor vehicles	\$42

**Canada Exports by Rail**

Major Items	Value
1. Fertilizer materials	\$33 mil.
2. Petro & coal products	\$24
3. Organic chemicals	\$18
4. Other inorganic chemicals	\$14
5. Softwood lumber	\$8
6. Other fab. wood materials	\$6

**U.S. Exports by Rail**

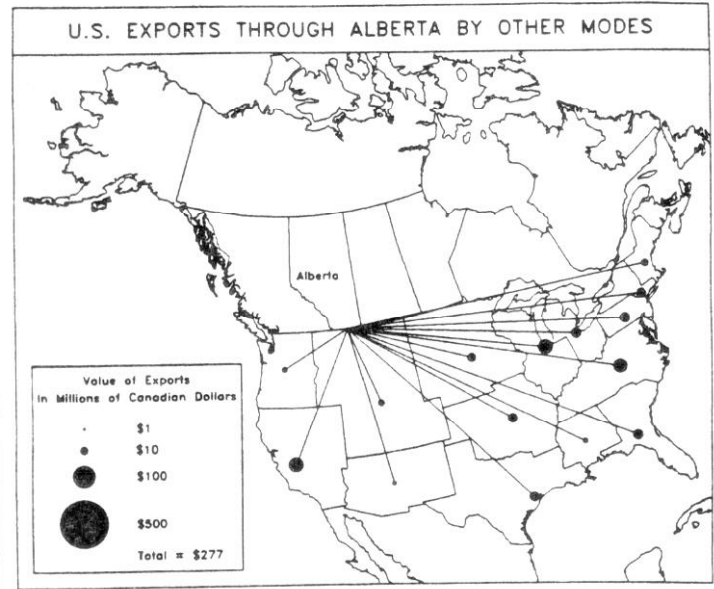
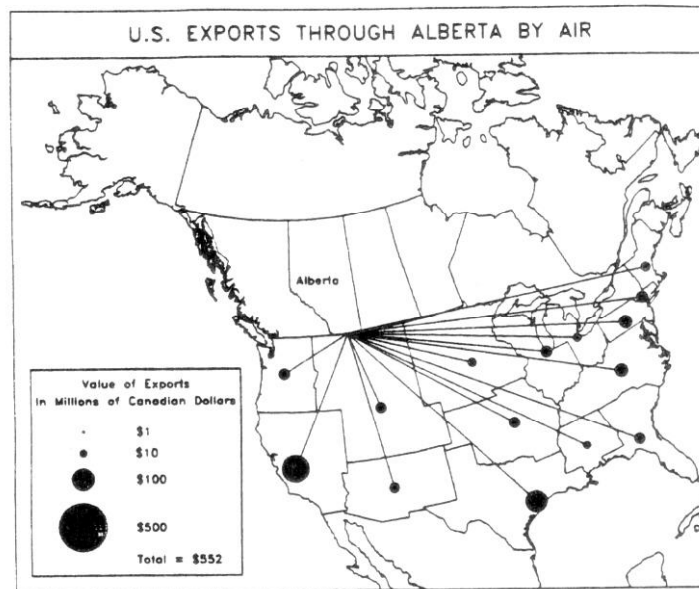
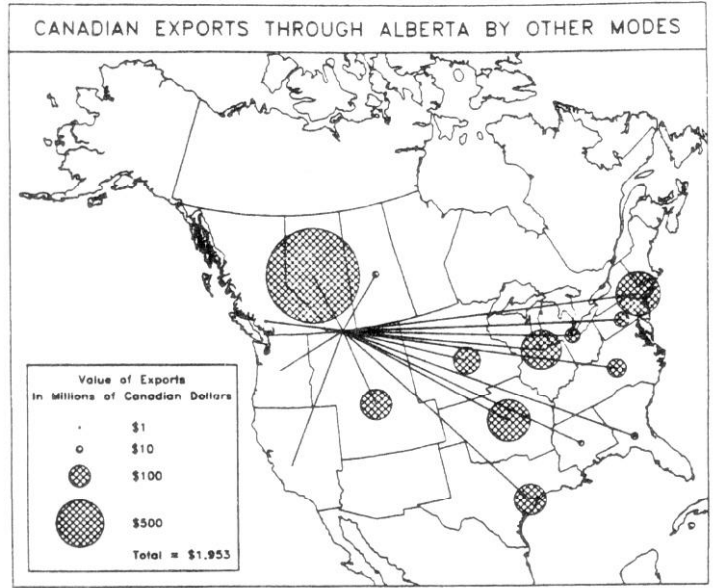
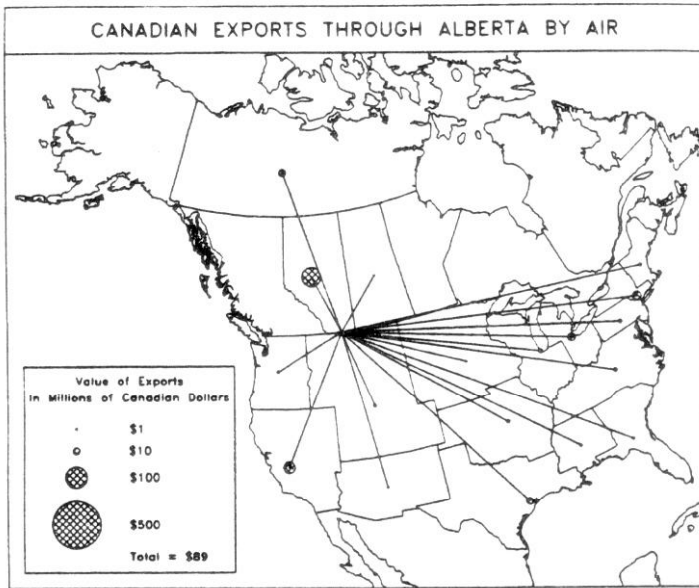
Major Items	Value
1. Organic chemicals	\$33 mil.
2. Track-laying tractors & used tractors	\$30
3. Unshaped plastics material	\$27
4. Misc. equip. & tools	\$24
5. Other transp. equip.	\$23
6. Inorganic chemicals	\$19
7. Other chemical products	\$16
8. Furniture & fixtures	\$15
9. Air cond. & reig. equip.	\$13
10. Coke	\$12
11. Paper & paperboard	\$12

SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).



Figures 16 and 17

Figures 18 and 19



**Canada Exports by Air**

Major Items (\$Mil., C)

- 1. Telecommunication equipment \$25 mil.
- 2. Office machines/equipment \$20
- 3. Precious metals \$11
- 4. Aircraft, engines & parts \$9
- 5. Meas., cont., lab/med/opt. equipment \$7

**U.S. Exports by Air**

Major Items (\$Mil., C)

- 1. Electronic computers \$71 mil.
- 2. Other telecommunications equipment \$53
- 3. Electronic tubes & semi-cond. \$53
- 4. Other meas., lab equipment \$52
- 5. Aircraft parts \$38
- 6. Aircraft, with engines \$37
- 7. Special transactions, trade \$32
- 8. Misc. meas. & control instruments \$21
- 9. Medical, ophthalmic, ortho supplies \$16
- 10. Valves \$10

**Canada Exports by "Other" Modes**

Major Items (\$Mil., C)

- 1. Crude petroleum \$1,309 mil.
- 2. Natural gas \$594
- 3. Petroleum & coal products \$49

**U.S. Exports by "Other" Modes**

Major Items (\$Mil., C)

- 1. Miscellaneous equipment & tools \$12 mil.
- 2. Other telecommunications equipment \$10
- 3. Furniture and fixtures \$9
- 4. Motor vehicle parts, except engine \$9
- 5. Other fabricated materials, inedible \$8
- 6. Valves \$8

SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).

\$573 million worth or 12 percent of the total originates in Saskatchewan (mostly fertilizer materials) and \$539 million worth originates in Ontario (mostly wood pulp and newsprint paper).

Reflecting the large energy trade, "other" modes of transport (pipelines and transmission lines) move 44 percent of the value of these Canadian exports to U.S. markets. Over half is moved by road and rail transport; very light use is made of air transport. While Canadian exports through Manitoba are dominated by energy and other commodities, U.S. exports through Manitoba are focused in manufactured goods (industrial equipment, electronics, motor vehicles, etc.). Over 70 percent of the value of these U.S. exports is moved by road with another 14 percent moved by rail.

**Existing Corridor Development in the West**

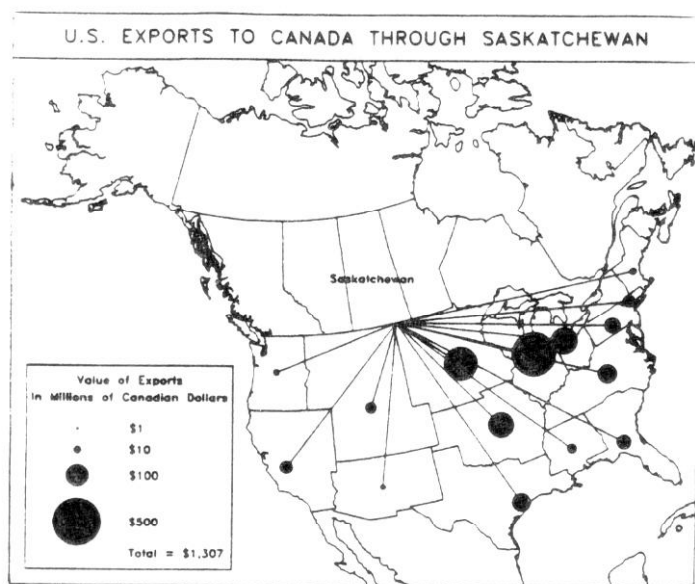
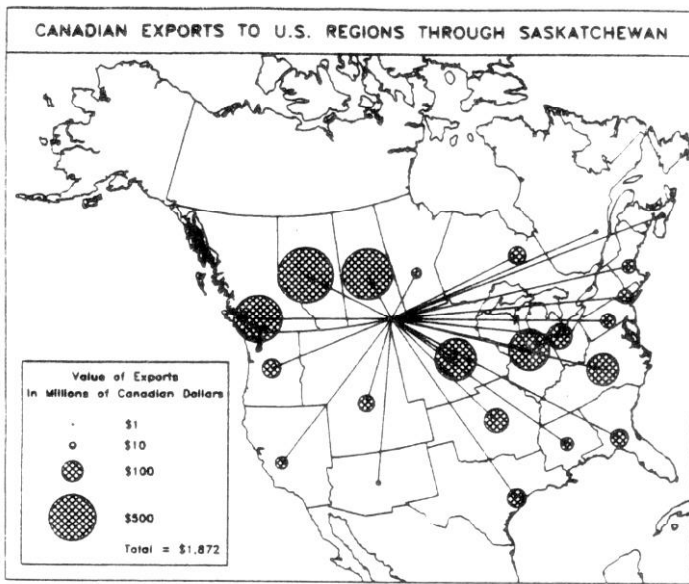
Based upon the existing configuration of U.S.-Canada trade in the West, the Pacific Coast area appears to be the furthest along in trade corridor development. Cross-border trade through B.C. in both directions is large. Sources and markets of this trade are regionally focused between large population centers like Vancouver, Seattle, and Portland. Furthermore, much of the trade

is conducted overland, using well-developed road and rail transportation systems. Moving goods overland potentially involves the region's cities and towns in the export trade; if nothing else, through increased transportation activity. Economies and populations in the Pacific Northwest region are growing fast on both sides of the border, enhancing the region's future development as a north-south trade corridor.

Table 9 shows how the four western provinces compare, both as producers of exports to the U.S. and as border crossing points for Canadian exports entering the U.S. Ratios of export clearance-to-export production are calculated for each province. These ratios provide some indication of how the four western border areas may be viewed by Canadian exporters as access points to U.S. markets (or as segments of major trade corridors).

The four provinces together produced a total of \$22.7 billion in goods exported to the U.S. and \$18.7 billion in Canadian goods cleared customs in these same provinces as they moved south. This clearance-to-production ratio of .82 means that 18 percent of these western provinces' exports were transported to eastern Canada before being transported south across the border into the U.S.

