# The Development of Elliot Lake, "Uranium Capital of the World": A Background to the Layoffs of 1990–1996

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## Introduction [1]

Canada's nuclear industry – and Elliot Lake – first developed as an expression of the Cold War. Though some limited production of radium began in the 1930s, it was in the 1940s, with the US-led development of the atomic bomb and the subsequent nuclear arms race, that the nuclear industry and uranium mining took off. The U.S. government sought a reliable supply of uranium for its nuclear weapons program; the Canadian federal government willingly assisted. Canada became the leading uranium exporter in the world and Elliot Lake the "uranium capital of the world."

The importance of federal responsibility was clear from the outset. In 1945, the federal government resorted to its rarely used declaratory power in the constitution to claim federal jurisdiction over all aspects of nuclear development, including mining. As pronounced in the Atomic Energy Control Act (1946), passed to regulate the nuclear industry: "It is in the national interest to make provision for the control and supervision of the development, application and use of atomic energy, and to enable Canada to participate effectively in measures of international control of atomic energy."

Uranium mining and the nuclear industry as a whole developed on the basis of exceptionally close corporate-government collaboration.[2] During World War II, the

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[1] This background study was produced as part of the Elliot Lake Tracking and Adjustment Study. I would like to acknowledge the contribution of Laurentian University colleagues, staff, and research assistants in the Study. For this report, I would like to thank particularly Sharon Gow and Jan Lewis, who helped to document aspects of the background of the layoffs as well as to offer useful comments and suggestions. I would also like to thank Jane Pitblado for her excellent editorial work and Brian MacLean for hisuseful comments. Last but not least, special thanks are due to the many people in Elliot Lake and the North Shore who cooperated with the project, especially employees of Denison and Rio Algom and the Steelworkers union who participated in the surveys and helped to answer my numerous questions. Of course, responsibility for the content of this background report, both in its details and any views it reflects, is mine alone.

[2] On the history of uranium policy and development, see Griffith (1967), Doern (1980), Strauss and Willauer (1981), Downey (1982, 1986), Shaffer, Marvin and Associates (1982), Finch (1986), Webb and Zacher (1988). Some of the Cold War impact on Canadian resource policy is discussed in Clark-Jones (1987) and articles in Haglund (1989). Some histories of Elliot Lake and uranium mining, most with an emphasis on the early years are: Bucksar (1965), L. Carson Brown (1967), Kurisko (1977), Elliot Lake Secondary School (1980), Gray (1982, chapter 4), Joubin and Smyth (1986), Smith (1986, chapter 19), Heard (1992), Thompkins (1994, chapters 20–22), Dixon (1996). Ontario Hydro's role in nuclear development is discussed from different angles in: McKay (1983), Daniels (1996), and Freeman (1996).

industry was organized as a directly owned and controlled operation of the Canadian state, primarily through the crown corporation Eldorado Mining and Refining Limited.[3] In 1948, federal government policy shifted towards promoting private development of the uranium industry, particularly in prospecting and mining. The government retained its monopsony buying position for all uranium produced and its ownership of Eldorado, which had been the only uranium mining and exploration firm allowed to operate in Canada. But it permitted private stocking of uranium and encouraged private corporations to enter the field.[4]

For many years, federal government intervention in pricing and procurement (by supporting prices at higher-than-market levels) was actively pursued, initially to stimulate the "infant industry," then later to save it during collapse. The general effect of government actions was to support the mining companies at Elliot Lake to expand with a rapidity and to a scale that it is unlikely would otherwise have occurred.[5] Over the period, as the power of the private corporations in the industry increased, the federal government was pressed to reduce and devolve its procurement and regulatory control. This trend increased with growing globalization and the rightward political shift to an openly

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[3] The National Research Council also played an important technical role; the NRC's nuclear research later formed the basis of the crown corporation, Atomic Energy of Canada Limited (incorporated in 1952). The main history of Eldorado is Bothwell (1984) and of AECL is Bothwell (1988).

[4] This was also the general direction of policy in the U.S. From 1942 to 1946, the development of nuclear weapons, with Canadian support, was under the U.S. Army Corps of Engineers, Manhattan Engineer District (MED, the Manhattan project), which administered uranium procurement, research and development, engineering, and production operations (U.S. Energy Information Administration 1991). In 1946, the U.S. passed an Atomic Energy Act which established its Atomic Energy Commission and to which was transferred MED facilities and functions. In 1954, the U.S. permitted the private development and ownership of reactors for non-military purposes. Legislation in 1964 allowed private ownership of nuclear fuels.

[5] Despite occasional outbursts of rhetoric against the restrictiveness of government regulation and policy, the uranium industry received support much beyond the norm of most industries, from cost-plus contracts, to massive amounts of public sponsored civilian and military research, to inaction on if not criminal participation in monopolistic practices, to a pro-corporate orientation on health and safety and other labour issues in an exceptionally dangerous industry. It is highly unlikely that Denison Mines Limited, whose growth stemmed largely from the uranium industry, would ever have achieved its scale or wealth without such government involvements, though this did not stop the aggressive and hypocritical anti-government pronouncements of Denison's controlling owner, Stephen Roman.

neoliberal direction in policy. As a sign of this major change from its earlier interventionist approach, the federal Liberal government in 1996 privatized Eldorado, which became Cameco.[6]

The provincial government also became deeply involved in the development process.[7] First it was in terms of local and regional infrastructure – roads, utilities, and municipal services. Then, as labour, social, and environmental issues emerged, there was much increased provincial activity in labour relations, occupational health and safety, training and education, social services, and environmental regulation (particularly of water resources). Third, the province played a crucial role beginning in the 1970s in the development of nuclear power and the procurement policy of Ontario Hydro.

Once uranium was discovered in 1953 in the Elliot Lake area, there were strong industry pressures for transportation and townsite development.[8] The province took a decision, through the provincial government's Cabinet Committee on Townsites, to have a single, central townsite serving several mines and companies (Robson 1992). The decision for a single townsite and the design of the town itself reflected a change in the development of mining towns: overall, Elliot Lake had a greater degree of planning than

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[6] In 1988, Eldorado Nuclear Limited and its subsidiary Eldorado Resources were merged with the Saskatchewan Mining and Development Corporation, a crown corporation of the Saskatchewan government, to create the jointly owned Canadian Mining and Energy Corporation (Cameco), one of the world's largest uranium companies. The privatization of Cameco was a major shift in policy not only for the Liberal federal government but for the social democratic NDP government of Saskatchewan as well. A critical view of the privatization is Downey (1988).

[7] While the federal government asserted jurisdictional authority over uranium mining, the provincial government still had several areas of responsibility directly affecting uranium mining development, from municipal affairs, to labour, to natural resources and the environment, to taxation. This gave rise to a history of jurisdictional issues, which is reviewed in the Ontario Select Committee on Ontario Hydro Affairs (1980). The Select Committee reported, for instance, that the AECB, who initially did not concern themselves much with the health, safety, or environmental issues of uranium mining, later began to include a condition in its licences that provincial laws and regulations had to be met. But the legal effect of this was uncertain. "In matters of worker health and safety, Labour Canada has taken the initiative of claiming formal legal jurisdiction while recognizing the long-standing provincial interest by referencing the Ontario and Saskatchewan acts and regulations for uranium miners working the respective provinces."

[8] This is the first modern discovery; uranium ore may have been noted in the area in the mid-1800s. The only other region in Ontario to have uranium mining was the Bancroft area, where four mines operated between 1955 and 1964. I would like to thank John Wadland for mentioning a recent thesis about the Bancroft mines (Proulx 1997).

had been seen in most mining communities. The townsite was located 26 kilometres north of the Trans-Canada Highway. It depended heavily on truck and car access via a single road (now Highway 108); no railway link was constructed. The town plan itself drew heavily on then current/conventional, car-oriented, suburban planning concepts and was touted as a model planned community. However, some argue that the social or community development aspect of planning was not adequately addressed, in part at least due to provincial government concerns about the long-term viability of uranium production.[9]

The province established the administrative framework for local development by authorizing, on 1 September 1955, the formation of the Improvement District of Elliot Lake. Construction of the townsite started in 1956 and, in three years, the main townsite was largely completed. In 1966, the improvement district became a town. On the initiative of the town council, in early 1990, just weeks before the official announcement of the mass layoffs, Elliot Lake was incorporated as a city.

## Phases of Development

Elliot Lake went through two major phases of development, first a nuclear weapons-driven phase, then a nuclear power-driven phase. This was reflected in the movement of its population (Table 1).

The first boom and bust occurred from 1956 to 1966. At its 1960 peak, Elliot Lake had nearly 25,000 people, making it one of the largest single-industry mining communities in Canadian history.

[9] Regarding the early planning of Elliot Lake, Robson (1992, 112) argues the provincial government's "seemingly half-hearted attention to community affairs discouraged the full development of Elliot Lake's potential. Because of its concern about the longevity of the project, the province refused to commit itself fully to the Elliot Lake townsite." Such doubts were not publicly discussed but they give part of the background to the inadequacies of social and cultural provision that beset Elliot Lake's development. See also Saarinen (1986).

**Table. 1. Population of Elliot Lake, 1956–1996**

| Year | Assessed Population | Census Population | Year | Assessed Population | Census Population |
|---|---|---|---|---|---|
| 1956 | | 3,791 | 1977 | 10,729 | |
| 1957 | 12,921 | | 1978 | 12,893 | |
| 1958 | 22,177 | | 1979 | 14,230 | |
| 1959 | 24,316 | | 1980 | 15,524 | |
| 1960 | 24,887 | | 1981 | 17,245 | 16,723 |
| 1961 | 15,690 | 13,179 | 1982 | 18,670 | |
| 1962 | 11,105 | | 1983 | 19,619 | |
| 1963 | 10,582 | | 1984 | n/a | |
| 1964 | 10,190 | | 1985 | 18,332 | |
| 1965 | 9,020 | | 1986 | n/a | 17,984 |
| 1966 | 6,664 | 7,014 | 1987 | n/a | |
| 1967 | 7,276 | | 1988 | 16,229 | |
| 1968 | 8,989 | | 1989 | n/a | |
| 1969 | 9,515 | | 1990 | 13,825 | |
| 1970 | 9,043 | | 1991 | 13,391 | 14,089 |
| 1971 | 8,769 | 9,093 | 1992 | n/a | |
| 1972 | 8,545 | | 1993 | n/a | |
| 1973 | 8,212 | | 1994 | 12,387 | |
| 1974 | 8,089 | | 1995 | 14,400 | |
| 1975 | 8,244 | | 1996 | n/a | 13,588 |
| 1976 | 8,779 | 8,849 | 1997* | 11,565 | |

* This count was conducted using a mail-out, which tends to underestimate populations; the city believes the population is about 14,500.

Notes: In 1954, Elliot Lake was created as an improvement district (from unorganized territory). It was incorporated as a town in 1966 and as a city in 1990. Beginning in the 1980s, municipal assessments were changed from an annual basis to every three years; population counts were also done for election years. Hence, population figures are not available for some years and are affected by the methodology used.

Sources: City of Elliot Lake and Censuses of Canada.

The early 1950s had witnessed "the most dramatic and widespread prospecting boom in Canadian history" (Downey 1986, 196). Over 10,000 radioactive occurrences were reported, the most substantial in Northern Saskatchewan, and in Northern Ontario. By 1960, the Blind River-Elliot Lake area had 11 mines producing uranium. Seven of these were owned by the British-based Rio Tinto-Zinc Corporation, one of the largest mining corporations in the world.[10] The other four were Denison, CANMET (affiliated with Denison), Stanleigh, and Stanrock.

The boom ended when, in November 1959, the U.S. Atomic Energy Commission determined to purchase all its supplies from U.S. sources and not to renew any Canadian contracts. Employment in the mines fell from 8,500 to 1,060 in 1964. The population of Elliot Lake plummeted to a low of below 6,700 in 1966.

In response to the U.S. decision, the Canadian government tried to prevent a sudden collapse of mining by organizing a stretch-out of deliveries to the U.S. and Britain until 1966 (Downey 1986). The stretch-out agreement was also a means to "rationalize" the industry, which was largely achieved: by the 1970s only two corporations remained, Denison Mines Limited and Rio Algom Limited. To protect the industry from further decline, the Canadian government also organized two stockpiling programs during the 1960s, the first from 1963 to 1965 and the second from 1965 to 1970.

