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CREATION AND ANALYSIS OF
INTEGRATED DATA BASE FOR THE
EVALUATION OF THE SPECIAL PROGRAM
OF CULTURAL INITIATIVES

Background Study
Etude de base

PROGRAM EVALUATION DIVISION DE L'EVALUATION DES PROGRAMMES

CREATION AND ANALYSIS OF INTEGRATED DATA BASE FOR THE EVALUATION OF THE SPECIAL PROGRAM OF CULTURAL INITIATIVES

NOVEMBER 16, 1984

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PROGRAM EVALUATION SERIES

These are two of eight Background Studies that form part of the evaluation of the Special Program of Cultural Initiatives (SPCI).

The studies were conducted by Ekos Research Associates Inc. for the Program Evaluation Division of the Department of Communications, Canada. The views expressed herein are those of the author and do not necessarily represent the views or policies of the Department of Communications.

Final Report for the Evaluation of the Special Program of Cultural Initiatives (Background Studies Numbers Seven and Eight: Creation and Analysis of Integrated Data Base)

November 16, 1984

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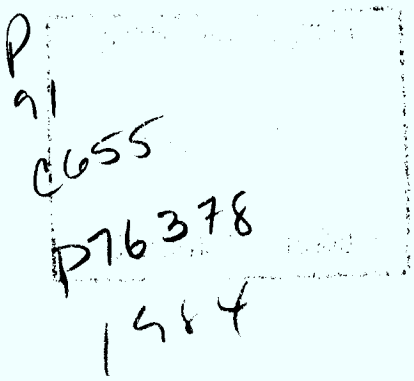

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TABLE OF CONTENTS

TABLE OF CONTENTS
(Continued)

TABLE OF CONTENTS
(Continued)

TABLE OF CONTENTS
(Continued)

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* SPCI FUNDING AND TYPE OF IMPROVEMENTS TO FACILITIES 1980-1983

EXECUTIVE SUMMARY

The overall purpose of the evaluation was to assess the value for money achieved through the public investment made under the Special Program of Cultural Initiatives (SPCI).

The program was evaluated using a variety of different tests and methods. Evidence for the evaluation comes from public surveys, surveys of arts organisations, case studies of selected program participants, reviews of administrative records and expert opinions. The study also made controlled comparisons of conditions before and after the program. These time comparisons were made for organisations, the general public and thirty-one of Canada's largest cities.

The accumulated evidence supports the following conclusions:

1. The underlying logic of the program is valid. New independently collected data replicated the 1980 Community Infrastructure and Participation in Culture study findings that cultural participation levels rose with the level of cultural infrastructure.

2. In terms of SPCI's independent contributions, the ultimate conclusions of the evaluation are mixed. If we consider the program's performance in terms of its goals - it did not promote the financial health of the professional performing arts community and it did not signficantly increase equality of access nor alter the existing patterns of development of Canada's national network of cultural facilities and services. In general, program funding was unrelated to the initial quality of the cultural infrastructure. Over half the SPCI funds went into the three largest Canadian cities. These findings suggest SPCI is reinforcing the existing metropolitan network of facilities.

3. On the positive side program funding is associated with certain desirable outcomes. For example it has increased accessibility (although not in an egalitarian manner). Per capita and absolute SPCI investments in the community were positively associated with cultural participation levels. While there is no conclusive evidence that SPCI alone caused any major changes in participation levels, there is some evidence that the program may have produced a modest independent effect in selected cultural activities.

4. At the community level the program operates within a system which does demonstrate the linkages anticipated by the program. While infrastructure problems are still viewed as a barrier to full cultural participation by a large percentage of Canadians, communities which received greater levels of SPCI funding were significantly less likely to perceive infrastructure as the most important barrier to full cultural participation. SPCI funding is positively associated with the percentage of the community attending cultural events within their own community and negatively correlated with the percentage of individuals in the community who said they had to leave their own city to satisfy their cultural demands. At a community level, satisfaction with cultural infrastructure increased with the level of SPCI funding.

5. We also have verified the fact that Canadians strongly endorse federal support of culture. Support is strongest amongst younger, middle-high educated and middle-high income Canadians. Women tend to be more favourably disposed to federal support of culture than men. If these breakdowns are considered in terms of evolving demographic patterns of Canadian society it is likely that support for federal involvement in arts and culture will grow over the next decade.

   Canadians tend to be more favourably disposed to the notion that the federal government should financially support the less commercialised forms of culture. There is also a tendency for lower socio-economic status respondents to be more positive towards federal financial support of popular culture and upper status respondents to more strongly support federal support of high culture.

SOMMAIRE

L'évaluation avait pour objet général de déterminer la valeur reçue en contrepartie des investissements publics faits en vertu du Programme d'initiatives culturelles (PIC).

Nous avons évalué le Programme au moyen de divers tests et méthodes, à partir des constatations faites à l'issue d'enquêtes menées auprès du grand public et des organisations des arts du spectacle, d'études de cas concernant certains participants au PIC et d'analyses des dossiers administratifs, ainsi qu'à la lumière de l'opinion des spécialistes consultés. Toujours dans le cadre de l'évaluation, nous avons établi des comparaisons dirigées entre les conditions qui régnaient avant et après l'instauration du Programme, au regard des organisations visées, du grand public et de trente et une grandes villes du Canada.

Les données recueillies viennent étayer les conclusions suivantes :

1. Les principes sur lesquels le Programme repose sont valables. L'information nouvelle que cet exercice a permis de rassembler confirme l'une des conclusions dégagées à l'issue de l'étude de l'infrastructure des communautés et de la participation aux activités culturelles, à savoir : la participation agumente en proportion de l'infrastructure culturelle.

2. En ce qui concerne les contributions indépendantes faites en vertu du PIC, les conclusions finales sont partagées. Sous l'angle de la mesure dans laquelle il a atteint ses objectifs, le Programme n'a pas réussi à assurer la prospérité du milieu professionnel des arts du spectacle ni à rendre davantage accessible à tous le réseau national d'installations et de services culturels; il n'a pas réussi, non plus, à modifier le mode de développement actuel de ce réseau. Dans l'ensemble, l'aide accordée n'avait aucun rapport avec la qualité de l'infrastructure culturelle, sans compter que plus de la moitié des crédits affectés ont profité aux trois plus grandes villes du pays. Ces constatations donnent à penser que le PIC vise à consolider le réseau urbain existant d'installations culturelles.

3. Sous un angle positif, disons que les crédits octroyés étaient liés à certains résultats souhaitables. Par exemple, le PIC a permis d'accroître l'accessibilité (bien que non universelle) de l'infrastructure. En outre, il y avait un lien incontestable entre les investissements absolus et par habitant et le niveau de participation aux activités culturelles. Rien ne prouve que toute augmentation sensible du niveau de participation soit le seul fait du PIC, mais certains signes n'en permettent pas moins de croire que celui-ci a peut-être produit un effet distinctif, quoique modeste, sur des activités culturelles déterminées.

4. A l'échelle des collectivités, le Programme fonctionne à l'intérieur d'un système qui établit effectivement l'existence des liens prévus par ses responsables. Bien que les problèmes relatifs à l'infrastructure soient toujours considérés comme des obstacles à une participation véritable d'un fort pourcentage de Canadiens, les villes qui ont reçu une part plus importante des crédits étaient nettement moins susceptibles de percevoir l'infrastructure comme l'entrave la plus marquante à une participation réelle. L'aide accordée est associée de façon positive à la proportion des habitants de la ville bénéficiaire qui assistent aux activités présentées dans leur propre collectivité et associée négativement à la proportion des habitants qui ont affirmé devoir quitter leur ville pour satisfaire à leurs besoins d'ordre culturel. A signaler également qu'au niveau des collectivités, la satisfaction exprimée au regard de l'infrastructure culturelle augmente en fonction de l'importance des crédits octroyés en vertu du PIC.

5. Nous avons aussi vérifié s'il est vrai que les Canadiens sont fortement en faveur d'une aide du gouvernement fédéral à la culture. L'appui est le plus fort chez les jeunes Canadiens ayant une éducation et un revenu au-dessus de la moyenne. Les femmes plus que les hommes ont tendance à voir l'aide fédérale au développement de la culture d'un oeil favorable. Si l'on examine cette répartition du point de vue de l'évolution de la courbe démographique, il est probable qu'au cours de la prochaine décennie, de plus en plus de citoyens seront d'accord pour que le gouvernement fédéral contribue à l'avancement des arts et de la culture.

   Les Canadiens ont tendance à être unanimes pour reconnaître que le gouvernement fédéral devrait financer les activités culturelles à caractère moins commercial. Nous avons de plus constaté que les répondants à faible revenu tendent à estimer que le gouvernement fédéral devrait contribuer surtout au financement des activités dites populaires, tandis que ceux à revenu élevé préconisent un plus grand appui aux activités de prestige.

1.0 INTRODUCTION

1.1 Evaluation Approach

The purpose of this study was to empirically evaluate the value for money derived from the Special Program of Cultural Initiatives (SPCI). The value or worth of any program can be considered in terms of the degree to which the program has succeeded in achieving its desired effects in a reasonably efficient manner without introducing undesirable and unintended impacts.

The evaluation does not contend that the program's worth can be measured against any single standard. Rather a range of standards, such as cultural participation, cultural awareness and financial-managerial health of cultural organisations, are utilised to measure the desirable and unintended effects of the program. These performance measures are based on information collected from a variety of sources with different interests and attitudes. The performance indicators are measured through time and hence we can ascertain the changes that have occurred after the introduction of the program. Although changes in performance indicators cannot be attributed with absolute certainty to program inputs, plausible arguments can be made regarding the relationship between program interventions and changes in cultural activity. The analysis was designed to allow partial control for obvious alternative explanations of changes in the performance indicators.

The findings provide definitive answers to most of the key program evaluation issues - including those of effectiveness. Within practical limits, the report presents the assumptions, methods and data so that the independent reviewer may subject the study to the canon of reproducibility.

Given the rather complex interactions between SPCI and cultural activity, and between SPCI and other federal level cultural programs, it was extremely difficult to restrict the evaluation's focus exclusively to SPCI. Although the focus of the evaluation is the effectiveness and efficiency of SPCI, it is difficult to analytically disentangle SPCI from the broader program environment. In fact, it is impossible to understand the true, independent impact of SPCI without relating it to its operational milieu, including the cross-impacts with other programs such as those of the Canada Council.

The evaluation also faced the problem that the program's clients, the arts and culture community and the general public, do not perceive SPCI as a separate entity. Hence it was necessary to undertake the evaluation of SPCI within the broad context of Canadian cultural activities. In retrospect we can say with confidence that a narrow evaluation which only considered SPCI **in vacuo** would have produced a radically truncated understanding of the program effects. Many of the most important evaluation insights regarding SPCI in particular, and federal cultural programs in general, are gained only from an analysis of the broader program environment.

1.2 Report Organisation

In the next chapter the history, structure and logic of the program and the key evaluation issues are briefly described. Chapter Three provides an overview of measurement philosophy underlying the methodological approach and a summary of the data collected by source. The next six chapters contain the study findings, and are organised around the core evaluation issues presented in Chapter Two. Within each chapter, the conceptual and analytical approach is described first and then the evaluation findings are presented.

The final chapter summarises the conclusions that can be drawn from the study findings. A series of appendices provide executive summaries of the six background studies conducted for this evaluation, and detailed explanations of data sources and methodology employed. Chapter Four contains the findings of the empirical testing of the validity of the SPCI program logic. Chapter Five explores the program impacts on community level and cultural participation levels. Chapter Six contains the analysis of the SPCI impacts on the development of a natural network of cultural facilities by province and level of organisation and community. Chapter Seven presents our findings on the program's impacts on the financial health of participating organisations. Chapter Eight contains the analysis of program delivery efficiency. Chapter Nine presents information collected about public opinions on federal financial support to arts and culture.

2.0 PROGRAM DESCRIPTION AND EVALUTION ISSUES

This section contains a brief description of SPCI. This discussion is based largely on "SPCI: An Evaluation Framework" (Bureau of Management Consulting, July, 1983) which provides a detailed description of program objectives, design, funding, duration, and delivery.

2.1 Program History, Structure and Logic

In July, 1980 Cabinet gave approval for a program to support arts and culture using lottery revenues. The objective of the program was to increase Canadians' access to the performing and visual arts and to heritage activities, principally by broadening and strengthening the human and material resources of Canadian professional cultural organisations.

Details of the program, to be called "A Special Program of Cultural Initiatives" (SPCI), were set out in a further Memorandum to Cabinet. This was approved in October, 1980 with the proviso that the program be subject to assessment and review in accordance with Treasury Board policy on program evaluation. The program was projected in 1980 to cost $39.6 million over a three year period, although much less was actually spent ($29.3 million).

A new program, identified as the Special Program of Cultural Initiatives II, was developed and approved in 1983. Although it is not dealt with in the present evaluation report, the similarities between the old and revised programs are such that the present evaluation of SPCI will, in the main, address issues and objectives similar to those which would be dealt with in any future evaluation of SPCI II.

Through its involvement in the arts and culture sector, the federal government is trying to foster the development of a distinctly Canadian cultural identity, give Canadians an opportunity for creative expression and promote awareness of and access to all facets of this culture among Canadians. SPCI supported non-profit, professional performing arts organisations (PAO's) and custodial (heritage) institutions (HI's). It was introduced at a time when many performing arts companies appeared to be on the brink of collapse, as a result of general fiscal restraint and high rates of inflation. In 1980, these organisations were estimated to have a cumulative deficit approaching $12 million.

An overview of the program displaying its four components with their objectives and the overall program and system goals is given in Exhibit 2.1. In addition to providing immediate financial relief to many organisations, it was anticipated that the program would stimulate matching funding from provincial, municipal and private sector sources.

Component I provided a one-time grant of up to $300,000 to strengthen the financial viability of Canadian professional non-profit performing arts organisations and institutions by contributing to a reduction of their accumulated deficits. Applicants were expected to demonstrate provincial participation and community support to share in the deficit reduction.

Component II was aimed at strengthening the management of Canadian professional non-profit performing arts organisations by providing assistance to management development projects (IIA) or by providing a grant to performing arts organisations without accumulated deficits (IIB). The latter grant would vary with the total operating expenses of the organisation, up to a maximum of $50,000.

The objective of Component IIIA was to provide greater public access to the professional performing arts by developing and upgrading a national network of suitable facilities. Applicants for capital assistance needed to demonstrate provincial commitment to cost-sharing of the project. Capital assistance could also be provided under Component IIIB to assist with projects of over $200,000 submitted by institutions established to conserve objects and exhibit them, or otherwise make them available to the public. Provincial commitment to cost-sharing was a prerequisite.

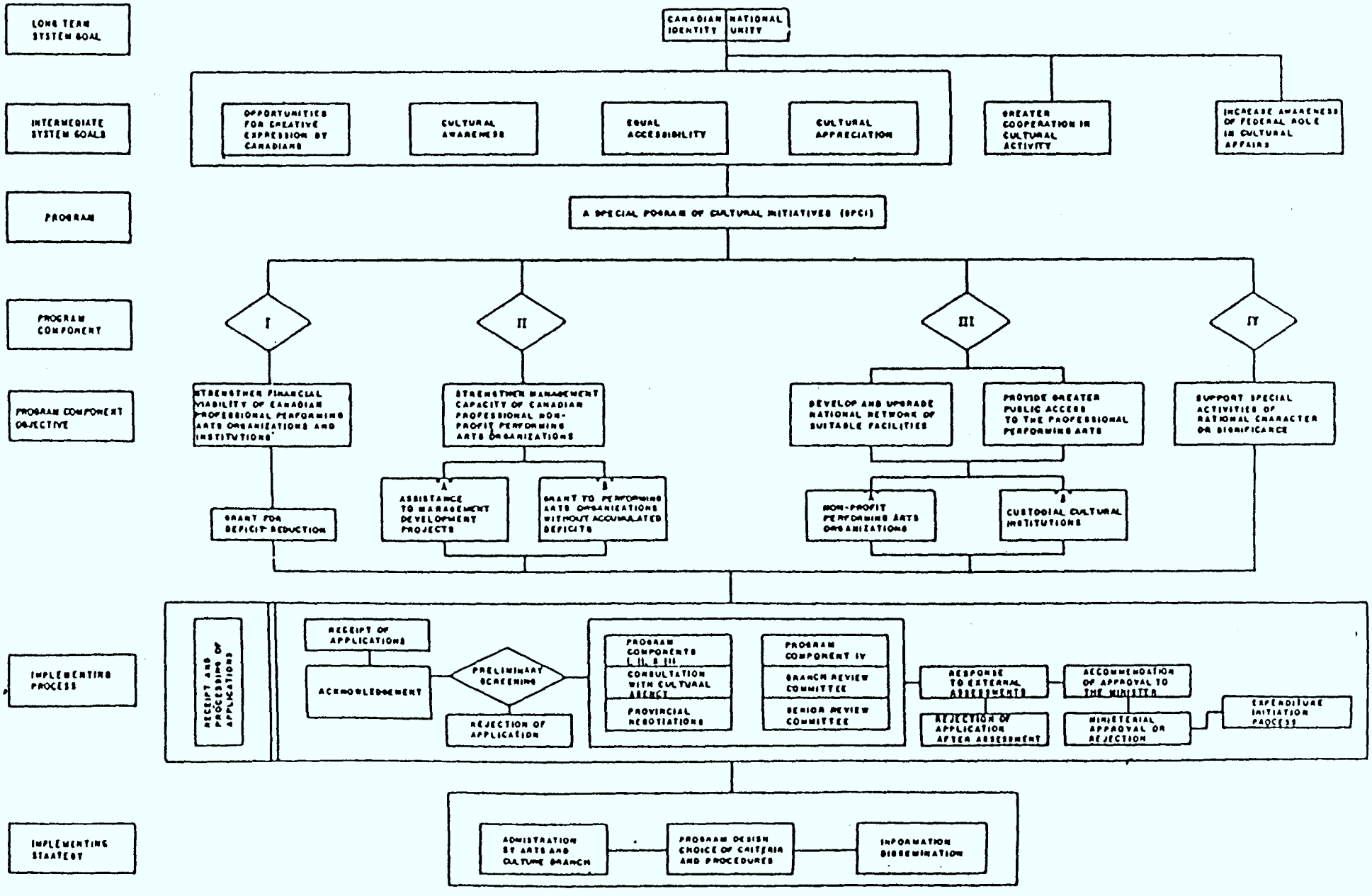
Component IV supported special cultural projects of a national character or significance. Proposals had to be submitted by a Canadian non-profit organisation, either principally involved in artistic activity and cultural events, or ready to undertake a commitment to devote a significant portion of a national conference, exhibition, competition or event to artistic and cultural endeavours.

2.2 Program Evaluation Issues

The program structure and logic model (see Exhibit 2.1) provide the basis for the specification of program evaluation issues. Following the guidelines of the Office of the Comptroller General, issues were roughly formulated around the four basic program evaluation issues of: (i) program rationale; (ii) impacts and effects; (iii) objectives achievement; and (iv) alternatives. These cornerstone issues were adapted somewhat to fit the unique qualities of the SPCI evaluation, and yielded the six issues presented below. These issue areas are not mutually exclusive - some specific evaluation questions pertain to more than one.

EXHIBIT 2.1

SPECIAL PROGRAM OF CULTURAL INITIATIVES -- PROGRAM MODEL



Source: An Evaluation Framework, Bureau of Management Consulting, July 1983

2.2.1 Program Validity: The Infrastructure - Participation Linkage

SPCI is premised on the assumption that improvements to the network of cultural infrastructure (or the enabling material and human resources which support and enhance cultural participation at the community level) will stimulate a variety of desirable cultural effects such as increased cultural participation (individual and collective engagement in cultural activities), heightened cultural awareness, etc. A 1978 study* had empirically validated the assumed linkage of cultural infrastructure and cultural participation. Thus the problem was to replicate the 1978 study methodology to verify that the linkage still held.

2.2.2 Linkage of SPCI Funding and Community Level Cultural Participation - Activity Levels

This issue concerns the degree to which the program has increased levels of cultural participation. This issue is closely related to the issue of the validity of the underlying program logic. Here the concern is with the role of SPCI funding in changing cultural participation and activity levels.

2.2.3 Impact of SPCI on Development of a National Network of Cultural Facilities and Services and Increased Access to Culture

A fundamental evaluation issue concerns the effects (both intended and unintended) of the program on the existence and quality of the cultural facilities network.

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* "Community Infrastructure and Participation in Culture" (CIPC) Secretary of State, 1980.

The question of whether SPCI increased access to a national network of suitable facilities is considered at several levels, including the province, the community, the cultural organisation and the individual.