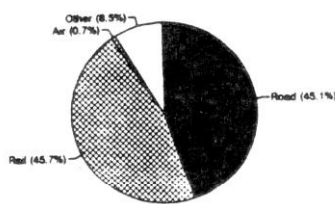
*Figures 22 and 23*



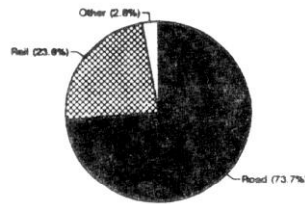
Product Composition (\$Mil. C)

1. Chemicals	\$462 mil.	26%
2. Wood and paper	\$458	24%
3. Energy products	\$298	16%
4. Ag products	\$185	10%
5. Metals & nonfuels	\$177	9%
6. Electronics, instrum., electrical equipment	\$107	6%
7. Consumer goods/trade	\$52	3%
8. Industrial equipment	\$42	2%
9. Motor vehicles & parts	\$41	2%
10. Other transp. equipment	\$20	1%

Transport Modes Used



Transport Modes Used



Product Composition (\$Mil. C)

1. Industrial equipment	\$453 mil.	35%
2. Motor vehicles & parts	\$273	21%
3. Metals & nonfuels	\$142	11%
4. Chemicals	\$119	9%
5. Ag products	\$110	8%
6. Electronics, instrum., electrical equipment	\$95	7%
7. Consumer goods/trade	\$88	5%
8. Other transp. equipment	\$22	2%
9. Wood and paper	\$13	1%
10. Energy products	\$10	1%

SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).

The B.C. ratio is 1.28, meaning that 28 percent more exports than B.C. produces move across its border on their way to U.S. markets. This ratio is 2.74 for Manitoba, implying that Manitoba clearly functions as a regional "conduit of trade," at least in terms of being part of a major route for Canadian products on their way to U.S. markets.

Two-way trade through Manitoba is regionally focused, largely linking Canadian traders and markets in the Upper Plains provinces of Manitoba, Saskatchewan, and eastern Alberta with U.S. traders and markets in Upper Plains, Midwest and Great Lakes states. Much of the trade is overland by road and rail—transportation systems that appear to be well-developed in the region (including six or seven north-south rail links between Canada and the United States). Two-way trade through Saskatchewan is now relatively light, but with a regional pattern much the same as two-way trade through Manitoba. As such, its trade can be seen as an extension of this Upper Plains trading region.

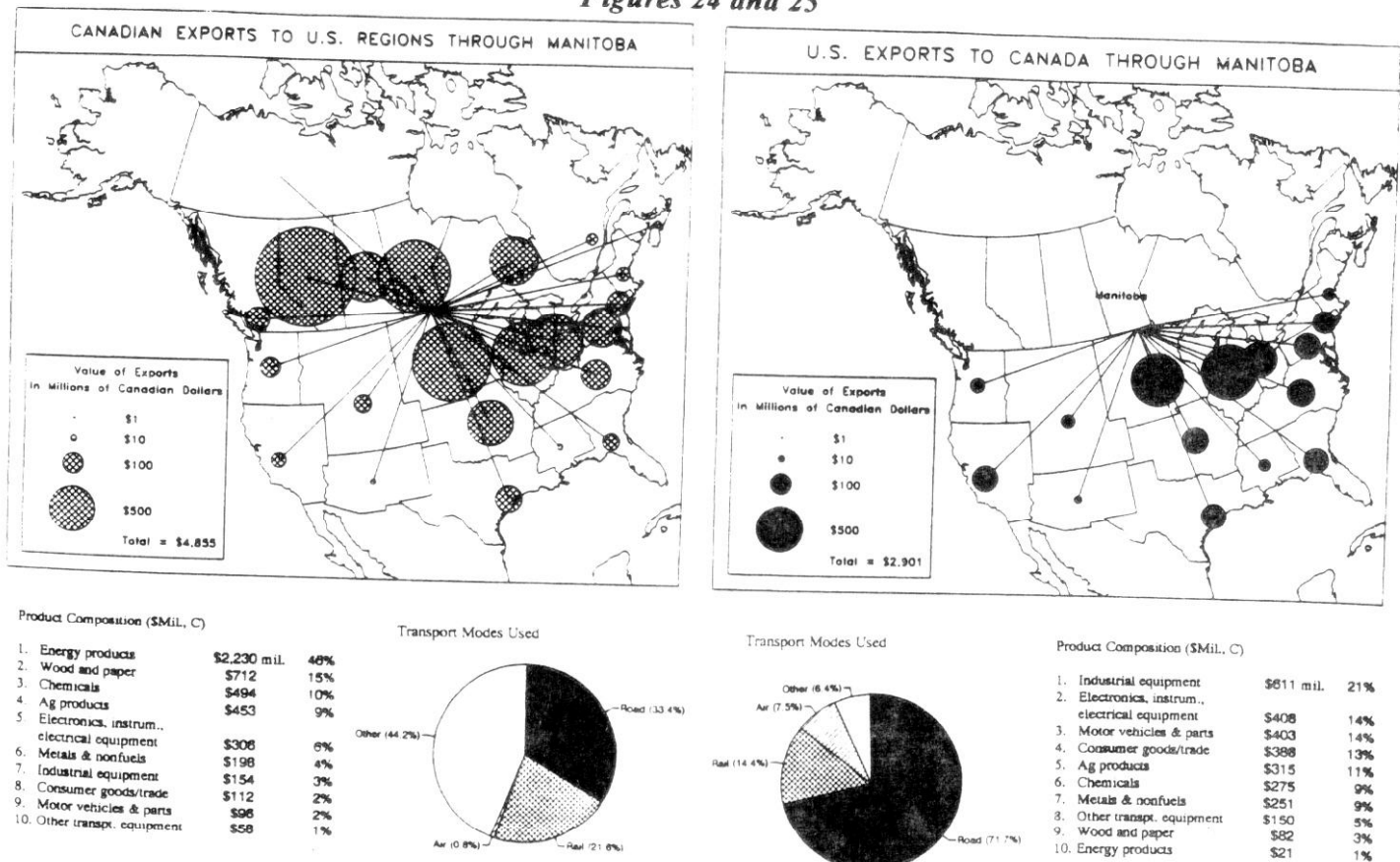
Canada's major population centers in this Plains region are Winnipeg (650,000 population) in Manitoba and Regina (190,000) and Saskatoon (205,000) in Saskatchewan. The larg-

est U.S. population center in the immediate region is Minneapolis-St. Paul. Much of the Upper Plains region is agriculturally-based, with a slow-growing or declining population, somewhat reducing this region's potential for future U.S.-Canada trade expansion.

Between these two western regions—the Pacific Northwest and Upper Great Plains—is the Rocky Mountain region. It extends from Alberta and eastern B.C. into Montana and as far south as Colorado, Utah, and northern New Mexico. Among the four western provinces, U.S. export trade into Alberta (\$3.6 billion in 1990) is second only to U.S. export trade into B.C. (Table 2). This trade has increased substantially in some categories since 1988 (Table 4). Furthermore, most U.S. export trade into Alberta is by road, contributing to corridor development.

Alberta is by far the largest producer of U.S. exports in western Canada (\$11.5 billion) (Table 7). Furthermore, its production of exports increased by more than any other province since 1988 (Table 8). But much of these exports are energy commodities transported by pipeline. This type of goods' transport contributes very little to trade corridor development, and often has little impact on cities and towns in regions traversed by such pipeline systems.

Figures 24 and 25



SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).

Moreover, only a fraction of Alberta's U.S. export production moves directly into Montana on its way to U.S. markets. This low ratio reflects the large amounts of Alberta crude oil and natural gas that are piped west into B.C. or east into other provinces before crossing the border into the U.S. These ratios for Alberta also are low in other product categories, suggesting that routes other than those directly south may be preferable or more advantageous for Alberta exporters. There is only one transnational north-south rail link between Alberta and Montana, and the region's north-south highway linkages are limited. Cross-border air travel also is constrained. As such, the adequacy of the region's existing transportation system for accommodating north-south trade expansion is currently unknown.

In spite of possible transportation constraints, a number of factors point to emergence of a third major U.S.-Canada trade corridor in the Rocky Mountain region. Alberta is a relatively wealthy province, with 70 to 80 percent of Canada's fossil fuel resources. Its population is growing, and Edmonton and Calgary are progressive, world-class cities. Despite being constrained by a depressed energy sector, Alberta's economy is growing and slowly diversifying into high-technology product areas. Continuing diversification would be enhanced by the development of a regional trade corridor, providing Alberta more direct access to growing U.S. markets. Alberta's role both as a producer of exports to the U.S. and as a market for U.S. exports to Canada should grow.

Similarly, the Rocky Mountain region of the U.S. has a growing population, with growth focused in the Denver and Salt Lake City metropolitan areas. Growth and economic diversification also is occurring in some high-amenity, mountainous areas in between these "book-end" population centers. Much of this region has lagged economically because of its remoteness and relative economic isolation. This isolation would be reduced by the gradual development of a major continental trading corridor that links growing regions in the north with growing regions in the south. If trade between Canada and the United States continues to expand, a "Rocky Mountain Trade Corridor" should emerge.

## Conclusions

While Canada-U.S. trade is extensive, it has been heavily concentrated in the East. However, since adoption of the Free Trade Agreement, western states and provinces are becoming more involved in trade as exporters, importers, and movers of goods. Because trade flows to and away from growing regions, this westward shift in U.S.-Canada trade should continue. Current and emerging population trends in both countries indicate a westward shift in population growth. Economic expansion and diversification preceding and accompanying this population growth should lead to an increasingly diverse assortment of goods produced and exchanged by western states and provinces, as well as increasing exchange in services.

## Tables 9 and 10

### Canada Exports to the U.S., Produced and Cleared in Western Provinces, 1990

Million \$, Canada	U.S. Export Production	U.S. Export Clearance	Clearance as % of Product
British Columbia	\$ 6,981	\$ 8,898	1.28
Alberta	\$ 11,473	\$ 3,063	.27
Saskatchewan	\$ 2,428	\$ 1,872	.77
Manitoba	\$ 1,774	\$ 4,855	2.74
TOTAL	\$ 22,656	\$ 18,688	.82

### Ratios of Canada Exports to the U.S. Cleared Versus Produced by Western Provinces, 1990

Product Categories	Ratio of Goods Cleared-to-Goods Produced				
	B.C.	Albta.	Sask.	Man.	All Four Western Provinces
Ag materials & products	1.53	.39	.62	1.14	.89
Wood & paper mat & prod.	.82	.13	2.45	4.12	.75
Metals & nonfuel minerals	1.03	.31	2.39	.96	.93
Energy commodities & prod.	5.87	.24	.36	11.26	.75
Chemicals & chem. products	3.31	.16	.58	4.33	.80
Industrial machines & equip.	1.25	.83	1.08	1.05	1.10
Motor vehicles & parts	2.55	.56	.95	1.07	1.68
Other transp. equipment	5.04	.90	2.22	.36	1.49
Electronics, instrum., electrical equipment	1.07	.63	3.57	2.01	1.19
Consumer goods/trade	1.07	.80	.84	1.17	.98
ALL EXPORT GOODS	1.28	.27	.77	2.74	.82

SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).

Three western continental trading corridors should emerge to accommodate expanding Canada-U.S. trade. The first is the "Pacific Coast Trade Corridor," stretching from British Columbia to California, but focused between Vancouver, Seattle, and Portland. Another is located in the Upper Great Plains region, stretching from the grain fields of Saskatchewan and Manitoba to Minnesota and the Great Lakes region--channeling trade through the "Red River Trade Corridor" of Manitoba, North Dakota, and Minnesota.

Between these two western corridor regions, a third north-south corridor should emerge--the "Rocky Mountain Trade Corridor." This corridor links a growing Alberta and its metro centers of Edmonton and Calgary to a growing U.S. Rocky Mountain region and the western "hub cities" of Denver and Salt Lake City (and to

Table 7

**Canada Exports to the U.S. Produced in Alberta Versus Canada Exports to the U.S. Cleared in Alberta by Transport Mode, 1990**

Million \$, Canada	Production of U.S. Exports	Road	Rail	Air	Other*	Total	Clearance/Production Ratio
Ag products	\$ 707	\$271	\$ 4	neg.	neg.	\$ 276	.39
Wood & paper products	551	55	18	neg.	--	73	.13
Metals & nonfuels	261	64	4	14	--	82	.31
Energy commodities	8,336	39	24	--	1,952	2,015	.24
Chemical products	964	83	69	2	neg.	154	.16
Industrial equipment	76	60	neg.	2	neg.	63	.83
Motor vehicles & parts	57	31	neg.	neg.	neg.	32	.56
Other transp. equipment	29	14	neg.	11	--	26	.90
Electronics, instrum., electrical equipment	297	132	neg.	54	neg.	186	.63
Consumer goods/trade	194	151	--	6	neg.	156	.80
TOTAL	\$11,473	\$901	\$ 120	\$ 89	\$1,953	\$3,063	.27

neg. (negligible)

\*Includes pipelines, power transmission lines, and other modes.