In the latter 1960s the international market for uranium revived somewhat. This began the second phase of development at Elliot Lake, from 1967 to 1996. The new demand for uranium in this phase came from the development and expansion of nuclear power through nuclear fission. In Canada, the first nuclear power plant, the Nuclear Power Demonstration Plant at Rolphton, Ontario, was operating by 1963 using the CANDU (Canadian Deuterium-Uranium) design principles; but the first large-scale commercial nuclear power station, Ontario Hydro's Pickering reactor, was operational in 1971.[11] Internationally, production and exploration increased. These were the discovery years of major high-grade ore finds in Saskatchewan and in Australia, both of which were

[10] Rio Tinto had taken over the seven (Pronto, Quirke, Nordic, Lacnor, Panel, Milliken, Spanish American) from their original owners, the Hirshorn-Joubin-Preston interests (Griffith 1967, chapter 5). Some histories of Rio Tinto are Avery (1974) and Harvey (1981); a more critical view is in Moody (1992). The rise and decline of Denison Mines is tied closely to that of Stephen Roman and uranium policy (McKay 1990).

[11] Experimental reactors were in operation in Canada as early as 1945 (Brown 1967, 278). The scale of generating stations jumped from the reactor at Rolphton (20 megawatts) to Pickering "A" and "B" (4300 MW) to Bruce "A" and "B" (6400 MW).

later to become the main sources of completing ore to Elliot Lake.[12]

The 1970s were marked by the Canadian government's collusion with the mining corporations in an illegal international uranium cartel.[13] The cartel was organized from meetings in 1972 to raise the price of uranium in the face of overcapacity and high inventories as well as the U.S. embargo on foreign uranium. Uranium prices escalated to over $43 US per pound (Table 2).[14]

In 1977 and 1978, in the midst of the international price escalation, Ontario Hydro signed major long-term, cost-plus contracts with Denison and Rio Algom (almost $60 per pound plus interest-free loans), whose generosity to the corporations was the subject of an investigation of the Ontario Select Committee on Ontario Hydro Affairs (1978) of the provincial legislature. The Denison contract was to double Denison's 1977 capacity and production was planned to continue until 2012. The Rio Algom contract was to reconstruct and reopen the Stanleigh Mine (closed in 1960) and production was planned to continue to 2020.

[12] The U.S.-based Gulf Mineral Resources corporation announced its Rabbit Lake, Saskatchewan find in 1968.

[13] For accounts of the cartel see, for example, Radetski (1981), Gray (1982), McKay (1990, Chapter 7).

[14] I would like to acknowledge the assistance of Michael Holden is producing this table. Historically, the per pound prices usually quoted for uranium have been for uranium oxide ($U_3O_8$) which is refined from uranium ore. Griffith (1967, chapter 3) calculated for 1957 to 1963 an average mill-head grade of 2.54 pounds $U_3O_8$ per ton of uranium ore. The mill concentrates ("yellowcake") produced at Elliot Lake were trucked for further refining elsewhere, at Port Hope and, from the early 1980s, in the Cameco refinery at Blind River. The latter refinery, one of the largest in the world, is about 60 km from Elliot Lake and has continued to operate since the closure of the Elliot Lake mines. A fairly recent overview of the industry is Nixon (1993).

**Table 2. Uranium Prices 1976–1993**
(Month-end uranium Transaction Values in U.S. dollars per pound)

| Year | January | February | March | April | May | June | July | August | Septem-ber | Octo-ber | Novem-ber | Decem-ber | Annual Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1976 | n/a | n/a | n/a | n/a | 39.60 | 39.70 | 39.70 | 40.40 | 40.30 | 40.60 | 40.70 | 40.70 | 40.21 |
| 1977 | 41.30 | 41.30 | 41.40 | 41.50 | 42.80 | 42.90 | 43.00 | 42.60 | 42.50 | 42.80 | 42.90 | 42.90 | 42.33 |
| 1978 | 43.10 | 43.30 | 43.70 | 43.60 | 43.60 | 43.20 | 43.30 | 43.40 | 43.40 | 43.60 | 43.40 | 43.70 | 43.44 |
| 1979 | 43.60 | 43.80 | 43.70 | 43.40 | 43.60 | 43.70 | 43.70 | 43.70 | 43.60 | 43.60 | 43.50 | 42.30 | 43.52 |
| 1980 | 42.00 | 39.30 | 38.60 | 38.40 | 37.90 | 37.60 | 37.30 | 31.60 | 30.60 | 29.00 | 28.70 | 27.70 | 34.89 |
| 1981 | 27.20 | 27.20 | 27.00 | 25.70 | 25.70 | 24.50 | 24.40 | 24.30 | 23.90 | 24.10 | 24.10 | 24.00 | 25.18 |
| 1982 | 24.00 | 23.70 | 23.40 | 22.60 | 22.70 | 21.50 | 20.30 | 19.10 | 17.30 | 17.00 | 17.55 | 18.80 | 20.66 |
| 1983 | 19.35 | 20.00 | 21.35 | 21.40 | 22.35 | 22.45 | 23.50 | 23.60 | 23.65 | 23.65 | 23.85 | 23.85 | 22.42 |
| 1984 | 23.50 | 22.50 | 19.25 | 17.90 | 17.00 | 16.50 | 06.60 | 16.40 | 16.55 | 16.05 | 15.90 | 15.90 | 17.84 |
| 1985 | 16.20 | 15.70 | 15.05 | 14.90 | 14.45 | 14.60 | 14.75 | 15.10 | 15.10 | 15.75 | 15.80 | 16.55 | 15.33 |
| 1986 | 16.55 | 16.70 | 16.70 | 17.10 | 17.15 | 17.20 | 17.50 | 17.45 | 17.35 | 17.25 | 17.30 | 17.35 | 17.13 |
| 1987 | 17.35 | 16.90 | 16.95 | 17.00 | 17.20 | 17.10 | 17.30 | 17.55 | 18.20 | 18.05 | 17.80 | 17.20 | 17.38 |
| 1988 | 16.85 | 16.65 | 16.55 | 16.45 | 16.10 | 15.89 | 15.45 | 15.00 | 14.50 | 14.40 | 13.30 | 12.50 | 15.30 |
| 1989 | 12.25 | 12.00 | 11.25 | 11.00 | 10.75 | 10.45 | 9.95 | 9.80 | 9.80 | 9.65 | 9.55 | 9.40 | 10.49 |
| 1990 | 9.25 | 9.05 | 8.75 | 8.65 | 8.55 | 8.80 | 9.75 | 10.80 | 11.40 | 10.10 | 9.30 | 9.15 | 9.46 |
| 1991 | 9.40 | 9.45 | 9.35 | 9.30 | 9.30 | 9.20 | 9.15 | 8.95 | 8.70 | 8.35 | 7.45 | 7.50 | 8.84 |
| 1992 | 7.55 | 7.80 | 7.95 | 7.90 | 7.85 | 7.80 | 7.75 | 7.85 | 7.95 | 8.40 | 8.55 | 8.75 | 8.01 |
| 1993 | 8.80 | 8.60 | 8.80 | 9.20 | 8.70 | 8.90 | 8.20 | 8.80 | 9.05 | 8.45 | 8.60 | n/a | 8.74 |

Note: Transaction Value is a weighted average price of recent natural uranium sales transactions based on prices paid on transactions closed within the previous three-month period for which delivery is scheduled within one year of the transaction date; at least ten transactions involving a sum total of at least 2 million pounds of uranium oxide equivalent.
Source: CRB Commodity Yearbook 1987 and 1995.

Under the impetus of the new contracts, the corporations expanded investment and workforce recruitment. Elliot Lake's population again jumped upwards, this time to a peak of nearly 20,000. However, only a few years later – by the early 1980s – there were clear signs of overproduction and falling prices. World and Canadian production peaked about 1980, declined to 1988, then fell sharply. Two mines that had been reopened in the 1970s boom, Madawaska and Agnew Lake (near Espanola), were both closed. At Elliot Lake, production and employment declined somewhat less. Long-term contracts, particularly those with Ontario Hydro, prevented a collapse. However, as a result of increases in productivity, mine employment declined more than production (Ontario Ministry of Northern Development and Mines 1994, 74).

Once again, with the decline of mine employment came an exodus of population. By 1990, at the time the first wave of mass layoffs were announced, Elliot Lake's population had fallen below 15,000. The other oldest uranium mining community in Canada fared even worse: in Saskatchewan at Uranium City, not only was the mine closed, so was the town. Table 3 gives an overall picture of employment expansion and decline in Ontario uranium mines from 1955 to 1996.[15] The last remaining mine at Elliot Lake and the last uranium mine in Ontario, Stanleigh Mine, ceased production in June 1996.

[15] This historical table was produced by the Ontario Ministry of Northern Affairs and Mines. I would like to thank Dr. Suzanne Dansereau for obtaining the table and bringing it to my attention.

**Table 3. Employment Levels of Ontario Uranium Mines (Elliot Lake), 1955–1996**

| Year | Denison | Rio Algom Quirke | Rio Algom Panel | Rio Algom Stanleigh | Rio Algom Nordic | Rio Algom Milliken Lake | Madawaska | Stanrock | Agnew Lake | Northspan Lacnor | Northspan Spanish Amer. | Pronto | Can-Met |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1955 | | 155 | | | | | | | | | | 224 | |
| 1956 | 72 | 813 | | | | | | | | | | 396 | |
| 1957 | 749 | 1,004 | 192 | | 1,046 | 106 | | 81 | | 335 | 83 | 494 | 183 |
| 1958 | 1,505 | 1,137 | 962 | 770 | 1,116 | 890 | | 622 | | 1,168 | 401 | 527 | 858 |
| 1959 | 1,538 | 869 | 949 | 939 | 892 | 886 | | 934 | | 1,086 | | 506 | 968 |
| 1960 | 1,365 | 894 | 711 | 626 | 677 | 620 | | 736 | | | | | |
| 1961 | 1,244 | | | | 616 | 584 | | 666 | | | | | |
| 1962 | 1,079 | | | | 614 | 539 | | 623 | | | | | |
| 1963 | 944 | | | | 591 | 457 | | 599 | | | | | |
| 1964 | 798 | | | | 580 | 243 | | 460 | | | | | |
| 1965 | 688 | | | | 617 | | | 46 | | | | | |
| 1966 | 754 | | | | 634 | | | 60 | | | | | |
| 1967 | 873 | 140 | | | 615 | | | 50 | | | | | |
| 1968 | 887 | 502 | | | 382 | | | 46 | | | | | |
| 1969 | 856 | 855 | | | 100 | | | 34 | | | | | |
| 1970 | 804 | 873 | | | 116 | | | 19 | 60 | | | | |
| 1971 | 817 | 895 | | | | | | | | | | | |
| 1972 | 809 | 816 | | | | | | | | | | | |
| 1973 | 800 | 811 | | | | | | | | | | | |
| 1974 | 796 | 838 | | | | | | | | | | | |
| 1975 | 915 | 938 | | | | | | | | | | | |
| 1976 | 1,096 | 1,097 | | | | | 196 | | | | | | |
| 1977 | 1,381 | 1,436 | | | | | 357 | | | | | | |
| 1978 | 1,599 | 1,923 | | | | | 382 | | 80 | | | | |
| 1979 | 1,797 | 1,510 | 713 | | | | 392 | | 448 | | | | |
| 1980 | 1,970 | 1,396 | 827 | 168 | | | 401 | | 114 | | | | |
| 1981 | 2,185 | 1,435 | 809 | 258 | | | 396 | | 68 | | | | |
| 1982 | 2,365 | 1,429 | 757 | 347 | | | 397 | | 59 | | | | |
| 1983 | 2,311 | 1,376 | 720 | 673 | | | closed 1982 | | 21 | | | | |
| 1984 | 2,235 | 1,150 | 705 | 932 | | | | closed 1983 | | | | | |
| 1985 | 2,103 | 1,210 | 755 | 871 | | | | | | | | | |
| 1986 | 1,901 | 1,204 | 740 | 758 | | | | | | | | | |
| 1987 | 1,799 | 1,210 | 745 | 624 | | | | | | | | | |
| 1988 | 1,950 | 1,167 | 681 | 530 | | | | | | | | | |
| 1989 | 1,887 | 1,165 | 680 | 489 | | | | | | | | | |
| 1990 | 1,523 | 786 | 478 | 481 | | | | | | | | | |
| 1991 | 902 | closed | closed | 550 | | | | | | | | | |
| 1992 | closed | | | 572 | | | | | | | | | |
| 1993 | | | | 572 | | | | | | | | | |
| 1994 | | | | 572 | | | | | | | | | |
| 1995 | | | | 510 | | | | | | | | | |
| 1996 (to end of April) | | | | 490 | | | | | | | | | |

Note: Data includes all classes of employees at mine, excluding outside contractors. Yearly employment figures were averaged from 1956 to 1990. From 1991 on, employment figure represents employees at year-end only.
Source: ONRSA Injury Statistics Reports.