2.2.4 Financial Health and Viability of Performing Arts Organisations

A major thrust of SPCI was to improve the financial-managerial viability of professional, non-profit PAO's. Hence, a major question for the evaluation was whether or not SPCI produced improvements in the financial health of the performing arts organisations participating in the program. Comparative data were collected at time points before and after the introduction of the program for a representative sample of program participants as well as for a sample of non-program participants (rejected applicants and non-applicants).

2.2.5 Program Delivery and Efficiency Issues

This issue refers to the question of whether the program's administration and delivery resulted in an efficient use of program resources. Four basic efficiency questions were distinguished:

(a) How adequate were the criteria and procedures employed in the administration of SPCI?
(b) How consistently were the program criteria applied?
(c) How expediently were cases processed?
(d) What was the level of program awareness amongst the target population?

These questions were dealt with through detailed file reviews and studies of individual cases, as well as through the use of computerized survey and administrative data.

2.2.6 Public Legitimacy of Government Support

The issue here is whether the public perceives the program goals and objectives as worthwhile. An important sub-issue is the visibility of the federal funding of arts and culture activities.

3.0 METHODOLOGICAL APPROACH

3.1 Measurement Philosophy

This evaluation features a multi-source, multi-level data collection* and data analysis plan; hence the depth and quality of evaluation evidence is quite strong. Preference was given to "objective" data sources although the evaluation also devoted considerable resources to the collection of "perceptual" survey data, as well as a series of detailed case studies.

The basic logic underlying the data collection and analysis strategies is that a multi-source, multi-level approach is more likely to yield a complete and fair picture of program performance than an approach which considers only one level of analysis from a restricted set of data sources. The approach produces more reliable and valid multiple indicator performance measures than one which involves more limited data collection. Also, the conflicting interests of a variety of different evaluation stakeholders (e.g., performing arts organisations (PAO's), heritage institutions (HI's), umbrella organisations, the general public, etc.) are more likely to cancel each other out. This approach ensures that a variety of interests and perspectives are considered but that no single perspective is allowed to dominate. If the same basic findings emerge from more than one perspective, then confidence can be placed in the integrity of the conclusions drawn. Moreover, from a purely practical perspective, the chances of committing a major error are considerably reduced if all hopes are not pinned on a single research strategy.

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* Appendix A contains the executive summaries for the six other background studies.

In addition, the multi-levelled approach allows evaluation conclusions to be distinguished by level and unit of analysis. For example, the program performs rather poorly at the organisational level yet demonstrates positive effects at the community level.

3.2 Data Types and Sources

Exhibit 3.1 summarises the major study populations, data types and data sources. A more detailed description of data collection and data base management is provided in Appendix B.

EXHIBIT 3.1
SUMMARY OF EVALUATION DATA RESOURCES

STUDY POPULATION	SELECTED SAMPLE SIZE	DATA TYPES	DATA SOURCES
All professional, non-profit performing arts organisations (1980-83) N = 700-800 All heritage institutions (1980-83) N = 1000	175 50	• Financial data • background characteristics • infrastructure/ facilities • managerial characteristics • program perceptions • views on program and federal policies	• December 1983 telephone survey • program administration records • Canada Council records • Statistics Canada Cultural Statistics Program • Case studies • Other (see Appendix A)
31 Largest Canadian communities	1600 individuals	• population background characteristics • community type • cultural infrastructure • participation level • perceptual data • federal cultural funding	• 1978 Community Infrastructure and Participation in Culture (CIPC) survey • 1983 telephone survey (replicating CIPC methodology)
All PAO/HI umbrella organisations N = 20	20	• program, industry and federal perceptions and opinions	• case studies

4.0 PROGRAM VALIDITY: THE INFRASTRUCTURE - PARTICIPATION LINKAGE

4.1 Concepts and Methods

The root concept underlying the program is that a vibrant cultural infrastructure will produce a vital cultural market. Hence, by encouraging the financial survival of performing arts organisations through deficit reduction grants, grants for special cultural events, and funds for capital improvements to the physical facilities supporting the performing arts and heritage institutions, the program should also stimulate increased consumption of these cultural activities.

The underlying empirical and theoretical support for such an approach was solid, based on the findings of the study of Community Infrastructure and Participation in Culture (CIPC). The CIPC study demonstrated that knowledge of community cultural supply factors (infrastructure) significantly improved models predicting community cultural demand (participation). Communities with better infrastructure had higher levels of cultural participation (net of and independent of the effects of socio-demographic composition). The CIPC study clearly showed that if governments wished to stimulate cultural participation then they should address their efforts toward improving cultural infrastructure.

In order to assess whether this logic, which underlies the SPCI program, is still valid, the CIPC study methodology was repeated in 1983. Data were collected from a new survey of a sample of 1600 individuals in the same 31 Canadian communities surveyed in the CIPC study. (These

communities contain seventy-five per cent of the Canadian population.)

The definition of cultural infrastructure used by CIPC was narrowed somewhat as SPCI is not designed to support the print and electronic media. Perceptual indictors of community infrastructure supply, such as the perceived suitability of the facilities were added to more "objective" supply data in the construction of summary indices of infrastructure supply.*

4.2 Reproduction of CIPC Findings

Using the new measures of cultural participation gathered in 1983, the CIPC findings were repeated: in simple bivariate models, at the community level, cultural participation levels (operationalised as the average number of visits in the past twelve months to various cultural facilities or events) are significantly positively associated with the quality of the infrastructure.

In the following discussion of empirical findings, the strength and direction of association between independent and dependent variables is expressed by Pearson correlations. These range from R=+1.0 (perfect positive correlation to R=-1.0 (perfect negative correlation). A correlation of 0 indicates mutual independence. Relationships of around +.25 to .5 may be considered modest, around .5 to .7 moderate to strong, and over .7 very strong.

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* Appendix C contains definitions of these summary measures.

Museum attendance per capita is positively associated with the summary museum infrastructure quality index (R= +.35). The overall infrastructure index (composed of a variety of individual indicators of quantity and quality) is positively associated with attendance at concerts (R= +.30), theatres (+.32), arts and crafts festivals (+.46), etc. Furthermore, these relationships are stable when we control for community socio-demographic composition.

Having replicated the basic CIPC findings, it can be stated with confidence that the basic logic underlying much of SPCI is still sound. Using new, independently collected data, the evaluation found that better infrastructures are associated with higher levels of cultural participation. But more germane to the present evaluation is the question of how SPCI program investments relate to community level participation, to be discussed in the following chapter.

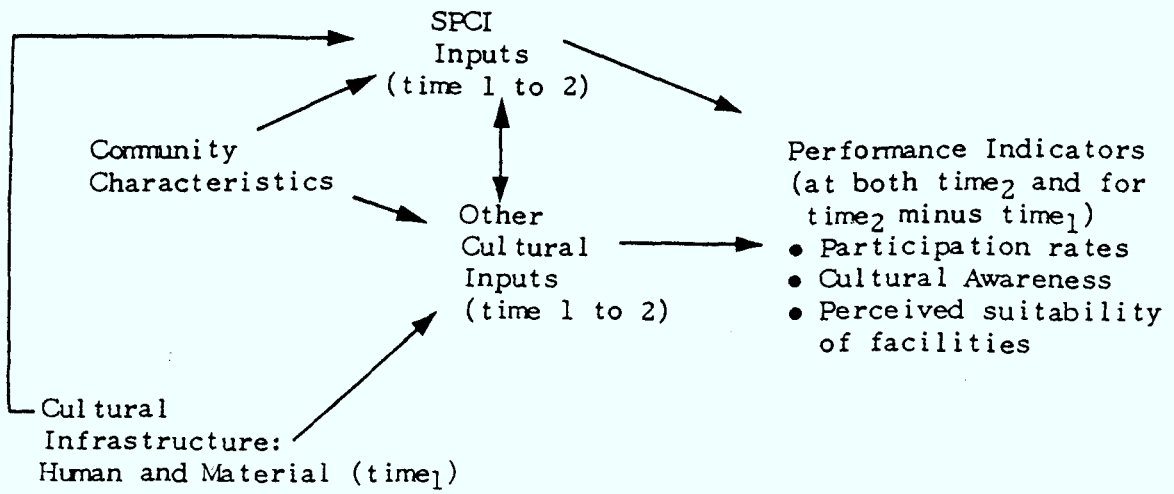
5.0 LINKAGE OF SPCI FUNDING AND CULTURAL PARTICIPATION-ACTIVITY LEVELS

5.1 Concepts and Methods

In order to test the role of SPCI funding in community cultural participation, the conceptual model presented in Exhibit 5.1 was utilised. This model is considered to reflect the basic program logic and was used throughout the analysis of program impacts in this and later chapters.

The model, which is derived from both theory and empirical research, identifies most of the important, plausible explanations for whether or not community participation levels increase or decrease. In simple terms, community characteristics (exogenous variables), and cultural infrastructure, SPCI and other non-SPCI cultural program inputs (endogenous variables), help produce cultural participation, cultural awareness and perceived suitability of cultural facilities (dependent variables).

EXHIBIT 5.1
CONCEPTUAL MODEL OF SPCI IMPACTS



The analysis involved testing the strength and direction of association between independent and dependent variables using data collected for the community level performance indicators.

It is very important to note that the overall SPCI investment is a rather small component of all of the investments going into arts and culture. SPCI expenditures over the 1980-83 period represent 2.5 per cent of the total 1980-81 federal cultural expenditures and less than one per cent of the cultural expenditures by all levels of government over the same three year period. Hence the measures may simply not be sensitive enough to measure an incremental SPCI effect, even if it is occurring. It may also be unrealistic to expect to measure discernible impacts on community level performance indicators at a time so soon after the program investment. The broad range of different tests conducted and evidence collected, however, point to the fact that SPCI is part of a complex system producing increased cultural participation.

5.2 Empirical Findings

At a community level, SPCI funding per capita over the 1980-83 period is mildly positively associated with attendance at museums (R=+.25), classical music recitals (+.27) and dance performances (+.22). These relationships are all statistically significant. SPCI funding per capita is not significantly associated with attendance at popular music performances (folk, rock, jazz, etc.). It is quite interesting to note that SPCI funding is strongly associated with attendance at arts and crafts festivals (+.51) which probably confirms the positive impact of Component IV seen in the case studies.

The absence of an association with art gallery attendance may be due to the lag in the impact of Component III. The fact that SPCI funding is not significantly associated with theatre attendance (+.13) is somewhat puzzling given that theatres received fifteen per cent of total SPCI funds. However, a multiple regression analysis, controlling for other factors, indicates Component I deficit reduction funding per capita is associated with theatre attendance.

It is illuminating to see these effects in a comparative context. If the same cultural participation indicators are considered, as they relate to Canada Council per capita funding, a similar pattern is apparent: Canada Council funding per capita over the same 1980-83 period is positively associated with attendance at museums (+.26), classical music (+.30), and dance (+.21). Like SPCI, Canada Council funding is not associated with attendance at art galleries or popular cultural events. Unlike SPCI, Canada Council funding is positively associated with theatre attendance (+.33) and is not associated with attendance at arts or crafts festivals.

There is also a strong positive correlation between SPCI per capita funding and the percentage of households in the community having paid subscriptions to the performing arts (R=+.61). The same relationship to Canada Council funding is +.46.

Further evidence is also available in support of the hypothesis that SPCI is associated with an increased level of active particpation in live cultural activities. A range of measures relating to perceived and objective cultural activity levels in our study population are available.

Respondents in the 31 communities were asked how much time they spent watching television in the past week. Since SPCI was designed to stimulate increased levels of active public participation (as compared to passive and private forms) it is comforting to report a significant moderate negative correlation between community television viewing and the SPCI investments (R=-.40). Canada Council also is negatively correlated, although only at a -.27 level.

The survey also asked Canadians to rate their overall level of cultural activity* as they felt it compared to that of the "average Canadian". It is intriguing to note that most Canadians felt that they were less active than the mythical "average" Canadian with a mean rating of 3 on a scale from 1 (much less active) to 7 (much more active) with 4 being "average". However, communities which received more SPCI funds per capita were more likely to rate themselves as active, as indicated by the positive association of +.40. (The correlation of rated activity level with Canada Council funding per capita was a weaker +.32.)

A related question asked Canadians what percentage of their total cultural time was spent in public as opposed to private places. Although the overall stated averages were about 25% public/75% private, once again communities which received relatively greater amounts of SPCI funding had higher levels of public cultural activities.

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* "Cultural activity" was not defined for the respondent but the implication from the order of the questions was that cultural activities consisted of attendance at museums, galleries, music and dance, etc.

5.3 Multivariate Models

Observed correlations using bivariate models may be due to some unobserved variable(s). Multivariate models can better represent complex structural linkages because they can simultaneously test several independent variables. If derived from a valid conceptual model they can also provide greater confidence in making casual attributions. Multiple regressions were used to predict the following dependent variables: theatre attendance, arts and crafts festival attendance and respondent perceptions of their relative cultural activity levels.*

The overall pre-program level of cultural participation in the community is the strongest predictor of 1983 theatre attendance (accounting for 28% of the observed variance), followed by proportion of the community population employed in cultural occupations (13%), per capita SPCI funding under Component I (6%) and a summary index of 1978 theatre and arts centre supply (5%). This model accounts for over 44 per cent of the variance around the average frequency of theatre attendance. It also indicates that on average, a one dollar increase in per capita Component I funding increased average theatre attendance by .67 times.

Twenty-five per cent of the variance about the mean attendance score for arts and crafts festivals is explained by per capita SPCI funding under all components. This finding presents positive evidence that SPCI as a whole has made a positive impact on popular festival attendance. Per capita Canada Council funding by contrast, is negatively associated with arts and crafts attendance. This parameter accounts for around 15% of the variance.

* These models are explained in detail in Appendix C.

The best single predictor of perceived cultural activity level of the individual is the 1978 pre-program measure of cultural participation (explaining 22% of the variance). Per capita SPCI Component IV funding explains a further 15 per cent which indicates a positive relationship between special event funding and higher levels of perceived cultural activity.

5.4 Changing Patterns of Cultural Participation

This section compares cultural participation patterns in 1983 to those found by the 1978 CIPC survey. From an evaluation perspective the presence of time series data allows a better understanding of the program's impact: this is because conditions before and after the introduction of the program can be compared rather than merely comparing different places which have received varying levels of funding under the program.*

Before considering the impact of SPCI let us briefly review what happened to cultural participation in the 31 communities from 1978 to 1983. Exhibit 5.2 compares the percentage of households attending various cultural activities at least once in 1978 and 1983. There is a clear overall growth pattern with the exception of museum and classical music attendance (which remain relatively stable).

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* The preceding analysis of participation rates was based on the number of times visited. This continuous measure is not available for all 31 communities in 1978. Consequently we must resort to a cruder measure which is available for all places for both time points. This measure is based on the percentage of the community who have attended a certain type of cultural event in the past year at least once.

All other activities show substantial gains in participation. These absolute gains range from 10 per cent for theatres to 25 per cent for arts and crafts festivals. It is noteworthy to mention that the more popular, less traditional forms of cultural participation show the most impressive gains.

EXHIBIT 5.2
CHANGES IN HOUSEHOLD ATTENDANCE PATTERNS: 1978 to 1983

Cultural Activity/ Venue	Percentage of Households Attending in 1978	Percentage of Households Attending in 1983	Gain/Loss Over Time
Museum	36.85	33.53	(-3.32)
Art Gallery	21.37	32.68	(+11.31)
Popular Music Concert	28.23	43.96	(+15.73)
Classical Music Recital	18.44	18.04	(-0.40)
Theatre	27.18	37.38	(+10.20)
Arts and Craft Festivals	21.73	46.29	(+24.56)

These findings are largely consistent with the Macaulay report of the Special Committee for the Arts (Ontario Ministry of Citizenship and Culture, 1984). A 1983 telephone survey of 1,000 Ontario households determined the percentage attending various cultural events. These data were compared to those from a 1974 Ontario Arts Council

survey. Significantly higher proportions of Ontarians are now attending live plays and musicals (55% versus 42%), dance performances (23% versus 13%) and classical music concerts (33% versus 26%). Public participation in non-performing artistic and cultural activities is higher than for most performing arts: public libraries (74%), museums (60%) and arts and crafts (51%). Differences between the Macaulay report figures and our data are due to differences in question wording and differences between Ontarians and other Canadians. The overall pattern of modest growth in attendance is consistent with the present study's fundings.

The preceding evidence shows that for the nation as a whole, cultural participation has increased significantly over the past five years. This is positive evidence that part of the program's goals have been achieved. This is not to suggest that the achievement is due to the program. A much more stringent test of effectiveness will be necessary to test the relationship between the program and changing patterns of participation.

Testing the association between changes in participation levels and total SPCI program expenditures in the 31 communities, we find that the program is positively associated with increases in attendance at museums (R=+.40), art galleries (+.34), classical music performances (+.49) and theatres (+.34). These relationships demonstrate that the program is significantly associated with the more rigorous performance indicator of changing participation levels.

It might reasonably be argued that these results are artefacts of population size. Larger centres tend to receive more funds than smaller centres and hence the

observed correlations may be due to population and not the program. If partial correlation tests are conducted in which the effects of population are held constant we find that this is only partially true. In fact, the correlation between growth in attendance at classical music performances and SPCI funds is robust and remains a strong +.49. The positive art gallery and theatre attendance change correlations remain positive, although they weaken to +.23 and +.13 respectively (the latter being insignificant). The museum attendance change correlation disappears when population size is statistically controlled.

A multivariate regression model was constructed to predict change in the percentage of the community attending classical music performances. The dependent variable is the change in participation rates. Independent variables are community population, socio-economic status based on community education and income indicators, an index of theatre and art centre infrastructure quality and total SPCI funding in the community.*

This model accounts for over 40 per cent in the variance in the dependent variable. The most important predictor is total SPCI funding (beta = .97). The 1981 population of the community and 1978 theatre and arts centre supply are both negatively associated with attendance. Attendance changes are stronger in the smaller of the 31 communities rather than the larger metropolitan areas and in communities which may have acquired cultural infrastructure since 1978. Not surprisingly, community socio-economic status is positively associated with increased attendance at classical music performances (beta = +.48).

* Details of the model are provided in Appendix C.

This model illustrates a test of the full conceptual program model (see Exhibit 5.1). Coupled with a range of consistent additional evidence it seems to suggest that the program is **producing** desired effects rather than merely being associated with them.

5.5 Linkage to Cultural Awareness and Canadian Cultural Identity

In a multiple item test of recognition of Canadian cultural figures and events many Canadians had difficulty recognising some of our most prominent. For example, less than a quarter of the sample claimed to recognise the Canadian painter Alex Colville. When asked what he was famous for, less than half of those who claimed to recognize Alex Colville knew that he was a painter. Of those who knew that he was a painter about three-quarters were aware that he was Canadian. In other words, well under 10% of the Canadian public know that Alex Colville is a famous Canadian painter. On the other hand, 83% of the population recognise Laurence Olivier and about 80% of those correctly identified him as a British actor. Further discomfort can be taken in the knowledge that only about one-third of all Canadians correctly identified Karen Kain as a Canadian dancer, with similar or lower levels of recognition for such cultural stalwarts as Margaret Atwood, Emily Carr, Gordon Pinsent, or Glenn Gould. Furthermore, 40% of Canadians think Norman Rockwell is Canadian whereas 75% have no idea who either Carole Laure or Gabrielle Roy are.

There is some evidence that those places which receive larger amounts of SPCI (and other federal) funding do somewhat better on these recognition tests. However, it is very unlikely that the program is producing this increased knowledge. When we control for community

socio-economic status levels the relationship all but disappears. However, we did find that overall participation in culture (using a summary global participation index which adds together a series of cultural behaviour pattern indicators) was strongly associated with overall cultural knowledge levels (R = +.60). This once again demonstrates that the program logic model is correct (viz., infrastructure increases overall participation which in turn increases cultural awareness and knowledge). However, the unique causal impact of SPCI on awareness levels cannot be measured.

This begs the question of the program's impact on Canadian identity and national unity. Although the assessment of these issues was outside the scope of this evaluation study, data collected do provide good preliminary answers. We suggest that these important issues should be analysed further at a later date, using the existing data.

A very rough finding which does bear on the issue is that stated pride in Canadian culture is significantly negatively correlated with per capita SPCI investments (-.26), as well as Canada Council funding (-.31). This negative relationship may be due to the traditional, cosmopolitan (and not-specifically Canadian) nature of many of the cultural activities sponsored under SPCI (and the Canada Council), with the obvious exception of Component IV.