SOURCE: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991 (using data compiled by Statistics Canada).

Alberta is the largest producer of exports to the U.S. in western Canada, with \$11.5 billion in exports in 1990. However, only 27 percent of the value of these exports moves directly into the U.S. through Alberta. This low ratio of export clearance-to-export production by Alberta largely reflects the current pipeline system for moving Alberta-produced energy into U.S. markets. Large amounts of Alberta crude oil and natural gas are first piped west (into B.C.) or east (into other provinces) before moving south into the U.S.

However, this clearance/production ratio for Alberta is low in virtually every category of goods trade. For example, only 13 percent of its wood and paper product exports, 16 percent of its chemical exports, 31 percent of its metal and mineral exports, and 39 percent of its ag exports to the U.S. are directly exported across the Alberta/Montana border. This suggests that many of Alberta's best routes (and associated transportation systems) to U.S. markets are currently not directly south through Montana.

growing regions further south in California, the Southwest, and Texas). Development of this corridor may be enhanced further if Mexico ultimately joins with the United States and Canada in a larger North American free trade alliance.

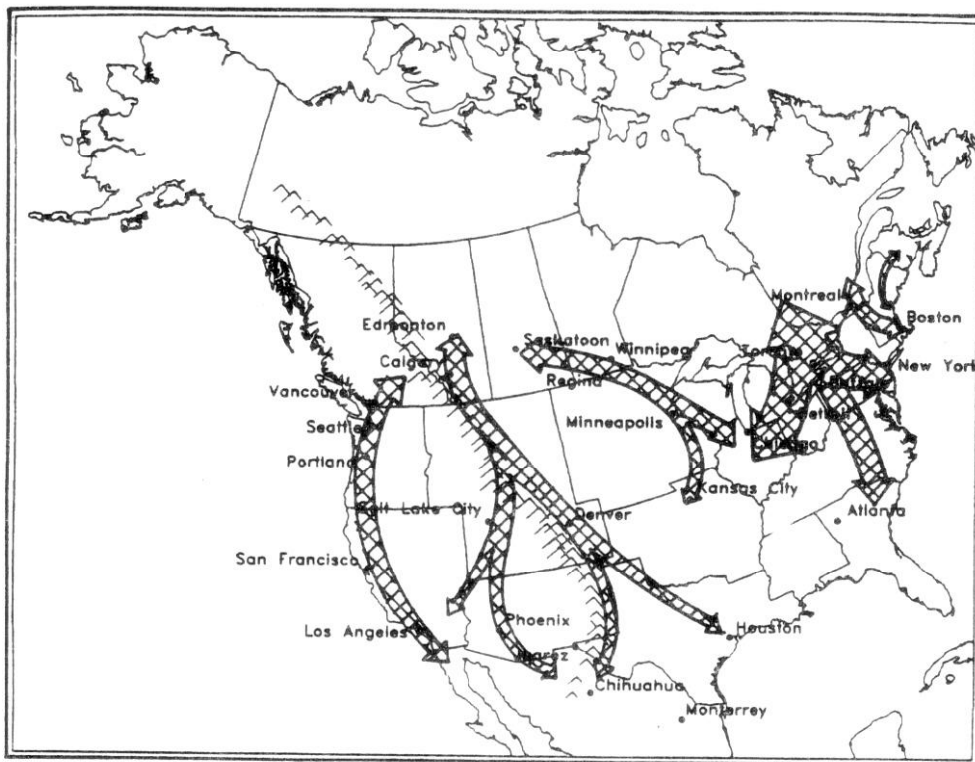
As north-south continental trading expands, the economies of cities and towns in and nearby these emerging trade corridors will be significantly impacted. With more goods and people moving in both directions, increasing demands will be placed upon transportation facilities and providers. Inadequate transportation infrastructure will need to be upgraded and improved.

Provisions for this are included in the recently adopted U.S. Transportation Act ("Intermodal Surface Transportation Efficiency Act of 1991").<sup>4</sup> The Act instructs the Secretary of Transportation to "identify existing and emerging trade corridors and transportation subsystems that facilitate trade between the United States, Canada, and Mexico" and to develop priorities and recommendations for improving "rail, highway, water, and air freight centers" within these corridor areas in cooperation with affected states and provinces. Multi-state transportation planning in the Rocky Mountain region in cooperation with Alberta and other provinces could greatly assist in furthering the development of a Rocky Mountain Trade Corridor.

As transportation systems improve and regional trade continues to expand, cities and towns along these trade corridors will be presented with other economic development opportunities. For large companies servicing multiple, regionally-dispersed markets, "intermediate locations" strategically situated between transferable input sources and dispersed final product markets often emerge as desirable sites for certain types of processing, manufacturing, and handling facilities. These sites tend to be found along major trade and transportation corridors.

Domestic trade in both the United States and Canada has historically been heavily focused along "east-west" axes. This geographic alignment of trade reflected the east-to-west settlement and development followed in both countries and was further sanctioned by barriers to north-south, continental trading posed by U.S.-Canada trade barriers.

As these barriers are removed under the Canada-U.S. Free Trade Agreement, attention is being given to "north-south" trading opportunities, without obstacles presented by national borders. Two-way trade is expanding in the West. As this occurs, many western states and provinces, once somewhat geographically isolated and outside the flow of interregional commerce, will increasingly find themselves in the crossroads of trade. □



EXISTING AND EMERGING NORTH/SOUTH TRADE CORRIDORS

Source: Swanson, Bureau of Business and Economic Research, The University of Montana, Missoula, 1991.

### Citations

<sup>1</sup>Swanson, Larry, "The U.S.-Canada Free Trade Agreement," *Montana Business Quarterly*, Bureau of Business and Economic Research, The University of Montana, Missoula, Summer 1990.

<sup>2</sup>Swanson, Larry, "Regional Dimensions of U.S.-Canada Trade and Prospects for Trade Expansion in the 'West,'" *Proceedings of a Conference: Across the 49th Parallel to the Future*, prepared by the Local Government Center, Montana State University, Bozeman, September 1990.

<sup>3</sup>Adjusting the value of trade for price inflation would deflate increases in trade as measured in current dollars (or dollars not adjusted for price

inflation). The trade data reflect commercial shipments of goods, not retail level trade. The U.S. overall index of producer prices rose 5 percent in 1989 and 3.6 percent in 1990. Canada's industry price index rose by 2 percent in 1989 and by only .2 percent in 1990. Changing currency exchange rates also affect estimates of trade growth. The Canadian dollar rose from an annual average of 81 cents (U.S.) in 1988 to 86 cents (U.S.) in 1990, a 5 percent increase in value relative to the U.S. dollar.

<sup>4</sup>"Intermodal Surface Transportation Efficiency Act of 1991," Conference Report accompanying H.R. 2950, U.S. Congress, Washington, D.C. (Sec. 6015).



## THE MISSOULA REGION STUDY: RETHINKING THE CONCEPT OF COMMUNITY

PATRICK B. EDGAR and ROHN WOOD  
University of Montana

*What do we mean when we talk about community? What is the meaning of this concept in a mobile, impersonal society? We have usually relied on political definitions, on borders drawn long ago, to define community for us. This article attempts to expand then idea of community to include people from outlying areas who participate in economic, cultural, and social activities in the core city. The authors contend that the challenges and opportunities of the future cannot be addressed until it expands its political and civic institutions to reach those outside its lawfully-defined limits.*

The Missoula region presents a unique opportunity to explore the notion of community. The geography (physical and social) is such that the outlying regions can be measured in relation to the urban center. If the definition of “community” is expanded to include that region that identifies itself with the center, then many of the assumptions of community policy development would need to be revised. Policies of service development and provision, fiscal base, and public administration in general, would be dramatically altered. The newly-defined community may then embark on a process of self-actualization, which will increase its likelihood of successfully providing for its members.

Like any modern municipal center, Missoula consists of several distinguishable subdivisions or sectors. In its effort to more fully comprehend the Missoula “community”, this study considers data from ten such sectors: communications, cultural activity, education, finance, government, health, recreation, religious, retail, and travel. These economic and social subdivisions of Missoula-area life, when clearly defined and fitted together, offer a portrait of the Missoula community.

Individually or collectively, in one way or another, these ten particular sectors touch every citizen in the greater Missoula area. A rancher near Seeley, for example, may not purchase ranch supplies in Missoula, but she likely watches a Missoula television station and certainly pays county taxes. A retired couple near St. Ignatius might attend church in Ronan, and never attend cultural events in Missoula, but probably seeks medical attention in Missoula. While other sectors exist, the ten studied here provide a broad and deep assessment of the economic and social activity vibrating into and penetrating out from Missoula.

The statement of method notes that this study relies on existing data from the study sectors. The reason for this is inherent in the entity being studied; a community is self-defining. Individual and group identification with the center is driven by a variety of dynamic factors, including custom and necessity. To measure this identification, the study calls upon material created by the groups themselves.

Finally, consider a brief caveat concerning the data gaps and research remaining. The following sector analysis is incomplete, primarily because it remains to be gathered, but also because much information cannot be gathered without excessive cost. In some cases, the existing data will have to be supplemented with observation or interview. The truth is that the search for hard data could go on endlessly. This fact alone is indicative of the complex nature of communities. It is not necessary to identify every single variable in order to draw some conclusions. There is a continuous call for any researcher to trust his/her intuitive knowledge as well. Thus, this project will combine the use of the data bases of the various participating sectors with intuitive observations to form a whole and entirely useful description of the **community** called Missoula.

### The Communications Sector

Missoula's communications sector, for the sake of this study, is a system or set of systems of facilities that exists to impart information and entertainment. Unlike the other sectors, the Missoula communications sector relies very little on existing political jurisdictions for self-definition. Rather than relying on survey instruments that record the counties of residence for its participants, the communication sector is defined through technical ability. For example, a map provided by KDXT and KGRZ, sister radio stations operating in Missoula, shows a shaded area similar in shape to the silhouette of a cartoon man imposed over lines representing the political boundaries of Missoula County and several surrounding counties. The shaded area, according to the map's legend, "indicates primary reception signal of 60 dBu." In part, broadcast ability, a function of technology, drives the community of KDXT listeners.

Of course, other factors, such as function and taste, must be taken into consideration when drawing the picture of Missoula's communications sector. However, with maps similar to that of KDXT for Missoula's other radio stations and its three television stations one can get a fairly clear appreciation of the reach and pull of Missoula's media or communications community. A cursory glance at the broadcast range of a few of Missoula's media indicates that Missoula, as a communications center, flows throughout Western Montana and parts of Idaho.

### The Cultural Sector

Missoula's aesthetic and intellectual achievement can be measured from a variety of activities, including musical and theatrical performances, museums and fine art shows, parks and public artistic displays, and public events such as fairs and parades. The definition of this sector demonstrates the inherent difficulty in pegging certain community activities. For example, certain motion pictures may be considered both recreational and cultural. The Missoula Farmers' Market is arguably a retail event, a recreational event, and a cultural event. However, for the sake of this effort, "culture" will be broadly defined to include fine art and folk art events. Therefore, the Missoula Symphony and the Western Montana Fair find their homes in this sector.

Data for this sector is varied and somewhat difficult to standardize. Donation records are the most easily accessible, but probably do not completely reflect participation. Also, the

built-in bias of existing political boundaries exists here: data was collected by this sector according to county residence. An initial analysis, however, presents the following observation: The majority of participants in Missoula's cultural activities reside in Missoula County and the six surrounding counties of Ravalli, Sanders, Mineral, Lake, Flathead, and Lincoln. However, some individuals travel further distances to participate in Missoula's cultural activities.

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*If the definition of "community" is expanded to include that region that identifies itself with the center, then many of the assumptions included in policy development would need to be revised.*

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### The Education Sector

Educational institutions provide less data for this evaluation of Missoula's community. On the one hand, the University of Montana draws from a very large, multi-state population, which offers little to the understanding of Missoula's normal operations. However, University data indicates that people commute from the surrounding counties of Ravalli, Lake, Granite and Mineral. One of the unique factors in Montana's postsecondary education system is that several of the units of the University System are patronized as if they were community col-



leges. Thus, the relatively large numbers commuting to the University of Montana provide further evidence of the broader community dimensions of Missoula.

