

How St. Lawrence County Can Prosper by Going Local

By Michael H. Shuman¹

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Introduction

St. Lawrence County (SLC), located in the heart of the North Country in New York State, has an economy with sharp contrasts. It has enormous natural assets, including minerals, forests, and water, all of which it has harnessed for successful mining, lumber, and electricity-intensive industries. It has relatively large government and university sectors that usually inoculate a region against the ups and downs of the business cycle. It has some remarkably strong social indicators of well being, including a low crime rate and strong family structures.

Yet despite these strengths, SLC is economically falling farther and farther behind both New York State and the United States. It has chronically high levels of unemployment and poverty. Per capita earnings, while rising in nominal terms, have actually stagnated for more than a decade in real dollars and are losing ground against gains being made by fellow New Yorkers and fellow Americans. Among the results of these realities is that top-flight universities in the area, including Clarkson University, St. Lawrence University, and SUNY-Potsdam, often see their best students skip town upon graduation. Over the past decade, the county has been gradually losing population.

If SLC wishes to improve its economic prospects, it must change direction. This was part of the impetus for the Burt Family to create an endowment at St. Lawrence University to support an “Annual Symposium on Education, Environment, and Economic Vitality.” This paper aims to provide the first symposium with an outline of what this new direction might be. It contains five parts.

- The first section suggests the importance of a new economic development strategy called LOIS, the letters of which stands for the principles of local ownership and import substitution.
- The second section argues that the three critical starting points for implementing LOIS are to determine the best set indicators of

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progress, inventory economic assets, and measure economic leakages.

- Sections three, four, and five then perform “quick-and-dirty” versions of these exercises for SLC.

This paper aims to set a framework and a direction for action. The real work of implementation must be undertaken by symposium participants and others who follow in their footsteps. And ultimately, it is entrepreneurs, policymakers, politicians, and other civic leaders in SLC who must translate these ideas into action.

A New Economic Development Paradigm

The mantra of virtually every local leader in the United States these days, taught by economic-development and regional-planning gurus, is to *go global*. While serving as Mayor of Baltimore, Kurt Schmoke proclaimed: "I strongly believe that if cities are to be competitive in the twenty-first century, they need to be international." By this, he means not only their finding global sales opportunities for local firms but also their "creating an environment that will enable international companies to use Baltimore as a gateway to the United States." Whether liberal or conservative, Democrat or Republican, municipal officials following this advice and offering huge financial packages worth \$25,000 to \$350,000 per job (and in some eye-popping cases, much more) to lure the Toyotas of the world into building a new factory in their community, or worse, bribing hometown companies not to leave.

Former British Prime Minister Maggie Thatcher coined the word TINA to sum up the new reality – *there is no alternative* to the global economy. But a small but growing number of communities are concluding that the TINA path to economic development is neither desirable nor inevitable. Promises about globally mobile corporations bringing new jobs to the community and providing lucrative new opportunities for suppliers and spinoffs turn out to be highly inflated. And once the subsidies expire, the beneficiary firms simply shop around the planet for new gullible jurisdictions willing to foot their bill.

There are other hidden costs of TINA. To pay the nearly \$200,000 per job needed to lure Mercedes-Benz, “winners” like Alabama have had to raid public education coffers. Grassroots groups in the state, desperate to protect a meager education budget that already ranks last in the nation in spending per student, blocked this looting in the courts. How did state officials respond? By borrowing from public pension funds.

The biggest cost of TINA is that every community playing this global game finds itself weakening old laws or opposing new laws that would raise labor or

environmental standards, all in the name of creating a better “business climate.” Economic prosperity, in this way, begets social neglect.

Fortunately, localities are discovering an alternative to TINA named LOIS. *Locally owned, import-substituting* development aims to move the community toward greater prosperity through greater self-reliance. The rationales for LOIS are simple.

Local ownership of business is desirable for at least four reasons. First, a successful business anchored to the community through ownership is likely to produce income, jobs, tax receipts, and charitable donations for local residents over several generations. Whenever ownership coincides with the location of a business, these transactions reinforce one another and pump up the local economic multiplier,² the basic building block for community prosperity.

Second, local ownership minimizes the incidence of calamitous departures. Across the United States cities have seen their best companies sell their interests to outsiders who decide to shut down the hometown plant and move operations to jurisdictions with cheaper labor, lower taxes, or looser environmental regulations, often southern or western states and increasingly Mexican maquiladoras and other “offshore” sites. Tragic consequences usually follow. Taxpayers thrown out of work become tax-drainers through welfare and unemployment checks. When the tax base contracts, vital services such as education, police, and fire must be cut. Property values plummet and, like so many steel and auto towns in the 1970s and 1980s, the community descends into a death spiral.

A third advantage of local ownership is that once a company agrees to stay indefinitely, the community can better shape its laws and regulations to serve the local quality of life. Today, most communities are held hostage to their largest companies. On the Eastern Shore of Maryland, for example, Tyson and Perdue, two large poultry companies, have successfully fought all legislative efforts to raise wages of their workers and to clean up the billions of pounds of chicken manure they dump into the Chesapeake Bay ecosystem by deploying one powerful argument: Regulate us and we’ll move to more lax jurisdictions like Georgia or Arkansas. (Tyson just announced its plans to leave anyway.)

While not immune to pressing their case aggressively with local politicians, locally owned companies usually do not threaten to leave town. Their roots in the community are too deep and the costs of departing too high. A community

² The multiplier refers to the benefits that accrue to a community economy when a dollar is respent many times in the same place. Say you buy a dollar of an accountant’s time, who buys a dollar of gas from the filling-station owner, who then buys hardware from a local store, and so forth. The greater the circulation of dollars, the higher the community’s income, wealth, and employment.

filled primarily with locally owned businesses can set higher labor and environmental standards, confident that the enterprises are likely to adapt rather than flee.

In the National Football League, all but one franchise are owned by a single individual, and a half dozen have threatened to leave town if demands for hundreds of millions of dollars for new stadiums and salary increases are not met. When the city of Cleveland refused, Art Modell, owner of the Browns, took *his* team to Baltimore. The only community owned team is the Green Bay Packers, a nonprofit whose shareholders are primarily the citizens of Wisconsin. Fans of the Packers would never allow it to leave town, which impedes the team from extorting an unfair share of the community resources.

Fourth, locally owned businesses are, in fact, more likely to succeed than those with absentee shareholders. In 1975 the Sperry Rand Company decided to shut down any subsidiaries that were not achieving a 22 percent rate of return. One of its companies slated to get the axe was the Library Bureau, the principal employer of Herkimer, New York. The workers, residents, and local banks decided to execute a buyout. In its first year of operation under new management, the newly independent Library Bureau earned a 17 percent rate of return – inadequate for Sperry Rand, but more than enough for Herkimer. It continued to perform profitably for more than a decade.

The Herkimer example underscores that locally owned businesses have much more flexibility and time to become profitable. Having many locally owned businesses generate a positive rate of return is far more important to a community economy than having a small number of absentee-owned companies generating a maximum rate of return. This helps explain why college and state-government towns – anchored by institutions that cannot easily move – are among the most recession-proof.

Import replacement is essential for community development, because it enhances a town, city, or region's economic multiplier. Every time a community chooses to produce its own apples rather than import them, it boosts the economic well-being of its own apple farmers, as well as all the local suppliers to these farmers and all the other local businesses where the farmers spend their income. By increasing the number of economic transactions within a defined area, import-replacing development expands jobs, income, and wealth, as well as consequent tax receipts.

There are other benefits for a self-reliant community as well. Greater self-reliance reduces the vulnerability of a community to products of dubious quality (like contaminated meat) and to sudden cutoffs because of war, sabotage, trucking strikes, oil embargoes, and the like. By supporting the development of diverse enterprises, it enhances the skill base of a community. And creating an economy around the community's unique culture, ecology, climate, history,

ethnicities, achievements, music, and art is what attracts tourists, retirees, and home-based workers – all increasingly importance sources of income for U.S. communities.

A paradox of import-replacing development, as argued by one of its prominent promoters, Jane Jacobs, is that it may be a powerful way of creating a strong export sector. Suppose North Dakota wished to replace imports of electricity with local wind-electricity generators. Once it built windmills, it would become dependent on outside supplies of windmills. If it set up a windmill industry, it would become dependent on outside supplies of machine parts and metal. This process of substitution never ends. It ultimately could leave North Dakota with powerful enough industries – in electricity, windmills, machine parts, and metal industries – to meet not only local needs but also to seize promising export opportunities.

Even if import-replacement leads to greater exports, however, the distinction from export-led development is not simply a matter of semantics. Most local governments in the United States today embrace an export-led development strategy, decide which industries constituted a global comparative advantage, and then pour resources into attracting anchor businesses. When South Carolina resolved to become one of the world's premiere automobile manufacturer zones, it paid \$150 million to the German company BMW to build a 2000-employee plant. Import-replacing development strategies, in contrast, tend to nurture hundreds of existing, locally owned businesses.

In short, development led by import-replacement rather than export promotion diversifies, stabilizes, and strengthens the local economy. As Jane Jacobs argues: "In the case of an export-multiplier effect, some of the new imports earned by the export growth go directly back into the export work....In the case of an import-replacing multiplier effect, however, none of the different (seemingly additional) imports go either directly or indirectly into exports from the city. All are added to the growing local economy. The greater volume of the locally produced jelly, lamps or tombstones – relative to the imports they replaced – is one result. The rounding out of the local economy is another."

A New Planning Paradigm

A new commitment to LOIS by SLC requires an entirely new, more participatory approach to economic planning. Three types of analysis are particularly important:

- *Indicators* – What does the County really mean by economic development? Which of the standard measures (e.g., per capita income) are most important? Are there other benchmarks of progress that the County should be measuring like species protection, literacy, or political participation?

- *Assets* –What kinds of local businesses are already in place? What are the available inputs of land, labor, capital, and technology that can support the expansion of local business? What other kinds of assets– social, political, environmental, even spiritual – does the County have that could be used to support local business?
- *Leakages* – What exactly are the goods and services that local businesses and consumers are buying now from the outside that could be produced inside the County? How big are these leaks, and how easily could they be plugged?

One of the virtues of these starting points for economic planning is that they demand public participation. It is impossible to set meaningful indicators without a democratic process. And because national databases rarely go below the county level, and even county data are limited, the successful gathering of the needed data for measuring assets and leakages requires the participation of all kinds of grassroots data-gatherers.

Laid side by side, these three exercises provide a real foundation for LOIS economic planning. Indicators enable a community to set a more coherent direction for development, asset mapping highlights what’s available to start or expand businesses, and a leakage analysis suggests which businesses will deliver the strongest boost to the local economy. This last point warrants brief elaboration.