6.0 IMPACT OF PROGRAM ON THE DEVELOPMENT OF A NATIONAL NETWORK OF CULTURAL FACILITIES

This chapter discusses the impact of the program on the development of a national network of cultural facilities. The program sought to improve accessibility to culture through capital improvements to the physical cultural infrastructure as well as by financially supporting professional performing arts organisations and visual arts and heritage institutions.

This general issue will be approached in three distinct ways. First, the equality of access to program benefits will be analysed at a regional and community level. Secondly, we will consider the impact of the program on improved facilities and services at the level of the organisation. Third, the community level impact of the program will be evaluated. The community level analysis will consider both behavioural and perceptual indicators.

6.1 Equality of Access to Facilities and Benefits - Regional Analysis

6.1.1 Concepts and Methods

Equality of access to cultural facilities and programs is a goal of the SPCI program. To address this issue, we begin by considering the geographical distribution of program resources. All four program components have been aggregated in order to avoid any distortions which might result from considering the more skewed distributions which obtain under individual components of the program. The data

are from a computerized administrative data base constructed from available file information on case applications and processing. In order to provide a fair and proper test of equality of benefits under the program, both effective and potential demand for the program must be considered. Hence applications requested and funding received, in both absolute and relative (per capita) terms, will be reported.

6.1.2 Regional Analysis - Empirical Findings

In examining Exhibit 6.1 it is immediately apparent that Ontario ($11.9 M), Québec ($6.5 M) and British Columbia ($5.8 M) received the vast majority of program benefits. However, it is also clear that these are the most populous areas of Canada as well. Not surprisingly, the smaller provinces and territories received the smallest benefits: the Yukon ($.07 M), Newfoundland ($.17M), Prince Edward Island ($.24 M), and the Northwest Territories ($.30 M).

A fair assessment of equality of benefits requires adjustments for the differing population sizes. Hence the dollars received are presented in per capita terms. The average per capita benefit for all of Canada was about $1.25. The smallest regions, the Northwest and Yukon Territories received the greatest proportionate benefits - $6.78 and $3.26 per capita respectively. This seems reasonable since the cultural facilities and services of northern Canada were relatively impoverished vis-à-vis the southern areas of Canada.

It is also important to measure demand for the program, measured as dollars requested per capita. The

EXHIBIT 6.1
DISTRIBUTION OF SPCI FUNDS REQUESTED AND RECEIVED BY PROVINCE (1980-1983)

PROVINCE	1981 POPULATION	AMOUNT OF FUNDS REQUESTED ($1,000's)	AMOUNT OF FUNDS REQUESTED PER CAPITA ($)	AMOUNT OF FUNDS RECEIVED ($1,000's)	AMOUNT OF FUNDS RECEIVED PER CAPITA ($)	PROPORTION OF RECEIPTS TO REQUESTS	PROPORTION OF TOTAL NATIONAL FUNDING
Newfoundland	567,200	355	.63	167	.29	.47	.01
Prince Edward Island	122,400	840	6.87	238	1.94	.28	.01
Nova Scotia	846,900	3,429	4.05	1,168	1.38	.34	.09
New Brunswick	695,700	3,820	5.49	820	1.18	.21	.03
Québec	6,412,900	22,610	3.53	6479	1.01	.29	.22
Ontario	8,599,700	29,069	3.38	11,545	1.34	.40	.39
Manitoba	1,023,400	4,096	4.00	668	.65	.16	.02
Saskatchewan	964,100	3,771	3.91	570	.59	.15	.02
Alberta	2,203,600	7,582	3.44	1,542	.70	.20	.05
British Columbia	2,717,700	9,671	3.56	5,707	2.10	.59	.20
Yukon	22,700	74	3.26	74	3.26	1.34	.00
Northwest Territories	45,000	2,001	44.47	305	6.78	.15	.01
TOTAL	24,221,300	87,318	3.61	29,283	1.25	.34	.99

national average was $3.60 per capita. Demand for the program was highest in the Northwest Territories ($4.47) which also received the greatest per capita benefits ($6.78). However, the Yukon, which received the second highest per capita benefits ($3.26), ranked eleventh in terms of demand ($2.86 per capita).

British Columbia received the greatest per capita benefits of any province ($2.12) (third highest counting the two territories). However, B.C. only ranked eighth overall in terms of per capita program demand ($3.56). Most of the British Columbia benefits were spent on the Vancouver Art Gallery ($4.5 M). Despite this large program benefit, there was a perception amongst many performing arts organisations that British Columbia received short shrift.

The Prairie provinces did rather poorly in terms of both absolute and relative program benefits. Alberta ranked ninth lowest, receiving only $.70 per capita, Manitoba tenth ($.69) and Saskatchewan eleventh ($.59). As the Prairies did not have a much better developed network of facilities to begin with, the question of whether or not program demand was lower in the Prairies must be considered. For all three Prairie provinces demand was practically identical to the national average. Hence, it must be concluded that the Prairies did not receive equal benefits.

If we examine Newfoundland we see that it has done remarkably poorly in terms of program benefits ($.29 per capita). However, this reflects the fact that demand for the program was also the lowest in Newfoundland. One must consider the possibilities that the program was either poorly promoted in Newfoundland or that the program did not complement the cultural character of this part of Canada.

This may be a fault of the poor grantsmanship of the arts and culture community in Newfoundland as well as a problem with program design or delivery. The balance of Canada shows no major departures from the average demand or benefit from the program.

In conclusion, on the basis of these provincial data, there are some significant departures from equal benefits under SPCI. In particular, the Prairies and Newfoundland seem to have been under-funded although only in the case of Newfoundland is this due to lack of demand. In light of the program's goals of encouraging cultural awareness, accessibility, participation, Canadian identity and the development of a suitable network of cultural facilities, it would appear that there are some regional variations in the degree to which those goals were pursued.

6.1.3 Community Level Analysis

Having analysed the distribution of SPCI funds across provinces, we will now turn our attention to the community level. In many respects the thirty-one communities provide a more refined and powerful level of analysis. The community is a more natural unit of analysis as the catchment areas for theatres, art centres, museums and festivals radiate geographically from these urban centres.

An examination of Exhibit 6.2 will reveal the degree to which program benefits are concentrated in the three major metropolitan centres. The three major Canadian Census Metropolitan Areas - Montreal (16% of total SPCI funding); Toronto (17%); and Vancouver (18%) - received over

EXHIBIT 6.2

COMMUNITY CHARACTERISTICS AND SPCI FUNDING

COMMUNITY	AMOUNT OF FUNDS RECEIVED ($1,000's)	AMOUNT OF FUNDS RECEIVED PER CAPITA ($)	CIPC THEATRE AND ARTS CENTRE INDEX	CIPC MUSEUMS AND ART GALLERY INDEX
BARRIE	3	.05	-.62	2.95
CALGARY	276	.47	-.43	.05
CHICOUTIMI	75	.55	-.62	.04
DRUMMONDVILLE	105	1.92	-.62	-1.16
EDMONTON	875	1.33	-.13	.59
FREDERICTON	785	12.18	3.56	-1.16
HALIFAX	636	2.29	-.62	.10
HAMILTON	193	.36	.03	- .76
LONDON	277	.98	-.62	.02
MONCTON	5	.05	-.62	.12
MONTRÉAL	4934	1.74	-.21	- .87
OTTAWA/HULL	1389	1.93	1.04	.47
QUEBEC CITY	479	.83	.87	- .57
REGINA	290	1.77	1.64	.73
RIMOUSKI	2	.05	-.62	-1.16
ST. JOHN, N.-B.	0	0	-.21	1.13
SASKATOON	99	.65	-.62	1.23
SAINT CATHERINES	343	1.13	-.13	.34
ST. JOHNS, NFLD.	167	1.08	1.23	.07
TORONTO	5135	1.71	-.22	- .52
TROIS-RIVIERES	0	0	-.62	-1.16
VANCOUVER	5348	4.22	-.09	-1.38
VICTORIA	264	1.13	2.16	.72
WINNIPEG	665	1.14	-.01	- .03
BRANDON	0	0	-.62	- .96
EDMUNSTON	0	0	-.62	1.40
MOOSE JAW	0	0	-.62	1.62
CORNWALL	0	0	-.62	- .88
SUMMERSIDE	0	0	-.62	-1.42
CORNER BROOK	0	0	-.62	-1.42
TRURO	0	0	-.62	.46
TOTAL	*22,346*	*1.21*		

half of the entire program benefits. This is in spite of the fact that these centres constitute slightly less than 30% of the country's population.

Despite the merits of centre of excellence arguments, the fact remains that eight of the sample of thirty-one communities received no benefits under the program. These communities were all smaller census agglomerations, such as Truro and Cornwall, ranging in population from 7,828 to 133,793. Is it reasonable to expect smaller urban centres and rural areas to be largely dependent upon the larger metropolitan areas for live cultural experiences?

It may be the case that differences in absolute and relative benefits under the program may be acceptable in light of differences in demand for the program or else variances in the initial quality of cultural facilities or services.

The community level analysis also shows that per capita demand for the program is a rather poor predictor of program funding per capita. (Pearson correlation coefficient of +.24.) This relationship is only marginally statistically significant.

At the community level SPCI funding per capita is strongly correlated with Canada Council funding per capita ($R = +.74$, $p = .0001$). At the organisational level the correlation is not significant ($R = +.05$). These findings have two important implications. First, at the community level, SPCI benefits tends to be strongly associated with other federal cultural funding. This suggests that SPCI is reinforcing the existing cultural infrastructure rather than altering it.

The reinforcement argument is further strengthened by the fact that the community-level SPCI funding is positively associated with pre-program cultural participation and supply measures*. The concept that SPCI is increasing access (and equality of access) to arts and culture through the development of cultural facilities and services in communities where they did not previously exist must be questioned.

Having considered the role of relative differences in program demand as an explanation for departure from equal benefits under the program, one must now consider whether or not differences in the initial quality of the infrastructure explain community funding patterns. This will be done by testing correlations between pre-program measures of infrastructure quality and amounts of SPCI funding in the community.

The cultural infrastructure quality measures are drawn from the 1980 CIPC study conducted for the Research and Statistics Directorate of the Secretary of State. The CIPC summary measures utilised over 100 individual measures of the supply of cultural facilities and services in 1978 in thirtyone Canadian communities. Through a process of factor scaling, the data were treated to yield summary measures such as a joint museum and arts gallery index and theatre and art centre index. These measures were expressed in terms of standardised Z-scores where a score of 0 means the community had an average quality index, a score of +1.96 means it exceeded the quality of 95% of communities and a score of -1.96 means the community performed worse than 95% of the thirty-one communities.

* Exhibit 6.2 also contains benchmark summary indices of the quality of the cultural infrastructure in the communities prior to the program.

The joint museum and art gallery index is independent of SPCI funding per capita. The same patterns apply to both per capita and absolute SPCI investments in the community. This analysis suggests that SPCI was directed to communities independently of museum and art gallery quality.

The absence of a negative relationship between the initial quality of the museum and art gallery infrastructure and SPCI funding can likely be explained by other factors. The theatre and arts centre index, a summary supply measure including the quality of both physical facilities and the number of performances and services to the community, is a powerful measure of pre-program accessiblity to performing arts. Far from finding a negative relationship we find a strong positive correlation between per capita SPCI funding and theatre and art centre index ($R=+.66$, $p= .001$). This parallels the relationship between per capita Canada Council funding and theatre and arts centre index ($R=+.63$). This finding once again demonstrates that SPCI has tended to reinforce the existing infrastructure.

Not only smaller, but lower socio-economic status communities are systematic under-consumers of the program. The question of whether or not the program increased equality of access to culture seems to demand a negative answer. This negative finding must be tempered with the findings on community level participation - an issue considered in some detail in Chapter 5 of this report. Considering these participation findings we conclude that SPCI increased accessibility but not in an equitable fashion.

6.2 Organisation Level Analysis

6.2.1 Concepts and Methods

The issue of program impacts on facilities and benefits is also important at the level of the cultural organisation. Organisations have the prime responsibility for the distribution of cultural products. They are the direct recipients of the program funding. As with the community, the key notion of the cultural infrastructure-participation linkage is also valid for the organisation. The ability of cultural organisations to present culture to a wide audience is directly related to the available facilities, both for presentation and attendance.

To assess the impact of SPCI on both performing arts organisations and heritage institutions, we examined improvements in certain facilities and increases in performances or exhibits over the length of the program. The analysis was based on the improvements or increases reported by performing arts organisations and heritage institutions over the 1980-1983 period. Self-reported measures were necessary because pre-program facilities data were non-existent and performance data from the 1979 Performing Arts Survey were not based on a sufficient number of corresponding cases.

6.2.2 Increases in Performances/Exhibits and Improvements to Facilities

Survey respondents were asked to report any increases in (performing arts) performances or (heritage) exhibits since the program began in 1980. Exhibit 6.3

EXHIBIT 6.3
SPCI FUNDING AND CHANGES IN FREQUENCY OF PERFORMANCES AND EXHIBITS 1980-1983

Direction of Changes in Number of Performances/ Exhibits	Performing Arts Organisations — Percentage Reporting Changes in Performances*			Heritage Institutions — Percentage Reporting Changes in Exhibits*		
	ALL PAO's	PAO's Receiving SPCI	PAO's Not Receiving SPCI	ALL HI's	HI's Receiving SPCI	HI's Not Receiving SPCI
Increase	56.5% (96)	57.1% (76)	54.1% (20)	30.5% (14)	30.8% (4)	30.3% (10)
Decrease	14.7% (25)	15.0% (20)	13.5% (5)	65.1% (3)	7.7% (1)	6.1% (2)
No Change	28.8% (49)	27.8% (37)	32.4% (12)	63.0% (29)	61.5% (8)	63.6% (21)
TOTALS	100% (170)	78.2% (133)	21.8% (37)	100% (46)	28.3% (13)	71.7% (33)

* Numbers in brackets represent the number of reporting cases.

reports the overall percentages of respondents indicating increases, decreases or no change at all, as well as the corresponding figures for funded and unfunded organisations.

It is interesting to note that overall, performing arts organisations demonstrate a general increase in the number of performances since 1980, with very few reporting decreases. Most heritage institutions report a stable number of exhibits over the same period, although increases do outnumber decreases by a factor of approximately four to one. A slightly higher percentage of the performing arts organisations reporting increases did receive some SPCI but the difference between funded and unfunded cases is marginal and not statistically significant. The differences between funded and unfunded cases is even more marginal for heritage institutions.

The organisations were also questioned regarding improvements to a series of eleven types of facilities. Exhibit 6.4 displays the results of this analysis. The overall percentages of respondent organisations reporting improvements is presented first, followed by the corresponding percentages for funded and unfunded cases. It should be noted that in general, only a modest number of survey respondents reported improvements to most facilities. There is no significant statistical relationship between receipt of SPCI funding and reported improvements to facilities.

EXHIBIT 6.4
SPCI FUNDING AND TYPE OF IMRPOVEMENTS TO FACILITIES 1980-1983

TYPE OF IMPROVEMENT	Performing Arts Organisations: Percentage of Reporting Facilities Improvements*			Heritage Institutions: Percentage Reporting Facilities Improvements*		
	All PAO's	PAO's Receiving SPCI	PAO's Not Receiving SPCI	ALL HI's	HI's Receiving SPCI	HI's Not Receiving SPCI
1. Floor Space	19.9% (146)	19.8% (111)	20.0% (35)	18.2% (44)	13.4% (13)	19.4% (31)
2. Seating Capacity	22.2% (135)	21.4% (103)	25.0% (32)	N.A.	N.A.	N.A.
3. Performance/ Display Area	16.9% (118)	18.2% (88)	13.3% (30)	17.1% (41)	16.7% (12)	17.2% (29)
4. Workshop Area	21.1% (114)	20.0% (95)	24.1% (29)	16.7% (36)	9.1% (11)	20.0% (25)
5. Library Area	22.7% (66)	26.7% (45)	14.3% (21)	20.78% (29)	28.6% (7)	18.2% (22)
6. Auditorium	10.9% (64)	14.0% (50)	0.0% (14)	13.6% (22)	10.0% (10)	16.7% (12)
7. Community Display Area	22.4% (76)	25.8% (56)	15.0% (20)	8.0% (25)	0.0% (6)	10.5% (19)
8. Bookstore	10.0% (20)	18.2% (11)	0.0% (11)	10.0% (20)	0.0% (5)	13.3% (15)
9. Restaurant	10.0% (20)	7.7% (13)	14.3% (7)	25.0% (4)	0.0% (3)	100.0% (1)
10. Refreshment Booth	22.4% (85)	24.6% (65)	15.0% (20)	33.3% (9)	50.0% (4)	20.0% (5)
11. Off Street Parking	13.0% (92)	14.1% (71)	9.5% (21)	12.9% (31)	25.0% (8)	8.7% (23)
12. Public Transportation Available	15.2% (132)	15.0% (107)	16.0% (25)	5.9% (34)	0.0% (9)	8.0% (25)

* Numbers in brackets represent the number of reporting organisations. Percentage figures represent the percentage of all responding cases listed in brackets which report improvements.

6.3 Contribution of SPCI to the Development of a Suitable Network - Community-Level Analysis

6.3.1 Concepts and Methods

What is the relationship between SPCI and cultural infrastructure quality at the level of the community? In this section the question is briefly reviewed in light of indicators drawn from the 1983 survey of 1600 Canadians aggregated to represent thirty-one communities. These survey data provide a series of direct and indirect behavioural measures of the quality of the infrastructure and include perceptual data germane to this issue.

6.3.2 Empirical Findings

Direct behavioural data are available on whether or not infrastructure problems detract from participation in various aspects of culture. Duplicating a question from the 1978 Canadians and the Arts survey, respondents were asked whether or not they would have liked to have participated more or attended more museums, art galleries, concerts, plays, and so on. Those who stated that they would like to have attended more were then asked if the absence of facilities or services was the most important barrier preventing them from realising their ideal personal levels of participation.

The responses to the new national survey show that many Canadians still feel that inadequate facilities, inadequate programs, or difficult access are the most important barriers to increased cultural participation. As can be seen in Exhibit 6.5 these figures vary considerably by type of activity or discipline.

EXHIBIT 6.5
PERCEPTION OF INADEQUATE FACILITIES OR PROGRAMS OR DIFFICULT ACCESS AS OBSTACLES TO GREATER PARTICIPATION

Type/ Discipline	Percentage Citing Infrastructure/Access as Most Important Barrier	Correlation with SPCI Funding*	Correlation with Canada Council Funding*
Museums	43%	n.s.	n.s.
Art Gallery	41%	-.28	-.50
Popular Music	38%	-.26	-.56
Classical Music	45%	n.s.	-.23
Dance	36%	n.s.	-.22
Live Theatre	35%	n.s.	-.29
Arts or Crafts	32%	-.30	-.52

* N.s. indicates the correlation was not statistically significant.

If per capita community SPCI funding is correlated with the percentage who see infrastructure as a barrier, the relationships are all negative, although they are not large (-.04 to -.28). The correlations with per capita Canada Council funding are similarly negative but somewhat stronger. These findings are consistent with the basic program logic.

As a more indirect behavioural indicator, respondents were asked whether the last cultural event attended was in their home town or outside their own city. Presumably those residents of communities with relatively developed infrastructures will demonstrate a higher percentage of cultural events attended within their home community.

In the case of this indicator, there is an even clearer and more consistent pattern of correlations with SPCI funding. All correlations for the various disciplines are positive, ranging from +.15 for popular concerts to +.28 for theatre. This supports the conclusion that SPCI funding coincided with the existing national network of cultural infrastructure. Canada Council funding demonstrates a similar pattern although the correlations are stronger (in the +.33 to +.46 range). The only exception is the percentage attending an arts or crafts festival in their own community. This is not significantly correlated with Council funding.

Respondents were also asked whether they felt that they had to leave their own community in order to satisfy their cultural demands. If the program is operating as expected, a negative correlation would be hypothesised. In fact, the statistical test reveals a negative correlation of -.36 with per capita SPCI funding. The correlation with Canada Council funding is a very strong -.70. This funding further reinforces the view that communities with higher SPCI funding generally have better cultural infrastructure. Fewer respondents note the need for more facilities when SPCI funding is high, although in general, significant portions of the population feel that certain groups, such as the handicapped, poor and elderly, do not have adequate cultural opportunities. Finally satisfaction with cultural infrastructure at the community level is positively correlated with SPCI per capita funding (+.33) as well as Canada Council funding (+.49).

These findings are consistent with the findings of the Macaulay committee survey which found that the Ontario public wished for improvement in the frequency of artistic

and cultural presentations. Sixty-four per cent of Ontarians stated there should be more theatre performances for children in their area, fifty-one per cent supported more presentations of plays and musicals, 41 per cent more classical music concerts and 41 per cent more dance performances. Significantly more expressed the desire for more in 1983 than in 1974. The desire for more performing arts is also significantly associated with younger people, households with incomes below $15,000 and above $40,000, and rural area residents.