On the other hand, primary and secondary education is divided into districts that create their own education communities. Thus, studies of any data for these levels of education will prove fruitless for the purposes of this study. A possible avenue for future study may include a market study for school systems (if enrollment is open). Since there have been several proponents of open competition for schools, such a study would prove to be useful on more than one level; as a measure of the depth and breadth of community, and as an anticipatory device for the implementation of open voucher systems.

For this study, the Missoula Vocational-Technical Center offers the best sense of Missoula's impact on the region's education. The Vo-Tech Center is not confined by districting requirements, as are primary and secondary schools, nor is it designated as a state institution, as is the University of Montana. Observation of the county origins of students indicates that the center draws heavily from the surrounding counties, most notably, from Ravalli, Lake, and Mineral counties. The role of vocational-technical centers is vital to the improved understanding of educational needs. According to the American Association of Community and Junior Colleges, the attendance at these centers defines the education demand of the ordinary citizen. As such, the fact that the Missoula Vocational-Technical Center draws so much enrollment from the surrounding counties adds to the awareness of a broader community.

### The Finance Sector

As a large municipality, Missoula naturally draws financial activity. It has more banking opportunities and investment firms than Ronan or Hamilton. A survey of the banks, savings and loans, credit unions, financial planning firms, and investment brokerages will determine how far Missoula reaches out as a financial center, and conversely, how far in citizens will reach to participate in Missoula's finance sector.

Preliminary data and interviews indicate that bankers have accounts involving residents and institutions from all the surrounding counties. This appears to be a growing phenomenon, with the expansion of branches and electronic banking in the state. In fact, the ability of the banks

to reach out to surrounding communities in spite of the restrictions is indicative of the strength of the growing ties with the region. There is a need for those living in the outlying areas to bank in Missoula proper, since many of their transactions involve the center. The Missoula banking officials also describe a tremendous growth in the number of out-of-town checks being processed, and the number of individuals from adjacent cities and towns using electronic banking facilities.

### The Government Sector

As a government sector, Missoula is multi-tiered. This study examines several government and quasi-government sectors to arrive at a Missoula government sector. For example, Missoula's urban transportation authority has a relatively small jurisdiction, while the U. S. Forest Service's Region One (headquartered in Missoula) has a large, multi-state jurisdiction. Generally, for the purposes of city and county services, the Missoula government sector is roughly the Missoula county boundary. For the purpose of providing certain state services, including the promotion of tourism, the Missoula region is considered to be the area of the seven counties surrounding Missoula.

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*Decisions regarding community must overcome these traditional barriers to problem solving, and allow the majority of the public affected by the decisions to be a part of the process.*

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### The Health Sector

As a medical center, Missoula is probably the largest between Spokane and Billings, and Canada and Salt Lake City. As such, sector data establishes that the Missoula health sector (which includes three major medical centers and several dozen medical practitioners) reaches out several hundred miles in each direction. For example, the Western Montana Clinic claims a service radius of 200 miles around Missoula.

Furthermore, both St. Patrick's and Community Regional hospitals indicate that their patients are from the region reaching into northern Idaho, and into Powell, Flathead, and Lewis and Clark counties. These two institutions have also recently cooperated to assume co-ownership of the hospital in Darby. These behaviors all

signify that the health care sector reaches well beyond the geographical boundaries of the Missoula valley. In fact, the health care sector appears to have the widest reach of all. This should come as no surprise, since the population of Montana is aging faster than the nation as a whole. This reach is also a result of diminishing health care resources in the rural areas, which have dwindled as a result of increasing health care costs. Smaller communities are in no position to compete in this sector.

### The Recreation Sector

Recreational opportunities in the Missoula area are widespread and varied. Missoula has dozens of entertainment facilities, including movie theaters, restaurants, and bars, and holds many sporting events. Other recreational opportunities, such as skiing, boating, fishing, hunting, and hiking, are well within reach of the immediate Missoula area.

The Missoula YMCA reports that it draws much of its membership from the general region, including Ravalli, Lake, and Granite counties. This supports the idea that people from these areas identify with Missoula. The membership in other health clubs is very similar in its outreach to surrounding areas. The participation in such facilities demonstrates the strength of identity with the community. The Missoula Parks and Recreation departments describes participation in its events as coming from similar areas. The recent "Blizzard Ball" tournament drew 74 softball teams from the area, including teams from Hamilton, Superior, and Drummond. This is similar to any event offered throughout the year. Since these events may be considered more voluntary than either finance or health care, they are more demonstrative of the depth of identification with the Missoula community.

### The Religious Sector

Traditionally, nothing has defined community in the American society more than local churches. From the beginning, the church was the center of community activity. This was especially the case in the western communities, which frequently had only one church. Several area denominations report collaboration with other communities. For example, the Catholic denomination has expanded many of its youth programs to include groups from Hamilton, St. Ignatius, and Seeley Lake. The interdenominational "Walk to Emmaus" and Cursillo programs draw membership from the surrounding counties as well.

The expanding nature of religious services is very important in measuring the notion of community. The defining character of spiritual events is the process of developing a sense of mutual needs and interests. The ideal of religious congregation is to refine the true nature of what is meant by "community." The occurrence of widening regional involvement is a precursor of expanding the community definition. All denominations report an increase in these types of activities.

### The Retail Sector

The Missoula Area Chamber of Commerce describes Missoula as a retail center for western Montana. The growth and development in this area demonstrates the expansion of the city's influence. The nature, size, and location of several new retail facilities illustrate the changing nature

of the retail sector. For example, the recent opening of Costco in Missoula was the result of extensive marketing studies. Would a large wholesale outlet

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*The ability of banks to reach out to surrounding communities in spite of restrictions is indicative of the strength of the growing ties with the region.*

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be successful? Considerable evidence supporting the belief that Missoula is a regional center was needed. The studies supported this proposal rather strongly; the management of Costco was willing to engage in considerable negotiations with the city to open. The store was located on the outskirts of the city, in keeping with the national trend of locating industrial and retail facilities away from the city center.

Several other larger operations have also announced their plans to locate in the Missoula area. Again, these businesses rely on a larger market base derived from a growing community. The expanding retail base is further evidence that what may be called the Missoula community is much larger than the valley itself. License plate surveys conducted by Southgate Mall and the downtown association revealed that their customers included Ravalli, Mineral, Lake, and Granite county citizens. The retail sector solidly supports the notion of a broader community than defined by political means.

These retail dynamics are part of the larger driving force of the postindustrial society. The retail sector clarifies the relationship between consumer and producer. The in-

crease in the number of 24-hour retail businesses, the expansion of specialty stores, and the direct influence of the consumer on production are elements of the postindustrial society. These are also a major influence when it comes to redefining the nature of community. Localities may either become more splintered because of these economic realities, or more cohesive as a result of such diversity, which removes previous barriers.

### The Travel Sector

Missoula is a major travel center for western Montana. The Missoula Airport (Johnson Bell Field) provides the arrival and departure point for major airlines for people in Ravalli, Mineral, Lake, Granite, and Lewis and Clark counties. Bus services for these counties feeds into the Missoula depot. The roads serving western Montana

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*It is time for decisions regarding local expenditures and taxation to be returned to the localities themselves. The issues involved should be left to public debate within the communities.*

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(Interstate 90, U.S. 200, and U.S. 93) converge on Missoula. The improvement of transportation technologies has increased the relative mobility of the people from the surrounding

areas sufficiently to increase their participation in the other sectors as described above. The very existence of the wider base for all of the other sectors provides evidence that this sector has also broadened its base.

### Sector Conclusion

It may be concluded that the community of Missoula has been redefined by all of the sectors identified. Without exception, the sectors describe a service population as including not only the Missoula valley but large segments of the surrounding counties of Ravalli, Granite, Mineral, Lake, and Lewis and Clark. In fact, the only sector that considers these political boundaries useful is the political sector. County boundaries run through the denser parts of the population that identify themselves with Missoula. Municipal boundaries also defy any reason when determining who is properly part of the Missoula community.

Nevertheless, these boundaries continue to exist. They divide the members of this community artificially, and obstruct meaningful dialogue in resolving the long-term challenges of the region. Air and water ecosystems

ignore these political boundaries. Yet decisions regarding these ecosystems are made as if there were clear distinctions between the interests of the Bitterroot valley and the Missoula valley. Decisions regarding community must overcome these traditional barriers to problem solving, and allow the majority of the public affected by the decisions to be a part of the process. If all of the sectors describe the community of Missoula in such different terms, public forums must reflect those terms by recognizing the commonality of its members. Earlier political models were appropriate for generating public discussion and participation. However, these have become largely irrelevant.

However, a definable "inner core" of the Missoula community can be identified. This "inner core" is surrounded by concentric layers of the community. In other words, one may assume that the amount and intensity of involvement in the community should decrease relative to the distance from the core of the community. The inner core may be observed by simply viewing an aerial map of the area. It is not difficult to ascertain the concentration of population in the Missoula valley itself. While this concentration does not have a direct relationship with the political boundaries associated with the municipality, it still may be correctly identified as the "city" of Missoula. This is an important consideration, given the fluid nature of the growth of the community, and the rather rigid process by which political boundaries are moved. It is also important since one should assume that those within this core area have the highest stakes in the policy arena. Nevertheless, those outside the inner core have some stake in policy and should also be considered in the decision-making process.

### Summary and Recommendations

There is little doubt that the idea of "community" requires redefinition. This is a priority, because there is plenty of evidence that local/regional governments are in crisis. The combination of lost revenues, increases in mandated services, and economic decline have placed many areas in an untenable position. The ability of Montana localities to develop innovative response strategies will evolve by the combined recognition of a "bio-region" and "the responsible community". The possibility of developing such an innovative and dynamic approach depends first on the expansion of the definition of the players; then the ability to learn about these alternative strategies by reconceptualizing the idea of community; and then in re-initiating the role of government. If

conditions remain the same as they are now, the prospects for Montana communities are not very bright.

The following specific actions need to take place if communities in Montana (and communities throughout the nation) are to be expected to deal with their present crisis. These steps should be seen as beginnings needed to redefine the community. Today, the restrictions toward resolving major challenges imposed on communities by legal, economic, political, and social barriers are also barriers to redefining community. Removal of these barriers, along with encouragement in the forms of revisions of laws, social change, and local action, will facilitate this process.

**Legal.** The Montana Legislature must undertake corrective action that allows localities the opportunity to be creative. First, the Legislature must repeal the property tax freeze. The initiative itself needed only be in force for the biennium following the 1987 Legislature. The freeze, along with its enabling legislation and further restrictions enacted by the 1989 Legislature, has removed all the options available for communities. It is time for decisions regarding local expenditures and taxation be returned to the localities themselves. The issues involved should be left to public debate within the communities.

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*Boundaries divide the members of this community artificially, and obstruct meaningful dialogue in resolving the long-term challenges of the region.*

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In order for this debate to take place in any reasonable fashion, it is necessary to broaden the legal definition of community. This broadening must reflect the depth of understanding held by sectors outside of government. A significant part of this broadening would be the revision of the manner in which revenues are collected. The challenges facing communities are difficult to resolve as long as policy approaches like I-105 remain to contribute to adversarial relationships. Furthermore, broader communities will be unable to address all of the issues so long as the state legislature restricts what may be discussed. This will facilitate the implementation of a new relationship between governments and their constituents.

Second, wherever possible, the localities must be allowed to determine their own levels of service provision,

without excessive state regulation. This would free up local options for the use of funds. Communities, as they are redefined, need to have much more discretion when it comes to allocation of expenditures. They must also be allowed more flexibility in the transfer of funds. Short of fraud or misappropriation of public funds, the local governments should have as much discretion as they need. The continued paternalistic relationship of state government over local governments only serves to remove options and suppress innovation. This is especially the case in Montana, since the state is providing little or no relief for fiscal stress.

The most important change that needs to take place is for there to be an expansion of the definition of community on two very real levels. First, the residents of the larger bioregion or multi-sector community need to have some means for participating in the decision-making process. This includes removing the idea that one can only be wholly a member of a community or not. Some mechanism whereby degrees of membership can be established, and thus relatively able to participate, will also be defined. Perhaps as the population moves away from the urban center, percentages of membership could be delineated using a combination of sector analysis and public input.