Economic planning grounded in LOIS aims to plug leaks in the economy, starting with the biggest. Anything that is being imported but could be produced cost-effectively at home suggests a logical place to engage in business development or expansion. By looking at the horizon of import dependencies, a region can determine where unused or underused assets can best be deployed. Every import dependency reveals – by definition – a category of goods and services for which there exists local demand and a potential market for local production. Each local “substitution,” again, diversifies the economy, reduces its vulnerability to outside mischief, and maximizes the economic and tax multipliers.

The city of Oakland performed this exercise in 1979 and found three huge hemorrhages in its economy. About \$43 million was leaking out each year from tenants to landlords living outside the city; another \$40 million from mortgage holders to outside banks; and \$150 million to outside retailers. It learned that the city would be wise to invest home ownership, community banking, and new local retailers.

A similar study, with greater methodological sophistication, was undertaken in Vermont in 2000. It found literally billions of dollars in unnecessary imports in the areas of food, insurance, finance, and energy. One of the smaller leakages it

identified was \$241 million per year being sent by Vermont credit-card holders to out-of-state banks simply to pay interest charges. If Vermont had local institutions issuing these credit cards, those dollars could be recycled and generate multiple economic benefits.

As powerful as the leakage analysis is, it remains little understood and rarely employed by the professional economic development community. Of the 36,000 localities in the United States, fewer than a half dozen have done anything approximating this kind of comprehensive analysis of their economy.

Indicators in SLC

Good indicators of progress should have at least three characteristics. They must be measurable and quantifiable, so that the chosen yardsticks are objective. They should be derived from data that are readily available, because unique and expensive data- collection efforts are unlikely to be undertaken year after year. And they should be relatively robust measures of progress. Dairy cows are obviously a better indicator of SLC's economic health than cocker spaniels.

What follows is a brief recitation of 20 indicators for SLC. Nearly all are drawn from three sources: the annual "Social-Economic Profile of the North County" performed by the Merwin Rural Services Institute; the annual "New York State Statistical Yearbook" compiled by the Nelson A. Rockefeller Institute of Government; and the U.S. Census Bureau. The paper introduces each indicator with a narrative sentence that attempts to capture the essence of the data. This is done to provide the reader with some guidance on how to interpret numbers and charts, though other interpretations of each data set are certainly possible.

Note that some indicators distinguish between nominal dollars and real dollars. Nominal dollars do not account for inflation. Real dollars adjust figures for the value of 2002 dollars.

- (1) The unemployment rate in SLC has been chronically high, nearly double the national and state rates.

Unemployment Rate (%)

Year	SLC
1994	9.4
1995	8.5
1996	8.1
1997	8.1
1998	7.9
1999	8.4
2000	7.9
2001	7.6

(2) Per capita income, while rising in nominal terms, has been stagnant in real terms.

Per Capita Income

Year	Nominal	Real
1992	\$14,078	\$18,062
1993	\$14,246	\$17,734
1994	\$14,942	\$18,136
1995	\$15,462	\$18,250
1996	\$15,994	\$18,337
1997	\$16,425	\$18,295
1998	\$18,449	\$20,373
1999	\$18,967	\$20,679
2000	\$19,753	\$20,829

(3) SLC workers have been steadily losing ground vis-à-vis their NY State and U.S. counterparts.

Average Earnings Per Job, Relative to Others

Year	SLC v. NY State	SLC v. U.S.
1973	85.9%	99.9%
1983	83.1%	93.3%
1993	68.8%	85.8%
1999	65.1%	82.7%

(4) The cost of living in SLC, while relatively high in some categories, does not deviate far from the national average, underscoring the significance of the erosion of earnings.

Cost of Living, Relative to National Average
(100 = National Average)

	Composite	Food	Housing	Utilities	Transport	Health Care
Syracuse	97.8	102.4	84.3	124.4	108.4	91.9
Plattsburgh	94.3	105.9	84.7	63.2	104.1	97.9
Watertown/Jefferson County	102.1	102.1	98.6	121.6	106.0	91.0

(5) After steadily growing throughout the 20th Century, the population of SLC is now beginning to decline.

Population

1910	89,000
1920	88,100
1930	91,000
1940	91,100
1950	98,900
1960	111,200
1970	112,300
1980	114,300
1990	112,000
1995	115,100
1996	114,800
1997	114,180
1998	113,688
1999	112,853
2000	111,931

(6) Were it not for the rise in the prison population in SLC, the population decline would have been even more pronounced.

Institutionalized Population (2000)

	Male	Female	Total
Correctional	3,213	10	3,223
Nursing Home	275	701	976
Mental Wards	95	55	150
Juvenile Inst'ns	15	12	27
Others	11	34	45

(7) SLC is becoming more racially and ethnically diverse.

Nonwhite Population

	Black	Native Am	Asian	Hispanic	Total
1980	230	443	395	562	1,630
1990	1,621	830	805	1,275	4,531
2000	2,664	977	832	2,008	6,481

- (8) Families in SLC are remarkably strong, with more than two out of three families with children under 18 having two parents.

**Families with Children Under 18
(Year 2000)**

	Families	Percent
Married	9,192	68%
Father Only	1,299	10%
Mother Only	3,002	22%
Total	13,493	100%

- (9) Even though its families are remarkably strong, there has been a declining marriage rate and rising divorce rate.

	Rates (per 1,000)	
	Marriage	Divorce
1990	8.1	2.8
1994	7.4	2.9
1997	6.3	3.1
1998	6.6	3.2
1999	6.6	3.4

- (10) The birth rate has been steadily declining, but so has the death rate.

	Rates (per 1,000)	
	Birth	Death
1950	20.3	10.5
1960	21.4	10.6
1970	17.3	10.3
1980	13.6	9.8
1990	13.8	8.8
1994	11.8	9.3
1995	11.2	9.0
1996	11.0	8.6
1997	10.4	9.3
1998	10.6	9.1
1999	10.2	9.5

- (11) SLC is seeing its young population diminish in size, and its elderly population increase, reflective of the graying of America.

Age of Population (Percentage)

	1990	2000
Under 18	25.2%	23.4%
65 or Older	12.1%	13.0%

- (12) After making great downward strides, the infant mortality rate remains higher than the U.S. average.

**Infant Mortality
(Rate per 1,000 Births)**

1950	24.8
1960	24.1
1970	19.6
1980	12.5
1990	7.1
1994	3.7
1995	?
1996	6.4
1997	6.8
1998	5.8
1999	6.9

- (13) Fewer older teens are getting pregnant, but more younger teens are.

Pregnancy Rates (per 1,000 Teens)

Ages	10-14	15-19
1994	0.002	40.5
1996	0.005	41.0
1997	0.009	41.0
1998	0.012	35.2
1999	0.014	38.3

(14) The number of hazardous waste sites in SLC is increasing slightly.

Hazardous Waste Sites

1993	16
1996	19
1999	20
2001	20

(15) Chemical releases, while declining, remain a persistent environmental problem.

Chemical Releases (lbs)

1988	5,487,754
1992	1,723,103
1997	2,277,181

(16) Air pollution (excluding carbon dioxide) has been steadily decreasing.

Air Pollution (Tons)

1986	117,821
1988	95,217
1992	66,926
1996	47,231

(17) County and local government revenues have been rising, though in real terms only slightly.

County & Local Government Revenues (\$M)

	Total Receipts		Property Tax	Sales Tax	State Aid	Federal Aid
	Nominal	Real				
1985	204.2	341.6	46.6	13.5	78.9	28.4
1991	303.1	400.6	73.0	20.5	129.3	26.0
1996	368.5	422.5	93.5	23.2	135.8	32.2
1997	372.3	414.7	98.4	23.5	137.0	30.3
1999	403.5	439.9	99.9	26.5	153.8	34.0

(18) The crime rate in SLC, remarkably low by national standards, fell throughout the 1990s, although certain crimes showed periodic increases.

Crime Rates

	Crime Rate	Murder	Burglary	Robberies	Rapes
1993	3,014	?	?	?	?
1994	3,018	?	?	?	?
1995	2,785	1	612	19	28
1996	2,826	0	717	12	16
1997	2,747	1	619	14	25
1998	2,629	0	729	10	17
1999	2,502	2	615	3	25
2000	2,394	3	575	4	10

(19) Despite a thriving hunting season, SLC residents are requesting fewer gun licenses.

Gun Licenses Issued

1990	489
1993	339
1994	369
1995	251
1996	191
1997	198
1998	141
1999	180
2000	105

(20) Voting participation, while above national rates, is still low in absolute terms and appears to be declining.

Voting Participation

	Registered	Voted	Rate	Race
1994	50,396	33,686	67%	Governor
1996	60,625	39,068	64%	President
1998	64,080	30,979	48%	Governor
2000	65,594	39,779	61%	President

Economic Assets in SLC

The classic inputs to economic activity are land, labor, and capital. Below is a presentation of key data about each of these. As in the case of the indicators, a narrative sentence is formulated around each group of data, though, again, many interpretations are possible.

It's important to keep in mind that assets are not only "positives" like the number of doctorate degrees in the community. An asset may be the number of illiterate citizens who, with a modest investment in their education, could become important new players in the local economy.

(1) Land

- SLC is one of the largest counties east of the Mississippi River, with a land mass equal to 2,686 square miles, much of which contains enormous natural wealth.

	Acres
Total Area	1,718,784
Adirondack Foothills	384,000
Adirondack Mountains	622,720
St. Lawrence Valley	985,600

- SLC is well endowed with rivers, lakes, and reservoirs that provide excellent opportunities for shipping, recreation, and low-cost hydroelectric power.

Major Bodies of Water	Acres
Black Lake	11,008
Cranberry Lake	6,848
Carry Falls Reservoir	6,464
Rainbow Falls Res.	704
Blake Reservoir	640

Rivers	Length within SLC (Miles)
St. Lawrence	76
Oswegatchie	133
Raquette	163
Grasse	112
St. Regis	77

- SLC has large natural assets of farmland and state forests, the latter estimated to be worth \$133 million.

Key Natural Assets	Acres
Farmland	403,000
State Forest Preserves	169,079
State Reforested Land	53,880

- By function, the largest land uses are for agriculture and residences.

Property Classification	Acres	% County
Agricultural	322,744	18.22%
Residential	332,884	18.79%
Vacant	224,234	12.66%
Commercial	9,006	0.51%
Recreation & Entertainment	6,728	0.38%
Community Service	10,201	0.58%
Industrial	12,737	0.72%
Public Services	18,907	1.07%
Wild, Forested, Conservation Lands & Public Parks	758,454	42.82%
Unclassified	75,503	4.26%
	1,771,399	100.00%

* **Note:** The data set used to compile this table did not include property data for the City of Ogdensburg. However, the land area of the City (approx 10 square miles) is such a small portion of the total area of the county (2,822 square miles), that the exclusion of Ogdensburg data from this table has a minimal effect on the percentages listed above.