The report also found that perceived accessibility to artistic and cultural facilities has increased since 1984, but that accessibility affects attendance patterns particularly for seniors and rural residents. A trend towards decreased participation in the arts was observed among seniors. The reasons identified were lack of accessibility and cost of attending. The cost of attendance is also a major factor in the decision to participate for young adults and frequent attenders. Participation in the arts was lower among residents of rural communities primarily because of accessibility problems.

7.0 FINANCIAL HEALTH AND VIABILITY IMPACTS

7.1 Concepts and Measures

The most straightforward evaluation issue is whether or not the program improved the financial health of the target groups. Components I and II were designed to strengthen the financial managerial capabilities of professional PAO's. The rationale for Component I of the program was that large operating deficits were severely impairing the viability of professional performing arts organisations. It was felt that a one-time grant to relieve this debt burden would help place them back on an even footing and better equip them to adapt to the new economics of scarcity facing Canadian performing arts organisations. Component IIA provided funds for managerial skills development projects. Component IIB of the program attempted to improve financial-managerial health by rewarding those PAO's which had not incurred deficits.

The issue addressed here is the program impacts on organisational financial health and viability. It is addressed in several ways. The primary method is to compare the financial status of PAO's before the program with their present situation. All SPCI program participants, non-program participants and the overall population of professional PAO's are compared before the program and in the present. No distinction was made initially among individual program components under the assumption that the operation of each component of the program should not tend to detract from the achievement of the objectives of the other components. As the evidence will show, for the most part SPCI funds tend to be treated in the same manner, and have the same effects with respect to financial viability regardless of the component from which they are drawn.

Next, in order to more precisely evaluate the effectiveness of Component I, the changes in deficits/ retained earnings for those receiving funds under the deficit reduction component of the program are compared with those for non-recipients. A similar analysis is conducted for Component II and for Components I and II pooled. Finally, the issue of financial performance was set in a broader context by considering the cross-impact of SPCI with Canada Council programs as well as other statistical correlates of deficit and deficit change*.

7.2 Empirical Findings

7.2.1 Basic Comparisons

Exhibit 7.1 summarises the basic deficit comparisons. To begin with, financial status (deficit/ retained earnings) for all PAO's in 1980 is compared with financial status at the end of 1983. Heritage institutions are excluded because the deficit reduction and financial/managerial components were aimed at PAO's. The 1983 data were collected by means of a telephone survey of a sample of organisations. The 1980 data are drawn from either program applications, or in the case of non-applicants, from Statistics Canada/Canada Council survey data banks.

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* See "Final Report on the Evaluation of SPCI Background Study Number Three: Survey of Canadian Performing Arts Organisations and Heritage Institutions" (Ekos Research Associates Inc., 1984) for a discussion of perceived financial trends and management efficiency.

EXHIBIT 7.1
COMPARISON OF AVERAGE ORGANISATION DEFICITS/EARNINGS

GROUP	(n)	1980	1983	CHANGE
All PAO's	(118)	-22,496	-27,540	-5,044
SPCI PAO's	(103)	-24,082	-23,184	+1,898
Non-SPCI PAO's	(15)	-11,605	-57,450	-45,846

It should be noted that the sample of PAO's contains some biases. First, the sample is somewhat biased to larger and more stable PAO's. Secondly, the 1983 data are positively biased in the sense that a significant number of SPCI applicants were no longer traceable at 1983.* Bankruptcies and/or cessation of activities probably account for a substantial number of these cases. The failure rates of SPCI and non-SPCI PAO's are unknown. Finally, it is impossible to obtain consistent 1980 financial data for many of our sample of non-funded PAO's. This seriously restricted the number of cases in our comparison group.

Returning to the Exhibit 7.1, a t-test** confirms what is intuitively obvious. There are no significant differences between the average deficits in 1980 and in 1983. The program's initial concern with deficits was well

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* See "A Field Report: Telephone Survey of Canadian Performing Arts Organisations and Heritage Institutions": pp. 3-5. It is likely that some of the 74 non-reachable organisations were failed performing arts organisations.

** A t-test is a parametric test of the statistical significance of the difference of the means of two populations or subgroups within a population.

founded since the average deficit just before the program was $22,496. In 1983 the situation has not improved. In fact, deficits have increased by $5,044 on average, despite a public infusion of millions of dollars into these organisations. It should be noted that both the 1980 and 1983 figures are highly variable, particularly in the case of 1983 data. Furthermore, three years' inflation explains most of the increase in deficits. Hence, in the PAO sector at large, deficits for surviving PAO's do not seem to be increasing so perhaps the program has succeeded in arresting the trend towards even larger deficits.

A more direct test of program effectiveness would be to consider what happened to those PAO's funded under SPCI. In order to control for broader environmental factors outside of the control of the program (such as the recession and inflation) a comparison is made with a smaller group of non-funded PAO's for which comparable 1980 and 1983 data are available. The group is about evenly divided between rejected program applicants and non-applicants. The comparison group demonstrates certain systematic differences from the SPCI PAO's for which we have comparable 1980 and 1983 data. Despite this caveat, causal inferences about program impact can be made by virtue of having comparable time series data for this comparison group.

For all SPCI funded PAO's, the average 1980 deficit was $24,082. By the end of 1983 average deficits had decreased to $23,184. Hence for all SPCI PAO's average deficits had decreased by nearly two thousand dollars ($1,898).

This difference is not statistically significant nor is it substantively different when adjusted for inflation. The program appears to have at least arrested that trend within organisations receiving funding. However, the deficits have not in any sense been eliminated but rather they appear to have persisted, despite the large infusion of funds.

In order to better understand the impact of the program the financial trends of funded PAO's can be compared with those for a group of non-funded PAO's. Based on a sample of fifteen PAO's who had either been rejected by SPCI or who had never applied, the average deficit in 1980 was $11,605. This shows that the deficit problem was not restricted to SPCI participants although the problem was less severe amongst non-SPCI participants. This latter group also operate on a smaller scale than do the SPCI funded PAO's.

What happened to this group which had not received deficit reduction funds over the same three year period? The average deficit in 1983 was $57,450 which reveals a mean **increase** of $45,846 per organisation. This large average increase in the non-funded comparison group is primarily due to the extraordinary deficit growth of two organisations which experienced average deficit increases of nearly $500,000 each. If we were to ignore these two unusual cases, then the remaining thirteen cases in the control group actually demonstrate a substantial improvement on average.

The average deficit for SPCI PAO's remained virtually unchanged, even though they received millions of dollars specifically earmarked for deficit reduction. The

conclusion of this exercise, which is supported by a formal t-test, is that even though the SPCI-funded group received deficit reduction funds there are no significant differences between the financial performance of the control and treatment groups. This may well be due to other differences in the characteristics of the two groups. However, the possibility should be considered that PAO's are learning to become dependent on government funding and unearned revenue as a survival strategy.*

It can reasonably be argued that the deficit issue should only be considered for those PAO's who received one-time grants for deficit reduction under Component I of SPCI. Here we can most directly observe the impact of deficit reduction funds. In Exhibit 7.2 the average 1980 deficit for Component I recipients was $84,405. By 1983 the deficit had shrunk by $38,288 to an average deficit of $46,117. The reader must keep in mind that SPCI as well as provincial and private sector funds provided the funds necessary to wipe out the 1980 deficit. Hence the $46,117 can essentially be viewed as **new** deficits incurred after the old deficit had been retired.

These means are quite unreliable in the sense that the standard deviation for 1983 is an extremely high $90,252. The problem is that there are radical differences in the performances of success stories versus the failures. In following sections the successes and failures will be considered separately.

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* The use of unearned revenue as an adaptive strategy can be labelled a "culture of dependency" in the sense that it is a learned strategic adaptation which secures the continued existence of these organisations. It may be that this is a necessary short term adaptation to aberrant economic conditions and greater economic independence will return as economic conditions brighten.

Examining Component IIB recipients we see that the deficits have actually increased by $26,038 on average. This would suggest that the reward (positive reinforcement) strategy was not terribly effective. However, if we adjust for the fact that this group did not receive nearly as large doses of funding as Component I, then we can conclude that this financial performance (in terms of new deficit generated) was not as poor as for the Component I recipients. The groups funded under Components III and IV and non-funded groups taken together show a slight increase in deficits.

EXHIBIT 7.2
COMPARISON OF AVERAGE NET EARNINGS/DEFICITS FOR COMPONENTS I AND IIB PAO'S

GROUP	(n)	1980	1983	CHANGE
Component I	(45)	$-84,405	$-46,117	$+38,288
Component IIB	(55)	+19,256	-6,782	-26,038
Components III,IV and Non-funded	(22)	-19,328	-27,392	-8,064

Exhibit 7.3 shows the pre- and post-program financial status of all SPCI program participants by component. In general performances are mixed. The Component IV participants seem to have done the worst financially according to these data.

EXHIBIT 7.3
COMPARISON OF AVERAGE NET EARNINGS/DEFICITS
BY PROGRAM COMPONENT (PAO/HI)*

COMPONENT	(n)	1980	1983	CHANGE
I	(45)	-84,405	-46,117	+38,288
IIA	(8)	+1,810	+7,133	+5,324
IIB	(55)	+19,257	-6,782	-26,039
IIIA	(12)	-18,460	+32,099	+50,559
IIIB	(1)	-14,393	+10,000	+24,393
IV	(8)	-52,596	-219,762	-167,166

7.2.2 Conditional Comparisons

In this section the different performance levels of the financially successful and unsuccessful groups are examined. These are analysed separately since there are such radical discrepancies between the two groups. An overall means analysis would tend to be highly artifical in the sense that it would not resemble any of the organisations individually.

Exhibit 7.4 compares SPCI and non SPCI organisations according to their financial position in 1983. The first group is composed of funded and non-funded PAO's which had retained earnings at 1983. The SPCI organisations tended to have fairly small 1980 deficits whereas the non-SPCI groups were likely to have a modest net income.

* It is extremely unlikely that our sample included groups funded under more than one component.

The second group is composed of the funded and non-funded organisations with 1983 deficits. They also had large 1980 deficits. These groups, which represent a minority of the total cases in the sample, tend to have such overwhelmingly bad financial performances that they drag down the overall averages presented earlier in this chapter.

EXHIBIT 7.4
FINANCIAL PERFORMANCE ACCORDING TO FINANCIAL POSITION IN 1983

1. GROUPS WITH RETAINED EARNINGS IN 1983

GROUP	(n)	1980	1983	CHANGE
SPCI	(66)	$-11,847	$+34,960	$+46,807
Non SPCI	(13)	+5,638	+24,079	+18,441

2. GROUPS WITH DEFICITS IN 1983

GROUP	(n)	1980	1983	CHANGE
SPCI	(37)	-45,908	-126,900	-80,933
Non SPCI	(2)	-123,685	-587,396	-463,712

Exhibits 7.5A and 7.5B provide a similar breakdown of the financially successful and unsuccessful groups. The first table includes only those PAO's funded under either Component I or IIB with retained earnings in 1983. A slightly different pattern is seen in this conditional comparison. Twenty-two of the PAO's funded under Component I had high 1980 deficits yet showed major financial progress in 1983. In fact this group, which represent about half of

all PAO's funded under Component I, showed progress, evident in the average positive change of about $120,000. The comparison group also showed an average improvement of $29,000. Keep in mind that they did not receive the average $75,000 in deficit reduction funds received by the Component I groups.

EXHIBIT 7.5A
AVERAGE NET EARNINGS/DEFICITS OF COMPONENT I AND IIB GROUPS WITH RETAINED EARNINGS IN 1983

GROUP	(n)	1980	1983	CHANGE
Component I	(22)	$ -75,703	$ +43,922	$ +119,625
Component IIB	(43)	+18,943	+27,211	+8,268
Both	(65)	-13,091	+32,867	+45,958
Comparison Group*	(17)	+7,019	+35,912	+28,894

Overall this conditional analysis is instructive to the degree that it shows there were some significant success stories which are lost in a simple, overall means analysis. As Exhibit 7.5B shows the failures tend to be quite spectacular. For Component I, the number of failures (twenty-three) is almost the same as the number of successes (twenty-two).

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* The comparison group is composed of Components III and IV and non-funded groups.

The average deficit increase is about $56,000, but this group also received an infusion of about $85,000 to retire their deficits. Component IIB failures are much less frequent than IIB successes (twelve compared to forty-three). However, the average deficit increases are formidable (nearly $150,000). The five comparison groups had impressive mean deficit increases of around $134,000.

EXHIBIT 7.5B
AVERAGE NET EARNINGS/DEFICITS OF COMPONENT I AND IIB GROUPS WITH DEFICITS IN 1983

GROUP	(n)	1980	1983	CHANGE
Component I	(23)	$ -85,799	$ -141,569	$ -55,771
Component IIB	(12)	+20,380	-128,592	-148,972
Both I & IIB	(34)	-48,324	-136,984	-88,665
Comparison Group*	(5)	-108,907	-242,626	-133,720

Exhibits 7.6A and 7.6B show the patterns of change in financial status for the successful and unsuccessful groups under each component. Overall it appears that the various groups tend to be clearly split into those who did well and those who did not do well.

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* The comparison group is composed of Components III and IV and non-funded groups.

EXHIBIT 7.6A
COMPARISON OF PAO/HI'S WITH RETAINED EARNINGS IN 1983 BY COMPONENT

COMPONENT	(n)	1980	1983	CHANGE
I	(23)	$ -83,070	$ +45,186	$ +128,257
IIA	(5)	+17,652	+30,989	+13,337
IIB	(43)	+18,943	+27,211	+8,268
IIIA	(8)	-13,078	+71,091	+84,169
IIIB	(1)	-14,393	+10,000	+24,393
IV	(3)	-9;896	+43,114	+53,010

EXHIBIT 7.6B
COMPARISON OF PAO/HI'S WITH DEFICITS IN 1983 BY COMPONENT

COMPONENT	(n)	1980	1983	CHANGE
I	(22)	$ -85,799	$ -141,569	$ -55,771
IIA	(3)	-24,594	-32,627	-8,032
IIB	(12)	+20,380	-128,592	-148,972
IIIA	(4)	-29,224	-45,885	-16,662
IIIB	(0)	-	-	-
IV	(5)	-78,216	-377,487	-299,272

7.3 Correlation Analysis

A simple bivariate correlation analysis of SPCI funding and financial indicators was conducted to test whether or not SPCI funds were associated with improvements in the financial position of the organisation.*

Four separate independent variables were used: (i) total funding under Component I (this is a continuous indicator and cases which did not receive funding were assigned a zero value); (ii) total Component IIB funding; (iii) total pooled I and IIB funding (in order to assess the impact of the two program components specifically designed to stimulate financial viability); and (iv) total SPCI funding (included in order to assess the impact of funding under all program components on financial performance).

Three separate dependent variables were examined, each reflecting a somewhat different concept: (i) deficit in 1983 (this variable simply measures the deficit or retained earnings of the organisation for the 1983 fiscal year); (ii) deficit change (this dynamic variable measures the growth, or decline, in deficit from the 1980 fiscal year to the 1983 fiscal year); (iii) adjusted or "net" deficit change (this adjusts the deficit change by the total amount of 1980 debt retirement funds provided by SPCI and the associated provincial and private sector funds. Hence it measures change net of the deficit retirement funds).

Considering the static measure of 1983 deficit, there are a couple of significant relationships between this financial performance indicator and the program input

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* The detailed table of Pearson correlation coefficients are provided in Appendix C.3.

variables. For example, Component I funding and pooled I and IIB funding are negatively associated with 1983 deficits (R=-.25 and -.29 respectively). This would appear **prima facie** to provide evidence that deficit reduction funding is related to improved financial performance. However, in examining these relationships using the dynamic and adjusted dependent variables, the true causal relationship is quite different. This illustrates the hazards of an analysis at a single point in time.

First, considering the relationship between program inputs and change in financial status from 1980 (pre-program intervention) to 1983 (post-program), Component I funding shows no significant relationship with financial performance. Worse yet, Component IIB is negatively associated with financial improvement (R=-.25). In other words, those who received the Component IIB rewards for not having a deficit at 1980 were more likely to slip into a deteriorated deficit position than those who did not. The joint impact of the two components directed to financial health is insignificant. It is quite remarkable to note that the overall relationship, over the three years, between deficit change and funding under all SPCI components is .0000. This indicates an extremely rare instance of perfect mutual independence. In other words, whether or not a PAO participated in SPCI seems to have absolutely nothing to do with whether its financial situation has worsened or improved.

These findings tend to reproduce the same findings we encountered in the means analysis. Essentially there are both successes and failures associated with the program. However, considering the random distribution of the successes and failures of participants both within and

outside the program, it seems that overall the program had no impact in terms of producing improved financial health.

If the final dependent variable is considered - adjusted or net deficit change - there is evidence to support the view that the program did not stimulate an improved financial position. Both Components I and IIB are individually associated with the more rapid growth of "new" deficits (after the original 1980 deficits had supposedly been retired). In fact, the relationship between pooled Components I and IIB funding and net deficit change is a highly significant -.32. Those organisations funded under Components I or IIB were considerably more likely to have generated "new" deficits (between 1980-83) than those who were not.

Exhibit 7.7 presents the slopes obtained from four bivariate regression equations. These findings demonstrate the average effect of various SPCI funding variables on the adjusted and unadjusted deficit change variables. In all cases a unit increase in SPCI funding worsens deficits: for every dollar spent on Component I and IIB funding, adjusted PAO deficits increase by an average of $3.07. This figure is somewhat less for Component I funding alone ($2.35) and more for Component IIB funding ($3.74). Component I funding has no significant effect on unadjusted deficit change, but for every Component IIB dollar there is a corresponding average increase of $5.75 in the unadjusted deficit.

EXHIBIT 7.7
BIVARIATE REGRESSION SLOPES:
CHANGE IN NET EARNINGS/DEFICITS PER SPCI DOLLAR

Dependent Variable	Independent Variable	Absolute Change	Deficit Change Per SPCI Dollar	Significance Level
1. Adjusted Deficit Change	Component I funds	$ -11,597	$ -2.35	.01
	Component IIB funds	-15,048	-3.74	.09
	Components I & II funds	12,231	-3.07	.01
2. Deficit Change	Component I funds	$ -11,597	$ .65	n.s.
	Component IIB funds	25,888	-5.75	.01
	Component I & IIB funds	-1,473	-.23	n.s.

Several multivariate regressions were performed, using single time point and change over time approaches, in an attempt to explain 1983 deficits and deficit changes. The equations incorporated basic SPCI funding variables and various measures of performance and organisation size as independent variables. While close to 50 per cent of the variance in deficit was explained in each instance these findings are not presented because the conceptual models do not treat the underlying process which influences deficits. Furthermore, the coupling of this basic identification problem with multi-collinearity makes the interpretation of slopes rather hazardous.

Overall, there are financial and managerial successes and failures among PAO's, but these cases occur randomly and cannot be directly attributed to SPCI. We would conclude that the causes of financial success or failure lie outside the influence of the program and therefore cannot be systematically linked to SPCI funding. Any future version of the program should consider a more structured and stepwise approach strengthening the financial and managerial capabilities of PAO's.

8.0 PROGRAM DELIVERY AND EFFICIENCY

Earlier studies conducted as part of the SPCI evaluation addressed the issue of program delivery and efficiency by examining the adequacy of administrative criteria and procedures, the consistency of application of program criteria, the expediency of case processing, and program awareness in the target population of cultural organisations. Methodologies included the review of managers' documents, structured interviews with program personnel, a review of program administration files, data capture from individual administration files, and a survey of applicant organisations. The general conclusion from these studies was that program delivery and administrative efficiency were satisfactory. This section will review the major findings which result from a quantitative analysis of the integrated SPCI data base.

Concerning the expediency of application processing, the average length of time between an organisation's first inquiry or application and final approval of SPCI funding was approximately five months. This figure was generally consistent for all program components, with the exception of the capital project component. The average processing time for funded performing arts organisations (Component IIIA) was 11.5 months while for heritage institutions (Component IIIB) it was 22.5 months. This increased length of time for capital projects is perhaps not surprising when we consider the lengthy planning process needed for a capital project and that many applications were submitted before plans were finalized. Furthermore, Component III funding was based on evaluation of individual projects rather than on a predetermined formula, as was the case with Component I.

The shortest time between the receipt of an application and funding approval was for Component IV events. The average processing time was three months. The processing time was slightly longer than average for theatrical organisations (5.9 months) and dance organisations (6.3 months).