## The Local Economy

Throughout its history until the 1990s, the economy of Elliot Lake was dominated overwhelmingly by uranium mining. Occasional efforts were made at diversification but, as in many other hinterland single-industry communities, market forces by themselves left few substantial results. In 1981, over 50 percent of employment was in mining (including milling), a high level of dependency even for larger single-industry communities (Table 4).

**Table 4. The Industry Structure of Elliot Lake, at Census Dates, 1981–1996**
(experienced labour force)

| | 1981 | 1986 | 1991 | 1996 |
|---|---|---|---|---|
| *All industries* | 8,165 | 8,630 | 5,910 | 4,775 |
| Mining, other primary* | 4,190 | 3,460 | 2,135 | 700 |
| Manufacturing* | 195 | 855 | 175 | 195 |
| Construction | 280 | 180 | 180 | 315 |
| Transportation, utilities | 240 | 320 | 215 | 175 |
| Trade | 1,005 | 1,125 | 745 | 895 |
| Finance, real estate | 190 | 225 | 195 | 195 |
| Services | 1,825 | 2,125 | 1,870 | 2,020 |
| -education | 405 | | 520 | 475 |
| -health and social | 425 | | 570 | 585 |
| -personal, business, other | 995 | | 780 | 960 |
| Public administration | 235 | 345 | 390 | 275 |
| | | | | |
| *All industries* | 100 | 100 | 100 | 100 |
| Mining, other primary* | 51.3 | 40.1 | 36.1 | 14.7 |
| Manufacturing* | 2.4 | 9.9 | 3.0 | 4.1 |
| Construction | 3.4 | 2.1 | 3.0 | 6.6 |
| Transportation, utilities | 2.9 | 3.7 | 3.6 | 3.7 |
| Trade | 12.3 | 13.0 | 12.6 | 18.7 |
| Finance, real estate | 2.3 | 2.6 | 3.3 | 4.1 |
| Services, other | 22.4 | 24.6 | 31.6 | 42.3 |
| Public administration | 2.9 | 4.0 | 6.6 | 5.8 |

* In 1981, 1991, and 1996, the census industry classification included milling with mining; in 1986, milling was included with manufacturing. In primary industries in 1981, there were 10 persons in agriculture, 25 in forestry, 5 in fishing and trapping, and 4,150 in mining. In 1996, there were 15, 10, 45, and 630, respectively.
Sources: Censuses of Canada: 1981 (95–945, 93–966), 1986 (94–112), 1991 (95–338), 1996 (census area profile order).

The one major area where substantial diversification did occur was in the public

sector and related services, particularly in the development of provincial and local health, education, social services, and transportation. These included a hospital, medical services, and community care; schools and some college-level education; social services; road, transit, and airport services. Their development followed after the mines, with varying degrees of delay, beginning in the late 1950s. For instance, a municipal police force took over from the Ontario Provincial Police in 1958, a high school was opened in 1958, and the hospital was opened in 1959. By the 1980s, Elliot Lake had became a regional services centre, the main concentration of public services in the entire region between Sudbury, 160 kilometres to the east, and Sault Ste Marie, 200 kilometres to the west. In 1991, even before the closures of Denison and Stanleigh, a minimum of about 25-30 percent of employment was either directly in public or parapublic sector jobs or paid through contracted public services.[16]

This form of "diversification" is evident in the evolution of Elliot Lake's occupational structure (Table 5). Those occupations most closely associated with mining (especially the primary and machining, etc. groups) formed the largest occupational groups. However, there were also a large number of occupations (especially in the clerical, teaching, and health groups) associated with the public services. As is typical of mining communities, the employment structure reveals sharp gender differences: men were highly concentrated in mining-related occupations, while women were concentrated in occupations associated with the public sector and with "caring" and "serving" activities. Further, with the decline of mining employment, the relative importance of women in the local paid labour force increased substantially. Between 1981 and 1996, women like men lost jobs, but the decline in sectors where women predominated was less than in the sectors where men predominated; hence, the female share rose from about one-third to nearly one-half of all jobs in Elliot Lake.

[16] Employment in education, health, and public administration alone, which is almost all publicly funded, amounted to 1,480 jobs or 25 percent; public contracts in construction and in transportation and utilities (such as Elliot Lake's public transit system), and in public enterprises such as Retirement Living and the Elliot Lake and North Shore Corporation for Business Development (ELNOS) would add at least 300 jobs or another 5 percent.

**Table 5. The Occupational Structure of Elliot Lake by Gender, at Census Dates, 1981-1996**

(experienced labour force)

| | 1981 | | 1986 | | 1991 | | 1996 | |
|---|---|---|---|---|---|---|---|---|
| | | %female | | %female | | %female | | %female |
| *All occupations* | 8,165 | 33.9 | 8,625 | 35.6 | 5,910 | 41.3 | 4,775 | 48.1 |
| Managerial and related | 290 | 20.7 | 520 | 31.7 | 490 | 45.9 | 475 | 44.2 |
| Teaching and related | 310 | 62.9 | 385 | 72.7 | 350 | 74.3 | 255 | 60.8 |
| Medicine and health | 310 | 85.5 | 320 | 82.8 | 345 | 82.6 | 280 | 75.0 |
| Natural and social sciences, religion | 465 | 6.5 | 595 | 24.4 | 365 | 37.0 | 490 | 52.0 |
| Clerical and related | 1,235 | 81.4 | 1,300 | 78.1 | 820 | 79.9 | 725 | 80.0 |
| Sales occupations | 550 | 69.1 | 505 | 67.3 | 370 | 62.2 | 795 | 54.7 |
| Service occupations | 1,010 | 62.9 | 1,065 | 62.9 | 690 | 73.2 | 440 | 69.3 |
| Primary occupations | 1,545 | 1.3 | 1,795 | 3.1 | 1,015 | 1.5 | 550 | 2.7 |
| Processing occupations | 405 | 16.0 | 195 | 7.7 | 150 | 6.7 | 130 | 19.2 |
| Machining, fabricating, repairing | 1,025 | 3.9 | 920 | 3.3 | 535 | 4.7 | 200 | 5.0 |
| Construction trades | 540 | 0.9 | 515 | 0.0 | 335 | 3.0 | 175 | 8.6 |
| Transport equipment operators | 160 | 28.1 | 240 | 22.9 | 160 | 34.4 | 115 | 47.8 |
| Material handling, other | 315 | 7.9 | 275 | 14.5 | 285 | 14.0 | 110 | 8.7 |

Note: Some totals may not add due to rounding. The data are classified according to the 1980 SOC. Some 1996 occupational categories may not be precisely equivalent to those in 1991 or earlier censuses due to insufficient detail in the census area profile data.
Sources: Censuses of Canada: 1981 (95–945), 1986 (94–112), 1991 (95–338), 1996 (census area profile order.

By the 1970s, Elliot Lake could be described more accurately as a “two-industry” community rather than a single-industry community. It was a two-industry community in the sense (used in economic base models) that there existed two major bases or sources of economic payments: mine export and its linkages, and government transfers and its linkages. The economic importance of the public sector became even clearer as mine employment declined in the latter 1980s. By 1996, before the closure of Stanleigh, public services employment, though lower than in 1991, had overtaken mine employment in relative importance. Without the public sector, the mine closures would have collapsed virtually all employment, precipitated a mass exodus of population, and left Elliot Lake heading rapidly towards becoming a traditional “ghost town.”

While Elliot Lake was a regional services centre, it was also a regional employment centre. The impact of the uranium mining industry – in bust as well as boom – was felt well beyond the 757-square-kilometre municipal area of Elliot Lake itself. Many of those who worked in mining or other sectors of the Elliot Lake economy lived in Spragge, Spanish, Blind River, and other communities on the North Shore of Lake Huron. Some Aboriginal workers, mainly from the Serpent River First Nation, also had jobs at Elliot Lake.

While the North Shore communities felt some economic benefits from the economic activity in Elliot Lake, most of the benefits were concentrated within Elliot Lake itself. In the early days, the boom at Elliot Lake had uneven and sometimes adverse effects. As Elliot Lake became established, such as with hotels, restaurants and bars, banks, etc. the impacts narrowed, as noted by an early observer, "bit by bit, the solid services required by the new community are set up on a self-contained basis and contribute nothing to the prosperity of the local neighbours" (Hall 1957, 233-34). Average incomes outside Elliot Lake in the North Shore communities were substantially lower. At the same time, there were social and environmental costs that spilled over into the North Shore communities. Although the North Shore communities were settled over a half century before Elliot Lake,[17] neither they nor the Aboriginal people were given any substantial say in the course of new development of the region. The Serpent River First Nation and the Township of the North Shore were seriously affected by water pollution associated with the mining operations at Elliot Lake. The unevenness of benefits, costs, and political involvement led to a history of grievance and local rivalries within the region.

## The Labour Force and Households

The mine workforce was recruited over the two phases of development with the preferred candidates throughout being young, healthy males. This was reflected in the age, gender, and household composition of the Elliot Lake population as a whole.

From the 1950s Elliot Lake had a much younger population than was typical for Canada. Over the years, there was a process of settling and ageing, though this was delayed by the recruitment of another wave of workers in the 1970s. In 1981, for instance, the median age in Elliot Lake was 23.7 years compared to median age for Canada of 29.8

[17] For instance, Massey was incorporated as a town in 1904 and Blind River in 1906.

years; Elliot Lake had relatively more persons, both males and females, in age groups under 34 and fewer above (as Table 6 indicates). By 1991, age distribution was changing towards fewer persons in younger age groups, especially in the ages from 20 to 34; and there were major increases among the middle and older age groups, to levels more closely approximating those for Canada.

**Table 6. Age Distribution of Elliot Lake Compared with Canada, at Selected Census Dates, 1961-1996**

| | 1961 | | 1976 | | 1981 | | 1991 | | 1996 | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Elliot Lake | Canada | Elliot Lake | Canada | Elliot Lake | Canada | Elliot Lake | Canada | Elliot Lake | Canada |
| **Males** | | | | | | | | | | |
| All ages | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 0-4 | 17.1 | 12.5 | 7.9 | 7.8 | 10.6 | 7.6 | 7.5 | 7.3 | 5.5 | 6.9 |
| 5-9 | 12.3 | 11.5 | 9.9 | 8.4 | 8.9 | 7.6 | 8.5 | 7.3 | 7.2 | 7.2 |
| 10-14 | 9.3 | 10.7 | 13.9 | 10.2 | 9.2 | 8.2 | 9.3 | 7.2 | 7.5 | 7.2 |
| 15-19 | 6.1 | 7.9 | 11.8 | 10.4 | 10.0 | 9.8 | 8.4 | 7.1 | 7.4 | 7.1 |
| 20-24 | 7.6 | 6.4 | 9.5 | 9.3 | 13.5 | 9.7 | 4.9 | 7.3 | 4.7 | 6.7 |
| 25-34 | 22.2 | 13.6 | 13.4 | 15.9 | 21.0 | 17.4 | 15.1 | 18.0 | 9.1 | 15.7 |
| 35-44 | 15.3 | 12.9 | 13.3 | 11.5 | 12.0 | 12.4 | 16.6 | 16.2 | 14.4 | 17.0 |
| 45-54 | 7.6 | 10.4 | 10.8 | 10.7 | 8.1 | 10.4 | 11.7 | 11.1 | 12.3 | 13.0 |
| 55-64 | 2.1 | 7.1 | 6.6 | 8.1 | 4.5 | 8.5 | 9.1 | 8.8 | 14.5 | 8.6 |
| 65-69* | 0.2 | 2.6 | 1.8 | 3.0 | 1.0 | 3.2 | 6.8 | 6.3 | 7.9 | 3.7 |
| 70+* | 0.2 | 4.7 | 1.1 | 4.7 | 1.0 | 5.1 | 1.9 | 3.6 | 9.4 | 6.8 |
| **Females** | | | | | | | | | | |
| All ages | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 0-4 | 19.0 | 12.2 | 8.6 | 7.3 | 10.9 | 7.1 | 7.3 | 6.7 | 4.8 | 6.4 |
| 5-9 | 14.2 | 11.3 | 9.8 | 8.0 | 10.1 | 7.0 | 8.2 | 6.7 | 6.4 | 6.6 |
| 10-14 | 10.4 | 10.1 | 13.1 | 9.6 | 8.6 | 7.6 | 8.8 | 6.6 | 6.8 | 6.6 |
| 15-19 | 6.7 | 7.8 | 13.4 | 10.0 | 11.1 | 9.2 | 8.1 | 6.6 | 7.0 | 6.5 |
| 20-24 | 9.5 | 6.6 | 8.2 | 9.3 | 14.7 | 9.5 | 5.0 | 7.1 | 4.9 | 6.4 |
| 25-34 | 19.1 | 13.6 | 14.7 | 15.6 | 19.1 | 17.2 | 17.7 | 17.7 | 10.4 | 15.5 |
| 35-44 | 14.2 | 13.3 | 13.0 | 11.1 | 11.4 | 12.0 | 15.4 | 15.9 | 15.4 | 16.8 |
| 45-54 | 5.3 | 10.2 | 10.9 | 10.8 | 7.9 | 10.1 | 10.9 | 10.7 | 13.1 | 12.7 |
| 55-64 | 1.1 | 7.0 | 6.3 | 8.6 | 4.1 | 9.2 | 9.1 | 8.8 | 14.2 | 8.6 |
| 65-69* | 0.2 | 2.7 | 0.9 | 3.3 | 1.0 | 3.7 | 6.8 | 7.5 | 7.0 | 4.0 |
| 70+* | 0.3 | 5.2 | 1.2 | 6.5 | 1.1 | 7.3 | 2.6 | 5.7 | 9.8 | 9.9 |