- The total value of real property in SLC was estimated to be \$3.1 billion in 1996.
- “Situated on the Canadian border in northern New York State, St. Lawrence County offers the ideal setting for growth and development

of your business. We offer exception transportation facilities, low commercial power rates, and the immediate availability of fully serviced industrial sites and buildings.” – SLC Industrial Development Agency

(2) Labor

- The workforce in SLC is just over 45,000.
- Women constitute the majority of the SLC workforce.

Presence of Women in the Workforce

Year	% Women
1980	40.9%
1990	44.6%
2000	52.9%

- The sectors providing the most employment in SLC are education, health care, and retail & wholesale, two of which typically pay low salaries and wages.

**Jobs (2000)
By Industry**

	Males	Females	Total	Percent
Agriculture & Food	1,508	266	1,774	3.9%
Education	2,958	4,921	7,879	17.4%
Energy (Utilities)	538	83	621	1.4%
FIRE	520	890	1,410	3.1%
Health & Social Assistance	1,385	5,179	6,564	14.5%
Housing & Construction	2,602	248	2,850	6.3%
Manufacturing	4,074	1,384	5,458	12.0%
Retail & Wholesale	3,008	3,127	6,135	13.5%
Services	2,534	2,123	4,657	10.3%
Tourism, Entertainment, Arts,	1,511	2,199	3,710	8.2%
Transportation & Warehousing	900	277	1,177	2.6%
Mining	145	6	151	0.3%
Government	1,937	1,083	3,020	6.7%
	23,620	21,786	45,406	100.0%

- The number of unemployed workers in SLC has hovered around 4,000.

Number of Unemployed

Year	Workers
1995	4,300
1996	4,100
1997	4,100
1998	4,000
1999	4,300
2000	4,000
2001	3,700

- Much of the workforce in SLC works only part-time, but may be willing to work more time if it had exciting entrepreneurial opportunities.

Work-Time Characteristics of the Labor Force

		Male	Female	Total
Total		45,141	43,812	88,953
35+ Hrs/Wk	40-52 Wks	20,172	13,342	33,514
	< 40 Wks	6,060	3,381	9,441
15-34 Hrs/Wk	40-52 Wks	1,816	4,162	5,978
	< 40 Wks	2,267	3,209	5,476
1-14 Hrs/Wk	40-52 Wks	877	773	1,650
	< 40 Wks	890	1,122	2,012
Did Not Work		13,227	17,823	31,050

- The residents of SLC are well educated, with more than a third receiving more than a high school education.

Educational Attainment of the Population (2000)

Graduate Degree	5,571	5.0%
Bachelors	5,955	5.3%
Associate Degree	5,530	4.9%
Some College	10,974	9.8%
High School	26,494	23.7%
Some HS	9,897	8.8%
>9th Grade	4,680	4.2%
In College	11,180	10.0%
In High School	6,396	5.7%
In Elementary School	12,721	11.4%
In Pre-Elementary	2,693	2.4%
Others	9,840	8.8%

- The total income of SLC residents each year was \$1.4 billion in 1999.

Total Income (\$M)	\$1,409
Wage & Salary	\$1,097
Other Labor	\$128
Proprietor-Farm	\$7
Proprietor-Nonfarm	\$177

- A tremendous underused labor asset is the disabled, nearly half of whom are not working.

Disabled Population (2000)

Age	Total	Unemployed	
		Number	Rate
5-15	1,380	NA	NA
16-20	1,307	886	68%
21-64	12,089	6,890	57%
65-74	2,611	NA	NA
75+	3,103	NA	NA
	20,490		

(3) Capital

- In June 2000 there was approximately \$1 billion on deposit in FDIC-insured institutions in SLC, presumably held by SLC residents or businesses.
- At the same time the total amount deposited in all New York State banks was \$444 billion, nearly *three times* as much per capita as in SLC.
- For every dollar in an FDIC-insured institution, a typical American has about five dollars in savings elsewhere, which implies the SLC residents have roughly \$5 billion in pension funds, mutual funds, stocks, bonds, and insurance funds.

Leakages in SLC

Given existing databases, there is no simple, reliable way to measure more than a handful of leakages in SLC. But with additional time and resources, determined researchers could conduct surveys, review local and state legal filings, and analyze other publicly available data that would help document leakages. This remains an important task that can and should be done.

There is, however, one way that a rough assessment with uniform national data is possible, by comparing income sources in SLC with those in the United States.³ The two basic assumptions underlying this analysis are these:

First, a self-reliant, regional economy should have income sources for each industrial sector that do not vary considerably from the national average. The reason is that the U.S. economy itself is relatively self-reliant (in 2002 less than 14% of the \$10+ trillion Gross Domestic Product went to imports).

Second, were the nation made up of self-reliant, regional economies, their consumption patterns would be similar. There are differences in the consumption patterns among Americans across the country, but for each good and service they typically range by a few percent per sector. The differences are larger when it comes to consumption patterns by businesses, since a region with a large mining sector will purchase very different inputs than, say, one with a large fishing sector. But a self-reliant American region would have both a modest mining and fishing sector, so again, tending toward the average is a reasonable indicator of a high degree of self-reliance.

By comparing SLC's income with that of the average American regional economy, we can ascertain likely areas of dependency. Where SLC has a proportionally larger economic sector than the U.S. average, it probably is exporting. Where SLC has a proportionally smaller economic sector, it probably is importing.

This methodology substantially understates the potential for import replacement. It assumes that sectors similar to the average U.S. region are self-reliant, when, in fact, they may simply be importing and exporting the exact same amount of a commodity. Even a net exporting sector may be importing for local demand, and therefore holds substantial opportunities for import replacement.

Not every industry, of course, can be undertaken locally. Some sectors, like mining, require location-specific resources. Others require clusters of support industries. But these are different issues. The methodology employed here merely focuses on the *potential* benefit of import replacement. The *feasibility* of

³ This methodology is still under development, and the author welcomes feedback on both unappreciated flaws and suggested improvements. Please send comments to shuman@igc.org.

import replacement requires careful matching of the leakages with the assets available for new small business.

Additionally, not every industry where import replacement is possible is desirable. Many communities, for example, do not want military bases, waste dumps, or airports. This underscores why it's important to ensure that each business supported boosts the locally embraced indicators of progress.

To undertake this analysis for SLC, the starting place is the Regional Economic Information System (REIS), an annual model produced by the U.S. Bureau of Economic Analysis (BEA) of all the income producing sectors of the economy. The most recent data available are for the year 2000. The raw data in the model show the personal income and earnings for each two-digit-SIC (standard industrial code) sector.

Charts 1-a and 1-b compare each economic sector in SLC with its counterpart in NY State and in the United States. Note that each box represents a single-digit SIC code, and indented headings represent subdivisions. Blanks indicate sectors where the BEA withheld data because proprietary information would have been revealed (usually meaning that only one or two firms are operating in the sector).

Comparing SLC to an average US region reveals some of the following points. The top export sectors in SLC, well above the average US region, are: primary metals industries; stone, clay, and glass products; paper and allied products; education; state and local government; heavy construction; lumber and wood products; electricity, gas, and sanitary services; and mining. These data highlight what is widely perceived about SLC – namely, that the regional economy is rooted in resource-dependent industries (mining, lumber, hydroelectricity, aluminum), educational institutions (with 4 universities), and large outposts for state and local government (including a large penitentiary).

Importing sectors, however, dominate the chart. Some of the surprisingly weak sectors are: forestry and fishing; fabricated metal products; wholesale trade; retail furniture and clothing stores; finance, insurance, and real estate (FIRE); and virtually all services sectors except health care, education, and social services.

How much extra business could be developed in the SLC economy if the import-dependent sectors were able to produce for local demand? To make this calculation, Charts 2a and 2b take out of Charts 1-a and 1-b all the import-dependent sectors, and increase production hypothetically so that each sector achieves the level of the hypothetical average US region. Thus, for example, "Forestry and Fishing" pegs SLC at about 30% the national average. If the sector expanded to 100% the national average, the additional income going to those living in the county, the other 70%, would be \$888,000.

Two of the three single-digit SIC sectors that were already relatively strong export sectors – namely mining and government – are dropped, since both sectors are already much larger than what the local demand would support and there is little that can be done to expand their production through local consumption. Manufacturing, however, is more complicated, since certain sub-sectors offer promising opportunities for local substitution, while other sub-sectors do not.

Chart 1-a

Income in SLC, Compared with NY State and US Average

	Relation to NYS	Relation to USA
Ag. services, forestry, fishing, & other 8/	139%	93%
Agricultural services	237%	102%
Forestry, fishing, and other	13%	30%
Forestry		
Fishing		
Other	0%	0%
Mining	1297%	135%
Metal mining		
Coal mining	0%	0%
Oil and gas extraction		0%
Nonmetallic minerals, except fuels		
Construction	146%	94%
General building contractors	167%	99%
Heavy construction contractors	366%	180%
Special trade contractors	112%	77%
Manufacturing	199%	130%
Durable goods	302%	163%
Lumber and wood products	672%	153%
Furniture and fixtures		
Stone, clay, and glass products	541%	498%
Primary metal industries	5442%	1778%
Fabricated metal products	130%	59%
Industrial machinery and equipment	9%	5%
Electronic and other electric equipment	105%	63%
Motor vehicles and equipment	0%	0%
Other transportation equipment	5%	1%
Instruments and related products	34%	38%
Miscellaneous manufacturing industries		
Ordnance		
Nondurable goods	88%	75%
Food and kindred products	196%	100%
Tobacco products	0%	0%
Textile mill products	0%	0%
Apparel and other textile products		
Paper and allied products	719%	382%
Printing and publishing	56%	95%
Chemicals and allied products		
Petroleum and coal products		
Rubber and misc. plastics products		
Leather and leather products		
Transportation and public utilities	93%	76%
Railroad transportation		114%
Trucking and warehousing	257%	107%
Water transportation		
Other transportation		
Local and interurban passenger transit	55%	122%
Transportation by air		
Pipelines, except natural gas		0%
Transportation services	51%	41%
Communications	40%	42%
Electric, gas, and sanitary services	198%	150%

Chart 1-b
Income in SLC, Compared with NY State and US Average

	Relation to NYS	Relation to USA
Wholesale trade	38%	32%
Retail trade	151%	109%
Building materials and garden equipment	242%	142%
General merchandise stores	205%	111%
Food stores	179%	132%
Automotive dealers and service stations	207%	105%
Apparel and accessory stores	36%	47%
Home furniture and furnishings stores	57%	38%
Eating and drinking places	126%	95%
Miscellaneous retail	161%	145%
Finance, insurance, and real estate	11%	27%
Depository and nondepository institutions		
Other finance, insurance, and real estate		
Security and commodity brokers		
Insurance carriers	5%	5%
Insurance agents, brokers, and services	41%	49%
Real estate	25%	26%
Combined real estate, insurance, etc.		
Holding and other investment offices	15%	49%
Services	68%	73%
Hotels and other lodging places	64%	50%
Personal services	123%	94%
Private households	52%	76%
Business services	23%	22%
Auto repair, services, and parking	158%	93%
Miscellaneous repair services	117%	70%
Amusement and recreation services	13%	16%
Motion pictures	8%	15%
Health services	103%	102%
Legal services	19%	34%
Educational services	231%	376%
Social services	106%	173%
Museums, botanical, zoological gardens		
Membership organizations	137%	107%
Engineering and management services	25%	23%
Miscellaneous services		
Government and government enterprises	228%	200%
Federal, civilian	119%	70%
Military	111%	26%
State and local	249%	255%
State	537%	413%
Local	170%	192%