Examining the heritage institutions applying under Components IIIB and IV, the average time between departmental recommendation of an application and funds approval is quite short at 1.5 months. It seems, however, that there was a lengthy deliberation process for non-funded cases as the average time between recommendation (for approval or rejection) and notification for all heritage applicants was 4.3 months. It appears that certain projects were funded very quickly after a decision had been made while others remained with an undecided fate for much longer. It should be noted that applications under Components III and IV requested approximately four times the available funding.

The representatives of performing arts organisations and heritage institutions generally expressed satisfaction with the ease of the SPCI application process. Their expressed satisfaction with the speed of funding however, was somewhat less favourable, with the average rating being neutral and over 26% of recipients expressing dissatisfaction. Well over half of the recipient heritage institutions expressed dissatisfaction with the speed of funding which, as has already been shown, took almost two years from the time of application.

Concerning the program's impact on the finances and operations of the recipient organisations, responses indicated that the program had a significant and positive impact. Finally, in terms of overall satisfaction with SPCI both types of organisations expressed restrained enthusiasm for the program.

There are modest but significant relationships between the amount of SPCI funding and satisfaction with SPCI, as well as the expressed impact on finances or operations (when we control for the size of the organisation). The partial correlations between total SPCI funding and these variables, controlling for total organisation expenditures, average approximately .20 and are significant at the .05 level. The length of processing time however, was not related to expressed overall satisfaction or impact on finances and operations.

Perhaps surprisingly, there is only a modest association between the actual length of processing time and the expressed satisfaction with the ease and speed of SPCI application processing. The Pearson correlations average between -.20 and -.25 for all cultural organisations and are significant at a .05 level. It is interesting to note however, that heritage institutions receiving high levels of funding expressed much greater dissatisfaction with the speed of application processing ($r=-.45$).

9.0 PUBLIC LEGITIMACY OF GOVERNMENT SUPPORT

9.1 Concepts and Methods

The public survey also collected information on public attitudes towards federal government assistance to arts and culture. The public is both a taxpayer and consumer of cultural services and products. While public sentiments are clearly not the only, nor even the most important consideration in designing and delivering cultural policies and programs, the following analysis of public attitudes to federal involvement in arts and culture by respondent characteristics and type of culture provides a substantive context for both the evaluation and future program renewal. Clearly a significant issue is whether or not the public continues to view the federal investment as important.

Ideally, the evaluation would directly consider public perceptions of the utility of SPCI. Unfortunately, the public is not aware of SPCI in particular, although they do hold definite images and opinions regarding government involvement in arts and culture. Therefore analysis concerns general federal government involvement rather than SPCI funding in particular.

Attitudes to government involvement in arts and culture may change as does the general public mood and the actual levels of federal funding in various communities. For these reasons a trends analysis is presented of changes in public opinion vis-à-vis federal financial support of arts and culture since the 1978 CIPC study.

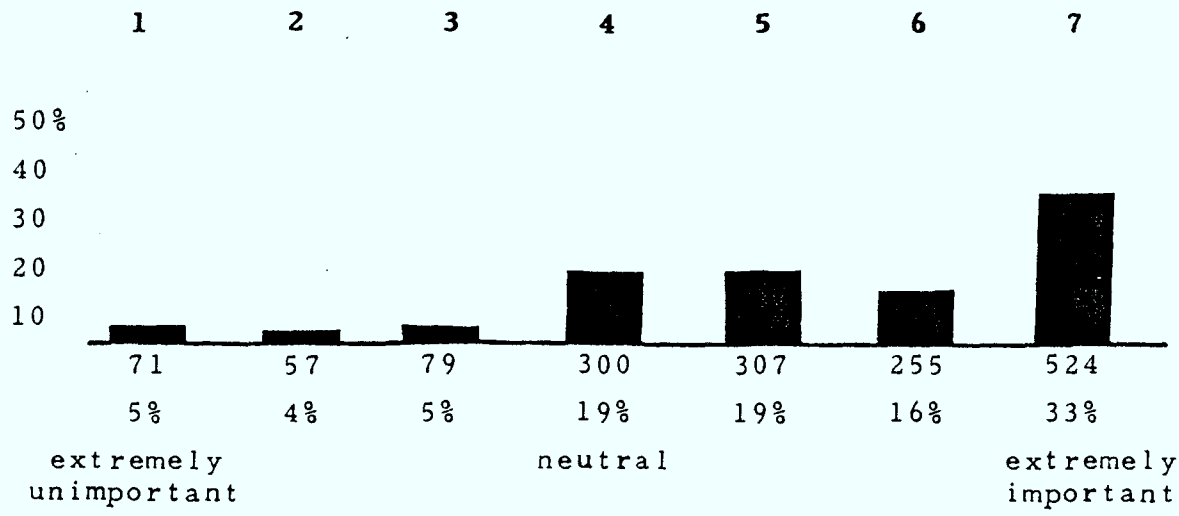
A couple of relatively minor caveats are in order. First, the current sample of 1,600 Canadians is drawn from the larger, more urbanised portion of Canadian society. Therefore, although it is representative of the majority of Canadians, it does exhibit an urban bias. Secondly, the questions used in the current survey employ a more complex (seven point) rating system than did the CIPC survey and the answers have been recoded to make them comparable.

9.2 Current Attitudes to Federal Financial Support of Arts and Culture

The survey asked respondents, "In general, how important do you feel it is for the federal government to give financial support to cultural activities?". This question was rated on a seven point scale from 1 (extremely unimportant) to 7 (extremely important).

Exhibit 9.1 displays the overall survey responses to the question.

EXHIBIT 9.1
RESPONDENT RATINGS OF IMPORTANCE OF FEDERAL FINANCIAL SUPPORT OF ARTS AND CULTURE (1983)



$\bar{X}$ = 5.2
S = 1.7
n = 1593

The modal (most frequent) response category was 7 (extremely important). The overall average score was 5.2 which indicates that most Canadians tend to feel positively towards federal government financial support of arts and culture. Sixty-eight per cent of respondents are positively disposed to the concept of government financial support of arts and culture, 19% are neutral and only 13% against. This means that Canadians are five times as likely to favour the concept as they are to disapprove of it. Overall this must be considered as a clear public mandate for this kind of program.

By region, support for the concept of federal financial support is highest in Québec (5.5) followed by the Atlantic provinces (5.4) and Ontario (5.3). The Prairies are significantly below the mean (4.9) and B.C. is lowest (4.7). This regional pattern is very similar to that displayed in three earlier surveys of a similar nature*.

9.3 Socio-demographic Analysis

In addition to regional variations, it is useful to consider socio-demographic variations in public opinion. These differences tend to reflect the different preferences and values of various publics or in more economic terms the different market segments.

There is a statistically significant positive relationship between attitudues to federal support and educational attainment (chi square = 26.9, significant at the .0007 level). As education level increases so does the likelihood of being favourably disposed to the concept of federal financial support of arts and culture.

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* Culture in Today: Issues and Attitudes, F.L. Graves and B.L. Kinsley, 1982: pp. 22-29.

The greatest number of negative responses come from the lowest educational group (primary school only) with 20% saying federal support is not important. This percentage drops consecutively for the secondary school (14%), some post-secondary (9%), and community college (7%) groups. Somewhat surprisingly, the percentage of negative responses rises to 13% for university graduates. A more detailed analysis of graduates and post-graduates shows that negative attitudes are even more common amongst the extremely well educated. In fact, the relationship between attitudes and education is curvilinear with support peaking in the middle-high educational groups.

Stage in the life cycle is a major predictor of cultural participation and one would also expect that there would be significant differences in attitudes to federal involvement in arts and culture across various age groups. Young adults (18 to 24 years) are most strongly in favour of federal government support of the arts (only 8% "not important" ratings). Negative attitudes are most prevalent amongst the 45 to 54 age group (19% not important) although the percentage of "not important" responses drops to 14% for the elderly population (55 years and over).

These patterns may represent both life cycle effects (e.g., the middle age population has the least "disposable" leisure time and hence are least interested in seeing these activities supported by federal tax dollars) and cohort effects in the sense that the younger population have grown up during a period when government support of arts and culture has become an expected and institutionalised component of public affairs. The older population can recall periods in which there was virtually no government involvement, for example before the 1957 creation of the Canada Council.

Income, the other major component of socio-economic status, shows a positive curvilinear relationship with attitudes to federal support of culture. The percentage of "not important" responses more or less tends to rise from only 10% for the less than seven thousand dollars per annum household to 20% of the wealthiest households (with incomes over $40,000). One might have assumed that the poor would be the least likely to view the government support of discretionary services like arts and culture as important. The wealthiest households would seem to be the most likely supporters of the concept since they are more likely to be consumers of arts and culture and also less likely to be concerned about the question of trade-offs against more basic, mandatory areas of government involvement. However, the reverse finding is true and these differences are statistically significant (chi square = 22.3, significant at the .01 level). Perhaps the responses reflect attitudes in general to government involvement in public affairs. Furthermore, young, low income students and lower income elderly are probably largely responsible for this result.

There are also statistically significant differences in attitudes between the sexes. Men are twice as likely to view federal government support of arts as not important (18%) as are women (9%). Sixty-five per cent of male respondents considered federal support to be an important compared to seventy-one per cent of female respondents.

The Macaulay committee reported that 77 per cent of Ontario respondents stated they were willing to accept a tax increase of $5 to $25 annually to help support the arts. Among those willing to pay higher taxes were significant numbers of young adults and families earning $15,000 to

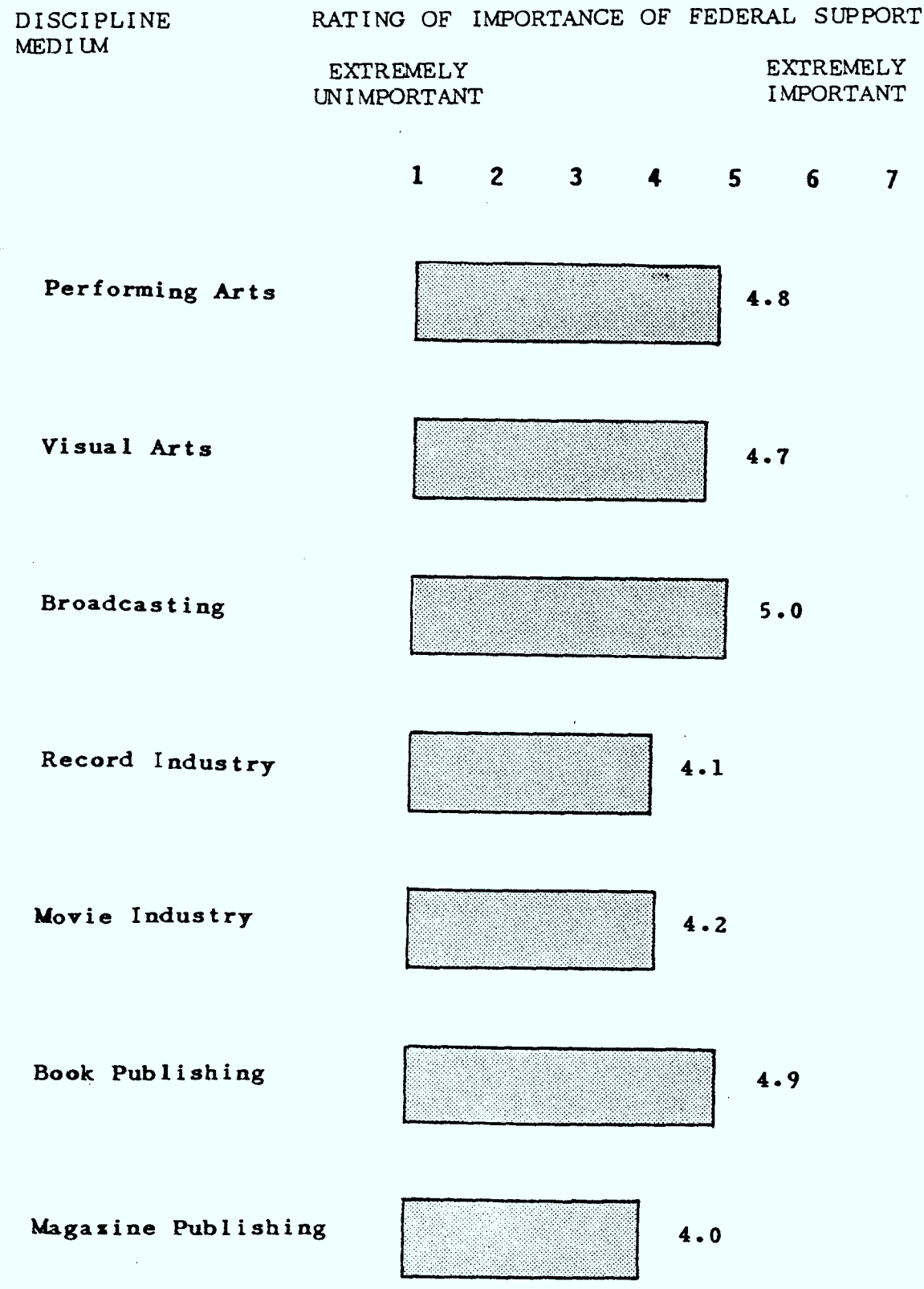
$30,000. The arts are more highly valued by females, urban residents, young adults and frequent attendees. These findings are consistent with SPCI evaluation findings for the country as a whole.

9.4 Breakdown of Attitudes by Discipline

The public tend to view certain cultural areas as more worthy of federal support than others. Exhibit 9.2 dislays these ratings. Basically there are two major groupings. Using the seven point scale with 1 being extremely unimportant and 7 being extremely important, the traditional arts plus broadcasting and book publishing all tend to receive relatively high mean ratings of around 5.0. The movie, recording and magazine industries receive a more neutral average rating of 4.0.

Underlying these ratings may be the public perceptions of the level of public support required. The Macaulay committee found that public knowledge about how the arts are financed in Ontario is poor. A minority of Ontarians, which reached a high of 22 per cent for theatre groups, believe that the major art forms are self-supporting but 61 per cent believe this to be true of magazine and book publishers. Generally speaking, only about half of Ontario residents are aware that government financial support is provided to the performing arts whereas for book and magazine publishers, this figure is about 20 per cent. Direct comparison with SPCI evaluation findings is difficult because the Macaulay report combined book and magazine publishers and the SPCI survey questionnaire did not include comparable questions.

EXHIBIT 9.2
Importance of Federal Government Support for Selected Disciplines and Areas - Average Ratings



These attitudes vary by socio-demographic characteristics in patterns similar to those reported in Section 9.3. However, one important difference is noteworthy. Lower socio-economic status Canadians tend to be relatively more positive towards the concept of federal financial support of popular culture.

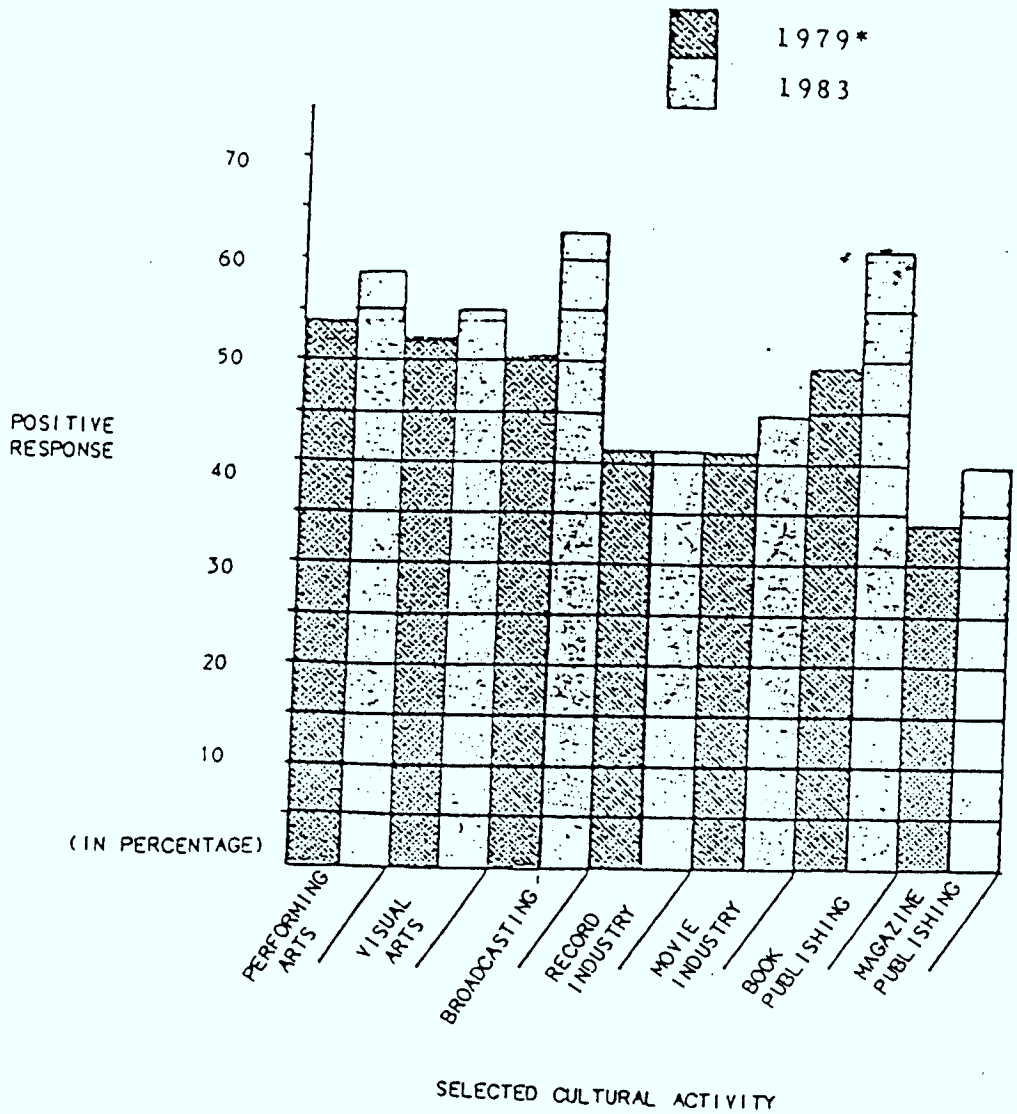
9.5 Changing Patterns in Attitudes

The ability to establish trends in patterns of public perceptions of federal involvement in culture allows a more reliable and deeper understanding of public legitimacy. Controlled comparisons can be made between our survey results and the 1979 Complan survey of Opinions of Government Support for the Arts conducted for DOC. This survey was selected because the wording and survey methods were almost identical to comparable items for the present survey. Furthermore, 1979 provides a relatively consistent pre-SPCI benchmark.

The most straightforward comparison relates the percentage of positive and not positive responses from the two surveys. This comparison necessitated collapsing our 1983 seven point scaled information into a binary variable with positive equalling yes "government support is important" and negative equalling "no it is not important" or neutrality.

Exhibit 9.3 graphically displays the percentage of positive responses to government support for selected cultural activities in 1979 and 1983. In 1979, opinions on federal financial support of culture tended to be positive overall, but much more positive for the performing and visual arts. In fact, positive attitudes tended to decline

EXHIBIT 9.3
OPINIONS ON GOVERNMENT SUPPORT FOR SELECTED CULTURAL ACTIVITIES 1979 - 1983



* 1979 responses are taken from F.L. Graves "Comparative Analysis of Three Surveys of Opinions on Government Support for Arts and Culture" DOC unpublished report, 1980.

as the popular perception of the commercial viability of the type of activity increases (positive responses were lower for magazine publishing, and the record and movie industry).

Attitudes towards the support of the traditional forms of high culture remained rather stable. For the performing arts, the percentage of positive support rose from 54% to 58%. This small increase is only marginally significant. A similar small increase occurred in the case of the visual arts but it cannot be certified that the increase from 53% to 55% is statistically significant.

The percentage of Canadians who considered that broadcasting should be financially supported by the federal government rose from 51 per cent to 64 per cent. This dramatic gain represents a 25% increase in the proportion of favourable responses. The book publishing industry also rose significantly. This shift suggests that the government could place increased emphasis on the support of radio, television and book publishing as media for the delivery of cultural programming to the Canadian public.

It appears that the public feel that the more profitable a cultural activity is the less eligible it should be for federal support. In the case of the recording industry, favourable attitudes remain stable at 42%. Similarly the movie industry shows no important changes with a 1979 figure of 42% compared to the 1983 figure of 45% positive responses. Of the more profitable cultural industries, only magazine publishing shows any significant growth in favourable public opinion. Favourable opinions towards government financial support rise from 34% to 41%.