Second, the notion of community must include a clearer definition of responsibilities associated with such membership. No longer should people feel that they can or should elude responsibility for the condition of the community, environmental or social, by merely crossing some artificial boundary. Developing political models that include such admission of responsibility, and service delivery methods that reflect that obligation, will go far to broaden the possibilities of innovative and participative solutions. Increasing a sense of ownership for the ultimate success/failure of a newly defined community will strengthen the tie between the government and the governed, as well as neighbors for one another.

**Economic.** Montana communities must diversify their economic bases. It is imprudent to continue to rely on the cycles of "boom and bust". The booms are becoming less frequent and the busts much too severe. The resources these cycles are based upon are not limitless. Montana, as a whole, must move in the direction of value-added industries. Incorporating devices such as Daly and Cobbs' Index of Sustainable Welfare will go far in improving the long-term economic prospects for the

localities. Counties, municipalities, and the state need to work in a cooperative manner to bring about these changes. The success of these efforts will be the most important factor for the stability of all levels of government in the future.

Broadening the economic base is vitally important as communities move further into the postindustrial society. However, the content of the efforts must go far beyond providing tax incentives to industries. State and local government need to cooperate to strengthen infrastructure and education. This can only be accomplished by a much broader base of cooperation. As has been demonstrated by fiscal crises in state and local governments, the present system of addressing these challenges is not working. This is largely a function of the political definition of community not reflecting the economic and social realities of communities. As long as there is no meaningful relationship between how a population behaves and the public goods provided for it, there can only be continuing difficulties.

**Political.** The expectations of the people toward their government are becoming much too complex to continue to take the support of the electorate for granted. The pioneer experience of the state of Montana is over, and it is time for the government of the state to reflect this truth. While there is something to be admired in governments that want to retain a "neighborly" atmosphere, the requirements on them do not always make this a reasonable alternative. Local officials' confidence that they understand the voter may not be well placed. Local governments must construct devices that encourage greater public participation. The mere presence of public meetings is not sufficient. A newly defined community must initiate aggressive outreach efforts to increase the electorate's sense of empowerment.

Montana communities should strive to add to their "good neighbor" approach by developing some sophisticated service provision options. Sophisticated administrative practices and social integration need not be mutually exclusive. The experience of localities that have expanded their service delivery options through expanded political options demonstrates that there are better ways to construct local control than strict divisions of communities allow. The best way to elaborate the innovations of communities is to appeal to a larger idea of the community. The more sophisticated approaches to public administration draw upon these kinds of realities.

State and local governments must make greater effort to educate the public. Seeking public input is of little value if the public is not well informed. Rather than operating in a manner that indicates a certain fear of voter reaction, government must take the initiative in providing the details of complex issues. All too frequently, the leaders draw conclusions regarding the wishes of the voters without seeking to engage in interactive dialogue. The understanding of issues will be much more consistent if government officials work hard to reduce their "mystery systems". These "mystery systems" are created through the use of complex language, and a lack of appreciation for the capacity of voters to understand. Ironically, it is these factors that allowed the proponents of I-105 to succeed.

Montana communities are faced with serious challenges as they enter the 1990s. The combination of the loss of revenue base from resource industries, loss of federal revenue sharing, and

the property tax freeze have been debilitating. Unlike the other states that have faced fiscal limits, Montana has few options to pursue for recovery. The stagnant economy prevents local governments (in their present form) from being able to develop innovative responses. The state government has no surplus with which to ease the strains of revenue losses. The outward migration of the population from the urban centers has further reduced the options available.

These challenges can be addressed through more aggressive efforts to diversify the state's legal, political, and economic systems. Such efforts will be the key to the improvement of the future prospects of Montana communities. The communitarian philosophy declares that it is crucial that a larger sense of responsibility be included in the citizen's understanding of citizenship. None of these possibilities can be pursued until a better understanding of what is actually meant by "community" is developed. This ideal must reflect the realities of the day in order to capture the essence of what it means to be a citizen.

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***The restrictions on resolving major challenges imposed on communities by legal, economic, political, and social barriers are also barriers to redefining community.***

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## REFERENCES

- Daly, Herman E. 1977. *Steady State Economics*. San Francisco: W.H. Freeman and Company.
- Daly, Herman E. and John Cobb. 1989. *For the Common Good: Redirecting the Economy Toward Community, the Environment, and a Sustainable Future*. Boston: Beacon Press.
- Dempsey, Bernard W. 1958. *The Functional Economy*. Englewood Cliffs N.J.: Prentice-Hall.
- Dumbald, Edward, ed. 1955. *The Political Writings of Thomas Jefferson*. Indianapolis: Bobbs Merrill.
- Etzioni, Amitai. 1983. *An Immodest Agenda*. New York: McGraw Hill.
- Hirsch, Fred. 1976. *The Social Limits to Growth*. Cambridge, Mass: Harvard University Press.
- Mulcahey, Richard E. 1952. *The Economics of Heinrich Pesch*. New York: Holt.
- Smith, Adam. [1759] 1971. *The Theory of Moral Sentiments*. New York: Garland.
- , 1776. *Wealth of Nations*. New York: Random House.
- Whitehead, Alfred North. 1925. *Science and the Modern World*. New York: Macmillan.

# COLLECTION AND DISPOSAL OF SOLID WASTE: PUBLIC AND PRIVATE OPTIONS

JAMES GOEHRUNG  
Montana State University



*Local governments face critical choices when making decisions regarding the disposal of solid waste. New federal regulations, and a public disinclined to pay for governmental services, force decision-makers to consider privatizing solid-waste services. But privatization may not be the "miracle cure" for solid-waste problems that its advocates suggest it is. Since local governments bear responsibility for the actions of private contractors, decision-makers should carefully consider the pros and cons of privatization before making such a decision.*

THE move toward privatizing public services came of age in the 1980s. The initial rallying cry for privatization was, "Anything that government can do, business can do better". The move was fueled by criticism of government size and inefficiency, the increasing needs of communities, and the unavailability of scarce resources.

Privatization takes many forms, but can be broken down into four general approaches. The first is contracted services, often called "contracting out". Through a selection process, private companies are hired to provide a specified service, for which they are paid a fee.

The second approach is for local governments to form a partnership with a privately-held company, called a public/private venture. Governments will often provide the financing to a private company for building a facility. After construction, the government can then take over operation of the facility (the "turn-key" approach), or contract with the private firm to operate the facility for the government.

The third approach is the outright sale of a public asset to a private company. If the service is a new one, the private party provides the public service at no cost to the municipality. This is called a merchant facility. Examples of this might include the sale of a municipal water system to a private company, which operates a treatment facility, provides services, and bills the users. In some communities, recreation facilities have been sold to private companies, which in turn operate the facility on a business footing. This approach is the most "private", with the community having little, if any, say over prices or services provided.

The fourth approach is a cooperative one, in which the facility is owned, financed, and operated by the users of the public service. This approach is the newest, and in theory, has the potential to serve all parties involved. Cooperation implies some interdependence. For instance, small communities in the state that may not have enough of a population base to attract a

private contractor might join together to form a district large enough to do so. This approach also allows cities to work with other cities, or counties, to enter into agreements with other counties to form multi-county districts for regional projects.

**SERVICE DELIVERY**

Local governments across the nation are experimenting with a variety of service-delivery alternatives. A recent survey by the International City Managers Association (July 1990), revealed that as many as half of the local governments surveyed contracted for the delivery of some services.

Cities are most likely to use private service providers for garbage collection, street maintenance, and janitorial services. Counties often look to private operators for fleet maintenance, janitorial services, bill and child support collection and jail operations. Areas of growth for privatization include sports and cultural facilities, jails and prisons, fleet maintenance and transit systems.

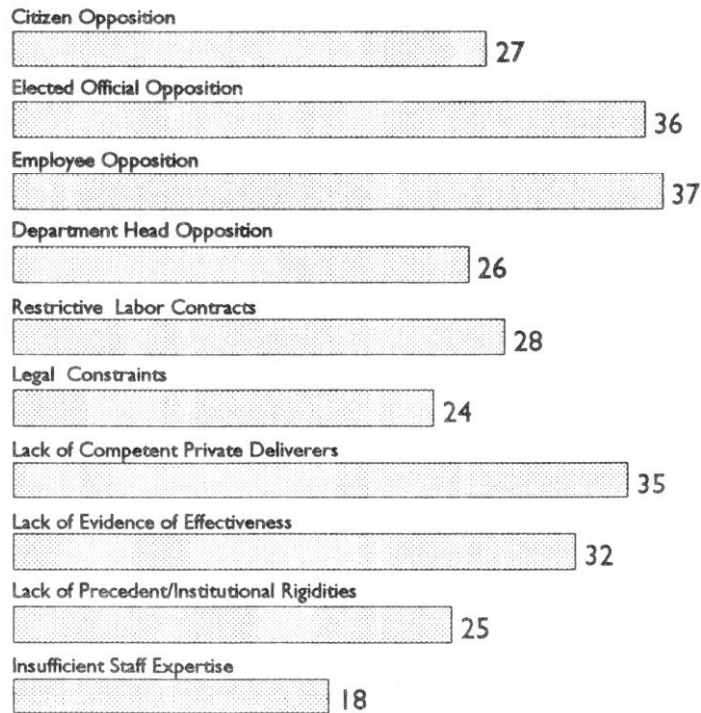
Wholesale privatization has been slowed by concerns that cost-cutting will primarily come from the pockets of public employees (see Figure 1). Estimates vary concerning how much local governments save by contracting out. Supporters often cite a savings average of 25 percent. Others argue that the practice of comparing costs to determine dollar savings are deceptive, as the costs of monitoring contracts are often undervalued. This point has led to increased interest in examining and revising contracts and public/private ventures, to be sure that these agreements work to the benefit of both parties involved.

However, the ever-tightening fiscal

pressures on state and local governments will further the move toward privatization. Montana is part of this trend, because of the small size and limited fiscal capacities of its local governments. The trend may be accelerated by the spending limits imposed by the property tax freeze of Initiative 105 (Figure 2).

Limits on taxing authority are aggravated by new regulatory costs being passed along to local governments by state and federal authorities. New federal regulations under Subtitle D of the Resource Conservation and Recovery Act (RCRA) are a good example of what local governments are facing. Subtitle D regulations specify the procedures to be followed in the disposal of municipal solid waste, but do not provide funding for their implementation.

**Figure 1**  
**Obstacles Encountered in Privatization**  
**(In Percentages)**



Source: ICMA, Baseline Data Report, 1988, Vol. 21, no. 6, p.9.



## MUNICIPAL LIABILITY

Solid waste collection and disposal is one of the most privatized areas of local government service (see figure 3). Nationally, about 56 percent of solid waste collection is contracted out. In Montana, the percentage is much lower. Before Montana follows the national trend, certain checks and precautions must be heeded by elected officials. Two potential problem areas that should be carefully evaluated are municipal liability and contract administration.

Under Montana law, solid waste collection and disposal, and its associated costs and risks, are the responsibility of local governments. Regardless of the actions a private contractor may take, the responsibility for public service

provision belongs to local governments. Private companies have the option to leave; governments do not. The biggest concern for local governments, especially in light of new Subtitle D regulations, is long term liability for environmental impacts stemming from the disposal of municipal solid waste.

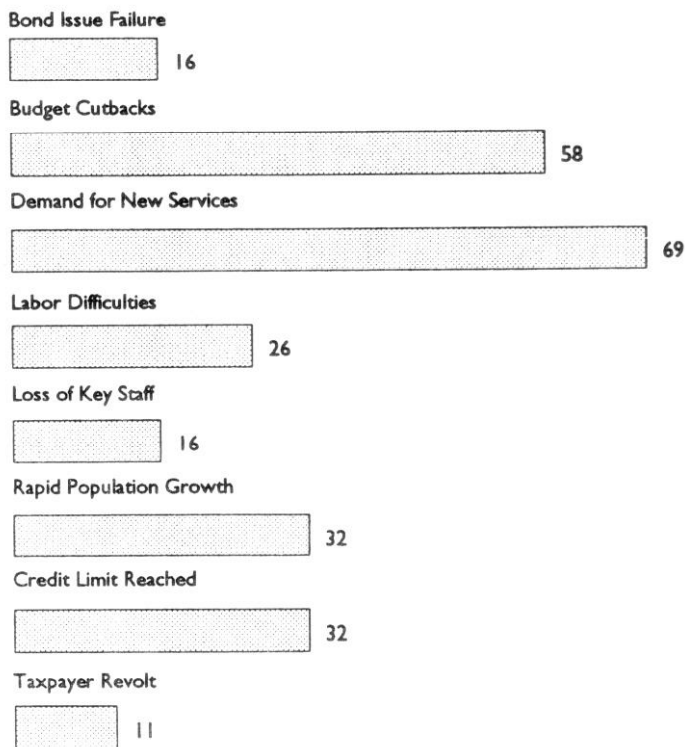
The Environmental Protection Agency (EPA) has historically exempted municipalities from liabilities when solid waste is involved. Two recent federal court decisions have changed this exemption. The courts now hold that municipalities that collect and dispose of wastes, or merely issue licenses to independent waste hauling companies to collect and dispose of waste, can be liable for millions of dollars in clean-up costs.