Chart 2-a
Potential New Income for SLC Residents from Import-Replacement
(\$1000s)
(If Each Sector Expanded to U.S. Average)

	Actual SLC Income	SLC Potential If US Average	Import-Replacement Opportunities (Est.)
Ag. services, forestry, fishing, & other	\$9,094	\$9,787	
Agricultural services	\$8,714	\$8,519	
Forestry, fishing, and other	\$380	\$1,268	\$888
Construction	\$82,101	\$87,259	
General building contractors	\$19,963	\$20,217	\$254
Heavy construction contractors	\$18,318	\$10,153	
Special trade contractors	\$43,820	\$56,889	\$13,069
Manufacturing	\$300,049	\$230,082	
Durable goods	\$236,119	\$145,038	
Lumber and wood products	\$11,467	\$7,488	
Furniture and fixtures	(D)	\$4,673	
Stone, clay, and glass products	\$32,705	\$6,564	
Primary metal industries	\$158,136	\$8,896	
Fabricated metal products	\$9,531	\$16,021	\$6,490
Industrial machinery and equipment	\$1,541	\$30,512	\$28,971
Electronic and other electric equipment	\$16,479	\$26,351	\$9,872
Motor vehicles and equipment	\$0	\$16,009	\$16,009
Other transportation equipment	\$96	\$11,794	\$11,698
Instruments and related products	\$4,924	\$12,861	\$7,937
Miscellaneous manufacturing industries	(D)	\$3,869	
Ordnance	(D)	(D)	
Nondurable goods	\$63,930	\$85,044	
Food and kindred products	\$15,840	\$15,874	\$34
Tobacco products	\$0	\$665	\$665
Textile mill products	\$0	\$4,122	\$4,122
Apparel and other textile products	(D)	\$4,097	\$1,630
Paper and allied products	\$30,483	\$7,984	
Printing and publishing	\$16,712	\$17,542	\$830
Chemicals and allied products	(D)	\$22,486	\$8,948
Petroleum and coal products	(D)	\$2,218	\$883
Rubber and misc. plastics products	(D)	\$9,509	\$3,784
Leather and leather products	(D)	\$547	\$218
Transportation and public utilities	\$75,132	\$99,311	
Railroad transportation	\$3,770	\$3,308	
Trucking and warehousing	\$22,431	\$20,917	
Water transportation	(D)	\$2,187	
Other transportation	(D)	\$24,024	
Local and interurban passenger transit	\$4,162	\$3,425	
Transportation by air	(D)	\$14,406	
Pipelines, except natural gas	\$0	\$228	\$228
Transportation services	\$2,441	\$5,964	\$3,523
Communications	\$13,213	\$31,109	\$17,896
Electric, gas, and sanitary services	\$26,585	\$17,766	

(D) = Data withheld to protect proprietary information.

Chart 2-b
Potential New Income for SLC Residents from Import-Replacement
(\$1000s)
(If Each Sector Expanded to U.S. Average)

	Actual SLC Income	SLC Potential If US Average	Import-Replacement Opportunities (Est.)
Wholesale trade	\$29,410	\$90,535	\$61,125
Retail trade	\$138,622	\$127,067	
Building materials and garden equipment	\$10,629	\$7,471	
General merchandise stores	\$15,108	\$13,599	
Food stores	\$24,011	\$18,141	
Automotive dealers and service stations	\$22,293	\$21,242	
Apparel and accessory stores	\$2,788	\$5,898	\$3,110
Home furniture and furnishings stores	\$3,339	\$8,792	\$5,453
Eating and drinking places	\$28,047	\$29,597	\$1,550
Miscellaneous retail	\$32,407	\$22,327	
Finance, insurance, and real estate	\$37,611	\$138,476	
Depository and nondepository institutions	(D)	\$32,501	\$23,665
Other finance, insurance, and real estate	(D)	\$105,975	
Security and commodity brokers	(D)	\$35,060	\$25,529
Insurance carriers	\$1,144	\$21,314	\$20,170
Insurance agents, brokers, and services	\$5,979	\$12,106	\$6,127
Real estate	\$7,190	\$27,389	\$20,199
Combined real estate, insurance, etc.	(D)	(D)	
Holding and other investment offices	\$4,931	\$10,106	\$5,175
Services	\$309,486	\$426,242	
Hotels and other lodging places	\$6,247	\$12,419	\$6,172
Personal services	\$11,178	\$11,880	\$702
Private households	\$2,420	\$3,189	\$769
Business services	\$24,085	\$111,409	\$87,324
Auto repair, services, and parking	\$11,139	\$11,962	\$823
Miscellaneous repair services	\$3,219	\$4,616	\$1,397
Amusement and recreation services	\$2,340	\$14,408	\$12,068
Motion pictures	\$1,000	\$6,569	\$5,569
Health services	\$112,695	\$110,524	
Legal services	\$9,864	\$29,149	\$19,285
Educational services	\$64,682	\$17,203	
Social services	\$25,168	\$14,571	
Museums, botanical, zoological gardens	(D)	\$635	
Membership organizations	\$15,122	\$14,085	
Engineering and management services	\$13,492	\$58,256	\$44,764
Miscellaneous services	(D)	\$5,367	

(D) = Data withheld to protect proprietary information.

Calculations in Charts 2a and 2b are made for the two-digit-SIC code levels. Generally, the final “Import-Replacement Opportunities” are estimated by subtracting Actual SLC Income from Potential Income (if SLC performed like an average U.S. region), wherever the potential is greater than the actual. In two sectors, however – Nondurable Goods and FIRE – estimates are also made about the potential income in sectors where data was withheld for proprietary reasons.⁴

Chart 3, below, summarizes the sector-by-sector calculations in Charts 2a and 2b. It shows that the total amount of new income possible from import replacement is about \$489 million.

Chart 3
Overview of Potential New Income for SLC Residents from Import-
Replacement (\$1000s)
(If Each Sector Expanded to U.S. Average)

Ag. services, forestry, fishing, & other	\$888
Construction	\$13,323
Manufacturing	
Durable goods	\$80,977
Nondurable goods	\$21,114
Transportation and public utilities	\$21,647
Wholesale trade	\$61,125
Retail trade	\$10,113
Finance, insurance, and real estate	\$100,865
Services	\$178,874
	\$488,925

Keep in mind that all these numbers were derived from labor and proprietors’ income in each industrial sector. Since salaries and wages are only one part of the costs of each businesses’ total expenditures, the total business expansion implied by import replacement is much larger than that suggested by the numbers of above.

To find the ultimate impact on the economy requires estimating the multipliers. These are available in the BEA’s Regional Input-Output Modeling System (RIMS II), which provides county and regional multipliers for the entire United States.

⁴ The reason is this: In both the Nondurable Goods and FIRE categories, the aggregates show more potential for import replacement than do the individual sectors added together. A reasonable assumption is that the difference is in the “hidden” categories, and that difference is allocated accordingly.

Specific multipliers for SLC were obtained and used to generate Chart 4, which shows that *the ultimate impact of import- replacement would be \$1.8 billion in new output each year, \$634 million in new earnings, and more than 14,000 new jobs.*

Chart 4
Potential New Output, Earnings, & Jobs for SLC with Import-Replacement

	\$1,000s		
	Output	Earnings	Jobs
Ag. services, forestry, fishing, & other			
Forestry, fishing, and other	\$8,436	\$1,756	43
Construction			
General building contractors	\$1,214	\$356	10
Special trade contractors	\$62,519	\$18,306	513
Manufacturing			
Durable goods			
Fabricated metal products	\$25,480	\$8,281	219
Industrial machinery and equipment	\$83,786	\$36,262	695
Electronic and other electric equipment	\$44,742	\$14,116	303
Motor vehicles and equipment	*	*	*
Other transportation equipment	\$53,288	\$15,699	345
Instruments and related products	\$42,655	\$10,544	214
Nondurable goods			
Food and kindred products	\$440	\$132	4
Tobacco products	\$8,661	\$2,600	81
Textile mill products	*	*	*
Apparel and other textile products	\$5,382	\$1,988	64
Printing and publishing	\$3,859	\$1,142	23
Chemicals and allied products	\$64,987	\$13,589	231
Petroleum and coal products	\$6,410	\$1,340	23
Rubber and misc. plastics products	\$20,247	\$5,013	141
Leather and leather products	\$1,165	\$288	8
Transportation and public utilities			
Trucking and warehousing			
Pipelines, except natural gas	\$868	\$325	10
Transportation services	\$13,401	\$5,023	151
Communications	\$89,328	\$25,450	416
Wholesale trade	\$234,813	\$77,794	1,681
Retail trade			
Apparel and accessory stores	\$8,976	\$3,863	166
Home furniture and furnishings stores	\$15,739	\$6,774	290
Eating and drinking places	\$4,715	\$2,020	114
Finance, insurance, and real estate			
Depository & Nondepository Institutions	\$115,288	\$30,459	420
Security and commodity brokers	\$66,071	\$31,390	345
Insurance carriers	\$76,194	\$30,150	592
Insurance agents, brokers, and services	\$16,451	\$7,671	184
Real estate	\$238,060	\$33,328	1,082
Holding and other investment offices	\$25,210	\$6,660	92
Services			
Hotels and other lodging places	\$19,710	\$7,957	267
Personal services	\$1,955	\$839	30
Private households	\$2,457	\$955	46
Business services	\$241,718	\$106,187	2,281
Auto repair, services, and parking	\$3,448	\$1,093	43
Miscellaneous repair services	\$4,685	\$1,762	69
Amusement and recreation services	\$39,757	\$15,449	947
Motion pictures	\$15,377	\$6,926	158
Legal services	\$33,719	\$23,495	355
Engineering and management services	\$116,993	\$56,917	1,369
	\$1,818,207	\$613,901	14,027

* In some categories, like auto manufacture, no industry in the region exists and consequently no multipliers are available.

To put this in perspective: *Import replacement in SLC could double the size of the local economy and put all the unemployed people in the County back to work.* The top sectors ripe for import-replacing expansion are: business services; engineering and management services; all of the FIRE subsectors; wholesale trade; and industrial machinery and equipment.