9.6 Linkage of SPCI to Federal Visibility

The program goals also include improving federal visibility. Although definitive evidence is not available for this issue, some preliminary empirical evidence is. The survey evidence for the effect of SPCI on awareness and approval of the federal role is rather mixed. In communities which have received higher proportionate allocations of SPCI funding, the population is marginally more likely to have noticed the federal presence in arts and culture in their community (R=+.22). (The correlation is +.25 for Canada Council funding.) The relationship is even weaker, and not statistically significant, when SPCI funding is related to whether the community's respondents feel that the federal government is doing a good job in arts and culture in their community.

Considering public attitudes as to whether or not the federal government should be financially supporting arts and culture, there is a mild negative relationship with both SPCI funding per capita (-.17) and Canada Council funding (.-29). By corollary, places which have received relatively less support under these programs feel more supportive of the concept of federal financial backing of arts and culture.

Federal visibility is a desirable concomittant of federal support, yet levels of public recognition are virtually non-existent for most of the federal cultural agencies. Asked to name as many of the ten federal cultural agencies as they could (the example supplied was the CBC), 12 per cent of respondents named the National Film Board, six per cent mentioned the National Arts Centre and five per

cent the CRTC, Canada Council and National Museums. Public recognition levels were not significantly affected by levels of SPCI funding.

With respect to the issue of federal visibility we must conclude that SPCI has not succeeded in significantly increasing either federal visibility or public approval of the federal role. This finding is evident from the survey of thirty-one communities and is also apparent from the survey of performing arts organistions and heritage institutions as well as the numerous case studies. Given the program's stated objective to increase awareness of the federal role in culture, and the large public investment in the program, we conclude that the program requires a new communications strategy to enhance these program objectives.

10.0 CONCLUSIONS

10.1 Introduction

In comparison to other kinds of federal programs, SPCI poses a considerable challenge in terms of design, delivery and evaluation. This is largely due to three main factors.

First, our current levels of knowledge and practice regarding the linkages between cultural program objectives and program inputs are not as clear or precise as in the case of non-cultural programs with more easily quantifiable objectives. Worse, it would appear that program architecture and delivery have not effectively exploited existing sources of knowledge such as the 1980 Community Infrastructure and Participation in Culture study.

Secondly, SPCI does not possess a high degree of internal unity of purpose. It is attempting to address several major goals, some of which tend to conflict with each other. The true magnitude of this internal tension is not nearly as evident from a review of the formal program structure and logic model as it is from an empirical review of actual program operations. It would appear that the program is clearly directed to a series of tacit or **de facto** goals which are in conflict with some of its stated goals. For example: the support and perpetuation of financially unviable organisations conflicts with the stated objective of improving financial-managerial viability, and reinforcement of the existing metropolitan-oriented network of cultural facilities conflicts with the stated goal of increasing equality of access and developing a national network of facilities.

Finally, SPCI does not operate **in vacuo** but is influenced by a high degree of interaction with other federal programs, provincial and municipal programs, private funding, and the broader market and economic climate, etc. The program's environmental complexity impairs the ability to make causal attributions (solely) to SPCI.

Despite these difficulties, the evaluation does permit sound conclusions regarding the key evaluation issues - program validity, cultural participation, accessiblity and equality of access to culture and financial-managerial health of performing arts organisations. These conclusions are not simple, binary pass-fail marks. It is essential that these conclusions be considered as summary expressions of the more detailed discussions and analysis reported in earlier sections of this report.

10.2 Program Validity

A fundamental evaluation question is whether or not the program is valid. Empirical validation of the program logic would require investments in cultural infrastructure to be linked to increased levels of participation in culture.

The conclusion of the study is that the program logic is clearly valid. Using new, independently collected data, the 1980 CIPC findings, that cultural infrastructure was positively associated with community-level participation in culture, were replicated.

10.3 Linkage of SPCI Funding and Cultural Participation

The question of the validity of the program logic must be separated from the question of program effectiveness viz., if program take-up is linked to increased levels of participation in culture. It is somewhat less clear as to whether or not the program is independently causing changes in participation levels. The per capita and absolute SPCI investments in the community were positively associated with cultural participation levels. These findings indicate that SPCI is part of a complex causal system which is producing increased levels of cultural activity. We also know that there are significant increases in the overall levels of cultural participation in Canada over the past five years. Although there is not overwhelming evidence that SPCI alone caused any major changes in participation levels, there is some evidence that the program may have produced a modest independent effect in selected cultural areas. We also believe that program effectiveness would be considerably enhanced if a more rational delivery system were developed which considered the existing levels of supply and demand for cultural products and services.

10.4 Equality of Access - Network Development

The program was designed to increase accessibility and equality of access to culture. Our evidence suggests that there have been some increase in accessibility but very little increase in equality of access.

A regional analysis of demand and supply reveals a less than equal distribution of program benefits. The Prairies and Newfoundland did rather poorly in terms of both absolute and per capita benefits. The pattern of

distribution of benefits seems to reflect a core-metropolis/ periphery-hinterland system of inequality. This suggests that the program is reinforcing existing centres of excellence rather than increasing regional access.

An urban level analysis of 31 of Canada's largest cities confirms this finding. Over half of SPCI funds went into the three largest Canadian cities (which constitute less than 30 per cent of the total population). In general, program benefits were unrelated to the initial quality of the infrastructure (i.e., better off communities were more likely to be funded than those communities with poorly developed facilities). Furthermore, demand for the program was not significantly associated with benefits.

At a community level, SPCI is strongly associated with Canada Council benefits. This finding again suggests that SPCI is reinforcing the existing network of facilities. Whether or not this is considered a positive or negative aspect of the program hinges on the question of what constitutes a 'suitable' model of a national network: a centre of excellence model or a regional-pluralist model.

The organisational-level analysis shows a very modest positive program impact on network development. Although the performing arts and heritage organisation community in general demonstrates a moderate increase in performances and facilities, it is impossible to detect a significant association with program participation.

Finally, data collected from 1600 individuals in 31 centres show that infrastructure problems are still viewed as a barrier to full cultural participation by a large percentage of Canadians. Communities which received

greater levels of SPCI funding were significantly less likely to perceive infrastructure as the most important barrier to full cultural participation. The percentage of the community attending cultural events within their own community is positively associated with SPCI funding. Additional evidence suggests that the program is associated with better infrastructure. For example, there is a significant negative correlation between the percentage of individuals in the community who said they had to leave their own city to satisfy their cultural demands and the per capita funding of SPCI in the community. Also, community level satisfaction with cultural infrastructure is positively associated with levels of SPCI funding.

These different operational tests and evidence suggest that SPCI is clearly positively associated with better community infrastructure. This alone is not evidence of a direct causal link. Our interpretation of these data is that SPCI is one ingredient of a more complex set of causal factors which are producing better networks of cultural facilities for the Canadian public. In terms of increasing regional access and equality of access the program has done very little.

10.5 Financial Health and Viability of PAO's

In reviewing evaluation evidence related to the question of whether or not SPCI improved the financial health of performing arts organisations in Canada, our overall answer to this question must be no.

For the overall population of PAO's, average deficits have actually increased by about $5,000 from -$22,500 in 1980 to -$27,500 in 1983. This increase has

occurred despite the large infusion of public funds specially directed to the elimination of the problem. Narrowing the focus to consider only those PAO's funded under SPCI, there is no significant difference in their financial health before and after the program. Looking at those PAO's receiving funding under Component I, average declined deficits from $84,500 to $46,000. However, since the program was designed to wipe out deficits through a one-time deficit elimination grant, the 1983 deficit figure of $46,000 is basically a new deficit generated over the three year period since the program's inception.

In reviewing these figures we noted an extremely high level of variance. There were many successful cases and also a cluster of quite spectacular financial failures. The randomness of the successes and failures, with respect to SPCI, seems to suggest that the program had little to do with deficit reduction.

A regression model suggests that the program has not had a positive impact on deficit management. There is a statistically significant negative slope between SPCI funding and the rate at which new deficits are incurred. This suggests that certain organisations may have learned a strategy of depending on very high levels of government funding as an ongoing survival plan. This adaptive strategy will reproduce a system of poor financial management within a distinct sector of Canada performing arts organisations.

10.6 Public Legitimacy

The study also collected evidence of the general public support for federal financial assistance to arts and cultural activities, reaffirming the findings of earlier

studies. Canadians generally are strongly in favour of government involvement in culture and positive opinions tend to be about four times as common as negative opinions.

Support is strongest amongst younger, middle-high educated, middle-high income Canadians. Women tend to be more favourable to federal support of culture than men. If these breakdowns are considered in terms of the demographic evolution of Canadian society it is likely that support for federal involvement in arts and culture will grow over the next decade.

Canadians tend to be more favourably disposed to the notion that the federal government should financially support the less commercialised forms of culture. There is also a tendency for lower socio-economic status respondents to be more favourable to popular culture and upper socio-economic status respondents to more strongly support high culture.

Comparing recent survey findings to earlier survey data, public support levels are as high or higher than they were in the past. The traditional disciplines garnered essentially identical levels of public support for federal funding as they did in the past. The electronic and print media have shown dramatic growth in levels of public support.

APPENDIX A

APPENDIX A
EXECUTIVE SUMMARIES OF SPCI BACKGROUND STUDIES ON TO SIX

Exhibit A.1 (a) - Review of Program Delivery Procedures
(Esgore Associates Inc.)

Exhibit A.1 (b) - Assembly of Administrative Data
(Ekos Research Associates Inc.)

Exhibit A.2 - Assembly of Existing Cultural Data
(Ekos Research Associates Inc.)

Exhibit A.3 - Cultural Organisation Survey
(Ekos Research Associates Inc.)

Exhibit A.4 - Cultural Survey of 31 Canadian Communities
(Canadian Facts)

Exhibit A.5 - Case Studies of Cultural Organisations
(Woods Gordon Management Consultants)

Exhibit A.6 - Case Studies of National Cultural Projects
(Touchstone Policy and Program Evaluation Inc.)

EXHIBIT A.1 (a)
Review of Program Delivery Procedures
(Esgore Associates Inc.)

The Special Program of Cultural Initiatives (SPCI) was developed as a short term and time limited (three year duration) response to four specific needs of the arts and culture communities--Canadian, non-profit professional performing arts organizations and heritage organizations. The Program, using lottery revenues, seeks to:

(1) strengthen the financial viability of these organizations by assisting with a one-time grant for deficit reduction;

(2) strengthen their management by providing financial assistance in the form of a one-time grant to reward organizations without a deficit, and in the form of a contribution to management development projects;

(3) provide greater access to these organizations, by developing and upgrading a national network of suitable facilities through a contribution to the construction costs; and

(4) support cultural events of national character or significance through a grant toward the total costs.

This report summarizes the results of one of the eight background studies of the Program Evaluation Study of SPCI--the review and assessment of the effectiveness and efficiency of the SPCI program delivery mechanism during the three year period from 1980-1983. More specifically, this review assessed the adequacy and consistency of program procedures and program eligibility and funding criteria related to the receipt, screening, selection and approval of applications, and also overall compliance with terms and conditions of payment, and general compliance with central agency policies on grants and contributions programs. The review used a simplified version of the methodology developed by the offices of the Auditor General and Comptroller General for the audit of grants and contributions programs. The information used for the review and assessment was collected through a three-fold approach: (1) documented program procedures and criteria, (2) structured interviews with SPCI program managers, and (3) review of a sample of 35 funded and rejected applicants' files for the four components of SPCI.

The nature of SPCI, its goals and objectives, and the complex environment in which the Program operates - characterized by the heterogeneity of the artistic communities for dance, theatre and music and museological institutions - provide the context for this review.

All of these factors make the highly flexible program structure, administrative procedures and eligibility criteria of the Special Program of Cultural Initiatives not only desirable but essential. In essence, the program is

responsive rather than directive. SPCI responds to requests for funding conceived, developed and submitted by private non-profit organizations instead of stimulating demand by identifying key organizations, or artistic activities, whose work parallels the overall goals of federal cultural agencies.

Based on the findings of this review it is apparent that the Special Program of Cultural Initiatives is, generally, managed in a satisfactory manner; and appears to be in compliance of Treasury Board requirements for grants and contribution programs.

There are satisfactory administrative procedures which are clearly understood and being, reasonably consistently, used by the program managers. It does not seem reasonable or appropriate - nor cost-effective - to implement major changes or other procedures.

There are satisfactory explicit eligibility and funding criteria which are clearly communicated to potential applicants. SPCI, furthermore, often has to use implicit criteria to set funding priorities and to select among the large number of competing eligible applicants. The implicit criteria are, generally, based on the overall federal goals for arts and culture - which are widely publicized. Consequently, the use of implicit criteria can only enhance the flexibility of program administration. To increase the stringency of criteria would reduce the flexibility of SPCI and this is, clearly, not desirable.

However, it is noted that the specificity of the criteria could be improved. For example, if one of the conditions of funding under SPCI, for projects in a particular component, were 'provincial support essential" then it should be stated in such a specific and clear fashion; instead of the ambiguous wording in the original applicant's guide. It is noted that the revised SPCI guide shows several improvements in clarity and specificity. This can only serve to enhance the perception by applicants of the "objectivity", as well as improve the actual objectivity, of the process of awarding grants and contributions under SPCI. In turn, this can only improve the goal of "federal visibility".

The review found that compliance with explicit program criteria of eligibility and funding was generally good. However, in addition to several "gray areas" where it was not readily apparent why an award had been given, there were about 10 percent of the sampled funded applicants' files which were clearly in non-compliance with the eligibility criteria.

In general, it was felt, that in view of the constraints faced by SPCI - the 3-year sunset clause, the very small staff and explicit concerns to keep administrative costs low - it is an efficiently administered program.

There is a paucity of hard information on program outreach - the level of awareness concerning SPCI among the target populations in the performing arts communities and heritage institutions. However, a reasonable estimate of program outreach appears to be a highly satisfactory rate in excess of 90 percent.

To further enhance the objectivity of the review, a structured interview schedule was developed. Its purpose was to elaborate the review criteria into specific questions that address relevant concerns of the SPCI program delivery review. The interview schedule and checklist also reduced the possibility of gaps in the collection of information (See Appendix B: Checklist and Interview Schedule).

The sample for the review of applicants' files was selected in the following way. The program administrative listings (N approximately 800) distinguish between subcomponents 2A (management development) and 2B (no deficit); making a total of five subcomponents. For each of these, five "funded" and two "rejected" applications were selected. This yielded a five percent sample of the total files; 25 funded and 10 rejected files. A random file selection procedure was not considered appropriate. Instead, where practical, materiality and representativeness were used as stratification criteria. The former refers to the value of the grant or contribution. The latter refers, in this context, to the representativeness of the procedures by which an applicant's file was processed. It thus ensured that for each of the subcomponents there were some files that had been subjected to internal review (i.e., the DOC Review Committee) and/or external consultation (e.g., Canada Council, National Museums Corporation, etc.); as well as negotiations with provinces and municipalities (See Appendix F: List of Applicants' Files Reviewed).

EXHIBIT A.1 (b)
Assembly of Administrative Data
(Ekos Research Associates Inc.)

The project goal of SPCI evaluation background study number two was the assembly of existing cultural data and creation of a computerized data base for use in the evaluation analysis. The primary focus was on pre-SPCI data, although information such as arts funding levels was captured for the time period covering the duration of the program as well. With the exception of such funding data, the dominant concern throughout the exercise was to assemble comparable information that would also be collected in surveys and data collections associated with the post-SPCI evaluation.

Data was collected, assembled or aggregated for capture at two levels of analysis; the cultural organisation and the Canadian community. Thirty-one communities which figured prominently in a previous major federal study of the arts in Canada were chosen as the study communities.

At the community level, the following data were included in the final file; 1981 census data from Statistics Canada, touring facilities data from the Canada Council Touring Office Facilities Directory, 1979 performing arts and heritage survey data from the Statistics Canada Cultural Statistics Program, various measures from the Canada Council's Performing Arts Database, funding data from Annual Reports of National Museums of Canada, funding data from the survey reports of the Council for Business and the Arts in Canada, cultural participation measures from two major 1978 arts surveys sponsored by the Department of Communications, community cultural supply measures from a previous major arts study, and finally, some other federal agency funding data.

At the cultural organisation level, the existing data assembly and capture was limited to data from the 1979 performing arts and heritage surveys supplied by Statistics Canada and the Canada Council.

All data was coded, keypunched and processed so as to optimize accuracy. Computer processing was performed using the Statistical Package for the Social Sciences (SPSS) on the client-supplied computer account at the Department of Communications' Shirley's Bay installation. Descriptive statistics were generated to validate all data items and files. Missing data was rarely a problem, for either community or organisation level data.

EXHIBIT A.2
Assembly of Existing Cultural Data
(Ekos Research Associates Inc.)

Quantitative program administrative data was assembled as part of background study one. The data assembly and later creation of a computerized data base served three purposes; to provide information for the immediate analysis of application processing times; to provide data for later analyses such as funding breakdowns by province, project component and organisation type; and finally to provide pre-program applicant data to analyse in conjunction with survey generated post-program applicant data. All data came from program listings, individual files kept for all SPCI applicants and financial committal forms kept for all funded applicants.

The data assembly and file creation had two distinct components. Basic descriptive data were collected for every applicant and an extended data collection was conducted for all applicants responding to the cultural organisation survey. The number of the latter cases represented approximately forty percent of SPCI applications and included details of financial health, earned and unearned revenues and application processing dates. The case documentation varied a great deal but missing data was not generally a problem. The most serious problem was that application listings used as source documents were not complete. This resulted in approximately two hundred to three hundred applications, as later estimated by program staff, not being included in the administrative data assembly. As virtually all these cases were rejections, the final files are somewhat biased towards successful applicants.

EXHIBIT A.3
Cultural Organisation Survey
(Ekos Research Associates Inc.)

This report on the Evaluation of the Special Program of Cultural Initatives (SPCI) Background Study Number Three presents a summary of the implementation and descriptive findings of a survey of Canadian performing arts organisations (PAO) and heritage institutions (HI). A more detailed explanatory analysis of the survey data is presented in the Final Report on the Analysis of the Integrated Data Base (Background Study Number Eight).

Telephone survey instruments were designed with direct linkages to evaluation issues, and were administered in December 1983 to a representative sample of 225 PAO's/HI's, comprised of 195 SPCI applicants and 30 non-applicants. All field procedures were pretested. The total response rates were 92.2% for SPCI applicants and 100% for non-applicants. The survey data were prepared for data analysis using SPSS* Version 9.

The study sample is quite representative of the population and is well equipped to model the key study populations. A descriptive statistical profile has been prepared to summarise the survey data. Appendices 1, 2 and 3 contain descriptive statistics for every survey question.

Overall, infrastructure is apparently improving in the sense that capacities and services are increasing more often than decreasing. Satisfaction with SPCI tends to be above neutral, in terms of ease of application and speed of funding. Overall, clients express restrained enthusiasm for the program.

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* Statistical Package for the Social Sciences.

The program had a significant impact on operations and finances. This can be taken as positive evidence of incrementality. Overall, surviving PAO's indicated a slight improvement, and surviving HI's a slight deterioration in their financial situation.

The difference between average 1980 and 1983 deficits is neither statistically significant nor substantively different. We can conclude that if PAO's were demonstrating a tendency toward burgeoning deficits before the program, the program appears to have at least arrested that trend within recipient organisations. However, deficits have not been eliminated in any durable sense.

EXHIBIT A.4
Cultural Survey of 31 Canadian Communities
(Canadian Facts)

Background Study No. 4 to the Evaluation of the Special Program of Cultural Initiatives (SPCI) provides information on the impacts and effects of the program on members of the general public in 31 selected communities across Canada. The study consisted of 1,601 telephone interviews, approximately 50 per community, with a randomly selected sample of individuals 18 years of age and over. The majority of the interviews were conducted from Canadian Facts CLT (Central Location Telephone) interviewing facilities during the first three weeks of December, 1983. The remainder were conducted during the first week of January, 1984.

The survey provides information on public:

- Perception of the adequacy of community cultural facilities and programs;

- Utilization of cultural organizations and institutions;

- Membership in cultural organization(s) and cultural time use;

- Knowledge of cultural events and policies;

EXHIBIT A.5
Case Studies of Cultural Organisations
(Woods Gordon Management Consultants)

Woods Gordon

1. The study undertook to assess the impacts of the Special Program of Cultural Initiatives by obtaining specific data from 27 representative performing arts groups, heritage institutions and umbrella culture organizations. 13 direct interviews and 14 telephone interviews took place, involving both recipients and non-recipients of SPCI grants.