Municipal liability was defined in 1980 by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, also known as Superfund). Wherever there is a release or potential release from a facility of hazardous substances into the environment, the act imposes liability for clean-up costs on responsible parties.

Municipalities had contended that municipal solid waste, as defined by CERCLA, is not hazardous and therefore cannot render them liable for cleanup costs. However, recent rulings state that if there is a release of hazardous substances at a facility (such as a plume affecting groundwater near a landfill), the municipality which arranged for waste disposal may be liable under CERCLA, regardless of the substance's origin. In other words, liability for cleanup costs is liability, pure and simple, and it is unnecessary to prove intent. The legality of past disposal practices is irrelevant.

The courts have also held that municipalities which did not transport their own waste to the dump sites

Figure 2  
Factors that Could Push States  
Toward Privatization (In Percentages)



Source: 1989 Survey, by Deloitte & Touche, New York

could be liable: "Municipalities are nevertheless responsible if they *arranged for* the disposal or treatments" (BF Goodrich v Murtha). In one instance, when the city issued licenses to an independent waste hauler, who then made arrangements for collection and disposal, the court found: "Rubbish generated by individual residents within a city's limit might be considered to be owned or possessed by each individual city" (Transportation Leasing Co. v California).

**CONTRACT ADMINISTRATION**

The second area of concern for elected officials is the actual contracting process, and the subsequent administration of the contract. There is a full range of options possible for privatization of solid waste:

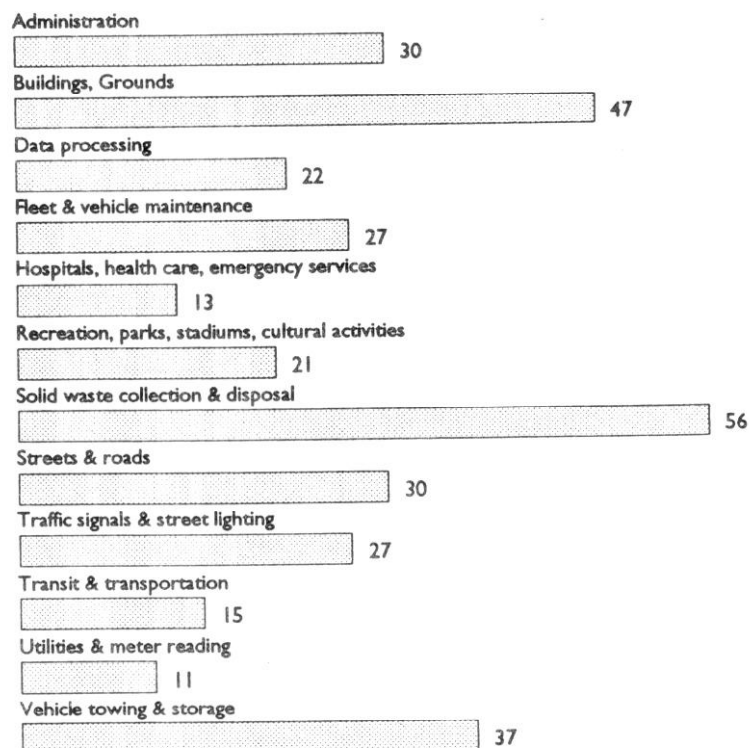
- 1) Providing strictly regulatory functions, with private haulers and operators providing all transportation and disposal services.
- 2) Financing or subsidizing collection and disposal activities through general government funds, while transportation and disposal services are contracted out to private firms.
- 3) Owning and operating some or all waste disposal facilities, and financing their operation through general lump-sum taxes.
- 4) Financing or subsidizing some or all waste collection and disposal, through specific user fees levied on the garbage itself or on products that generate solid waste.

Specific areas that can be contracted for in solid waste include citizen education, solid waste collection, roll-off container transport, curbside collection of recyclables, satellite collection stations, transfer stations, resource recovery facilities, compost opera-

tions, marketing recyclables, landfill operation and ownership.

As with liability, local governments still retain responsibility for providing the service, including regulation of service quality and cost. Once a service contract has been signed, none of the market forces for cost containment are in place. The traditional market model of competition envisions a firm seizing on opportunity by offering a better price for a superior product, and thereby bettering the competition's market share. In this instance, the market was not acquired by competition, except in the bidding process. Instead, business was acquired as a result of a series of public sector decisions that cumulatively led to service default by the public sector. Another distinction between public and private markets is that

**Figure 3**  
**Services Contracted Out by Local Governments (In Percentages)**



Source: 1987 Survey Estimates by Deloitte & Touche, New York

public market competition is open. Public accountability requires cooperation and full disclosure, while private markets are conducted behind closed doors to maintain competitiveness, an edge over the competition.

Some guarantees for openness and accountability can be written into contracts, but communities can never be 100 percent knowledgeable. A number of cases have been reported of communities that contracted with privately-owned landfills and closed municipally-owned landfills, thus sealing the dependency on the private provider. At the end of the contract term, renegotiation takes place, and local governments are presented with sharply increased contracts. Municipal officials then demand public disclosure of company data to support the increase; but creditors of these firms will not allow release of profit and loss statements. Communities have no legal recourse, and are stuck with the contractor, unless they can find another party to deal with.

### COMMUNITY PROTECTION

Liability for long-term solid waste disposal will remain with local governments, and even increase in importance as new federal and state regulations are developed. The courts are leaning in the direction of municipal accountability, even when local governments do not directly provide solid waste services.

Careful collection, disposal, and monitoring are the first line of environmental protection. Contract preparation and selection of vendors are an important second step in protecting citizens from the expense of environmental cleanup.

Successful contracts with the private sector depend on the structure of the privatized arrangement, rather than on the nature of the service. Contracting out works best when interdependence exists between the parties, and risks are shared through the contractual arrangement. Municipalities must maintain enough control and ownership of public services to ensure they will not get stuck with a mess if the partnership falls apart.

The private sector needs contract terms that allows for long-term business planning and the ability to make a reasonable profit. Recent changes in state law (through Senate Bill 189, 1991) allow communities to enter into

solid waste contracts for up to 10 years. Competitive bidding is a necessary component of privatization; but once terms of business can be established and satisfactory performance is shown, long-term contracts are far more valuable to both parties. Changing vendors imposes considerable risk on all players involved.

Communities in metropolitan areas have found a sufficient number of contractors to ensure competitive bids for privatization contracts. This is one area that may be problematic for small communities in Montana. While smaller communities are often in need of private sector assistance and expertise, they may not have enough customers to make it worthwhile for contractors to bid on projects. Competition may also be limited in Montana by the permitting process for garbage hauling, which is regulated by the Public Service Commission.

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***Regardless of the actions a private contractor may take, the responsibility for public service provision belongs to local governments.***

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Contracting out requires continual formal and informal communication between all parties. Co-

operation versus adversarial relationships are the minimum ground rules for successful outcomes. The days of "good old boy" networks and arrangements are long gone. Communities need to be able to precisely analyze what they want done on the job, stimulate competition for that job, evaluate contractor performance, and penalize or replace bad contractors. Governments also need some latitude in selecting contractors on the basis of their track record. Contractors should be willing to provide full financial information on operating costs, and be forthcoming on future price commitments.

### SUCCESSFUL CONTRACTING

A successful contract requires a number of complex and interrelated steps. A sample list of activities might include:

- 1) Establish a need for the work;
- 2) Define the project;
- 3) Develop a proposal;
- 4) Request responses from potential contractors;

- 5) Select the provider;
- 6) Negotiate an arrangement;
- 7) Formalize the arrangement;
- 8) Monitor the contract;
- 9) Renegotiate or close the contract;
- 10) Do it again the next time.

Throughout the initial process, legal concerns have to be addressed, selection criteria established, a finance and permit plan developed, performance bonds secured, and risks assigned and agreed to.

Successful contracting requires community leaders to be familiar with the service to be delivered, almost as familiar as the firm that will provide the service. A thorough understanding of state requirements and community policy is essential. Knowing what you want the service provider to do will help define the scope of work to be accomplished. A well-defined project will allow a fair comparison of contract applicants (particularly for cost) and makes the evaluation process cleaner. Awareness of minimum requirements and specifications helps establish minimum performance levels for contract evaluation.

By the time the contract is signed, elected officials should be able to assure their constituents that performance guarantees are in place, that service costs are clearly identified, and that environmental safeguards have been established. Above all, the process leading up to the final contract agreement should be open. In a Management Information Service publication entitled *Making Environmental Partnerships Work*, George W. Johnstone, president of the American Commonwealth Management Services Company suggests four factors to keep in mind during the negotiation process:

- 1) Performance standards should be described in clear terms that cannot be misinterpreted, producing an unexpected and undesirable end result.

- 2) The community must be assured that a fair price has been negotiated with the firm selected to perform the work.

- 3) The contractual arrangement should be able to be terminated if the desired end product cannot be achieved because a poor firm or a poor contract was obtained.

- 4) There should be a good chance that several firms will be in competition for continuation of the project, making a monopoly situation unlikely.

Contract agreements are a complex process. Community leaders should be aware that most solid waste companies doing business in the state have more experience than do they in negotiating contracts. Many communities elsewhere have begun pooling their resources and entering into cooperative agreements with other communities, and then jointly with the private sector.

Local leaders must also expect increased costs for disposal of solid waste over the next few years, as new federal and state regulations take effect. Public resistance to increased costs are sure to follow. Local governments and the state must work to educate the public on the reasons for the increases, and the long-term benefits of integrated solid waste management practices.

The Departments of Health and Environmental Sciences is developing a comprehensive statewide solid waste plan that will define effective solid waste disposal practices. The state is also being urged to take an active role in citizen education, and in providing technical assistance for local governments throughout the state. This type of information is critical. Communities and their leaders must be fully informed on their new responsibilities, so that they can begin to plan for their current and future solid waste disposal needs. □

## A TALE OF THREE TOWNS

CAROLE MACKIN

Montana Department of Health and  
Environmental Science

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Ghost towns dot Madison County. They remind us that communities can either thrive or die in Western Montana. Those who want to continue to live here and see their towns prosper are asking themselves, “How do we avoid the fate of towns like Ironrod?” This town once thrived on the banks of the Jefferson River, six miles north of Twin Bridges. Now there is only a bridge and the remnants of buildings and mills.

Ironrod was subject to the same economic forces that affect Sheridan and Twin Bridges today. Good times and bad times come to the mining, agriculture, and timber industries. Small towns that depend on these industries can do little to control these ups and downs.

So why is it that some towns thrive and some die, when they are all subject to the same economic forces? Through my work with the Water Quality Bureau of the Montana Department of Health and Environmental Sciences (DHES), I have come to believe that a small town thrives for two reasons:

- 1) The town has people who want it to prosper and are willing to work together to find ways to make it happen.
- 2) The town has a reliable and safe drinking water supply that can meet present and future needs.

Sheridan and Twin Bridges meet both criteria. On the other hand, Ironrod probably had citizens who wanted it to prosper; but their only source of water was the Jefferson River. In those days, water was not treated to make it safe to drink. Both Sheridan and Twin Bridges, however, have a safe, reliable drinking water supply. They are not dependant on surface water and expensive water-treatment plants. They also have citizens who want to see it stay that way. These neighboring towns are leading Montana into the 1990s, with their innovative approach to groundwater protection.