Of course, realizing the full potential of import replacement in every sector is a significant challenge, and as noted earlier requires careful attention to indicators, assets, economies of scale, and expansion strategies. It also requires educating local consumers and businesses to redirect some of their purchases, savings, and investments toward local enterprise.

But, again, it should be underscored that this analysis underestimates the full potential of import replacement. Many sectors that, in aggregate form, do not show potential for import replacement actually have substantial potential. For example, the energy sector looks self-reliant because local utilities have a number of local generating facilities, but many are dependent on imported fuels like oil, gas, and coal. There is no question that careful work in each and every sector could markedly increase the level of self reliance in SLC – and the overall level of economic prosperity.

Appendix I – Agriculture & Food

Assets

Jobs (2000)

		Males	Females	Total
By SIC Sector	Agriculture, Forestry, Fishing, Hunting	1,508	266	1,774
By Occupation	Food Preparation Services	1,008	1,972	2,980
	Farmers & Farm Managers	744	147	891
	Farming, Fishing, Forestry	680	119	799

- Number of dairy farms in 1992: 720
- Number of dairy farms in 1997: 584
- Average number of dairy cows per dairy farm in 1997: 69
- National rank of SLC in milk production among U.S. counties in the year 2000: 33
- Rank, among U.S. counties, of SLC of best locations for dairying, according to a February 2000 survey of *Dairy Today*: 3
- Rank, among U.S. counties, of SLC in largest acreage for corn silage in 1997: 10
- Rank for hay acreage: 14
- Number of Agricultural Districts (a state program that protects farmland from conflicting state projects and tax assessments) in SLC: 7
- Total acreage of these Agricultural Districts: 518,492
- Median annual wage of a dairy farm worker in the year 2001: \$12,114
- Of a logger: \$28,948
- Total value of all farm products in 1997: \$89 million
- Percentage of that value linked to dairy products: 93
- Of 1,363 farms in SLC in 1997, number with sales under \$10,000 per year: 621
- With sales of \$100,000 or more: 264

- Total value of land and buildings on farms in 1997: \$263 million
- Total value of machinery and equipment in 1997: \$66 million
- Percentage of harvested farmland in 1997 dedicated to hay: 81
- Ratio of hay-growing acreage to vegetable growing acreage: 517:1
- Ratio of hay-growing acreage to orchard acreage: 1776:1
- Ratio of hay-growing acreage to nursery/greenhouse acreage: 360:1
- Number of employees in SLC's seven cheese and yogurt plants: 524
- Number of employees in SLC producing maple syrup: 175
- Percentage of SLC land classified as "timberland" : 63
- Percentage of timber harvest that goes to sawmills outside SLC: 60

Leakages

Macro Opportunities:

Estimated Earnings Gain from Import Replacement (See Calculations in Paper) (\$1,000s/Year)

	SLC Actual	Import-Replacement Opportunities (Est.)
Ag. services, forestry, fishing, & other	\$9,094	\$0
Agricultural services	\$8,714	\$0
Forestry, fishing, and other	\$380	\$888
		\$888

Estimated Multiplier Effects from Import Replacement (See Calculations in Paper) (\$1,000s/Year)

	Output	Earnings	Jobs
Ag. services, forestry, fishing, & other			
Forestry, fishing, and other	\$8,436	\$1,756	43
	\$8,436	\$1,756	43

Micro Opportunities:

- Diversifying crops.
- Creating more home gardens.
- Greater value-added processing, packaging, and selling of food produced in SLC.
- More community-supported agriculture (CSAs), farmers markets, and other tools for direct distribution from farmers to consumers.
- Getting local institutions – universities, government commissaries, prisons – to buy local food.
- Increasing meat production in SLC.

Livestock Leaks (1997)

	Livestock Raised	Livestock Consumed
Beef Cows	4,176	15,461
Hogs & Pigs	1,587	37,939
Sheep & Lambs	2,277	2,141
Chickens	3,741	1,977,551

Indicators

Number of Farms

1984	2,020
1989	1,660
1995	1,530
1996	1,530
1997	1,363
1998	1,625
1999	1,665
2000	1,625

Payroll of Agricultural Employees (\$1000s)

	Nominal	Real
1973	\$12,700	\$51,837
1983	\$5,700	\$10,301
1993	\$14,900	\$18,548
1999	\$15,200	\$16,572
2000	\$8,300	\$8,752

**Number of Farm Acres
All Uses**

1989	452,300
1995	408,500
1996	412,700
1997	396,406
1998	423,400
1999	414,100
2000	403,000

Number of Agricultural Employees

1973	2,565
1983	3,421
1984	3,165
1989	2,447
1993	2,533
1994	2,329
1995	2,193
1996	2,136
1997	2,171
1998	2,200*
1999	2,236
2000	1,925

* Estimated

Farm Receipts (\$1,000)

	All Products	All Livestock	All Crops	Milk	Vegetables	Fruit	Greenhouse & Nursery
1995	\$95,509	\$89,415	\$6,094	\$78,925	\$333	\$181	\$1,185
1996	\$103,083	\$95,837	\$7,246	\$85,948	\$269	\$191	\$1,060
1997	\$92,935	\$85,703	\$7,232	\$76,402	\$329	\$174	\$1,182
1998	\$106,059	\$99,584	\$6,475	\$92,609	\$504	\$82	\$1,052
1999	\$100,933	\$94,795	\$6,138	\$87,779	\$480	\$88	\$1,095
2000	\$96,521	\$89,765	\$6,756	?	?	?	?

Appendix II – Education

Assets

Jobs (2000)		Males	Females	Total
By SIC Sector	Educational Services	2,958	4,921	7,879
By Profession	Education, Training, & Library	1,454	2,589	4,043

- Number of 4-year colleges: 4 (Clarkson, SUNY-Potsdam, SUNY-Canton College of Technology, & St. Lawrence University)
- Total number of students enrolled in these colleges: 13,000
- Total number of faculty: 700
- Number of library volumes: 900,000
- Number of 2-year junior colleges: 1 (Ranger School of CESF)
- Number of college and university employees: 2,670
- Number of public school employees: 3,773
- Average salary of an elementary school teacher in 2001: \$42,119
- Secondary school teacher: \$37,938
- Janitor: \$18,919
- Number of Boards of Cooperation Educational Services (BOCES) Centers: 3 (Northwest Tech Center, Southwest Tech Center, Seaway Area Tech Center)
- Number of BOCES adult learning centers: 5 (Canton, Gouverneur, Massena, Norwood, & Ogdensburg)
- Total BOCES enrollment in 2000-2001: 2,423

Leakages

Macro Opportunities: None, because SLC's education sector is well above U.S. average.

Micro Opportunities:

- Training entrepreneurs for other import-replacement sectors.
- Reorienting procurement policy to local consumption.
- Training a new generation of economic planners, literate in the principles and policies of LOIS.
- Creating scholarships and student loans conditioned on the students remaining in or returning to SLC after graduation.

Indicators

High School Drop-Out Rate

1986	3.4%
1990	3.3%
1991	2.8%
1992	2.7%
1993	2.7%
1994	2.3%
1995	2.4%
1996	2.8%
1997	2.9%
1998	3.3%
1999	3.5%
2000	2.9%

Pupil to Teacher Ratio in Public Schools

1985	14.9
1996	13.9
2001	13.4

Dollars Spent Per Pupil in Public Schools

	Nominal	Real
1996	\$7,990	\$9,161
1997	\$8,655	\$9,640
1998	\$8,788	\$9,705

	State Aid	Federal Aid	Total Aid Nominal)	Total Aid (Real)
1995	\$110,729	\$6,580	\$117,309	\$138,463
1998	\$115,670	\$6,984	\$122,654	\$135,446
1999	\$127,603	\$7,817	\$135,420	\$147,641
2000	\$137,607	\$8,989	\$146,596	\$154,583

Appendix III – Energy

Assets

Jobs (2000)

By SIC Sector	Males	Females	Total
Utilities	538	83	621

- Capacity of hydroelectric facilities in SLC: Over 1,000 megawatts.
- Number of electric power companies serving SLC: 2 (Niagara Mohawk and Massena Electric Department, a municipally owned utility)
- Ratio of residential power rates (30-day rates) charged by Niagara Mohawk, as compared to Massena Electric: 3:1
- Ratio for small general-service rates (non-demand rate): 4:1
- Ratio for large general-service rates: 7.4: 1
- Number of homes that use primarily solar heating: 4 (of 50,000 homes)

Niagara Mohawk's Electricity Sales Pattern (2000)

	Average Annual Bill	Av. Usage (1,000 kwh)	Av. Revenue (Cents/kwh)
Residential	\$853	7	12.06
Commercial	\$7,117	69	10.29
Industrial	\$298,747	5,914	5.05

- Number of natural gas suppliers to SCL: 1 (St. Lawrence Gas Co.)

St. Lawrence Gas Co. Sales Pattern (2000)

	Average Annual Bill	Av. Usage (Mcf)	Av. Revenue (Cents/kwh)
Residential	\$839	135	6.22
Commercial	\$3,402	579	5.87
Industrial	\$760,909	147636	5.15