*For 1991, the last two age groups are 65-74 and 75+.

Sources: Censuses of Canada: 1961 (92–525), 1976 (92–810), 1981 (93–918), 1991 (95–337), 1996 (census area profile order).

The shift in the age profile of Elliot Lake was a result of both the general ageing of those who stayed and also the new influx of seniors that began in the late 1980s, which was a major factor in stabilizing Elliot Lake's population in the early 1990s. In 1996, the percentage of men in all younger and middle-age groups up to the 35–44 age level had declined to below the average for Canada; only school-age males had proportions approximating or slightly higher than the average for Canada. For women, the percentage in the 35–44 age group remained stable but at levels below the Canadian average, and all younger groups declined, again, to levels below the Canadian average, except for most school-age females. By contrast, for both male and female age groups 45–54, 55–64, and 65 and over, there were major increases to levels well above the Canadian average; only the age group of women 70 and older, while more than tripling in importance in five years, had not yet exceeded the average for Canada.

The strong labour demand during mine expansion periods and the associated influx of "prime-age" males gave Elliot Lake relatively higher labour force participation rates, higher employment-to-population ratios, and lower unemployment rates compared to the Canadian average. But this applies to men rather than women. In June 1981, for instance, Elliot Lake men had a participation rate of 87.3 percent compared to 78.2 for Canada and an unemployment rate of only 2.6 percent compared to 6.5 percent for Canada. By contrast, women had a participation rate of 50.8 percent compared to 51.8 percent for Canada, and an unemployment rate of 12.8 percent compared to 8.7 percent for Canada.

Table 7 shows the main changes in Elliot Lake's labour force and employment levels from 1976 to 1991. The primary patterns are clear: rising participation levels with rising employment to 1986, then falling participation rates with falling employment. This occurred for women as well as for men. However, with the decline in mining jobs, male participation fell further and unemployment rose more. In June 1991 and May 1996, unlike previous census years, the unemployment rate for men was higher than that for women.

**Table 7. The Labour Force and Employment at Elliot Lake, at Census Dates, 1961–1996**

| | 1976 | 1981 | 1986 | 1991 | 1996 |
|---|---|---|---|---|---|
| Population | | | | | |
| All | 8,850 | 16,723 | 17,985 | 14,089 | 13,588 |
| Males | 4,620 | 8,775 | 9,210 | 7,090 | 6,695 |
| Females | 4,230 | 7,950 | 8,775 | 7,000 | 6,895 |
| Population 15+ | | | | | |
| All | 6,085 | 11,750 | 12,495 | 10,535 | 10,935 |
| Males | 3,185 | 6,215 | 6,400 | 5,265 | 5,325 |
| Females | 2,895 | 5,535 | 6,090 | 5,270 | 5,605 |
| Labour force | | | | | |
| All | 3,905 | 8,235 | 8,830 | 6,025 | 5,050 |
| Males | 2,640 | 5,425 | 5,615 | 3,505 | 2,650 |
| Females | 1,265 | 2,810 | 3,215 | 2,520 | 2,400 |
| Employed | | | | | |
| All | 3,690 | 7,730 | 8,085 | 5,295 | 4,280 |
| Males | 2,570 | 5,280 | 5,315 | 3,035 | 2,200 |
| Females | 1,120 | 2,450 | 2,770 | 2,260 | 2,075 |
| Unemployed | | | | | |
| All | 215 | 500 | 750 | 720 | 775 |
| Males | 70 | 140 | 305 | 465 | 450 |
| Females | 145 | 360 | 445 | 255 | 325 |
| Not in labour force | | | | | |
| All | 2,180 | 3,520 | 3,665 | 4,510 | 5,880 |
| Males | 545 | 795 | 785 | 1,760 | 2,670 |
| Females | 1,630 | 2,725 | 2,875 | 2,750 | 3,205 |
| Labour force participation (%) | | | | | |
| All | 64.2 | 70.1 | 70.7 | 57.2 | 46.2 |
| Males | 82.9 | 87.3 | 87.7 | 66.6 | 49.8 |
| Females | 43.4 | 50.8 | 52.8 | 47.8 | 42.8 |
| Unemployment rate (%) | | | | | |
| All | 5.5 | 6.1 | 8.5 | 12.0 | 15.3 |
| Males | 2.7 | 2.6 | 5.4 | 13.3 | 17.0 |
| Females | 11.5 | 12.8 | 13.8 | 10.1 | 13.5 |
| Employment /population 15+ (% ) | | | | | |
| All | 60.6 | 65.8 | 64.7 | 50.3 | 39.1 |
| Males | 80.7 | 85.0 | 83.0 | 57.6 | 41.3 |
| Females | 38.7 | 44.3 | 45.5 | 42.9 | 37.0 |
| Employment /population (% ) | | | | | |
| All | 41.7 | 46.2 | 45.0 | 37.6 | 31.5 |
| Males | 55.6 | 60.2 | 57.7 | 42.8 | 32.9 |
| Females | 26.5 | 30.8 | 31.6 | 32.3 | 30.1 |

Sources: Censuses of Canada: 1976 (92–810), 1981 (95–945), 1986 (94–112, 94–111), 1991 (95–338), 1996 (order of profile data for CSD).

Elliot Lake had lower levels of self-employment than in other areas of Canada, whether urban or agricultural. In 1981 and 1986, about 98 and 97 percent respectively of men and women in the labour force were paid workers; in 1991, employees still made up 96 percent for men and 98 percent for women in the labour force. Insofar as some self-employment might be a "cushion" against unemployment, the Elliot Lake community had relatively little to fall back on.[18] According to data on place of work, Elliot Lake also had lower levels of home-based paid work than the average for Canada.

The higher wages of unionized mining jobs were the main attraction drawing workers to Elliot Lake. As a whole, the wages at Elliot Lake were higher than the average for Canada, and so were household incomes. In 1981, the average household income was $28,745 in Elliot Lake compared to $24,460 for Canada (Table 8). The higher average was due to the higher incomes of men (in 1981, $20,806 compared to $16,918 for Canada).[19] Women had incomes lower than the average for Canada ($7,045 compared to $8,414). With the closures of the mines, incomes in Elliot Lake fell sharply to below the Canadian average. In 1996, the average household income and the average family income (of two persons or more) was approximately $10,000 lower than the average for Canada. As well, the income distribution had shifted markedly from having far fewer households in lower income groups to having more than the average for Canada.

The level of poverty as measured by Statistics Canada's low income cut-off was also lower at Elliot Lake until after the layoffs (Table 8). In 1981, the incidence of low income for Elliot Lake families was 6.6 percent compared to 13.0 percent for Canada; for unattached individuals 24.5 percent in Elliot Lake had low incomes compared to 38.5 percent for Canada. The percentage of families in poverty had risen by 1991 and was above the average for Canada in 1996. The percentage of unattached individuals in poverty also rose, though not to the level for Canada, perhaps because of the relatively better pension conditions of more seniors at Elliot Lake. Overall, however, by 1996, the one-time higher-income, lower-poverty conditions of Elliot Lake had been reversed: Elliot Lake now had lower incomes and more poverty.

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[18] The 1981 and 1986 categories for "paid workers" include the incorporated self-employed. However, 1991 category of "employees" excludes the incorporated self-employed (about 65 males and 10 females in 1991) and is thus an ever clearer measure of the limited vent of unemployment to self-employment at Elliot Lake.

[19] In fact, the larger number of men with higher incomes (though not extremely so) was reflected in an unusual phenomenon for income distributions: the median was higher than the average (the opposite is usually the case).

**Table 8. Incomes in Elliot Lake Compared with Canada, at Census Dates, 1981–1996** (current dollars)

| | 1981 | | 1986 | | 1991 | | 1996 | |
|---|---|---|---|---|---|---|---|---|
| | E.L. | *Canada* | E.L. | *Canada* | E.L. | *Canada* | E.L. | *Canada* |
| **Private household income** | | | | | | | | |
| *Number of households* | 5,025 | | 5,665 | | 5,110 | | 5,610 | |
| *Percent* | 100 | *100* | 100 | *100* | 100 | *100* | 100 | *100* |
| Under $10,000 | 9.0 | *21.1* | 9.4 | *14.5* | 8.0 | *8.0* | 9.5 | *8.0* |
| 10,000 - 19,999 | 13.4 | *25.3* | 6.2 | *18.9* | 16.0 | *15.6* | 21.5 | *15.9* |
| 20,000 - 29,999 | 35.4 | *23.8* | 6.7 | *17.5* | 10.7 | *14.0* | 18.2 | *13.4* |
| 30,000 - 39,999 | 23.7 | *15.2* | 22.2 | *16.3* | 11.3 | *13.6* | 12.2 | *12.4* |
| 40,000 - 49,999 | 18.7 | *14.6* | 27.1 | *12.4* | 13.7 | *12.4* | 11.1 | *11.2* |
| 50,000 - 59,999 | | | 28.3 | *20.4* | 13.1 | *10.4* | 6.1 | *9.7* |
| 60,000 - 69,999 | | | | | 11.3 | *7.9* | 5.7 | *7.9* |
| 70,000 - 79,999 | | | | | 15.8 | *18.2* | 5.3 | *6.0* |
| 80,000 - 89,999 | | | | | | | 3.5 | *4.4* |
| 90,000 - 90,999 | | | | | | | 2.2 | *3.0* |
| 100,000+ | | | | | | | 4.5 | *8.0* |
| average income ($) | 28,745 | *24,460* | 41,518 | *34,261* | 44,520 | *31,403* | 38,944 | *48,552* |
| median income ($) | 27,726 | *21,304* | 42,121 | *29,462* | 43,404 | *24,637* | 30,541 | *40,209* |
| **Census family income** | | | | | | | | |
| average income ($) | 29,686 | *26,748* | 43,158 | *37,827* | 49,364 | *51,342* | 44,770 | *54,503* |
| median income ($) | 28,788 | *23,894* | 43,338 | *33,434* | 49,457 | *44,848* | 37,321 | *46,951* |
| **Incidence of low income** | | | | | | | | |
| All economic families | 4,325 | | 4,825 | | 4,005 | | 4,075 | |
| Low income families | 285 | | 425 | | 485 | | 735 | |
| Incidence of low income | 6.6 | *13.0* | 8.7 | *14.3* | 12.0 | *13.2* | 18.1 | *16.3* |
| All unattached individuals | 985 | | 1,030 | | 1,285 | | 1,735 | |
| Low income unattached individuals | 240 | | 270 | | 445 | | 665 | |
| Incidence of low income | 24.5 | *38.5* | 26.0 | *38.0* | 34.9 | *36.5* | 38.3 | *42.2* |
| All population in private households | | | 17,770 | | 14,000 | | 13,525 | |
| Persons in low income family units | | | 1,570 | | 1,810 | | 2,810 | |
| Incidence of low income | | | 8.8 | *17.0* | 12.9 | *15.8* | 20.8 | *19.7* |
| **Total income by gender ($)** | | | | | | | | |
| *Average income ($)* | | | | | | | | |
| Male | 20,806 | *16,918* | 32,503 | *23,265* | 34,009 | *30,205* | 27,932 | *31,117* |
| Female | 7,045 | *8,414* | 10,859 | *12,615* | 14,919 | *17,577* | 15,916 | *21,048* |
| *Median income ($)* | | | | | | | | |
| Male | 22,440 | *14,993* | 36,421 | *19,797* | 35,144 | *25,334* | 21,242 | *25,270* |
| Female | 5,286 | *6,310* | 7,441 | *9,540* | 10,747 | *13,464* | 11,866 | *16,004* |

Notes: Income is annual income for the year previous to the census date, for example, the year 1980 for the 1981 census date. In each census year distribution, the highest income class for which a percent is reported includes all higher classes.