2. The chief findings were:

   - SPCI funds have contributed to cultural awareness, particularly inside the various sectors of the arts community, and the deepening of Canadian talent

   - the deficit reduction program did not necessarily have lasting results, and may have encouraged deficit spending

   - little improvement in arts management resulted from SPCI grants; however, there is universal recognition of the need for management improvement, and redesigned programs are needed

   - audience development is a difficult undertaking

   - there is a significant degree of confusion as to the potential offered by technological software and hardware

   - while there is respect for the officers handling the grants, the arts community feels it can contribute to the design of programs, particularly through the umbrella organizations

   - SPCI grants frequently go to recipients who also receive operating funding from the Canada Council and other cultural agencies.

EXHIBIT A.6
Case Studies of National Cultural Projects
(Touchstone Policy and Program Evaluation Inc.)

In December 1980, the Minister of Communications announced a Special Program of Cultural Initiatives (SPCI) to aid arts and culture organizations and activities across Canada. A total of $39.6 million was to be allocated over the first three fiscal years.

In establishing the program, the federal government intended to:

- foster a Canadian cultural identity;
- develop cultural awareness and appreciation of Canadian talent;
- enhance equal access to and enjoyment of creative expression; and
- increase the visibility of federal support to arts and culture.

This first version of the program, which the evaluation primarily addresses, involved four components. Component IV — Special Cultural Activities of National Character or Significance — supported special national events of a cultural nature, as well as assisting with insurance for major exhibitions. Proposals for such events were to be submitted by non-profit organizations principally involved in or ready to host cultural/artistic activities; the project could not be currently funded federally and had to demonstrate participation from at least three provinces.

Over the three-year period of the original program, 155 projects received $7,313,094 under Component IV. Ontario and Quebec — the primary locations for sponsoring organizations — together received approximately 82% of total funding.

Cabinet requested that SPCI be evaluated by February 1984. The Request for Proposal for Background Study No.6 called for a series of case studies of national cultural projects. These case studies explore the impacts and effects of Component IV, and how they contributed to the objectives of the program as a whole.

Twelve projects were selected to be as broadly representative as possible of year of funding, regions proportionate to funding, types of sponsors and activities, and project size. The case studies were conducted during December 1983 with the sponsoring organizations.

In order to provide a limited parallel to the case studies, we also conducted a qualitative assessment of nine rejected applicants for Component IV funding.

Assessment of the success of Component IV projects in meeting funding criteria and contributing to overall program goals relied on a qualitative analysis and implicit assumptions about the interpretation of those criteria and goals. Of the 12 projects studied, two could not be considered "national events" and in five additional projects, the activity was of an ongoing rather than "special" nature.

Based on the qualititative analysis of project content and apparent impact, the projects studied have satisfied the intent of the program. However, only one project was clearly incremental in nature; the remainder would have proceeded on some (probably more limited) basis.

Seven of the 12 projects also received funding from the Canada Council. In six of the seven cases, SPCI funding exceeded support from the Canada Council. Clearly, some overlap exists between the activities supported by SPCI and several of the Council's Arts Programs, as well as those of other federal and provincial departments and agencies. Canada Council funding, as a proportion of SPCI funding, ranged from .3 to 68%. No correlation exists between the two sources of support.

Although all the proposed projects in the sample of non-recipients satisfied some of the Component IV criteria, most did not constitute a national cultural event. In three cases, however, funding was refused primarily on the basis that the project was ongoing rather than special in nature. Similarities between rejected and successful projects suggest that federal priorities played a role in the assessment process.

In summary, 10 of the 12 projects reviewed involved events of national significance in the scope of their activities or the involvement of the Canadian public. Of these, five represented activities that were in some sense ongoing. That is, the event was part of the mandate or regular program of the sponsoring organization and had either received SPCI funding previously or had applied or intended to apply for future support. These events were "special", then, only in the expanded visibility and scope enabled through SPCI.

Overall, Component IV of SPCI has furnished a flexible instrument to support a wide range of cultural activities. But the loosely-defined framework for funding may be creating an expectation for ongoing support in some cases and confusion regarding the overlap with other federal programs.

APPENDIX B

APPENDIX B
DATA COLLECTION AND MANAGEMENT

Data Resources

The data were obtained from several sources. For the community, organisational and individual levels of analysis, data were captured and prepared in machine-readable format for subsequent system file creation. Following is a brief summary of the data and procedures which were used to create a total of four system files which supported the analysis. The multi-level, multi-source nature of the data resources is a particular strength of the evaluation.

Exhibits B.1 and B.2 display the types of data and the source of each component data file which was used. For the community and organisation levels of analysis, data were obtained from primary and secondary sources in an attempt to provide for pre- and post-program modelling. At the individual level only current, primary data were used.

Integrated system files (those containing more than one type of data) were prepared at the community and organisational levels. We also derived aggregated provincial and regional files as well. At the community level, a single integrated system file was prepared from two types of data, including secondary (and mostly) pre-program information and primary post-program information. For the organisational level, there are two system files. The first uses the application as the level of analysis and contains only pre-program data from applications submitted to SPCI. It includes information for many details of the application. The second integrated PAO/HI file uses the applicant organisation as the level of analysis and is based on the respondents to the SPCI cultural organisation survey. It contains more detailed pre-program application and existing data for those organisations which were both SPCI applicants and members of the post-program organisational survey.

EXHIBIT B.1

Component Data Files

LEVEL OF ANALYSIS	DATA TYPE	SYSTEM FILE
A: Community	Existing data[1] (1978 through 1983)	1. Integrated community file
	Community survey[2] (post-program)	
B: Organisational	SPCI applications[3] (pre-program)	2. Application file
	Existing data[1] (pre-program)	3. Integrated PAO/HI file
	Organisational survey[4] (post-program)	
C: Individual	Community survey[2] (post-program)	4. Individual file
D: Regional/ Provincial/ National	Aggregated data from A, B and C	5. Aggregated integrated community file

1. Details are reported in "SPCI Background Study Number Two: Assembly of Existing Data" Ekos Research Associates Inc. January 1984.

2. Details of the community survey have been reported in" SPCI Background Study Number Four: Community Survey", Canadian Facts, March 1984.

3. Details are reported in "SPCI Evaluation Background Study Number One: The Assembly of Administrative Data", Ekos Research Associates Inc., January 1984.

4. Details are reported in "Report on the Evaluation of SPCI Background Study Number 3: Survey of Performing Arts Organisations and Heritage Institutions in Canada", Ekos Research Associates Inc., January 1984.

EXHIBIT B.2

Composition of Integrated Data Files

LEVEL OF ANALYSIS AND SYSTEM FILE	COMPONENT DATA FILES	COMMENTS
A: Community		
1. Integrated Community File	• Existing community level data from the following sources: - 1981 Statistics Canada Census - Canada Council Touring Office Facilities Directory - Cultural Statistics Program 1979 surveys - Canada Council Performing Arts Data Base - Canada Council Organisation Grant Inventory - National Museums of Canada Annual Reports - Council for Business and the Arts in Canada reports - Community Infrastrucutre and Participation in Culture (CIPC): Technical Report (for infrastructure indices) Secretary of State, 1980	o This comprehensive existing data assembly was the task of SPCI evaluation background study number two. Whenever possible the data covered the time period from 1979 to 1983. Most data had to be aggregated at the community level.

LEVEL OF ANALYSIS AND SYSTEM FILE	COMPONENT DATA FILES	COMMENTS
A: (continued)	- 1978 DOC Readership Survey - 1978 DOC Canadians and the Arts Survey - other federal funding data	
	• SPCI community survey	• This survey of 1601 Canadians in 31 study communities reproduced many measures found in earlier surveys. Responses were aggregated at the Community level.
B: Organisational		
2. SPCI Application File	• Data from complete listing of SPCI applications	• This file is composed of 802 applications to SPCI. The data was compiled as part of the administrative data assembly and is maintained as a separate level of analysis
3. Integrated Performing Arts Organisations and Heritage Institutions File	• PAO/HI survey data	• This file contains data for 225 cultural organisations collected in the cultural organisation survey.
	• PAO/HI existing data	• This file contains data captured from the 1979 Cultural Statistics Program

LEVEL OF ANALYSIS AND SYSTEM FILE	COMPONENT DATA FILES	COMMENTS
B:(3) (continued)		Performing Arts and Heritage Institution Surveys and includes 108 of the 225 organisations responding to the SPCI cultural organisation survey.
	• Background data for sample of cases from the SPCI administrative data file.	• A more extended data collection was undertaken from the program administration files for the 195 (of the 225 surveyed organisations) applicants to SPCI.
C: Individual		
4. Individual File	• SPCI Community Survey	• This survey provided the sole source of new individual level data concerning cultural attendance, participation, attitides, knowledge, support, etc.

Data Base Management Procedures

Once the capture of primary and secondary data was completed, a final check was made to ensure that all data were coded in the proper fields and that all records were properly sequenced. A keypunching firm was selected and provided with the data and a set of specifications based on record formats prepared by Ekos. All data were 100% verified to guarantee accuracy. The final output of this process was a high speed magnetic tape containing the community, organisational and individual level raw data files.

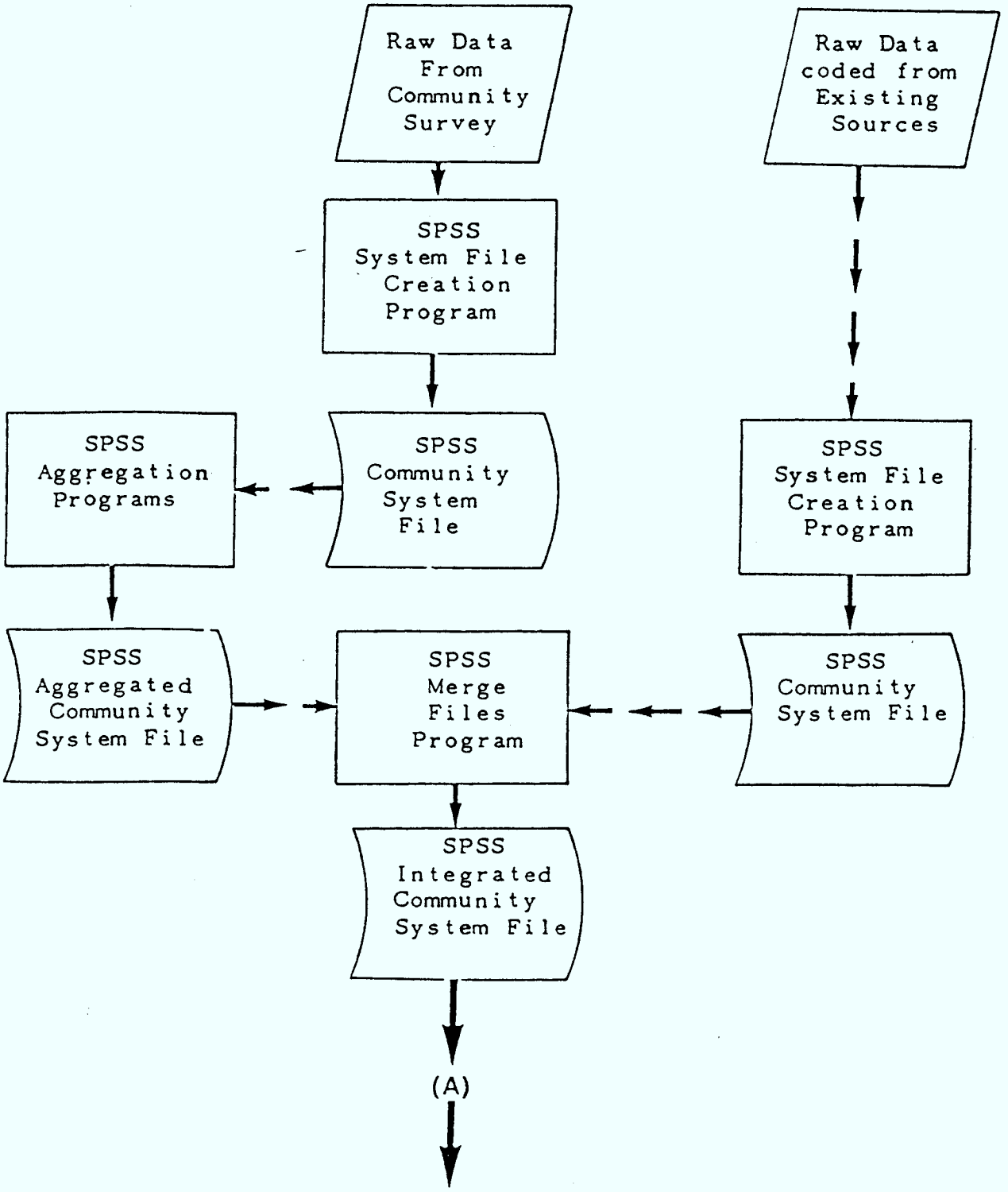
SPSS system files were created using each component data file and SPSS command files on the CP-6 Honeywell computer account provided. All the appropriate variable names, input format statements, variables and value labels, missing values add variable transformations were specified. Descriptive statistics were generated to validate both the data and file creation exercise. Integrated system files were prepared using SPSS merge files, and variables and add cases subroutines, and were in turn subjected to validation. The final outputs of the data base management procedures were four fully documented system files from which this analysis proceeded.

Exhibits B.3, B.4 and B.5 present flow charts to graphically present the basic data base management procedures which were employed. In some cases, these flow charts simplify more complex procedures.

EXHIBIT B.3

Details of System File Creation and Integration of Community-Level Data Files

A. Community Level:



A. Community Level (continued)

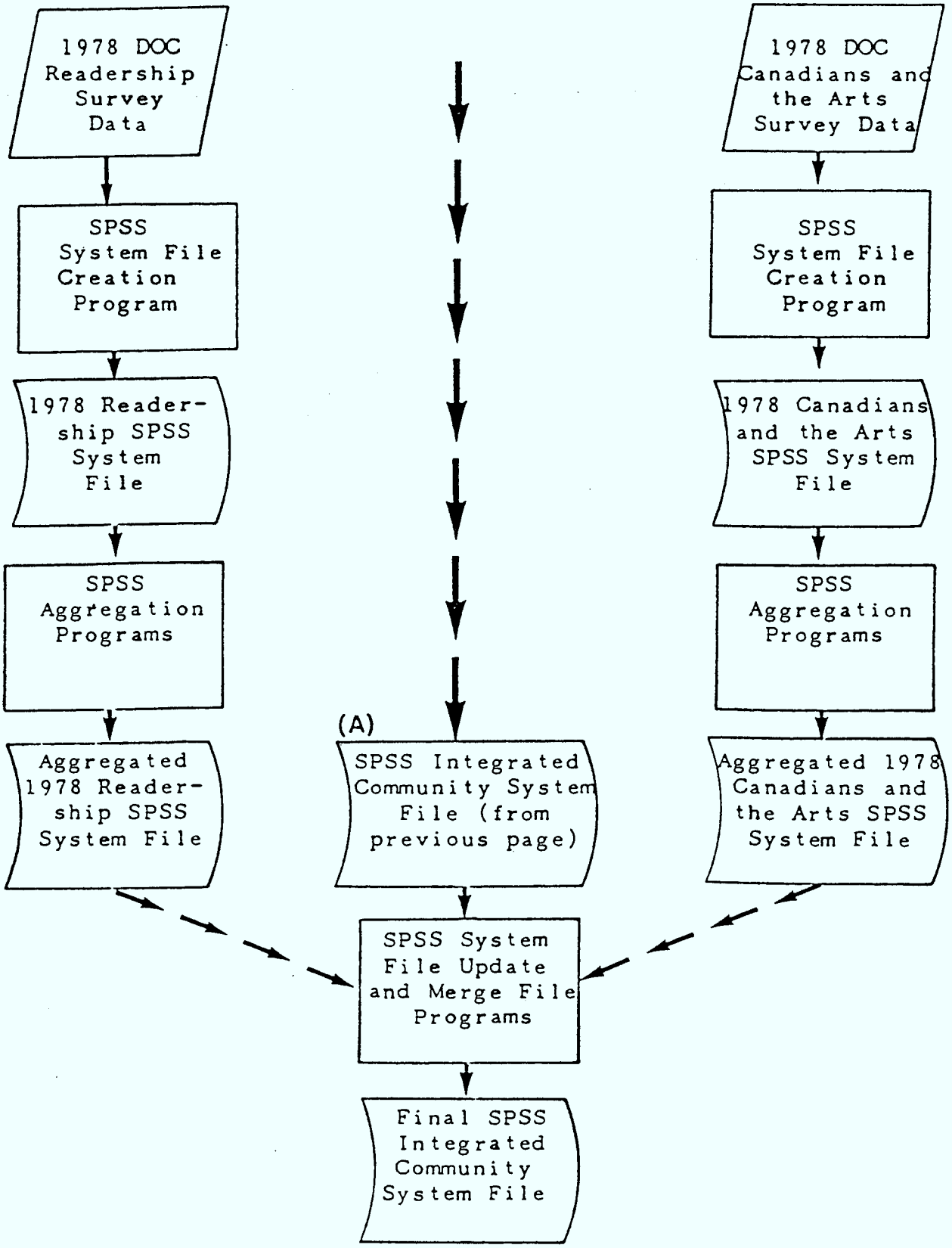


EXHIBIT B.4

Details of System File Creation and Integration of Organisation-Level System Files

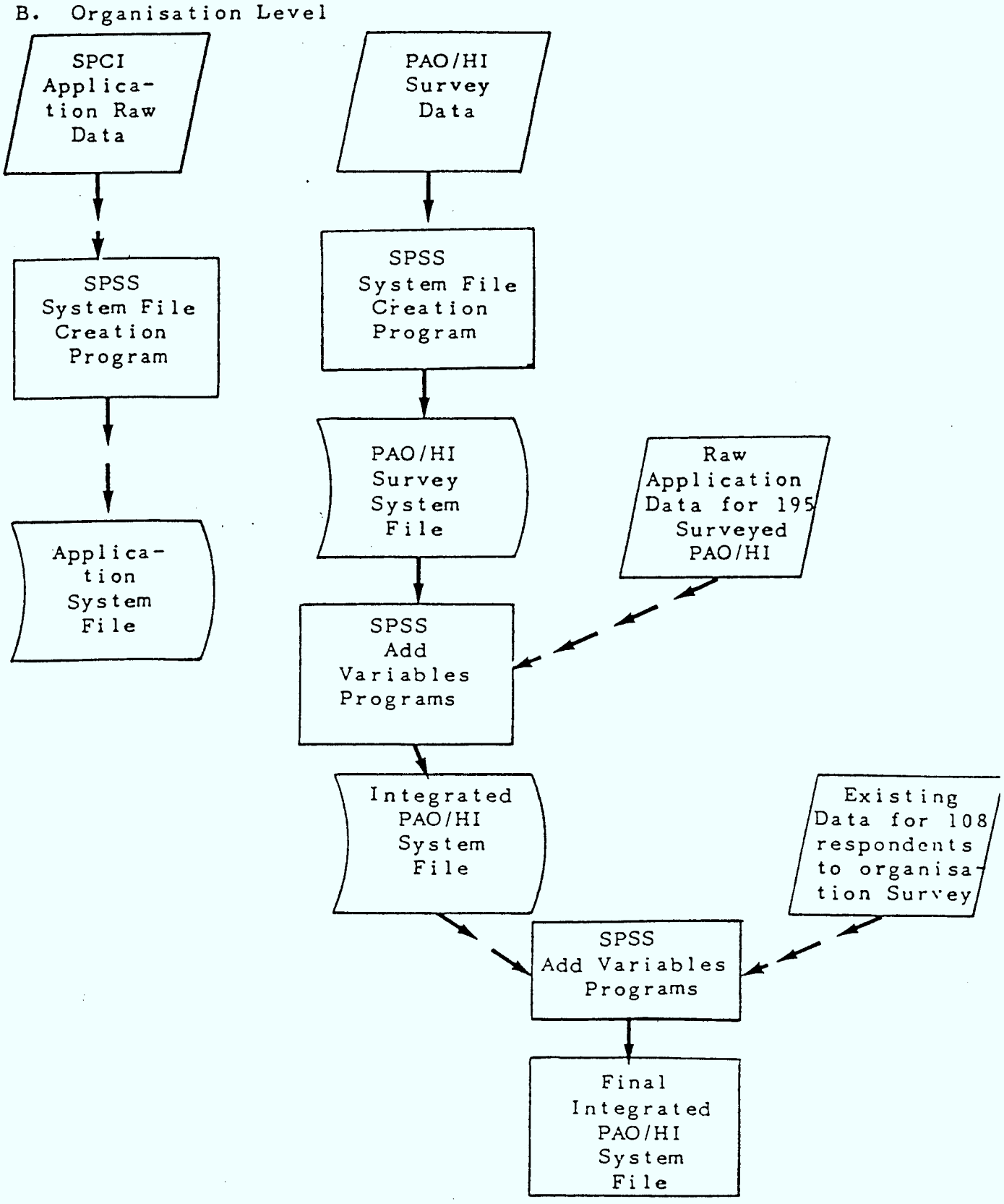
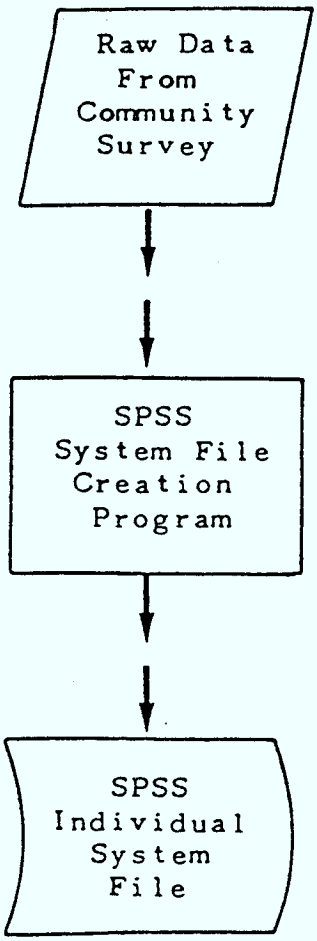


EXHIBIT B.5

Details of Individual-Level System File Creation

C. Individual Level



APPENDIX C

APPENDIX C
DETAILED ANALYTIC METHODOLOGY

C.1 Description of Summary Indices

To create summary measures from individual measures of participation, infrastructure supply, etc., factor analysis was used to identify those which were most useful. The summary scales were composed of a linear combination of the normalised (Z-scores) variables selected.