Owner	Facility	Capacity(KWe)		Fuel
		Summer	Winter	
Niagara Mohawk Power Corp.	Cellu-Tissue Corp Natural Dam	10	30	Hydro
Niagara Mohawk Power Corp.	Chittenden Falls	330	420	Hydro
Sithe Energies Inc.	Sithe-Ogdensburg	77900	87300	Nat Gas
Sithe Energies Inc.	Sithe-Massena	80000	89800	Nat Gas
Niagara Mohawk Power Corp.	Adir HY-Sissonvle	2480	2150	Hydro
Niagara Mohawk Power Corp.	Algon.-Hollow Dam Power	290	620	Hydro
Niagara Mohawk Power Corp.	Algon.-Ogdensburg	1390	1960	Hydro
Niagara Mohawk Power Corp.	Hampshire Paper	1160	3040	Hydro
Orion Power Holdings, Inc.	Talcville 1	150	150	Hydro
Orion Power Holdings, Inc.	Talcville 2	150	150	Hydro
Niagara Mohawk Power Corp.	CHI Hailsboro #3	129	585	Hydro
Niagara Mohawk Power Corp.	CHI Hailsboro #4	318	1457	Hydro
Niagara Mohawk Power Corp.	CHI Hailsboro #6	144	728	Hydro
Niagara Mohawk Power Corp.	CHI Theresa Hydro	610	1210	Hydro
Niagara Mohawk Power Corp.	James River Corp.	10	10	Hydro
Niagara Mohawk Power Corp.	Vill. Gouverneur	30	10	Hydro
Niagara Mohawk Power Corp.	Village of Potsdam	600	600	Hydro
Niagara Mohawk Power Corp.	Pyrites Assoc.	8000	7500	Hydro
Niagara Mohawk Power Corp.	Staples, Gary D.	10	10	Hydro
Niagara Mohawk Power Corp.	Adir HY-Potsdam Pap	2690	2260	Hydro
Orion Power Holdings, Inc.	Colton 1	9248	9523	Hydro
New York Power Authority	St Law. FDR	831500	771200	Hydro
Orion Power Holdings, Inc.	Blake	10975	13511	Hydro
Orion Power Holdings, Inc.	Piercefield 1	933	866	Hydro
Orion Power Holdings, Inc.	Stark	20382	22338	Hydro
Orion Power Holdings, Inc.	Rainbow Falls	18368	21888	Hydro
Orion Power Holdings, Inc.	Five Falls	17585	21708	Hydro
Orion Power Holdings, Inc.	South Colton	15090	18555	Hydro
Orion Power Holdings, Inc.	Higley 3	1754	1737	Hydro
Orion Power Holdings, Inc.	Yaleville 1	250	200	Hydro
Orion Power Holdings, Inc.	Yaleville 2	250	200	Hydro
Orion Power Holdings, Inc.	Eel Weir 2	400	633	Hydro
Orion Power Holdings, Inc.	Eel Weir 3	400	634	Hydro
Orion Power Holdings, Inc.	South Edwards 1	875	825	Hydro
Orion Power Holdings, Inc.	South Edwards 2	875	825	Hydro
Orion Power Holdings, Inc.	South Edwards 4	875	825	Hydro
Orion Power Holdings, Inc.	Colton 3	9248	9523	Hydro
Orion Power Holdings, Inc.	East Norfolk	3200	3500	Hydro
Orion Power Holdings, Inc.	Eel Weir 1	400	633	Hydro
Orion Power Holdings, Inc.	Norfolk	4300	4200	Hydro
Orion Power Holdings, Inc.	Norwood	2100	2100	Hydro
Orion Power Holdings, Inc.	Raymondville	2000	2000	Hydro
Orion Power Holdings, Inc.	Allens Falls	4000	4100	Hydro
Orion Power Holdings, Inc.	Parishville	2300	2300	Hydro
Orion Power Holdings, Inc.	Flat Rock 1	2375	2400	Hydro
Orion Power Holdings, Inc.	Flat Rock 2	2375	2400	Hydro
Orion Power Holdings, Inc.	Heuvelton 1	400	400	Hydro
Orion Power Holdings, Inc.	Heuvelton 2	400	400	Hydro
Orion Power Holdings, Inc.	Piercefield 2	933	867	Hydro
Orion Power Holdings, Inc.	Piercefield 3	934	867	Hydro
Orion Power Holdings, Inc.	Sugar Island 1	0	0	Hydro
Orion Power Holdings, Inc.	Sugar Island 2	2000	1950	Hydro
Orion Power Holdings, Inc.	Sugar Island 3	2000	1950	Hydro
Orion Power Holdings, Inc.	Browns Falls 1	7875	7900	Hydro
Orion Power Holdings, Inc.	Browns Falls 2	7875	7900	Hydro
Orion Power Holdings, Inc.	South Edwards 3	875	825	Hydro
Orion Power Holdings, Inc.	Hannawa 2	3697	3660	Hydro
Orion Power Holdings, Inc.	Colton 2	9248	9523	Hydro
Orion Power Holdings, Inc.	Hannawa 1	3697	3660	Hydro
Orion Power Holdings, Inc.	Higley 1	1754	1737	Hydro
Orion Power Holdings, Inc.	Higley 2	1754	1737	Hydro

Leakages

Macro Opportunities: None, because SLC's electricity-production sector is above the U.S. average.

Micro Opportunities:

- Promoting energy efficiency in every end-use sector through such means as motor and pump replacement, compact-fluorescent lighting, and time-of-day controls.
- Replacing existing electricity generator with renewables, such as wind power and rooftop photovoltaics.
- Convincing utilities to buy back power from small producers as marginal cost.
- Redesigning structures to facilitate passive solar heating and cooling.
- Re-engineering business processes and plant layout to minimize energy demand.
- Creating more "energy service companies" (ESCOs), which help implement and finance efficiency.
- Producing ethanol, hydrogen, and other locally produced automobile fuels.

Indicators

Niagara Mohawk's Residential Sales Pattern

	Average Annual Bill	Av. Usage (1,000 kwh)	Av. Revenue (Cents/kwh)
1995	\$868	7.2	12.08
1996	\$891	7.2	12.39
1997	\$874	7.0	12.39
1998	\$858	7.0	12.46
1999	\$875	7.0	12.23
2000	\$853	7.0	12.06

Niagara Mohawk's Commercial Sales Pattern

	Average Annual Bill	Av. Usage (1,000 kwh)	Av. Revenue (Cents/kwh)
1997	\$7,356	79.0	9.3
1998	\$8,356	79.0	10.55
1999	\$7,910	79.0	10.07
2000	\$7,117	69.0	10.29

Niagara Mohawk's Industrial Sales Pattern

	Average Annual Bill	Av. Usage (1,000 kwh)	Av. Revenue (Cents/kwh)
1997	\$250,060	3,342	7.48
1998	\$267,389	5,576	4.80
1999	\$267,605	5,587	4.79
2000	\$298,747	5,914	5.05

Household Fuel Use

Numbers

	Gas	Electricity	Oil, Kero	Wood	Other	Total Households
1980	9,580	2,636	19,684	3,748	153	35,801
1990	12,129	4,293	15,370	5,885	287	37,964
2000	15,100	3,583	17,922	3,532	369	40,506

Percentages

1980	27%	7%	55%	10%	0%	100%
1990	32%	11%	40%	16%	1%	100%
2000	37%	9%	44%	9%	1%	100%

Job Trends

Transp'n & Public Utilities

1984	1,021
1989	1,038
1994	1,166
1997	996
1998	997
1999	987
2000	952

**Payroll Trends
Transportation & Public Utilities**

	Nominal	Real
1984	\$21,469	\$37,194
1989	\$24,496	\$35,559
1994	\$34,903	\$42,364
1997	\$33,656	\$37,488
1998	\$40,286	\$44,488
1999	\$64,696	\$70,535
2000	\$34,099	\$35,957

St. Lawrence Gas Co. Residential Sales Pattern

	Average Annual Bill	Av. Usage (Mcf)	Av. Revenue (Cents/kwh)
1995	\$583	140.8	4.14
1996	\$667	149.6	4.46
1997	\$686	140.0	4.91
1998	\$561	119.0	4.71
1999	\$667	124.0	5.40
2000	\$839	135.0	6.22

St. Lawrence Gas Co. Commercial Sales Pattern

	Average Annual Bill	Av. Usage (Mcf)	Av. Revenue (Cents/kwh)
1997	\$2,735	611.0	4.48
1998	\$2,132	508.0	4.20
1999	\$2,369	508.0	4.66
2000	\$3,402	579	5.87

St. Lawrence Gas Co. Industrial Sales Pattern

	Average Annual Bill	Av. Usage (Mcf)	Av. Revenue (Cents/kwh)
1997	\$439,033	123,346	3.56
1998	\$368,462	117,846	3.13
1999	\$549,403	140,400	3.91
2000	\$760,909	147,636	5.15

Appendix IV – Finance, Insurance, and Real Estate (FIRE)

Assets

		Jobs (2000)		
		Males	Females	Total
By SIC Sector	Finance & Insurance	343	737	1,080
	Real Estate & Renting	177	153	330
By Occupation	Financial Specialists	253	280	533

Banks and S&Ls Listed in SLC Yellow Pages

Name	Branches
Charter One	4
Citizens National of Hammond	2
Community Bank	15
First Pioneer	1
Gouverneur S&L	2
Keybank	8
Massena S&L	1
NBT Bank	3
North Country Savings	5
Ogdensburg Federal	1
Tupper Lake National	2
Upstate National	2

Credit Unions Listed in SLC Yellow Pages

Name	Branches
Adirondack Regional	5
Gouverneur Schools Federal	1
Northern Federal	1
St. Lawrence Federal	1
Seacomm Federal	1
Twin Rivers Federal	1

Pension, Investment Agencies, Mutual Funds, & Brokers Listed in SCL Yellow Pages

Name	Branches
Crawford Insurance Agency	1
Dunn Glass Agency	2
Edward Jones Investment	1
Northwestern Mutual	1
PaineWebber	1
Salomon Smith Barney	3
Styles Bridges Associates	1
Tucker Anthony	1

Leakages

Macro Opportunities:

Estimated Earnings Gain from Import Replacement (See Calculations in Paper) (\$1,000s/Year)

	SLC Actual	Import Replacement Opportunities (est.)
Finance, insurance, and real estate	\$37,611	\$0
Depository and nondepository institutions	?	\$23,665
Other finance, insurance, and real estate	?	\$0
Security and commodity brokers	?	\$25,529
Insurance carriers	\$1,144	\$20,170
Insurance agents, brokers, and services	\$5,979	\$6,127
Real estate	\$7,190	\$20,199
Combined real estate, insurance, etc.	?	\$0
Holding and other investment offices	\$4,931	\$5,175
		\$100,865

Estimated Multiplier Effects from Import Replacement (See Calculations in Paper) (\$1,000s/Year)

	Output	Earnings	Jobs
Finance, insurance, and real estate			
Depository & Nondepository Institutions	\$115,288	\$30,459	420
Security and commodity brokers	\$66,071	\$31,390	345
Insurance carriers	\$76,194	\$30,150	592
Insurance agents, brokers, and services	\$16,451	\$7,671	184
Real estate	\$238,060	\$33,328	1,082
Holding and other investment offices	\$25,210	\$6,660	92
	\$537,275	\$139,660	2,713

Micro Opportunities:

- Expand the number and use of locally owned banks.
- Help banks expand commercial credit for small, locally owned business.
- Create a local stock market.

- Create and use pension funds for investing in small, local business.
- Place county and local funds on deposit in exemplary local banks.
- Place county and local pension funds in local companies and mutual funds.
- Start a SLC fund to help small, local business issue stock for local investors.

Indicators

Deposits in Banking Institutions in SLC (\$Millions)

1994	\$700
1996	\$1,019
1997	\$1,717
1998	\$939
2000	\$1,006
2001	\$1,979

Payroll in FIRE Sector (\$1000s)

	Nominal	Real
1984	\$11,744	\$20,346
1989	\$15,832	\$22,982
1994	\$18,756	\$22,765
1997	\$20,841	\$23,214
1998	\$22,490	\$24,836
1999	\$22,490	\$24,520
2000	\$23,098	\$24,356

Employment in FIRE

1984	792
1989	897
1994	958
1997	972
1998	958
1999	966
2000	970

Appendix V – Health

Assets

		Jobs (2000)		
		Males	Females	Total
By SIC	Health Care & Social Assistance	1,385	5,179	6,564
By Occupation	Health Diagnosis & Treatment	380	1,089	1,469
	Health Technicians	153	724	877
	Healthcare Support	250	222	472

- Number of employees at psychiatric centers: 528
- At hospitals: 1,859
- At nursing and personal care facilities: 953

Leakages

- Macro Opportunities: None, because SLC's health sector is above U.S. average. There are some clear gaps, however, in specific professions, noted on the next page.
- Micro Opportunities:
 - Prevention through local public-health initiatives and education.
 - Local support networks, perhaps facilitated through barter or Time Dollars.
 - More non-professional health workers.
 - Replacement of high-cost, non-local pharmaceuticals with local herb alternatives.