Sources: Censuses of Canada: 1981 (95–945), 1986 (94–112), 1991 (95–338), 1996 (census area profile order).

In terms of household composition, not many data are yet available for the 1950s and 1960s. However, during the second phase of development, Elliot Lake had larger and younger households and families than the Canadian average. In 1976, there were 3.7 persons per household and 3.8 per family compared to 3.5 and 3.1 respectively for Canada.[20] These average sizes declined until, in 1991, they were at the Canadian average, 2.7 and 3.1 respectively (Table 9). The greater decline in household size is largely accounted for by a considerable growth in the number of one-person households, from about 11.6 percent of private households in 1976 to 20.0 percent in 1991. From 1976 to 1986, husband-wife families were about 91 or 92 percent of all families; this had fallen to about 89 percent in 1991, while the number of sole parent families had increased. In 1996, Elliot Lake had both households and families smaller than the average for Canada.

**Table 9. Households and Families at Elliot Lake, at Census Dates, 1976–1996**

| | 1976 | 1981 | 1986 | 1991 | 1996 |
|---|---|---|---|---|---|
| Population | 8,849 | 16,723 | 17,984 | 14,089 | 13,588 |
| | | | | | |
| Private households | 1,555 | 5,040 | 5,675 | 5,105 | 5,610 |
| 1 person | 180 | 625 | 780 | 1,020 | 1,420 |
| 2 | 480 | 1,200 | 1,310 | 1,590 | 2,185 |
| 3 | 430 | 985 | 1,120 | 910 | 835 |
| 4-5 | 890 | 1,885 | 2,235 | 1,455 | 1,055 |
| 6 or more | 340 | 350 | 230 | 135 | 120 |
| | | | | | |
| Average per household | 3.7 | 3.3 | 3.1 | 2.7 | 2.4 |
| *-Canada average* | *3.1* | *2.9* | *2.8* | *2.7* | *2.6* |
| | | | | | |
| Families | 2,120 | 4,310 | 4,785 | 4,000 | 4,040 |
| Husband-wife | 1,935 | 2,980 | 4,410 | 3,540 | 3,570 |
| Lone parent | 185 | 255 | 370 | 460 | 470 |
| | | | | | |
| Average persons per family | 3.8 | 3.5 | 3.4 | 3.1 | 2.9 |
| *-Canada average* | *3.5* | *3.3* | *3.1* | *3.1* | *3.1* |

Sources: Censuses of Canada: 1976 (92–810), 1981 (93–918, 95–901, 95–945), 1986 (94–111), 1991 (95–337), 1996 (census area profile order).

[20] The household category includes both families (which have at least two persons) as well as unattached perons who live in a dwelling.

In terms of education, Elliot Lake is different from the low-education view commonly and sometimes pejoratively claimed against "mining towns." Compared to Canadian levels (Table 10), Elliot Lake population has been closer to the middle range of educational attainment than to the lower. Until 1991, the proportion of the population with less than Grade 9 was lower than the average for Canada. With the closure of the mines, and the tendencies to out-migration of younger persons and staying or in-migration of older persons, it is not surprising to see a small increase in the proportion of the population with less than Grade 9. At the other end, there is a smaller proportion with university education, but a higher or comparable level for college-level education and trades training. The main difference to stand out is the much higher proportion of the Elliot Lake population who did not complete high school.

**Table 10. Educational Status of Elliot Lake Population Compared with Canada, at Census Dates, 1981–1996**

| | 1981 | | 1986 | | 1991 | | 1996 | |
|---|---|---|---|---|---|---|---|---|
| | E.L. | *Canada* | E.L. | *Canada* | E.L. | *Canada* | E.L. | *Canada* |
| *Population 15+ by highest level attained* | 11,750 | | 12,495 | | 10,540 | | 10,935 | |
| *Percent of population 15+* | 100 | *100* | 100 | *100* | 100 | *100* | 100 | *100* |
| Less than Grade 9 | 14.1 | *20.1* | 11.4 | *17.2* | 12.7 | *13.9* | 13.0 | *12.1* |
| Grades 9-13 incomplete | 35.4 | *27.9* | 32.3 | *27.1* | 31.6 | *24.3* | 29.9 | *22.7* |
| Grades 9-13 completed certificate | 13.5 | *13.0* | 14.1 | *12.8* | 16.1 | *14.8* | 14.2 | *14.3* |
| Trades certificate or diploma | 4.4 | *3.4* | 4.6 | *3.1* | 5.9 | *4.0* | 4.2 | *3.7* |
| Other non-university without certificate | 5.2 | *6.0* | 6.9 | *6.8* | 5.7 | *6.5* | 5.9 | *6.5* |
| Other non-university completed certificate | 16.6 | *13.7* | 18.0 | *14.5* | 15.0 | *15.8* | 19.4 | *17.7* |
| University without degree | 6.4 | *7.9* | 6.4 | *8.9* | 6.5 | *9.4* | 6.6 | *9.7* |
| -with certificate | | | | | 3.8 | *5.0* | 3.6 | *5.4* |
| University with degree | 4.4 | *8.0* | 6.3 | *9.6* | 6.5 | *11.4* | 6.8 | *13.3* |

Sources: Censuses of Canada: 1981 (95–945), 1986 (94–112), 1991 (95–338), 1996 (census area profile order).

With the considerable changes that have taken place with the migration of people to and from Elliot Lake, it is useful, finally, to examine the mobility status of the Elliot Lake population. As is evident in Table 11, Elliot Lake has had a considerable in-migration to its population. In 1981, during the second boom phase of development, over half the population was new to Elliot Lake within the previous five years. In 1991 and 1996, nearly 20 percent and 29 percent respectively of the population were newcomers within the previous five years, most from other parts of Ontario. This was about three to four times the level for the Canadian population as a whole. Of course, because the total population has declined, a high level of in-migration means that an even larger number of people have left Elliot Lake.

**Table 11. Mobility Status of Elliot Lake Population, at Census Dates, 1976–1996** (as of five years earlier)

| *Number of persons* | **1976** | **1981** | **1986** | **1991** | **1996** |
|---|---|---|---|---|---|
| Population 5 years and over | 8,205 | 14,840 | 15,915 | 12,980 | 12,830 |
| Non-movers (same address) | 4,895 | 4,600 | 6,110 | 6,320 | 5,990 |
| Movers | 3,290 | 10,240 | 9,805 | 6,655 | 6,835 |
| Non-migrants (within Elliot Lake) | 1,525 | 2,190 | 6,605 | 4,110 | 3,110 |
| *Migrants (from outside Elliot Lake)* | *1,760* | *8,050* | *3,195* | *2,545* | *3,700* |
| -from within Ontario | 1,275 | 6,055 | 1,895 | 2,260 | 3,390 |
| -from different province | 275 | 1,690 | 845 | 240 | 310 |
| -from outside Canada | 205 | 305 | 130 | 45 | 25 |
| *Percent of Elliot Lake population* | | | | | |
| Population 5 years and over | 100 | 100 | 100 | 100 | 100 |
| Non-movers (same address) | 59.7 | 31.0 | 38.4 | 48.7 | 46.7 |
| Movers | 40.1 | 69.0 | 61.6 | 51.3 | 53.3 |
| Non-migrants (within Elliot Lake) | 18.6 | 14.8 | 41.5 | 31.7 | 24.2 |
| *Migrants (from outside Elliot Lake)* | 21.5 | 54.2 | 20.1 | 19.6 | 28.8 |
| -from within Ontario | 15.5 | 40.8 | 11.9 | 17.4 | 26.4 |
| -from different province | 3.4 | 11.4 | 5.3 | 1.8 | 2.4 |
| -from outside Canada | 2.5 | 2.1 | 0.8 | 0.3 | 0.2 |

Sources: Censuses of Canada: 1976 (92–810), 1981 (95–945), 1986 (94–112), 1991 (95–338), 1996 (census area profile order).

## Public Consequences of Boom and Bust – Housing and Infrastructure

To maintain a large and stable mining workforce required a housing stock and public infrastructure and services, including roads, water, sewers, power, hospital, medical, and public health services, schools, police and fire services, garbage collection and disposal, a cemetery, public transit, and an airport. Most of these became local-government responsibilities and a large portion of the costs were borne through local taxes and user fees. Although over the years the municipality became increasingly dependent on the province for funding of local services, the absolute level of property taxes generally rose.[21] It was especially difficult during the bust periods that property taxes could not be substantially cut or removed, mainly because it was necessary to continue to maintain the basic infrastructure and to provide basic services, especially if existing business were to be kept and new businesses or other economic activity was to be attracted.

Housing was a major factor affecting the development of Elliot Lake. During boom periods, the quantity and quality of the housing stock, its high cost, and access to it were prominent issues, while during the busts, housing vacancies, loss of equity, and demolition became issues. Housing development illustrates the public consequences of boom-and-bust development pressures driven by externally owned corporations that do not bear all or even most of the costs of their actions.

The mining companies developed most of Elliot Lake's housing stock, especially rental housing. Although the companies covered the construction costs (some supplemented by provincial loan subsidies), they were sold lots at below the fully-serviced cost, with the local government covering the rest which early on built up public debt. Over the long term, a large proportion of the costs of maintenance and ongoing services as well as paying for the municipal debt fell to local taxpayers. As elsewhere in Ontario, the province exempted mining companies from paying municipal property taxes, initially on both their surface and underground production facilities; in the late 1960s, the exemption was limited to underground facilities, though this was still a major tax concession and a source of continuing municipal grievance.[22]

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[21] For further discussion on the municipal financial situation, see Bishop and Robinson (1997). A more general view on the situation in Ontario is Ontario Fair Tax Commission (1993).

[22] The province transferred a sum to the municipality in lieu of mine property taxes, though it was considerably less than the Province's mine revenue taxes, a point not lost on local politicians. Dixon (1996, 248) cites the numbers of Reeve Charles Stewart, stated in 1965, that the province

Further, the rapid booms drove up construction costs for everyone, not only the corporations; in the first boom, housing construction was done on a cost-plus basis. There were also criticisms of low-quality construction. In later years, poor insulation and rising electricity rates (most housing had electrical heating through Ontario Hydro) caused exceptionally high heating bills.[23] The federal government was also involved financially through Central Mortgage and Housing Corporation (CMHC). As early as 1957, CMHC started to guarantee the mortgage loans for those who were able to buy private lots (Dixon 1996).

For the municipality, province, and local ratepayers, company housing construction programs necessitated large infrastructure investments that saddled the municipality with major debts and tax levies. A bust in the uranium market would bankrupt the municipality or force a provincial government bailout. In fact, part of the province's 1991 aid package of $250 million to Elliot Lake and the North Shore included $10 million to pay down municipal debt. The burden of high physical infrastructure debt also weakened the local government's fiscal capacity for expenditures in the area of recreational, cultural, and social services, and helped sharpen the political contention over their provision. In terms of such facilities, a common plaint has been that after so many years and so much profit taken out of Elliot Lake, there is little to show for it in the community.