In Sheridan, Mayor Kelly Elser (who wears several hats: Mayor, Fire Chief, and Water Supply Operator) and the Town Council (June Pack, Richard Hoover, Ed Walter, and Les Jackson) passes a unique ordinance that allows the town to issue permits to business that use materials that could contaminate the water supply.

The permits allow the town to work with the business establishments to prevent pollution. The businesses have as much to gain from a prosperous town and safe drinking water supply as the council does. When sources of pollution are discovered, Sheridan aggressively addresses the problems and gets them cleaned up. The town is adept at tapping into state and federal money to supplement limited town and private funds.

In Twin Bridges, the mayor (Emery Smith), council (Betty Sykes, Darryl Naugle, Dennis Day, Sheila Burke, and Linda Metully), and water superintendent (Sam

Novich) are taking advantage of the Wellhead Protection Program that was established by Congress in the 1986 Amendments to the Safe Drinking Water Act. They have designated the town boundaries as a preliminary Wellhead Protection Area to protect the town wells that are located near the fire station in the middle of town.

Twin Bridges has several leaking underground storage tanks that are being cleaned up with the aid of the Solid and Hazardous Waste Bureau of the state DHES. By establishing a Wellhead Protection Program, Twin Bridges can assure that other sources of pollution will be discovered and cleaned up before they can contaminate the drinking water supply.

A safe and reliable supply of drinking water, and a concerned and active citizenry mobilized to protect that supply, will assure that Sheridan and Twin Bridges will not join the list of ghost towns in southwestern Montana. □

#### AN ORDINANCE REGULATING ESTABLISHMENTS WHICH THREATEN TO POLLUTE THE WATER SUPPLY OF THE TOWN OF SHERIDAN.

WHEREAS the Town of Sheridan is investing \$560,190 in Community Development Block Grant Funds and general revenue bonds to construct a new water supply, and

WHEREAS the new water supply consists of wells which draw upon ground water flowing through the aquifer located beneath the town, and

WHEREAS it is necessary to maintain the quality of the ground water in the aquifer in order to protect the health and safety of the residents of Sheridan and to protect the Town's investment in the water supply system, and

WHEREAS any individual, entity, or business which threatens the quality of the Town's ground water is an "offensive and unwholesome" establishment, as that term is utilized in Section 7-21-4204 MCA, and

WHEREAS the Town is authorized by section 7-13-4406 and 7-21-4204 MCA to regulate or prohibit such establishments within the town or within three miles from its limits,

NOW THEREFORE, BE IT ORDAINED by the Town Council of the Town of Sheridan as follows:

##### *Section I. Definitions*

a. "Offensive and unwholesome establishment" shall mean any business, entity, organization, or individual or location which manufactures, possesses, disposes, transports, handles, deals with, stores, sells, or allows the presence of pollution under circumstances which pollute or threaten to pollute the ground water supply of the Town of Sheridan.

b. "Pollution" in regard to the water supply for the Town of Sheridan is defined by Section 75-5-103 MCA.

c. "Potentially polluting material" means any substance what would result in pollution of the Town's ground water supply if allowed to enter the supply in sufficient quantities. The term "potentially polluting material" includes but is not limited to the following:

1. Sewage effluent, petroleum products, pesticides, and fertilizer; hazardous wastes as defined by Section 75-10-403 MCA;
2. Hazardous substances as defined by Section 75-10-602 MCA;
3. Hazardous or deleterious substances as defined by Section 75-10-701 MCA;
4. Regulated substances as defined by Section 75-10-402 MCA;
5. Halogenated solvents as defined by Section 75-10-451 MCA;
6. Hazardous chemicals as defined by Section 50-78-102 MCA;
7. Contaminants identified by the U.S. Environmental Protection Agency pursuant to the federal Safe Drinking Water Act (42 USC 300f et seq.);
8. Pollution as defined herein above.

*Section 2. Offensive or unwholesome establishments prohibited.*

No offensive or unwholesome establishment may exist within the corporate limits of the Town of Sheridan or within three miles thereof except upon application made to and permission received in advance from the Town Council.

*Section 3. Pollution and potentially polluting material prohibited.*

No pollution nor potentially polluting material may exist within the corporate limits of the Town of Sheridan or within three miles thereof except upon application made to and permission received in advance form the Town Council.

a. Applications for permits shall be made on a form supplied by the Town Clerk. Applications will be considered by the Town Council at the next regularly scheduled meeting after submission to the Town Clerk.

b. No permit shall be issued except in conformity with all State and Federal statutes and regulations and upon conditions imposed by the Town Council to preserve the integrity of the Town's ground water source and water system.

c. Application for a permit and acceptance of a permit shall be consideration for and agreement by the applicant and holder that the Town Council or its representative may inspect the premises of the applicant or the permittee at any time.

*Section 4. Public Nuisance*

The existence of pollution or potentially polluting materials within the limits of the Town of Sheridan or within three miles thereof without a permit issued by the Town Council under this Ordinance is a Public Nuisance which may be enjoined, abated or punished as a criminal offense in accord with the law.

*Section 5. Revocation*

The Town of Sheridan may revoke any permit previously issued for good cause following notice and an opportunity to be heard. A permit shall be revoked for failure to adhere to conditions required, upon conviction of the permittee of maintaining a public nuisance, or after relief granted in favor of the Town to abate a public nuisance.

## REAPPORTIONMENT OF COUNTY COMMISSION DISTRICTS: GEOGRAPHIC INFORMATION SYSTEMS WORK

Kenneth L. Weaver

MSU's Local Government Center is finishing up its first contract to apply Geographic Information System (GIS) computer technology to the recurring problem of reapportioning county commission districts. In the process, we have learned some lessons that may be of interest to county commissioners, county clerks and recorders, and county planning staffs.

The first and perhaps most important lesson regards 1990 federal census data. The census information is organized and formatted in a way that virtually mandates the use of computer-aided mapping to reapportion county commission districts. The 1990 "census blocks" are much smaller units of reporting population statistics than the "enumeration districts" used to report 1980 data. As a result, at least four large maps are required to display a county's census blocks. In the case of Big Horn County, for example, no less than 78 separate, large maps are required to depict the 1317 individual census blocks. What would be quite difficult and time-consuming to accomplish manually is relatively easy to handle with a high-capacity computer using GIS software.

The mapping problem is further complicated by the fact that computer-generated county surface maps (from the TIGER files) **do not** include existing county commission district boundaries. This makes it quite difficult to relate existing commission districts to new census blocks, except with the aid of a high-speed computer using GIS software. The cost of PC-compatible GIS software alone will exceed \$600.00. Even with the aid of computer technology, we found that in Big Horn County the

existing commission district boundaries cut across many of the new 1990 census blocks. This made it impossible to define precisely the current population of a given commission district. The clear implication is that, in many counties, some or even all of the existing county commission district boundaries may have to be adjusted to make them congruent with the new census block boundaries. Without computer assistance, this will be a formidable task indeed.

Given Montana's statutory requirement to reapportion county commission districts following each federal decennial census<sup>1</sup>, and the reality that most counties have put off the chore until after the 1992 elections, we believe that early action by the board of county commissioners will be required to get the job done by December, 1993. The 1990 census maps and the accompanying data sets are now available from the Census and Economic Information Center, Montana Department of Commerce, 1424 Ninth Avenue, Helena, MT. 59620, telephone 444-2896.

We know of at least one commercial firm specializing in GIS mapping in Billings. The Local Government Center has also negotiated an agreement with our own Geographic Information and Analysis Center here on the MSU campus to provide computer-aided redistricting service to county government on a cost recovery and first come, first served basis. Our service includes 1990 census analysis of existing commissioner districts, recommendations for adjustment of district boundaries to meet Montana statutory requirements, and the production of computer generated, multi-color maps of existing and proposed commission districts. For more information contact the Local Government Center in Wilson Hall, Montana State University, Bozeman, 59717 or call 994-6694. □

<sup>1</sup> 7-4-2102 MCA. See also, K.L. Weaver, "Reapportionment of County Commission Districts", *Montana Policy Review*, Volume 1, Spring, 1991, pp.48-50.



## ENTREPRENEURIAL GOVERNMENT

Judy Mathre

The cover story of the March issue of *Governing* magazine is titled "Batting Bureaucratic Bloat". Such topics are all too familiar to those in government, either as elected or appointed officials. There must have been a time when public servants enjoyed respect from their constituents. We know there is still a need for government and for public services. The public expects them, in fact seems to take them for granted. But why is there so much disdain, if not contempt, for government? Each of us have explanations, but those of us who are in public service are looking for a way out of this wilderness of criticism.

"Reinventing Government" by David Osborne and Ted Gaebler offers direction. The authors suggest that familiar models of government no longer work. In fact, those models provide few incentives for change; and change is needed. Their ideas deal with how governments operate, not what governments should do. How often have we heard that the solution to problems with government is less government? The authors suggest that this is the wrong approach. What is needed is more *governance*. Governance is a redefinition of traditional government into a steering role, a catalyst for change that facilitates problem solving. This essentially means that leaders look for new ways to accomplish the goals of their community. Government organizations which assume these new roles become entrepreneurial.

For those of us in public life, these ideas are welcome and encouraging. The question for Montanans is, how relevant are these ideas to small rural governments? Their principles are certainly applicable to larger government organizations, at the federal and state level, and to cities and larger school districts. But what about some of Montana's small counties, and third-class cities and towns?

Everyone in government who has asked himself or herself what can be done to cause the public (whom they serves) to have some respect for government, should look at the ideas suggested by the authors. If nothing else, these principles will cause us to think about how things are done now and how they might be improved.

For example, here are two of the redefining principles described by Gaebler and Osborne which apply to small local governments in Montana:

1. *Empowering communities, rather than simply delivering services.* Empowered communities rely on citizens' groups participating in the decision-making process. Most Montana communities have boards and commissions which advise their governing bodies. Are the existing committees enough, or should others be created?

2. *Meet the needs of the customer, not the bureaucracy.* The notion of *customer* is not one that governments feel comfortable with. Public agencies are funded by taxes and other government revenues. Most of their customers are captive, having few or no alternatives to the services their governments provide. As a result, public sector managers may not pay much attention to them. If they are elected, the incentives for paying attention increases. Even in smaller governments, where elected officials may be more responsive to their "customers", the attention usually flows to those who are the loudest. The idea that government should pay attention to "customers" suggests that that the attention of public-sector managers should encompass the silent majority as well as the loudmouths.

There is a growing sense that government as we know it needs to be reformed. This reform should come in how governance is done, not necessarily in the services it produces. If we rely on traditional bureaucratic mechanisms to achieve what we expect, we will continue to spend more to get the same or less services. This seems particularly true in larger government organizations, but deserves consideration by those who serve in the smallest of Montana's local governments.

Successful government organizations will learn to be entrepreneurial in their methods. These governments will understand that they cannot continue to operate as they have in the past. Gaebler and Osborne offer thought-provoking ideas about how local governments can begin to act in entrepreneurial ways. Only then will local officials start to get the respect of the communities they serve. □

# LOCAL GOVERNMENT CALENDAR

## MAY

- 3-8: Municipal Clerks Institute, Bozeman
- 5-8: Advanced Clerk's Institute, Bozeman
- 8-10: Local Government Policy Council,  
White Sulphur Springs
- 10: Mother's Day
- 25: Memorial Day.

## JUNE

- 14-18: MACo annual Meeting, Miles City
- 15-18: Clerks of Distict Court school and  
annual meeting, Billings
- 21: Father's Day
- 30: Fiscal year ends.

## JULY

- 1: Fiscal Year begins.
- 3: Independence Day (observed)
- 10: Municipal clerk notification to departments for  
budget estimates.  
County departmental cash balances due.
- 20: Municipal clerk submits preliminary budget  
report to council.
- 25: Municipal Council makes changes to budget  
report, which becomes preliminary budget.
- 30: Municipal appropriation ordinances due.

## AUGUST

- 5: Final county budget hearings.
- 10: Municipal council fixes tax levy.  
County comissioners adopt final budget.

## SEPTEMBER

- 7: Labor Day
- 14-18: Montana Association of Clerks and  
Recorders annual meeting, Havre
- 15: Municipal clerk submits copy of final budget  
and tax levies to Department of Commerce

## OCTOBER

- 12: Columbus Day holiday



## THE AMERICANS WITH DISABILITIES ACT: IMPACTS ON LOCAL GOVERNMENT

TOM GOODELL  
Local Government Center

*The Ask Us column is intended to address significant problems that the practitioners of local government encounter in their delivery of government services. If you have a question or area of concern regarding local government, please convey it to the Local Government Center.*

Americans have come a long way in their treatment of people with disabilities. Once regarded as inconveniences, the disabled are now viewed as people capable of participating fully in society. The Americans with Disabilities Act (ADA) reflects this more inclusive view. This new law was designed with input from the disabled, so that its requirements would encompass the changes they needed to participate fully in their communities.