	Actual Licensees In SLC	Expected Licensees If SLC Achieved NY State Average
Practical Nursing	589	396
Pharmacy	63	94
RN	1,213	1,194
Physician Assistant	22	33
Specialist's Ass't	0	0
Acupuncture	1	9
Massage	12	54
Midwives	0	5
Nurse Practitioner (All)	52	56
Dietetics	20	26
Dentistry	35	92
Dental Hygiene	55	50
Respiratory Therapy	18	26
Resp. Therapy Tech'n	10	9
Ophthalmic Dispensing	45	21
Optometry	8	14
Audiology	4	7
Speech Pathology	24	57
Medicine	147	375
MD - Limited	13	3
Physical Therapy	58	75
Occupational Therapy	17	43
Occ. Therapy Ass't	24	20
Podiatry	1	13
Physical Therapy -- Ass't	67	24
Psychology	16	54
Chiropractic	11	31
Veterinary Med	23	19
Veterinary Tech	39	14
Social Worker	74	225
Dental Anesthesia	1	2

Indicators

Infant Mortality (Rate per 1,000 Births)

1950	24.8
1960	24.1
1970	19.6
1980	12.5
1990	7.1
1994	3.7
1995	?
1996	6.4
1997	6.8
1998	5.8
1999	6.9

AIDS Cases

1996	44
1997	33
1998	15
1999	16

Leading Causes of Death

	Lung Cancer	Heart Disease	Accident
1992	61	391	39
1994	77	372	34
1996	81	363	34
1997	75	340	30
1998	76	328	37
1999	75	309	51

Appendix VI – Housing & Construction

Assets

		Jobs (2000)		
		Males	Females	Total
By SIC	Construction	2,604	248	2,852
By Occupation	Architects & Engineers	254	45	299
	Drafters & Mappers	193	29	222
	Supervisors	320	18	338
	Construction Trade Workers	2,098	62	2,160
	Extraction Workers	84	0	84
	Installation, Maintenance & Repair	1,929	74	2,003

Housing Stock

	Total	Owner Occupied	Rental	Seasonal
1990	47,521	26,135	11,828	6,534
2000	49,721	28,613	11,893	6,295

- Average square footage per home: 1,667
- Average rental per store: \$400-500 per month
- Average square footage per business property: 3,641
- Median annual wage of a carpenter in the year 2001: \$28,495
- Of an electrician: \$40,025
- Of a plumber: \$47,005
- Of a painter: \$25,143
- Of a welder: \$27,140
- Mean year owner-occupied houses were built: 1954
- Renter-occupied houses: 1960
- Percentage of housing stock built before 1940: 36

- Percentage of rental units whose occupants moved in after 1994: 73
- Percentage for owner-occupied housing: 24
- Percentage of all housing units occupied before 1990: 45
- Before 1980: 27
- Before 1970: 15
- Percentage of all housing units without kitchens: 4
- Without plumbing: 4
- Percent of occupied housing units without telephones: 2.6
- Mean percentage of household income renters spend on rent: 27.9
- Percentage for whom rent is more than half their household income: 21.2

Leakages

Macro Opportunities:

Estimated Earnings Gain from Import Replacement (See Calculations in Paper) (\$1,000s/Year)

	SLC Actual	Import-Replacement Opportunities (Est.)
Construction	\$82,101	\$0
General building contractors	\$19,963	\$254
Heavy construction contractors	\$18,318	\$0
Special trade contractors	\$43,820	\$13,069
		\$13,323

Estimated Multiplier Effects from Import Replacement (See Calculations in Paper) (\$1,000s/Year)

	Output	Earnings	Jobs
Construction			
General building contractors	\$1,214	\$356	10
Special trade contractors	\$62,519	\$18,306	513
	\$63,734	\$18,661	523

Micro Opportunities:

- Convert renters into owners.
- Find residences in SLC for people who work in the county.
- Encourage home-based businesses.
- Move mortgages to locally owned banks.
- Develop innovative construction designs that use local materials such as local stone, wood, and straw bale.
- Develop co-housing and community land trusts to provide low-income residents with more opportunities for home ownership.
- Change zoning to locate housing closer to work.

Indicators

**% Occupied Homes
Owned by Resident**

1990	68.8%
2000	70.6%

Home Vacancy Rate

1980	1.5%
1990	1.7%
2000	2.4%

**Average Sale Value for
1,2, and 3 Bedroom Homes**

1997	\$46,000	\$51,238
1998	\$50,500	\$55,767
1999	\$51,600	\$56,257
2000	\$53,000	\$55,888
2001	\$54,500	\$55,392

Construction Payroll (\$1,000s)

1984	\$15,136
1989	\$26,135
1994	\$31,175
1997	\$34,417
1998	\$40,745
1999	\$44,822
2000	\$53,544

Construction Jobs

1984	831
1989	1,167
1994	1,191
1997	1,243
1998	1,388
1999	1,520
2000	1,579

Appendix VII – Manufacturing

Assets

Jobs (2000)

		Males	Females	Total
By SIC Sector	Manufacturing	4074	1384	5458
By Occupation	Management	1566	1078	2644
	Business Operations Specialist	194	252	446
	Production Occupations	2578	896	3474

- Median annual wage of a machinist in the year 2001: \$26,848
- Of a secretary: \$22,291
- Types of industries that have taken advantage of SLC's low-cost electricity: 2 (aluminum manufacturing and electronics assembly)
- Number of employees in the electronics assembly industry: 533
- Ownership of the majority of electronics-assembly firms: Canadian
- Number of employees at SLC's four paper mills: 425
- Number of industrial development parks: 5 (Gouverneur Industrial Park, Massena Industrial Park, Northern Advanced Technologies Corporation Business and Research Park, Ogdensburg Commerce Park, and Ogdensburg Heavy Industrial Park)

Leakages

Macro Opportunities:

Estimated Earnings Gain from Import Replacement (See Calculations in Paper) (\$1,000s/Year)

	SLC Actual	Import-Replacement Opportunities (Est.)
Manufacturing		
Durable goods	\$236,119	
Lumber and wood products	\$11,467	\$0
Furniture and fixtures	?	\$0
Stone, clay, and glass products	\$32,705	\$0
Primary metal industries	\$158,136	\$0
Fabricated metal products	\$9,531	\$6,490
Industrial machinery and equipment	\$1,541	\$28,971
Electronic and other electric equipment	\$16,479	\$9,872
Motor vehicles and equipment	\$0	\$16,009
Other transportation equipment	\$96	\$11,698
Instruments and related products	\$4,924	\$7,937
Miscellaneous manufacturing industries	?	\$0
Ordnance	?	\$0
Nondurable goods	\$63,930	
Food and kindred products	\$15,840	\$34
Tobacco products	\$0	\$665
Textile mill products	\$0	\$4,122
Apparel and other textile products	?	\$1,630
Paper and allied products	\$30,483	\$0
Printing and publishing	\$16,712	\$830
Chemicals and allied products	?	\$8,948
Petroleum and coal products	?	\$883
Rubber and misc. plastics products	?	\$3,784
Leather and leather products	?	\$218
		\$102,091

**Estimated Multiplier Effects from Import Replacement
(See Calculations in Paper)
(\$1,000s/Year)**

	Output	Earnings	Jobs
Manufacturing			
Durable goods			
Fabricated metal products	\$25,480	\$8,281	219
Industrial machinery and equipment	\$83,786	\$36,262	695
Electronic and other electric equipment	\$44,742	\$14,116	303
Motor vehicles and equipment	*	*	*
Other transportation equipment	\$53,288	\$15,699	345
Instruments and related products	\$42,655	\$10,544	214
Nondurable goods			
Food and kindred products	\$440	\$132	4
Tobacco products	\$8,661	\$2,600	81
Textile mill products	*	*	*
Apparel and other textile products	\$5,382	\$1,988	64
Printing and publishing	\$3,859	\$1,142	23
Chemicals and allied products	\$64,987	\$13,589	231
Petroleum and coal products	\$6,410	\$1,340	23
Rubber and misc. plastics products	\$20,247	\$5,013	141
Leather and leather products	\$1,165	\$288	8
	\$361,102	\$110,995	2,353

Micro Opportunities:

- Incubators to develop sector-specific manufacturing start-ups.
- Public sector purchasing of locally manufactured items.
- Flexible manufacturing networks, to help local firms compete with larger-scale multinationals.
- Special focus on start-ups that use local inputs, such as food, fiber, wood, agricultural and forestry waste (e.g., biochemicals), and stone.
- Special focus on labor-intensive manufacturing to take advantage of the large number of unemployed.

Indicators

Employment

1973	8,105
1983	7,144
1984	7,074
1989	6,015
1993	6,022
1994	5,566
1995	5,908
1996	5,868
1997	5,245
1998	5,338
1999	5,829
2000	5,225

Payroll (\$1,000s)

1973	\$104,400
1983	\$233,000
1984	\$202,165
1989	\$173,870
1993	\$224,400
1994	\$187,255
1995	\$246,600
1996	\$251,400
1997	\$212,945
1998	\$223,367
1999	\$235,167
2000	\$237,138

*

Appendix VIII – Retail & Wholesale Trade

Assets

Jobs (2000)

		Males	Females	Total
By SIC	Retail Trade	2,421	2,921	5,342
	Wholesale Trade	587	206	793
By Occupation	Sales	1,684	2,481	4,165
	Office & Admin Support	1,271	5,036	6,307

Phone Book Listings of Select Retailers (2003)

Category	Company	Stores
Department	Nonchain *	2
	Ames	7
	Dollar Depot	1
	Family Dollar	1
	Hacketts	3
	JC Penney	1
	Wal Mart	2
	Groceries	Nonchain *
	Briggs Hometown	2
	Convenience Stores	4
	IGA	1
	P&C	4
	Price Chopper	1
	Sugar Creek	2
	Sunoco Minimart	3
	Top's Friendly	4
Pharmacies	Nonchain *	4
	Eckerd	2
	Kinney	17
	P&C	2
	Rite Aid	6

* Stand-alone stores that do not appear to belong to a major national chains.