Elliot Lake had experienced a massive overexpansion crisis in the first phase of development, so policy could not easily claim ignorance or naiveté. In fact, at least some provincial government employees were well aware of previous problems if not the possibility of a full-scale repeat performance. As they commented on Denison and Rio Algom's proposed expansions in Elliot Lake in the late 1970s:

> In the past, inadequate scrutiny of populat[ion] forecasts has [caused] major changes in the development schedule and the redesign of water and sewer disposal facilities. In addition, lack of data respecting the ratio of mining to non-mining employment and the female participation rate has further weakened demographic forecasts and estimates of housing demand.
>
> (Ontario 1979, 6)

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had received $30 million from the Elliot Lake mines but had returned only $6 million in lieu of property taxes. The current exception is contained in the province's Assessment Act, Section 3 (20).

[23] According to the 1986 census (94-112), 70.4 percent (3,990 dwellings) were heated by electricity compared to 16.2 percent (920) by oil, 7.2 percent (410) by gas, and 6.2 percent (350) by other fuels.

But endowed with cost-plus contracts and interest-free loans from Ontario Hydro, the mining companies pressed on and dramatically expanded the number of rental units. The number of occupied private dwellings more than doubled, to 5,020 in 1981 (Table 12). Since most of the new housing was built for rental rather than for purchase, the level of tenancy in Elliot Lake jumped from 33.5 to 64.9 percent between 1976 and 1981. In the next five years, the number of occupied private dwellings again increased, to a peak of 5,675 in 1986, although this time the incidence of homeownership rose, due mainly to a major increase in newly available units for purchase and a small conversion of rental units to sale.

At the peak, virtually all available housing was held by the companies for their own employees. In 1983, when Elliot Lake's population peaked at nearly 20,000, Employment and Immigration Canada reported that the availability of housing units to purchase was "limited" and that new housing was being built by Rio and Denison "to accommodate new employees only" (Employment and Immigration Canada 1983). For rental houses, availability was described as "nil," with the explanation: "There is very little free market. Most rental units are owned and operated by Rio Algom and Denison who heavily subsidize rents to attract new employees to the town." For rental apartments, too, availability was "nil" and "most apartments are company owned. Little available for non-mining employees."

Almost as soon as the uranium boom was over and production started to decline, so did the housing stock. Between 1986 and 1991, the number of occupied housing units declined, though homeownership increased (to 55.5 percent). This increase was due partly to an increase in the number of once-rented but now unoccupied housing units. It was also a result of the fact that Rio Algom and Denison sold off a substantial number of their rental housing units not long before the layoffs: this became another matter of contention when the layoffs were announced. Eventually, the companies agreed to take back the housing on terms that reduced the losses to the workers who had purchased them. No such arrangement existed for homeowners in other sectors.

Once mass layoffs and out-migration began, Elliot Lake was faced with the pressure that Denison and Rio Algom would demolish their vacant housing units rather than continue to pay for maintenance and property taxes. Such an action would inevitably cause a major loss of municipal revenue and virtually guarantee a downward spiral in population, public services, business activity, and employment. The city decided on a strategy to stabilize the population by taking over the housing and using it to recruit retirees with pensions and those who could afford a second or part-year home (such as for

fishing and other outdoor activities). As a city publication described it: "The first priority was to save, rather than demolish, 3,000 plus housing units, and from this came the goal to establish Elliot Lake as a centre for retirement living."

The situation of Elliot Lake's housing stock and infrastructure was especially crucial because, once the layoffs were announced, the local economy went through a process of disinvestment – businesses closed or moved or stopped investing. As well, in mid-1990 the Canadian economy as a whole was sliding into a major recession (or depression). Virtually all key actions to stanch the hemorrhaging depended on public sector actions. The main retirement or vacant-housing program, Retirement Living, was set up as a non-profit corporation by the city to which the city transferred the Denison and Rio rental housing and for which it received initial public funding. The operation of the program and the strategy behind Retirement Living has not been without controversy.[24] However, it does show the crucial and stabilizing role – but reactive character – played by the public sector following yet another resource bust.

[24] The Retirement Living Program began around 1987 as a private initiative of Denison and Rio who worked with the municipality on the concept of developing a retirement community in Elliot Lake. Before the 1990 layoffs and the transfer of the company housing stocks to the non-profit corporation, the program had attracted about 900 people to Elliot Lake and marketed about 800 units. In the earlier period as well, as a municipal report observed, "the Retirement Living Program...is founded on the availability of an inexpensive housing stock."

## Table 12. Housing at Elliot Lake, at Census Dates, 1976–1996

| | 1976 | 1981 | 1986 | 1991 | 1996 |
|---|---|---|---|---|---|
| Population | 8,849 | 16,723 | 17,984 | 14,089 | 13,588 |
| **Occupied private dwellings** | 2,325 | 5,020 | 5,675 | 5,110 | 5,610 |
| Owned | 1,545 | 1,780 | 2,740 | 2,835 | 3,125 |
| Rented | 780 | 3,260 | 2,935 | 2,275 | 2,485 |
| Percent owned | 66.5 | 35.5 | 48.3 | 55.5 | 55.7 |
| Percent rented | 33.5 | 64.9 | 51.7 | 44.5 | 44.3 |
| -*Canada percent owned* | *61.8* | | *62.1* | *62.6* | *63.6* |
| **Type of dwellings** | | | | | |
| Single detached | 1,595 | 2,090 | 2,540 | 2,340 | 2,625 |
| Single attached | 175 | 1,020 | | 1,200 | 1,510 |
| Apartment building | 300 | | | | |
| -five floors or more | | 510 | 360 | 530 | 615 |
| -fewer than five floors | | 1,000 | | 740 | 770 |
| Duplex | 130 | 60 | | 40 | 30 |
| Movable | 130 | 360 | 210 | 250 | 60 |
| Other | | | 2 565 | | |
| **Average value of dwellings ($)** | | 52,733 | 51,373 | 58,259 | 71,089 |
| *Canada* | | *61,931* | *84,825* | *144,435* | *147,877* |
| **Private households** | | | | | |
| Average persons per room | | 0.6 | 0.5 | 0.5 | 0.4 |
| *Canada average persons per room* | | *0.5* | *0.5* | 0.4 | *0.4* |
| Average gross rent ($ per month) | | 294 | 519 | 532 | 572 |
| Shelter costs>30% household income (no.) | | 280 | 315 | 355 | 1,120 |
| Incidence of affordability problem (%) | | 8.6 | 14.7 | 25.6 | 80.0 |
| *Canada average gross rent* | | *315* | *460* | 580 | 595 |
| *Canada Incidence (%)* | | | *30.1* | *29.0* | 92.4 |
| Average shelter payment owners ($ per month) | | 385 | 572 | 587 | 537 |
| Shelter costs>30% household income (no.) | | 200 | 200 | 140 | 420 |
| Incidence of affordability problem (%) | | 11.2 | 8.5 | 6.1 | 19.6 |
| *Canada average gross payment* | | *384* | *500* | 708 | 754 |
| *Canada Incidence (%)* | | | *11.9* | 13.8 | 22.9 |
| **Dwellings by construction period** | | | | | |
| before 1946 | | 55 | 50 | 65 | 40 |
| 1946–1960 | | 1,745 | 1,625 | 1,570 | 1,555 |
| 1961–1970 | | 445 | 560 | 640 | 750 |
| 1971–1980 | | 2,780 | 2,425 | 1,930 | 2,185 |
| 1981–1986 | | | 1,015 | 845 | 1,080 |
| 1986–1990 | | | | 60 | |
| 1991–1996 | | | | | 0 |

Notes: In 1981, the threshold for incidence of an affordability problem was 25 percent or more, not 30 percent or more, as in later censuses. In 1996, occupied private dwellings constructed in 1986–1990 are included in the total for 1981–1990. Sources: Censuses of Canada: 1976 (92–810), 1981 (93–918, 95–945), 1986 (95–111, 94 –112), 1991 (95–337, 96–338), 1996 (census area profile order).

## Society and Politics in a Two-Company Town

The social and political character of Elliot Lake reflects deeply its development as a company town and a centre for mining uranium. In the case of Elliot Lake, two companies had direct control of over half the jobs (and even more of the best-paid ones) and much of the housing. The politics of the companies dominated the politics of the community, including the corporate pattern of socially narrow, top-down control of decisions and resources. The social and political conditions that grew up around and supported the uranium mining industry had the distinct class dimension of communities dependent on outside-owned multinational corporations; but there were also important dimensions of gender, language and ethnicity, race, regionalism, religion, and the especially prominent issues of occupational health and safety and the environment.

Elliot Lake was overwhelmingly a community of wage and salary earners – a working-class town. As mentioned earlier, Elliot Lake's class of business owners or self-employed was relatively small. It was also much less established historically, even by comparison to older, nearby communities like Blind River. But as is typical of company and resource towns, the mining companies together with the local business elite dominated politics. Many local businesses relied directly or indirectly on purchases from the companies or company staff. Their political direction, especially as it affected relations with the companies was generally uncritical, if not openly beholden to them. Local political leaders usually came from business or professional self-employment or were senior employees from one or other of the two mining companies.

The deepest and most visible class conflict was between the companies (i.e. management acting in line with their Toronto-based corporate board) and labour (i.e. the miners and other workers at the mines). At times this broke out sharply in strikes; at other times the conflict was at the lower intensity of individual dispute, grievance, and distrust. Local business generally allied with the companies. More than a few business owners resented the higher wages of miners, and felt little sympathy with the workers or the union when the mass layoffs occurred. Some others accepted a limited union role – or at least the appearance of a role – in the community and were prepared to recognize the workers' economic contribution (such as in higher local purchases) and their social contribution (such as in donations to community projects and as volunteers). But as an organized social force the miners had relatively little presence or power in the political direction of Elliot Lake.

Gender relations also reflected the male-dominated structures of the mining

industry. Materially, women were generally more dependent in Elliot Lake: they not only had lower participation rates in paid jobs, their individual incomes were lower than the Canadian average. Until the 1990s, males also outnumbered females, unlike the average condition in Canada. The patriarchal structures and "macho" culture of the mining industry had conservatizing effects, in working against the political activity of women and, consequently, in community priorities. It is well known in the history of Elliot Lake that women were politically active in demonstrations and lobbying during the first collapse in 1960; but there was no comparable political activity during the second collapse or in the 1980s leading up to it. Although lesbian and gay persons lived and worked in Elliot Lake, there was virtually no public organization or expression of their sexual orientation.

As in much of Northern Ontario, English-French relations played a role in Elliot Lake, in issues such as French-language schools, services in French, the position of Quebec, and Canadian unity. While a majority of workers had English as their maternal language, there was a substantial minority of Francophones, generally from other parts of Northern Ontario or from Quebec. For most of the period, between 24 and 30 percent of the population indicated they were Francophone. New immigration was more significant factor in first phase of Elliot Lake's development than in later decades.[25] The proportion of the population whose maternal language was other than English or French was relatively high in the early years (about 17 percent in 1961), but declined considerably over the decades (probably to under 5 percent in 1991).

The social and political context of Elliot Lake was affected also by the regional inequality of Northern Ontario. As in other parts of "the North," there were persistent grievances against "the South" (southern Ontario) for inequality of public services, unfair taxation, and inadequacy of political representation. Municipal political development had a near-colonial character. For about eleven of its very important initial years, the community was run as an unelected Improvement District – by far the largest unelected District in Ontario – which permitted an even stronger assertion of company and central government interests.[26] From the mid-1970s, the shift to neoliberalism in federal policy also meant even

[25] In 1991, about 89.4 percent of Elliot Lake's population were born in Canada and that overwhelmingly in Ontario. Of the 10.6 percent born elsewhere, the largest group were born in Britain and second largest in other parts of Europe with nearly half immigrating to Canada before 1961.

[26] Feldman (1962). See also, Weller (1981).

greater vulnerability to external private capital and a more "turbulent environment."[27]

As an area of recent settlement in a historically aboriginal area, there were also issues related to the aboriginal population. The community of Elliot Lake itself had a relatively small number of Aboriginal persons (355 persons or 2 to 3 percent of the population, according to the 1996 census), but there were four Reserves within or close to the Elliot Lake commutershed: Serpent River First Nation, Mississagi River First Nation, Sagamok First Nation, and Thessalon First Nation. The closest to Elliot Lake, the Serpent River First Nation, was the most directly affected in terms of the environment (through the Serpent River watershed) and employment. Other issues have arisen about land ownership for "camps" (i.e., cottages), Aboriginal hunting and fishing rights, and perceived unfairness in taxes. Such issues, which have been use to create racial division, have often been tied to regional grievances, as in other areas of Northern Ontario (Dunk 1981a, 1981b).