These changes may anger those opposed to federal meddling in local affairs. But however one might feel about ADA provisions, **compliance is mandatory**. Regardless of the size of their budget, number of employees, or federal funds received, local governments must eventually bring their employment practices, programs and services, and infrastructure into compliance with ADA requirements. There are some loopholes, but they are small ones, and do not significantly change the impact of the legislation.

Before getting into its actual requirements, this question should be answered; should local officials really be worried about the ADA? The answer is yes and no. Failure to comply leaves local governments vulnerable to lawsuits from aggrieved individuals. But it appears there will be little effort by the federal government to monitor local actions; responsibility for enforcement is split between eight different agencies.

Having said that, local officials should NOT roll the dice and hope that they are not sued. Compliance should not be that difficult for governments with personnel management systems and accessibility programs already in place. For those without them, efforts to adhere to ADA requirements should begin now. The law was written for a good reason--to enable the disabled to participate fully in daily life--and local governments should embrace that objective. The governments of Montana communities take justifiable pride in responding to citizen needs on a person-to-person basis. With an aging population, and the AIDS virus reaching into all walks of life, that response will be tested.

The ADA defines 'disability' as a physical or mental impairment that substantially limits one or more of the major life activities of an individual, a record of such impairment, or being regarded as having such impairment. Specific examples of physical impairments include orthopedic, visual, speech, and hearing impairments, cerebral palsy, multiple sclerosis, cancer, heart disease, diabetes, HIV disease, tuberculosis, drug addiction, and alcoholism. Mental impairments include mental or psychological disorders such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities.

What is not covered by the ADA? Simple physical characteristics such as hair color, baldness, left-handedness, or age do not constitute physical impairments. Disadvantages due to environmental, cultural, or economic factors are not defined as disabilities. The ADA does not cover common personality traits such as poor judgement or a quick temper when they are not symptoms of a psychological disorder. Nor does it include homosexuality, bisexuality, or other sexual orientations, or compulsive behaviors such as gambling or kleptomania.

Drug and alcohol addictions are defined as impairments under the ADA. However, it does not protect program recipients or current or potential employees against discrimination based upon current illegal drug use. It does protect those who have been successfully rehabilitated from drug dependency, those currently undergoing such treatment, and those erroneously regarded as engaging in drug use. Drug testing is permitted to determine whether an individual is using illegal drugs. As concerns alcohol use, legitimate safety requirements necessary for the safe operation of services, programs, and activities are permissible. An employer may enquire as to the use of alcohol by an employee when it believes that use may threaten public safety.

The ADA impacts local governments in three areas. First, it demands that all programs and services be available and accessible to those with disabilities. Second, it stipulates that local governments (and others) cannot discriminate in employment on the basis of disability. Third, the ADA requires local government physical plant to be accessible to those with disabilities.

To ensure that they are in compliance, the Act requires *all* local governments with more than 50 employees to designate an ADA coordinator to ensure that the locality is in compliance. Furthermore, those with fewer than 50 employees are strongly encouraged to have an ADA coordinator; their small size does not exempt them from ADA requirements. The coordinator should be someone familiar with local programs, services, and facilities, and with personnel requirements and practices. The coordinator then prepares a plan to bring local government operations into compliance with ADA requirements.

## EMPLOYMENT PRACTICES

The ADA makes no significant changes to current employment practices. Rather, it extends equal opportunity for employment to the disabled. If a locality is already following accepted personnel management procedures, complying with the ADA will not be difficult. These procedures do *not* require employers to hire the disabled. They only require that barriers to their consideration as potential employees be removed.

Reviewing employment eligibility standards and rules is particularly important. Here, **essential eligibility requirements** must be established. These refer to attributes that are necessary to perform a job. For instance, an employer can require a snowplow operator to have good vision, and refuse to employ a visually-impaired person. On the other hand, a wheelchair-bound person could not be refused employment as a clerk because the previous employee occasionally carried boxes of records to a storage space. Qualification standards and tests must be reviewed to ensure that they are specifically job-related.

When considering employment of the disabled, the ADA requires employers to consider **job restructuring**. The employer must consider making **reasonable accommodation** to adapt a position to that person's disability. This could mean nothing more than shifting tasks amongst people in an office, which might be inconvenient, but can be done. A snowplow operator's job, however, cannot be easily restructured to accommodate the visually impaired.

An employer may require, as a qualification standard, that an individual not pose a direct threat to himself/herself or others, if that threat cannot be reduced or

resolved by reasonable accommodation. That threat, however, must be significant and of high probability. This consideration must rely on objective, actual, medical evidence, and cannot be based on fears and stereotypes. Nor may an employer refuse to hire someone because their employment may result in higher insurance premiums or extended sick leave. As concerns sick leave, again the standard is reasonable accommodation. If schedules and tasks can be shifted without undue hardship, that employee must be accommodated. This may seem to be an imposition upon an employer, but not so long ago maternity leave was also regarded as unreasonable. Today it is seen as sensible.

### **PROGRAMS AND SERVICES, ACCOMMODATIONS AND ACCESSIBILITY**

The ADA states that state and local governments may not refuse to allow a person with a disability to participate in a service, program, or activity simply because that person has a disability. Existing programs and practices should be reviewed to ensure that eligibility standards or rules that deny individuals equal access to employment or programs are necessary. For example, requiring a driver's license is discriminatory to the visually impaired; it should be asked if identification is necessary to delivering that particular service. (This is an instance of "life's little indignities" that, taken altogether, degrade the daily lives of the disabled.)

Whenever possible, programs must be provided in an integrated setting, accessible to all, unless the changes would fundamentally alter the nature of the service provided. For example, a municipal softball league need not alter its rules to accommodate those unable to run to first base. However, there should be municipally-sponsored recreational alternatives for the disabled. Individuals with disabilities may not be required to accept special benefits if they choose not to do so.

Structural alterations to facilities is the preferred means of making programs accessible to all. Many local governments in Montana, however, operate out of facilities built many years ago. For those localities, outreach alternatives may be more feasible. Program services may be brought to the disabled. For example, if an office is located on the second floor, an aide may assist the wheelchair-bound in obtaining the services elsewhere.

Carrying the disabled is not an alternative, in any circumstance.

In the long run, structural alterations may prove more cost-effective than outreach programs, and better incorporate the disabled into the daily routine of the community. The ADA mandates technical construction guidelines that must be followed when building new facilities or renovating old ones. Localities should also prepare a plan to alter existing infrastructure in accord with ADA guidelines (curb cuts, widened doorways, parking, signs, and so on).

The absence of disabilities in an area is not a valid test of whether programs, activities, and facilities must be accessible. For example, the absence of deaf or speech-impaired people in a locality does not relieve the locality of providing alternate means of communication with such persons. The locality must ensure that its communications with the disabled are as effective as those with others. In order to meet this standard, auxiliary aids and services must be provided to insure effective communication. Factors to be considered include the context in which the communication is taking place, the number of people involved, and the importance of the communication.

As one can see from the above requirements, complying with the ADA will be bewildering, difficult, complex, and perhaps costly. This complexity is why it is advisable for even the smallest locality to appoint a compliance officer. Most localities in Montana are not of sufficient size to employ professionals, such as personnel officers or building inspectors; instead they rely on "jack-of-all-trades" to perform several different duties. The compliance officer must have similar skills, to review employment procedures and job descriptions, program accessibility and outreach services, and the design of physical infrastructure.

The compliance officer must obtain input from all phases of his or her local government, and especially from disabled persons in that community. The disabled know from experiences what problems are encountered when dealing with local governments, in employment, programs, and accessibility. The compliance officer can then direct the scarce resources of localities to address the most pressing problems.

This article is a brief overview of some of the major aspects of the Americans with Disabilities Act. For more information, contact the U.S. Department of Justice, Civil Rights Division, Coordination and Review Section, PO Box 66118, Washinton D.C. 20035-6118, (202) 514-0301, or the Local Government Center.

## **DEFINITIONS**

**Disability:** The term 'disability', with respect to individuals, means a physical or mental impairment that substantially limits one or more of the major life activities of an individual; a record of such impairment; or being regarded as having such impairment.

**Essential Function (Eligibility Requirements):** Fundamental job duties or necessary attributes of the employment position the individual with the disability holds or desires.

**Reasonable Accommodation:**

- (a) making existing facilities readily accessible to and usable by individuals with disabilities;
- (b) job restructuring, part-time or modified work schedules, reassignment to a vacant position, acquisition or modification of examinations, training materials, or policies; the provision of qualified readers or interpreters; and other similar accommodations for individuals with disabilities.
- (c) modifications or adjustments to a job application process that enable a qualified applicant with a disability to be considered for the position he/she desires;
- (d) modifications or adjustments in the work environment, or to the manner or circumstances under which the position held or desired is customarily performed, that enable a qualified individual with a disability to perform the essential functions of that position;
- (e) modifications or adjustments that enable a covered entity's employee with a disability to enjoy equal benefits and privileges of employment as are enjoyed by its other similarly situated employees without disabilities.

**Undue Hardship:** regarding the provision of an accommodation, significantly difficulty or expense incurred by a covered entity when considered in light of the factors set forth as follows:

- (a) nature and net cost of the accommodations needed;
- (b) overall financial resources of the facility or facilities involved in providing reasonable accommodations, the number of persons employed at the facility, and the effect on expenses and resources;
- (c) type of operation or operations of the covered entity;
- (d) impact of the accommodation upon the operation of the facility, including the impact on the ability of other employees to perform their duties and the impact on the facility's ability to conduct business.

## **DATES FOR COMPLIANCE WITH ADA**

### *January 26, 1992*

All Public employers must comply with ADA rules as they pertain to employment.

State and local government programs must be accessible to disabled persons.

Public buildings and places of public accommodations must be accessible if nonstructural changes are required. Emergency systems (911) must have equipment for hearing- and speech-impaired persons in place.

### *July 26, 1992*

Transition plans must be completed if structural changes are required for accessibility.

### *January 26, 1993*

Self-evaluation plans must be completed.

### *July 26, 1993*

Telecommunications relay services must be in place. □

## PUBLICATIONS

The following publications are currently available from the Local Government Center, Wilson Hall, Montana State University, Bozeman, MT 59717 (406-994-6694).

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### ***Proceedings, 2nd Rocky Mountain Trade Corridor Conference***

The conference, held in Lethbridge, Alberta, addressed the potential for economic development and increased trans-border trade between Canada and the United States. The speakers evaluated trade trends following the Free Trade Agreement, and explored the actions that local leaders can take to develop linkages across the border. (No charge.)

### ***The Montana Policy Review, Fall 1991***

Topics addressed in the second issue include the effects of migration on small communities, state solid waste policy, the Montana Local Government Policy Council, the Rocky Mountain Trade Corridor, and trends in Montana local government. (No charge.)

### ***Montana Municipal Profiles and Montana County Profiles, Judy Mathre, editor.***

The *Profiles* are two wall charts, updated annually, which present census, budgetary, taxation, and government structure data for Montana's 128 incorporated municipalities and 56 counties. These quick reference tools provide important overview information at a glance. The latest editions include 1990 census data. (No charge.)

### ***Reflections on Tribal Governance in Montana, Kenneth L. Weaver, editor***

Perspectives on tribal government are provided by leaders of Montana's seven Native American communities. A brief chronology of "Federal Indian Policy" and the governing charters of all Montana tribes are also included, along with the text of the Indian Reorganization Act of 1934. (No charge.)

### ***Municipal Financial Trend Monitoring Workbook, John Marks.***

A financial management "cookbook" designed to assist municipal clerks and finance officers in communicating financial data to their mayor and council. The workbook includes sample displays of financial trend indicators, easy-to-follow instructions, and blank models suitable to use by local officials. (No charge.)

### ***Personnel Management in Municipal Government, George Minder***

A reference guide for municipal officials interested in establishing workable personnel policies that meet state and federal requirements and employee expectations for fair dealings. Subjects discussed include recruitment and hiring, termination, performance appraisal, and compensatory time. (\$10.00).