- Major shopping centers in SLC: 7
- Number of retail establishments in SLC: 647

Leakages

Macro Opportunities:

Estimates from Calculations in Paper (\$1,000s/Year)

	SLC Actual	Import Replacement Opportunities (est.)
Wholesale trade	\$29,410	\$61,125
Retail trade	\$138,622	\$0
Building materials and garden equipment	\$10,629	\$0
General merchandise stores	\$15,108	\$0
Food stores	\$24,011	\$0
Automotive dealers and service stations	\$22,293	\$0
Apparel and accessory stores	\$2,788	\$3,110
Home furniture and furnishings stores	\$3,339	\$5,453
Eating and drinking places	\$28,047	\$1,550
Miscellaneous retail	\$32,407	\$0
		\$71,238

Estimated Multiplier Effects from Import Replacement (See Calculations in Paper) (\$1,000s/Year)

	Output	Earnings	Jobs
Wholesale trade	\$234,813	\$77,794	1,681
Retail trade			
Apparel and accessory stores	\$8,976	\$3,863	166
Home furniture and furnishings stores	\$15,739	\$6,774	290
Eating and drinking places	\$4,715	\$2,020	114
	\$264,244	\$90,451	2,251

Micro Opportunities:

- Create buy-local directories, stickers, and campaigns.
- Develop local money and credit cards to encourage resident consumers and businesses to buy local.
- Get government agencies, universities, public schools and other large institutions to buy local.

- Launch a SLC Marketplace (based on the Oregon Marketplace), to link SLC business with one another as input providers.

Indicators

Sector Employment

Wholesale Trade

	Jobs
1984	1278
1989	1284
1994	1321
1997	1311

Retail Trade

	Jobs
1984	4934
1989	6572
1994	7377
1997	7120

Annual Payroll (\$1,000s)

Wholesale Trade

	Nominal	Real
1984	\$18,261	\$31,636
1989	\$22,110	\$32,095
1994	\$28,769	\$34,919
1997	\$30,098	\$33,525
1999	\$22,800	\$24,858

Retail Trade

	Nominal	Real
1984	\$43,281	\$74,982
1989	\$61,752	\$89,640
1994	\$81,534	\$98,962
1997	\$84,439	\$94,053
1999	\$101,063	\$110,184

Appendix IX – Tourism & Entertainment

Assets

Jobs (2000)

		Males	Females	Total
By SIC	Arts, Entertainment, Recreation	392	281	673
	Accommodation & Food Services	1119	1918	3037
By Occupation	Arts, Design, Entertainment, Sports, Media	311	227	538
	Food Preparation	1008	1972	2980

- Number of motels and hotels in SLC: 58
- Number of rooms available for visitors to SLC: 1,229
- Number of persons that can be accommodated by these rooms: 4,205
- Number of radio stations in SLC: 10
- Number of broadcast TV stations: 1
- Number of cable companies: 3 (Citizens Cablevision, Time Warner, TDS Telecom)
- Typical number of events each year at the four principal colleges: 600
- Typical number of fairs, festivals, and cultural events held each year: 190
- Number of historical sites touted by the SLC Industrial Development Authority: 29
- Number of local and community libraries (excluding those at universities): 16
- Number of churches in SLC: 112
- Number of community recreation centers (excluding those at universities): 7
- Number of golf courses: 14
- Kilometers of cross-country skiing trails: 200
- Number of State Parks: 11
- Number of boat launches and marinas: 48

Leakages

Macro Opportunities:

Estimated Earnings Gain from Import Replacement (See Calculations in Paper) (\$1,000s/Year)

	SLC Actual	Import Replacement Opportunities (est.)
Services	\$309,486	\$0
Hotels and other lodging places	\$6,247	\$6,172
Personal services	\$11,178	\$702
Private households	\$2,420	\$769
Business services	\$24,085	\$87,324
Auto repair, services, and parking	\$11,139	\$823
Miscellaneous repair services	\$3,219	\$1,397
Amusement and recreation services	\$2,340	\$12,068
Motion pictures	\$1,000	\$5,569
Health services	\$112,695	\$0
Legal services	\$9,864	\$19,285
Educational services	\$64,682	\$0
Social services	\$25,168	\$0
Museums, botanical, zoological gardens	?	\$0
Membership organizations	\$15,122	\$0
Engineering and management services	\$13,492	\$44,764
Miscellaneous services	?	\$0

Estimated Multiplier Effects from Import Replacement (See Calculations in Paper) (\$1,000s/Year)

	Output	Earnings	Jobs
Services			
Hotels and other lodging places	\$19,710	\$7,957	267
Personal services	\$1,955	\$839	30
Private households	\$2,457	\$955	46
Business services	\$241,718	\$106,187	2,281
Auto repair, services, and parking	\$3,448	\$1,093	43
Miscellaneous repair services	\$4,685	\$1,762	69
Amusement and recreation services	\$39,757	\$15,449	947
Motion pictures	\$15,377	\$6,926	158
Legal services	\$33,719	\$23,495	355
Engineering and management services	\$116,993	\$56,917	1,369
	\$479,818	\$221,580	5,566

Micro Opportunities:

- Promote locally owned restaurants, hotels, bed and breakfasts, and other tourist attractions.
- Create a local business guide for tourists and other visitors.
- Improve air and train links to SLC.
- Upgrade environmental resources and improve the ecological sensitivity of all other businesses.

Indicators

Tourism Jobs

1977	2,251
1987	3,139
1997	3,348

Tourism Payroll (1,000s \$)

	Nominal	Real
1977	\$8,804	\$26,150
1987	\$19,559	\$30,991
1997	\$27,735	\$30,893

Hunting & Fishing Licenses

1985	39,491
1996	46,350
1998	47,261
2000	48,599
2001	48,514

Top Tourist Attractions

Colonial Village Fun Park
Crane School of Music
Moses-Saunders Power Dam
Remington Art Museum
Seaway Trail

Jobs in the Service Sector

1984	6,336
1989	7,313
1994	8,158
1997	8,509
1999	8,189
2000	9,010

Payroll in the Service Sector (\$1,000s)

	Nominal	Real
1984	80,079	138,732
1989	123,298	178,981
1994	158,452	192,322
1997	176,147	196,203
1999	387,449	422,416

State Aid for the Arts

	Nominal	Real
1993	\$68,275	\$84,990
1996	\$124,027	\$142,197
1997	\$122,289	\$136,213
1998	\$113,815	\$125,685
1999	\$114,300	\$124,615
2000	\$142,512	\$150,276
2001	\$126,994	\$129,074

Leisure Vehicle Ownership

	Motorboats	Snowmobiles
1990	?	1,900
1992	8,682	?
1995	9,182	3,288
1998	10,565	4,448
2000	10,689	4,753

Museums in SLC

1997	28
1999	30
2001	32

Appendix X – Transportation

Assets

Jobs (2000)

		Males	Females	Total
By SIC	Transportation & Warehousing	900	277	1,177
By Occupation	Supervisors	58	0	58
	Aircraft & Traffic Control	7	0	7
	Motor Vehicle Operators	1,324	202	1,526
	Rail, Water, & Other Transport	152	35	187
	Material Movers	959	248	1,207

- Number of major highways near SLC: 11 (Interstate 81 & 87; US Route 11, State Hwys 3, 12, 37, 56, 68, & 812); and Canadian Hwys 401 & 416)
- Number of established trucking operations in SLC: 16
- Number of commercial rail services: 2 (CSX & St. Lawrence Rail)
- Number of passenger rail stations: 0
- Number of passenger airports: 3 (Richards Field, Damon Field, Ogdensburg International)
- Number of regional bus lines: 3 (Greyhound, Adirondack Trailways & Thousand Island)
- Number of local bus lines: 1 (Birnie Bus, offering service between Canton and Watertown, and between Canton and Plattsburgh)
- Number of port facilities capable of handling large sea vessels: 1 (Port of Ogdensburg)
- Warehousing capacity of that Port, in square feet: 148,000
- Median annual wage of a delivery truck driver in the year 2001: \$21,588
- Of a heavy truck driver: \$25,366

- Percentage of workforce that works inside the county: 93
- Percentage of workforce that works at home: 4.3
- Mean travel time to work, in minutes: 20
- Percentage of workforce whose mean travel time is more than 40 minutes: 12
- Percentage of auto/truck/van commuters who drive to work alone: 87
- Percentage of workers who walk to work: 7.2
- Who bicycle: 0.3
- Percentage of workers who take any form of mass transit: 0.4
- Percentage of "mass-transit" commuters who use only taxis: 35
- Average number of cars per owned home: 1.8
- Per rental unit: 1.1
- Miles of road in SLC: 3,136

Leakages

Macro Opportunities:

Estimated Earnings Gain from Import Replacement (See Calculations in Paper) (\$1,000s/Year)

	SLC Actual	Import Replacement Opportunities (est.)
Transportation and public utilities	\$75,132	\$0
Railroad transportation	\$3,770	\$0
Trucking and warehousing	\$22,431	\$0
Water transportation	?	\$0
Other transportation	?	\$0
Local and interurban passenger transit	\$4,162	\$0
Transportation by air	?	\$0
Pipelines, except natural gas	\$0	\$228
Transportation services	\$2,441	\$3,523
Communications	\$13,213	\$17,896
Electric, gas, and sanitary services	\$26,585	\$0
		\$21,647

Estimated Multiplier Effects from Import Replacement (See Calculations in Paper) (\$1,000s/Year)

	Output	Earnings	Jobs
Transportation and public utilities			
Trucking and warehousing			
Pipelines, except natural gas	\$868	\$325	10
Transportation services	\$13,401	\$5,023	151
Communications	\$89,328	\$25,450	416
	\$103,598	\$30,798	577

Micro Opportunities:

- Build bicycle paths.
- Promote zoning reform supportive of home-based businesses and multiple uses of property.
- Upgrade public transit.
- Promote carpooling.
- Locating work closer to residences.

Indicators

Job Trends Transp'n & Public Utilities

1984	1,021
1989	1,038
1994	1,166
1997	996
1998	997
1999	987
2000	952

Payroll Trends Transportation & Public Utilities

	Nominal	Real
1984	\$21,469	\$37,194
1989	\$24,496	\$35,559
1994	\$34,903	\$42,364
1997	\$33,656	\$37,488
1998	\$40,286	\$44,488
1999	\$64,696	\$70,535
2000	\$34,099	\$35,957

Passenger Enplanements

	Saranac Lake	Ogdensburg	Massena
1996	4,461	1,024	2,344
1997	4,841	1,446	3,364
1998	5,554	2,492	4,171
1999	5,272	2,659	4,110

Vehicle Accidents

	Total	Fatal	Injuries
1990	1,273	18	817
1994	1,030	18	741
1997	1,487	14	750
2000	2,867	21	742

Registered Vehicles

	Cars	Commercial
1990	51,544	19,717
1996	41,686	17,337
1997	49,112	20,638
1998	49,482	21,451
1999	50,209	21,977
2000	51,362	21,492