A majority of the Elliot Lake population have indicated their religious preference as Catholic. The 1991 census reported this preference was about 57 percent, about 11 percentage points higher than the average for Canada. Earlier censuses for Elliot Lake have reported similar levels of Catholic affiliation. In 1991, about 36 percent indicated a Protestant preference, which was at the average for Canada. The difference was made up of a lower preference for "other" religions (1 compared to 6 percent) and a lower level of "no affiliation" (6 compared to 13 percent).[28] The former is affected by the much smaller non-western European immigration to Elliot Lake; the latter could suggest that secularism (non-religious or anti-religious influences) might not have been as advanced in Elliot Lake as in other communities in Canada.

The high levels of government involvement in the uranium industry and of industry involvement in government were reflected in the political history of Elliot Lake. In terms of the major parties, the Liberal Party had a longer direct involvement in developing the

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[27] Saarinen (1985) writes on municipal government in Northern Ontario: "The context of urbanization has changed drastically in the light of slower population growth, instability in the resource sector, technological innovation, increased pollution, rising energy costs and the like. Local governments are now being confronted with demands for new services at precisely the same time that real revenues are declining."

[28] For Statistics Canada, "Protestant" included the "mainstream" Protestant churches such as the United, Anglican, and Lutheran churches, as well as smaller denominations like the Moravians and Adventists. "Other religions" included Eastern Orthodox, Jewish, Eastern non-Christian, para-religious groups, and other preferences not elsewhere classified.

uranium industry, particularly at the federal level. Elliot Lake itself could fairly be called a Liberal bastion, given its unbroken history of electing Liberal MPs to Ottawa. Elliot Lake's business and professional community have tended to favour the Liberals over the Conservatives in their political donations, both federally and provincially. Rio Algom has financially supported both the Liberals and the Conservatives (but not the NDP), while Denison's political contributions were almost exclusively to the Conservative Party. There were also high-profile personal Liberal party-business connections: the senior Liberal cabinet minister, Robert Winters, became President of Rio Tinto. Perhaps most well-known, Elliot Lake was prominent in the Algoma riding of Lester Pearson, who served as both Prime Minister and Leader of the Opposition. This gave the uranium industry at Elliot Lake a relevance at the highest levels of political power.[29]

While the history of political representation has been consistently Liberal at the federal level, provincial representation tended to go with the government in power, which largely meant the Conservative Party. Like the Liberals in Ottawa, the Conservatives at Queen's Park strongly supported the uranium, particularly through Ontario Hydro's nuclear development. Apart from two Liberal elections during the crisis years of the 1960s, the Conservatives won all provincial elections from 1948 until 1987; since then, the seat has been represented by the Liberals. However, part of the success of the Conservatives was the greater Conservative support in the non-Elliot Lake parts of the Algoma-Manitoulin riding.

The NDP (and CCF) had much weaker political history in Elliot Lake and the North Shore. However, it was generally stronger in Elliot Lake than it was elsewhere in the area, especially among the unionized workers in the mines and public sector. By 1990, according to ELTAS surveys, the NDP had a plurality of support among the mine workforce; however, this fell over the period of the Rae NDP government, no doubt in large part as a reaction to the layoffs which occurred mainly while the NDP was in power. During the 1990s, the mineworkers supported mainly the NDP or the Liberals. When the workers turned their backs on the NDP, they went mostly to the Liberals; no substantial numbers of the workers in any survey indicated support for the Conservatives (or for the Reform Party).

Among the most difficult and divisive issues in Elliot Lake have been health and

[29] Pearson was first elected as a parachute candidate in a by-election in Algoma East in 1948, then was re-elected in the general elections of 1949, 1953, 1957, 1958, 1962, 1963, and 1965.

safety and environmental issues.[30] Mine health and safety was primarily a class issue. The political elite of Elliot Lake did not support the workers' struggles on this issue, and have preferred to forget the record of mine deaths, injuries, and disease that has scarred Elliot Lake's history. In the early years of uranium mining at Elliot Lake, it was the Mine Mill union which first took the lead in fighting for public inquiry in mine accidents at Elliot Lake. In 1958, after 12 more fatalities in the first four months of that year alone, the Ontario government responded to the union's public pressure by establishing the first public inquiry to investigate mining practices at Elliot Lake.[31]

Later studies confirmed what many miners, their families, and the unions at Elliot Lake had long experienced and said. An official study of mining deaths in Ontario from 1955 to 1977 found that "uranium miners show a significant increase in deaths from all causes." Among violent deaths in Ontario mines – the most common cause of mine deaths – over half beyond expected levels occurred in uranium mining (497 dead against 222.8 expected). These were found to be due to "a substantial increase in motor vehicle accidents, water transport accidents, accidental falls, blows from falling or projected missiles, firearms or explosives, other vehicle accidents, and other accidents." The study also reported significantly more deaths from malignant neoplasms, due to cancers of trachea, bronchus, and lung, and a significant increase for silicosis and chronic interstitial pneumonia (Ontario Ministry of Labour et al. 1983).

A major turning point came in 1974 when the Steelworkers union led a strike at Denison in which worker health and safety became a crucial issue. Under pressure, the provincial government appointed the Royal Commission on the Health and Safety of Workers in Mines, headed by Dr James Ham. Ham's report was a sharp criticism of many company practices at Elliot Lake and in the Ontario mining industry as a whole, particularly with regard to openness and responsibility for worker health and safety.[32] The

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[30] Most of the death and disease of the uranium mines came not for exposure to radiation but from underground silica and other pollutants. The mines in the Elliot Lake area used room-and-pillar mining methods and both track and trackless transportation; the increased use of (trackless) diesel scooptrams and other diesel equipment underground, for example, increased underground pollution which adversely affected the health of miners.

[31] The inquiry (Morrison, Corlett, Rice) was initiated in 1959 and the report published two years later (Ontario Department of Mines, 1961).

[32] For instance, the Royal Commission (1976, 249-50) stated: "There has been a serious lack of openness on matters of the health and safety of workers in mines. The majority of the information presented in this report has been inaccessible to workers and the public. Workers have the right in

investigation of mining conditions at Elliot Lake and the Ham Report became the basis of a major change and higher standard for occupational health and safety legislation in Ontario, and influenced health and safety practices well beyond Ontario. This stands as one of the Elliot Lake's most important social legacies.

Environmental issues also faced business and government indifference if not open hostility. When it was reported in the 1960s that the Serpent River had been polluted from uranium mine tailings, no Ontario government department would take responsibility. One commentator, writing nearly two decades later observed: "The Government of Ontario knew about the contamination in 1961 but did nothing and still does nothing" (Elliott 1981). Environmentalism in virtually any form found Elliot Lake a less than receptive area, particularly prior to the end of uranium mining. As late as 1988, the municipal council was working to establish Elliot Lake as a disposal site of low-level nuclear wastes from the Port Hope refinery. Only in 1990 – after citizen protest and a critical consultant's report – did the council drop the proposal, largely because of the effect this would have on Elliot Lake's image in attracting other types of economic activity.

In Elliot Lake, the only major alternative centre of political power outside the local business and the mining companies was the labour unions. Much of Elliot Lake's higher wages, the major improvements in mine health and safety conditions, and, in the end, better severance packages was the result of union activities. As a local political force, however, the Steelworkers and other unions at Elliot Lake had relatively little effect on the general direction of Elliot Lake's development, whether before or after the layoffs. One indication of the limited power of the mineworkers was how quickly, once the mines closed, their presence and needs were eclipsed in favour of attracting new seniors as part of the effort to make Elliot Lake a retirement centre.

Various internal divisions weighed heavily on what workers were able to achieve in Elliot Lake within and beyond their workplaces. At the outset, the labour movement was divided by a right-left split over union organization and philosophy. In the 1950s, the Cold War brought in the Steelworker raids on the Mine Mill union. While centred in Sudbury, this bitter conflict also had its effects at Elliot Lake: the more conservative, business-unionist United Steelworkers of America union came to dominate labour politics in the community for the next decades. Then within the Steelworkers union at Elliot Lake, there were two locals at Rio and three locals at Denison, which increased the field for personal

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natural justice to know about the risks and consequences of risks they undertake at work." For more on health and safety conditions and regulation at Elliot Lake, see Doern (1978), Tataryn (1979), and Walker (1992).

rivalries and division. There was also a more general rivalry between the locals at Denison and the locals at Rio Algom.[33] In part, this reflected different union responses to the different managerial approaches of the two companies (one view expressed was that Denison used the "iron fist" while Rio used the "velvet glove," but "they both got you in the end anyways"). There were also partisan political differences; some leaders identified closely with the NDP, a few were tied to the Liberal Party, and some were less committed to either, or committed to neither. Hence, how union actions would reflect on or support the particular party or an individual political ambition came into play. Work factors, too, particularly the socially disorganizing nature of shift work, the physical drain of underground work, and the growing number of time-starved two-earner families, also affected worker involvement.

The social and political structure and values of the uranium industry affected not only Elliot Lake's political institutions but most of its social institutions, in its sports and cultural activities, in social and family policies, and in religious and charitable organizations. The main means of public political and social expression, the local newspaper and radio, were also dependent on the mining companies and local business, and larded with uncritical boosterism. Elliot Lake is not exceptional in this respect when compared to other company towns, particularly in how class and gender bias acted against creating wider participation in community development. However, what may distinguish Elliot Lake is the particular political direction and values supportive of the uranium industry, both in relation to the Cold War and, later, in relation to nuclear power development. These factors played a serious and negative role in worker health and safety issues and with regard to environmentalism. Probably such exceptionally conservatizing pressures added a dimension to the political climate and culture of Elliot Lake that made it significantly less socially progressive or open to alternative aspirations than some other mining or resource communities.

In boom times the dominant values fitted easily with an increasingly high level of consumerism and an individualization of social and environmental problems. But with the mass layoffs of the 1990s and the crisis facing Elliot Lake's future development, it became increasingly apparent that neither these dominant economic and social values nor the legacy of company-town democracy could hold the community together under stress. The

[33] Both Denison and Rio each had a local covering production and maintenance workers and a local covering office and technical workers; Denison also had a Steelworkers local covering supervisory staff. Both Denison and Rio also had power plant workers organized into the International Union of Operating Engineers.

literature on social and natural disasters has distinguished between two types of communities and their responses, "therapeutic" and "corrosive." In terms of the high level of internal conflict that emerged after the layoffs and the relatively low level of cooperative, collective, or solidaristic community development responses, the situation that unfortunately beset Elliot Lake was typical of the corrosive community.[34]

## The Layoffs

During the 1980s, as the world price of uranium fell, and as newer sources of uranium were being developed in Saskatchewan and Australia, the relatively higher cost of production at Elliot Lake became a serious issue. Ontario Hydro was saying publicly that it could obtain uranium at one-third the cost and less. In 1983, Elliot Lake's production reached a peak of nearly 82 percent of all uranium production in Canada, then started to decline. By the late 1980s, the Elliot Lake share had fallen to below half of Canadian production while the Saskatchewan share was rising rapidly.

Some of the mines at Elliot Lake, particularly Rio Algom's Panel and Quirke Mines and a portion of Denison's production was dependent on international contracts. These sales started to be lost, which left the future of uranium mining at Elliot Lake hanging largely on Ontario Hydro's procurement decisions. During the 1980s, the vast majority of Ontario Hydro's uranium came from Elliot Lake, and most of Ontario's electricity was generated using nuclear fuel.[35] Ontario Hydro said this was to continue into the foreseeable future. In 1983, for instance, Ontario Hydro's annual report on fuel supply projected that about 93 percent of its long-term supply would be through the Rio Algom (Stanleigh) and Denison Mines supply contracts: "Ontario Hydro has sufficient uranium under contract from Canadian producers to provide its forecast requirements for

[34] Barton (1969, 278) early on observed, as have others later, that compared to "natural" disasters, "the socially induced disasters...tend not to have the best features for bringing out the therapeutic community response; indeed, they may produce a downward spiral of degeneration." In the large disaster literature, see also, for example, Freudenberg and Jones (1991) and Picou et al (1997).

[35] By the 1990s, the portion of Ontario Hydro's electricity generated by nuclear plants was declining and purchases of electricity from other utilities were increasing. For 1990, a year of declining demand, Ontario Hydro reported that nuclear accounted for about 43 percent of its sources of electricity (27 percent came from hydraulic, 20 percent from fossil fuels, and 10 percent from outside purchases), which was about 48 percent of Hydro's own generated supply.

committed nuclear stations until about 2011."

Views differ on whether the closure of mining at Elliot Lake was known or inevitable. A common view among mineworkers was that they had been clearly promised long-term employment by the company and that they expected production to continue; even well after the first closures, some workers expected the mines to reopen. Another view – one more common today in retrospect than at the time – is often phrased in the form that mining is essentially short-term and all mines inevitably must close so that, given uranium prices and the higher production costs at Elliot Lake, people in Elliot Lake knew the mines would have to close. Probably the most "balanced" view of the late 1980s was that the time of expansion and boom was over, but that there would still be somewhat stable production at a lower level, mainly for Ontario Hydro. What does seem clear in terms of the historical record is that neither the mining companies nor the provincial government nor Ontario Hydro publicly or explicitly divulged a major change in their long-term intentions until shortly before the layoffs.[36] Indeed, not even the long-term contracts themselves were public documents: they were kept confidential and neither the workers nor the community could obtain copies.

When the cuts in production and closure decisions were announced beginning in 1990, there was widespread shock, disbelief, and anger, especially over Ontario Hydro's decision to terminate its long-term contracts with Denison and Rio Algom. After the cancellation of the Denison contract, George Farkouh, the Mayor of Elliot Lake and a leading businessman in the area, spoke openly of being deceived: "We had certain expectations, and those expectations were well founded. No one outside of a group of Ontario Hydro executives and key Denison officers knew what was in the contracts. The community was led to believe that its future was secure... We were deceived."[37]

The layoffs that began in 1990 were among the largest initiated that year in Canada. The first wave began in the summer of 1990. Denison reduced production and laid off over 400 employees at the end of July. Rio Algom ceased production at its Panel Mine and Quirke Mine at the end of August eliminating nearly 1600 jobs. Next, at the end of February 1992, Denison ceased production entirely, eliminating over 1,000 jobs. Finally, at the end of June 1996, Rio Algom's Stanleigh Mine hoisted the last skip and

[36] In the late 1980s, workers were being sold company rental houses, and some workers were still being recruited and moving to Elliot Lake on the basis of continued mining. As late as a year before the closure, some workers were told by at least one of the companies that they had a future of long-term employment with the company at Elliot Lake.

[37] *Northern Ontario Business*, June 1991.

another 400 to 500 jobs were lost to the community.

Table 13 indicates the pattern of employment decline for each mine based on company workforce reports. The usual process for closure was that the employees would be notified according to province's mass termination requirements and permanently laid off at the date production ceased.[38] But some workers would be called back temporarily (varying from a few weeks up to about three months) to close the mine. The companies also maintained a small office staff to deal with personnel matters, accounting, asset disposal, and public relations, as well as with the security, decommissioning, and environmental monitoring of the mine sites; most environmental rehabilitation was done by independent contractors. Throughout the period before as well as after the layoffs there were some workers leaving early as well as some net attrition for retirement and other causes.

[38] Under the provincial Employment Standards Act, advanced written notification to employees and to the Ministry of Labour is required for "mass termination," that is, where 50 or more employees are laid off. The minimum notice is 8 weeks for 50–199 employees, 12 weeks for 200–499 employees, and 16 weeks for 500 or more employees. In Elliot Lake, the minimum 16-week requirement applied to all the layoffs except the first Denison layoff, which required 12 weeks' notice. Both companies gave a few weeks more than the minimum requirements.

**Table 13. Workforce at Denison and Rio Algom at Elliot Lake According to Company Workforce Reports, Monthly, 1990–1992**

| | | DENISON | RIO ALGOM | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|
| | | | Quirke | Panel | Stanleigh | Central Office | Sub-Total | |
| 1990 | January | 1,830 | 1,076 | 635 | 479 | 166 | 2,356 | 4,186 |
| | February | 1,818 | 1,065 | 630 | 480 | 166 | 2,341 | 4,159 |
| | March | 1,805 | 1,050 | 621 | 477 | 170 | 2,318 | 4,123 |
| | April | 1,791 | 1,044 | 617 | 473 | 169 | 2,303 | 4,094 |
| | May | 1,765 | 1,034 | 613 | 471 | 169 | 2,287 | 4,052 |
| | June | 1,744 | 1,021 | 593 | 467 | 170 | 2,251 | 3,995 |
| | July | 1,734 | 1,007 | 584 | 467 | 173 | 2,231 | 3,965 |
| | August | 1,412 | 916 | 571 | 561 | 166 | 2,214 | 3,626 |
| | September | 1,393 | 239 | 171 | 495 | 120 | 1,025 | 2,418 |
| | October | 1,385 | 201 | 132 | 503 | 112 | 948 | 2,333 |
| | November | 1,352 | 193 | 115 | 494 | 106 | 908 | 2,260 |
| | December | 1,351 | 102 | 46 | 509 | 109 | 766 | 2,117 |
| 1991 | January | 1,345 | | | 689 | | 689 | 2,034 |
| | February | 1,343 | | | 686 | | 686 | 2,029 |
| | March | 1,343 | | | 660 | | 660 | 2,003 |
| | April | 1,343 | | | 647 | | 647 | 1,990 |
| | May | 1,310 | | | 630 | | 630 | 1,940 |
| | June | 1,203 | | | 631 | | 631 | 1,834 |
| | July | 1,188 | | | 630 | | 630 | 1,818 |
| | August | 1,181 | | | 630 | | 630 | 1,811 |
| | September | 1,176 | | | 627 | | 627 | 1,803 |
| | October | 1,170 | | | 630 | | 630 | 1,800 |
| | November | 1,173 | | | 639 | | 639 | 1,812 |
| | December | 1,128 | | | 642 | | 642 | 1,770 |

| | | DENISON | RIO ALGOM | | | | | TOTAL |
|---|---|---|---|---|---|---|---|---|
| | | | Quirke | Panel | Stanleigh | Central Office | Sub-Total | |
| 1992 | January | 1,074 | | | 639 | | 639 | 1,713 |
| | February | 1,063 | | | 640 | | 640 | 1,703 |
| | March | 436 | | | 652 | | 652 | 1,088 |
| | April | 201 | | | 654 | | 654 | 855 |
| | May | | | | 657 | | 657 | 657 |
| | June | | | | 652 | | 652 | 652 |
| | July | | | | 642 | | 642 | 642 |
| | August | | | | 645 | | 645 | 645 |
| | September | | | | 644 | | 644 | 644 |
| | October | | | | 641 | | 641 | 641 |
| | November | | | | 645 | | 645 | 645 |
| | December | | | | 644 | | 644 | 644 |

Source: Denison Mines Limited and Rio Algom Limited.

In the course of the layoffs, the community and Steelworkers union pressured the provincial government on economic assistance to the community. It deserves note that virtually all the major financial assistance came from the provincial government. The federal government did in the early years put in some additional training funds, in the order of $10 million, although given its cuts to Unemployment Insurance and other social programs and the closure of Can-Met, it is unclear whether Elliot Lake saw a net gain at all in federal funds. There were two main amounts of special provincial assistance. The first, in 1990 by the Peterson Liberal government, was a $15-million grant to the Elliot Lake Area Diversification Fund. The second, in 1991 under the Rae NDP government and funded by Ontario Hydro, was a $250-million aid package. Most of the package ($160 million) was to keep Stanleigh Mine in operation until December 1996. According to the order-in-council of 6 June 1991, the rest was to be used for purposes of providing adjustment measures to employees in the area, providing job training for unemployed

persons, municipal debt reduction and financial support, and economic diversification.[39]

The Steelworkers union, particularly through its pressure on the NDP cabinet, was instrumental in obtaining the $250-million aid package. However, the union, particularly its local members at Elliot Lake, had very little involvement in how the funds were actually spent. More generally, there have been many conflicts and concerns over the lack of community involvement and accountability in determining the use of the funds and their effectiveness in creating jobs. ELNOS, in particular, has been a focus of controversy. Apart from the Retirement Living Program, the project that appears to have the most impact as a new direction in the local economy is the White Mountain Academy of the Arts.[40]

Beginning about 1994, the local Steelworkers union at Stanleigh initiated a campaign to keep Stanleigh open supplying fuel to Ontario Hydro. The campaign – "Ontario fuel for Ontario Hydro" – questioned several company and Ontario Hydro assumptions about the costs of mining at Elliot Lake and raised the issue of the economic and social costs of the closure for Ontario and Elliot Lake. Later, the city established a committee to examine the possibility of keeping Stanleigh open and commissioned a private consultant's report (the Fine Report). In the end, neither effort was able to alter the course of the closures.

Given the enormous sums of public money devoted to uranium procurement and public infrastructure, the potential economic and social costs of closure, and Elliot Lake's

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[39] The $15-million diversification funds included money for Retirement Living, airport improvements, small business, a Field Station for reclamation and mine research, and a regional drug and alcohol treatment centre. The rest of the $250-million aid package included about $25 million for the Patten Post cogeneration project and energy efficiency initiatives, $10 million for job creation, and between $12 and $13 million to pay down municipal debts in the region; in 1993, $23 million of the assistance was used to establish a community capital fund, the Elliot Lake and North Shore Corporation for Business Development (ELNOS). The diversification funds were to be administered by the Northern Ontario Heritage Fund. Out of the many millions of dollars in provincial assistance, virtually no funds were allocated for "alternative" community economic development initiatives.

[40] The White Mountain Academy might prove to be a case of history repeating itself. During the bust period of the 1960s, a major program was established for training and the arts. The Elliot Lake Centre for Continuing Education, opened in 1965, met with considerable success. As one observer commented at the time, "altogether, it may be said that the education centre rapidly proved its value, and it could certainly be considered Elliot Lake's most important secondary industry" (Brown 1967, 129). The project may also have learned a lesson from the fate of the centre: the impetus behind the centre died when the centre was later taken over by Sault College.

size as one of the largest single-industry communities in Canada, one fact of the closure period is particularly remarkable: at no point did the federal government, the provincial government, or Ontario Hydro initiate a public pre-closure review or inquiry on the economic and social costs of the closures or of possible alternative policies.[41]

During the 1970s and 1980s, Elliot Lake and the adjacent North Shore communities had played a role of central importance to the provision of electricity to Ontario industry and households, at great economic, human, and environmental cost. Yet rarely, if ever, were the problems or the achievements of the community of Elliot Lake and its mine workers even mentioned in Ontario Hydro's main annual reports. At the end, in its 1991 Annual Report, the public utility merely observed in passing:

> In 1991, Ontario Hydro cancelled its long-term uranium supply contracts with Denison Mines Limited and Rio Algom Limited. Since the contracts were entered into in the late 1970s, the world market price for uranium has fallen significantly. The decision to restructure the uranium supply program was undertaken to reduce Ontario Hydro's electricity rates in future years as the lower costs associated with future uranium purchases will more than offset the costs associated with cancelling the contracts.

## Conclusion: A Question of Responsibility?

From its origins in Cold War military strategy to its recent history as the primary supplier to Ontario Hydro, the development of Elliot Lake was largely determined by the federal and provincial governments in close collaboration with the mining corporations. Different views exist on the extent to which state and corporate policies have contributed to the boom-and-bust cycle of production, to numerous labour and social issues, to various problems of municipal finance, infrastructure and housing, and to the mass layoffs and end of uranium mining in Elliot Lake and Ontario.[42] Then there are major environmental issues, and Elliot Lake's deepest wound, the legacy of industrial death, accident, and

[41] One very limited and confidential estimate was made for the provincial cabinet as part of the highly political process leading to the $250 million Ontario Hydro aid package.

[42] For instance, one of the most detailed analyses to date of uranium policy (Downey 1986) argues that the roots of Elliot Lake's development are found in the natural resource policy of the federal government. See also Doern (1980), Morrison and Doern (1980), Walker (1992).

disease. At no point was there a public pre-closure review.

What seems clear, however, even from a brief review of the main lines of economic development at Elliot Lake, is that the provincial government and especially the federal government need seriously to address this responsibility in dealing with the consequences of the closures.

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