Community Socio-Economic Status

The actual formula for generating the scale is:

SES = (-PILTGR9 + PTGROWTH + PTINC20 + PUNIVDEG - PCINCVIC)/5

where:

PILTGR9 = per cent population with less than grade 9
PTGROWTH = five year growth rate
PTINC20 = per cent with income greater than $20,000
PUNIVDEG = per capita unversity degrees
PCINCVIC = per capita income from unemployment insurance.

Global Participation

GLOBPART = (SPO + CIN + THE + CLA + POP + CRA + MUS + ART)/8

where:

SPO = sports attendance
CIN = cinema attendance
THE = theatre attendance
CLA = classical music attendance
POP = popular music attendance
CRA = craft activity
MUS = museum attendance
ART = art gallery attendance

Proxy Measure for "Expressive" Activities

EXPRESSY = CRA

Secondary Institutions Index

SECINDEX = (DMFCPFSI + COSMOPSI)/2

where:

DMFCPFSI = (STHEPA + SPROPFPA + PINPROV + PLOCS1 + STCLAPFPA + STOPPFA + STTHEPPA)/7
COSMOPSI = (COSMOPS1 + DMFCPFS1)/2

STHEPA = number of secondary theatres per capita
SPROPFPA = number of professional performances during the year in secondary facilities
PINPROVS = number of in-province performances in secondary facilities
PLOCS1 = number of local secondary facilities
STCLAPFPA = number of classical music performances in secondary facilities
STPOPPPA = number of popular music performances in secondary facilities
STTHEPPA = number of theatrical performances in secondary facilities
COSMOPS1 = number of international performances in secondary facilities
DMFCPFS1 = number of Canadian, out of province performances in secondary facilities

Combined Theatre and Art Centre Supply Index

THACINDX = (COSMOPRF + DOMFACT)/2

where:

COSMOPRF = (PROPFIA + OTHPFPA + TCLAPFPA + TPOPPFPA + TTHEPFPA)/5
DOMFACT = (THEPA + CANPFPA + PLOCPRF)/3

and:

PROPFPA = number of professional performances
OTHPFPA = number of international performances
TCLAPFPA = total number of classical music performances
TPOPPFPA = total number of popular music performances
TTHEPFPA = total number of theatrical performances
THEPA = number of theatres per 10,000 population
CANPFPA = number of Canadian performances
PLOCPRF = number of local performances

Combined Museum and Art Gallery Supply Index

MUAGINDX = (MUSINDEX + AGINDEX)/2

where:

MUSINDEX = (MUHICIRC + MUCAPAC + MUBIG + MUMIDSZ)/4
AGINDEX = (AGHICIRCH + AGBIG + AGCAPAC)/3

and:

MUHIRIRC = high cirulation factor
MUCAPAC = museum capacity factor
MUBIG = big museum factor
MUMIDSZ = mid-size museum factor
AGHICIRCH = high circulation art gallery factor
AGBIG = big gallery factor
AGCAPAC = art gallery capacity

Summary Index Supply

SUPPINDX = (MUGINDX + TOTMED + LIBINDEX + PERFINDEX)/4

where:

TOTMED = (MOVIEFAC + PRINTMED + PCBLSUB)/3
PRINTMED = (PNEWS + POTHWK + BKSTPA + OTHBKPA)/4
MOVIEFAC = (CPA + DRPA + CSTPA + DRCAPA)/4
LIBINDEX = (LIBCAPAC + LSTKDIST)/2
PERFINDEX = (THACINDX + SECINDEX)/2

and:

PNEWS = per capita news paper ciculation
POTHWK = per capita ciculation of other weeklies
BKSTPA = bookstores per capita
OTHBKPA = other book vendors per capita
PCBLSUB = per capita ballet subscribers
CPA = cinemas per capita
DRPA = drive-ins per capita
CSTPA = cinema seats per capita
CRCAPA = drive-in capacity per capita
LIBCAPAC = library capacity factor (libraries per capita, square footage, seats and hours)
LSTKDIST = stock and books per cpaita + service points per capita

C.2 Multivariate Modelling (Sections 5.3 and 5.4)

The major shortcoming of bivariate, statistical hypothesis-testing is that the observed correlation may not be due to a true causal relationship but rather due to some unobserved variable or set of unobserved variables. In fact, since it is extremely unlikely that any program affects performance variables in a simple, monocausal fashion, a multivariate model will usually better represent complex structural linkages. Furthermore, in the absence of strict experimental controls, multivariate models can be used to introduce partial, statistical controls for spurious relationships (i.e., an apparent relationship between two variables which is actually caused by a third variable).

Although from a program evaluation perspective we are clearly interested in making causal inferences about the program, multivariate models do not definitively prove causality. Statistical association is a necessary condition but not sufficient proof for a causal relation. It is possible to have strong associations which may not be causal. Making false causal inferences can be avoided by paying attention to the logical and temporal ordering of the variables under consideration (e.g., the future should not be causing the past). If multivariate models are derived from a valid conceptual model, they can reinforce confidence in causal attributions.

Detailed, structural equation modelling is beyond the scope of the present study or the time available. This more sophisticated causal modelling exercise should occur as a companion exercise, to inform the program renewal process. Our intention here is to conduct the most basic and urgent analysis. Beginning with three multiple regression models involving post-program measures of cultural participation, we will then consider one using increased levels of cultural participation. This latter model provides a much stronger test of causality.

Multiple regression is an extension of simple bivariate regression. The idea is to predict or explain a specified dependent variable as a function of several independent (explanatory) variables. In its elementary form, these sorts of models are linear (i.e., straight line) and additive in form. The models presented here are stepwise (iterative) models in which best fit is defined in terms of least squared error (variance). The quality of fit of a model can be loosely derived by examining the coefficient of multiple determination, or what is more familiarly known as R^2. This can be interpreted as meaning the proportion of the variance around the mean explained by the model. The multiple R, which is the square root of R^2 and is the Pearson product moment correlation coefficient between the predicted values estimated by the model and the actual data values, is also presented.

In order to ensure that effects due to mere random variance are not included in the model, tests were conducted of statistical significance for each of the individual

predictors as well as for the model as a whole. The "p-value" is a measure of the probability that a measured association is not simply due to chance. Statistical significance should not be confused with substantive significance: if the sample size is large enough even the weakest association becomes statistically 'significant'. In the present community analysis there are only 31 cases (communities) which means that a fairly liberal significance level should be used as an acceptable threshold. Given that having a limited number of degrees of freedom is a severe restriction, a .10 significance testing level (i.e., a 1 in 10 chance of falsely rejecting a true null hypothesis) will be used for the four models.

The first model predicts the mean number of times an average individual in the community attends live theatre in a year. The overall average for the entire survey is slightly over one time. The tested model includes controls for initial infrastructure quality, program and other federal level funding inputs, and community characteristics.

The following regression in Exhibit C.1 accounts for over forty-four per cent of the variance around the average frequency of theatre attendance in 1983.

EXHIBIT C.1
MULTIPLE REGRESSION PREDICTING THEATRE ATTENDANCE

$$THETATT2 = A + B_1\ GLOBPART + B_2\ OCCUPART + B_3\ FUNDIPC + B_4\ THACINDX + E$$

Where:

THETATT2 = Average reported frequency of 1983 theatre attendance

GLOBPART = A factor scale of global cultural participation in 1978

OCCUPART = The percentage of the labour force employed in cultural occupations (from Statistics Canada)

FUNDIPC = The per capita funding from component one (deficit reduction) of SPCI

THACINDX = A summary scale of cultural infrastructure measuring theatre and arts centre supply (1978)

E = random error term

EXHIBIT C.1 (Continued)

Correlation Matrix of Independent and Dependent Variables

	THETATT2	GLOBPART	OCCUPART	FUNDIPC	THACINDX
THETATT2	1.000	.531	.471	.394	.199
GLOBPART		1.000	.220	.347	.468
OCCUPART			1.000	.084	.281
FUNDIPC				1.000	.465
THACINDX					1.000

Summary Statistics

	MEAN	STANDARD ERROR	F
OVERALL	1.20	.31	6.96

	F	STANDARD ERROR B
GLOBPART	11.42	0.082
OCCUPART	9.90	0.204
FUNDIPC	7.76	0.311
THACINDX	6.69	0.098

The multiple R of this model is .74. Since none of the inter-item correlations amongst the dependent variables exceed the multiple we can assume that multi-collinearity is not a serious problem.

Estimating the regression coefficients and the constant for this model, we find

THETATT2 = .185 + .238 GLOBPART + .604 OCCUPART + .666 FUNDIPC - .168 THACINDX

The two summary scales from the 1978 CIPC study are standardised statistical scales and their units of measurement are not meaningful in themselves. Therefore it is useful to transform the entire equation into its normalised form in order to see the relationship in common units of measurement. To put it simply, normalising is accomplished by dividing the terms of the model by their standard deviation. This translates the means (and consequently, the a-intercept) to zero and constrains the variance to 1. Betas (β's) replace the B's in this form of the model. They can be interpreted as the (average) amount of change (expressed in standard deviations) produced in the dependent variable by a one standard deviation change in the independent variable, net of the effects (i.e., controlling for) of all other terms in the model. It should be noted that the standardised model is an exact linear transformation of the unstandardised model.

Z THETATT2 = .46 GLOBPART + .42 OCCUPART + .33 FUNDIPC - .29 THACIND

Using these models, theatre attendance can be predicted either from the standardised (i.e., Z) scores or from the original values. In a multiple regression model such as this, it is hazardous to place undue meaning in the coefficients (beta's). They should only be used as rough guides as to whether or not a variable is significantly affecting the dependent variable, net of the effects of the other terms. In multivariate models, unidentified higher order interactions will confuse any simplistic interpretation of the individual parameters. Beta's can also vary according to the order in which terms are entered in the model and hence care should be taken against placing undue meaning in the coefficients.

With the above caveats in mind, the quantitative meaning of the predicted scores are interpreted as follows: if a score for a community is predicted to be zero, then it will fall about the mean (average) for all communities. A score of + 1.96 would mean that participation was higher than for 95% of communities while a score of -1.96 would mean that participation was lower than for 95% of communities. The independent variables are considered in descending order of 'importance'. Note that the order of importance is somewhat arbitrary and small differences of less than .10 are not signficant indicators of differential importance.

(1) The overall level of cultural participation in a community in the pre-program period is the strongest predictor for 1983 theatre attendance. Its beta, or partial correlation with the dependent variable is .46. This term alone 'explains' 28% of the variance.

(2) The proportion of the population of the community employed in cultural occupations accounts for a further 13% of the explained variance. As the conceptual model suggests, attendance is higher in communities with higher "cultural" employment. The beta is .42.

(3) Per capita SPCI funding under Component I explains 6% of the residual variance in theatre attendance. The beta is .33. Technically, this means that on average, for every one standard deviation in Component I funding, there is an average .33 standard deviation change in the same direction in community-level theatre attendance. Using the unstandardised model to intepret this term, on average, a one dollar increase in per capita Component I funding would increase the average theatre attendance by .67 times or about half of the overall average. This type of substantive interpretation is hazardous since much of the 'explained' variance is due to the interaction of the independent variables and cannot be uniquely assigned to any single term.

(4) The summary scale of 1978 theatre and arts centre supply explains the final 5% of the variance in the model. The term is negative with the beta at - .29. This means that 1983 theatre attendance is higher in communities with lower supply figures in 1978. This may indicate that there have been significant changes in community cultural infrastructure over the last five to eight years. It may also simply be an artifact of the regression model in the sense that this negative sign is produced only by the association of THACINDX and the remaining variance after the effects of the first three predictors have been taken into account.

To continue, in less detail, with a second illustration of the regression modelling of cultural participation, the number of times an average individual in a community attends an arts or crafts festival can be predicted. In many respects this model is substantively superior and more intuitively plausible than the first model. The following model in Exhibit C.2 presents the standardised terms which explain fifty-three per cent of the variance about the mean attendance score.

EXHIBIT C.2
MULTIPLE REGRESSION PREDICTING ARTS AND CRAFTS FESTIVAL ATTENDANCE

Z ACFATT2 = .79 SPCIFPC - .44 CCFUNDPC + .25 SUPPINDX + .23 SECINDEX

Where:

ACFATT2 = Average reported frequency of arts or crafts festival attendance

SPCIFPC = Total per capita SPCI funding in a community from 1980 - 1983

CCFUNDPC = Total per capita Canada Council funding in a community from 1980 - 1983

SUPPINDX = A global measure of all types of cultural facilities supply (1978)

SECINDEX = A summary measure of secondary* cultural facilities supply including national and international performances factors.

Summary Statistics

	Mean	Standard Error	F
Overall	1.33	.51	7.27

The R^2 of the model is .528. The independent variables are considered in descending order of the size of the betas.

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* Secondary facilites are those which have primary function other than presenting cultural entertainment, for example, high school auditoria.

(1) Per capita SPCI funding under all components alone accounts for over 25% of the variance about the mean and is the most important single term. The beta is a strong .79. This finding presents positive evidence that SPCI as a whole has made an impact on popular festival attendance. This finding closely parallels the positive findings of the independent, qualitative study of Component 4. This component appears to be one of the most successful aspects of SPCI.

(2) Per capita Canada Council funding, by contrast, is negatively associated with arts and crafts fair attendance (beta = - .44). This parameter accounts for around 15% of the variance. This finding apparently documents the difference in impacts of the two sources of cultural funding. Canada Council funding appears much more closely related to elite, high culture.

(3) and (4) The summary measures of cultural facilities supply together account for the final 13% of the variance in the model. Both measures have positive betas of approximately .24. This model has no counter-intuitive terms and closely parallels the conceptual model. The only element which is missing from a definitive causal argument is the time sequence.

Our third model predicts the perceived cultural activity level of the individual. This is an interesting dependent variable since it summarises a range of different cultural activities in the mind of the respondent. In other words, instead of imposing an a **priori** definition or formula for overall level of cultural activity, the respondent is allowed to use his or her own implicit weighting and balancing system to arrive at a comparative assessment of his or her cultural activity level.

The following standardized regression model accounts for approximately 42% of the variance about the mean score on the seven-point rating scale.

EXHIBIT C.3
MULTIPLE REGRESSION PREDICTING EXPRESSED CULTURAL ACTIVITY

Z RATECUL2 = .47 EXPRESSY + .36 FUND4PC

Where:

RATECUL2 = Self-reported level of overall cultural activity relative to the "average" Canadian

EXPRESSY = Summary measure of reported participation in expressive cultural activities (1978)

FUND4PC = Per capital funding from SPCI component four (special events)

The single best predictor is the 1978 pre-program measure of expressive activity (cultural participation) which explains twenty-two per cent of the variance. Of particular note is the per capita SPCI

Component IV funding term which explains a further fifteen per cent of the variance (beta = .39). This indicates a positive relationship between special event funding and a higher level of perceived cultural activity.

A fourth and more rigorous multivariate regression model was constructed to predict change in the percentage of the community attending classical music performances. This model can provide a reasonable test of the entire theoretical model of SPCI impacts (presented in Exhibit 5.1). The dependent variable is the change in classical music attendance from 1978 to 1983. The independent variables are community population and socio-economic composition (based on community education and income indicators), initial infrastructure quality (the 1978 theatre and arts centre summary index) and total sources of other federal cultural funding in the community (Canada Council and other funding).

The following model (Exhibit C.4) allows us to account for over 40 per cent of the variance in the dependent variable (R^2=42). SPCI funding is the most important "effect" in this quasi-causal model. As program funding increased in a community so did positive increases in the number of new classical music attendees over the 1978-83 time period. Increases in attendance at classical music performances were also higher in higher socio-economic status communities. Increases in attendance were also negatively associated with 1980 summary indices of theatre and arts centre supply and with 1981 population. These findings are not counter-intuitive: the greatest gains were in smaller communities with lower levels of pre-program infrastructure. These communities could have acquired facilities or experienced increased touring of performers, or the residents could have had more opportunity to travel to see performances in 1983 if leisure time or interest in this type of activity had increased. The level of cultural activity in large urban centres is less flexible.

The overall model is statistically significant at the .001 level (which means that there is less than a 1 in 1,000 chance that the relationships are artefacts of chance). Although all the individual statistics are not presented, individual terms are significant to the .05 level or better, net of and undependent of each other (i.e., controlling for other effects). Perhaps most importantly, all models logically correspond to the conceptual model. In other words, they are derived deductively and then are tested inductively, and are intuitively plausible.

The explanatory power of the equations ranges from 40 to 53 per cent, or they have reduced errors by 40 to 53 per cent over the errors experienced through simple univariate predictors based on the means. Compared to other similar modelling exercises, these results are quite reasonable. Higher R^2 values are possible through ex post facto curve fitting (i.e., use of power terms, interacting terms and other non-linearities) but this was not performed because we do not have strong theoretical reasons for these measures.

EXHIBIT C.4
MULTIPLE REGRESSION PREDICTING ATTENDANCE CHANGES FOR CLASSICAL MUSIC RECITALS

Z CLASDIFF = .97 SPCIFUND + .47 CIPCSES - .38 THACINDX - .73 POPTOT81

Where:

CLASDIFF = The percentage change in reported attendance at classical music recitals from 1978 to 1983

SPCIFUND = Total SPCI funding in a community

CIPCSES = Community socio-economic status (from 1978 CIPC study)

THACINDX = A summary infrastructure index of theatre and arts centre supply

POPTOT81 = Community total population from 1981 census

Summary Statistics

	Mean	Standard Error	F
Overall	16.72	7.85	4.54

EXHIBIT C.3
DETAILED TABLE OF PEARSON CORRELATION COEFFICIENTS: SPCI FUNDING AND DEFICIT CHANGE (1980-83)

	DEPENDENT VARIABLES: Deficit in 1983	Deficit Change	Adjusted (net) Deficit Change	INDEPENDENT VARIABLES: Component I Funding	Component IIB Funding	Pooled I and IIB Funding	Total SPCI Funding
Deficit in 1983	R=1.0000 n= (118) P = .000	R=+.9283 n= (118) P = .000	R= .9810 n= (118) P = .000	R=-.2496 n= (118) P = .003	R=-.0743 n= (118) P = .212	R=-.2861 n= (118) P = .001	R=-.0545 n= (118) P = .279
Deficit Change		R=1.0000 n= (118) P = .000	R= .9474 n= (118) P = .000	R= .0720 n= (118) P = .219	R=-.2468 n= (118) P = .004	R=-.0249 n= (118) P = .395	R= .0000 n= (118) P = .500
Adjusted (net) Deficit Change			R=1.0000 n= (118) P = .000	R=-.2511 n= (118) P = .003	R=-.1557 n= (118) P = .046	R=-.3202 n= (118) P = .000	R=-.0758 n= (118) P = .207
Component I Funding				R=1.0000 n= (118) P = .000	R=-.2612 n= (118) P = .002	R= .9224 n= (118) P = .000	R= .2360 n= (118) P = .005
Component IIB Funding					R=1.0000 n= (118) P = .000	R= .1319 n= (118) P = .077	R=-.0767 n= (118) P = .205
Pooled I and IIB Funding						R=1.0000 n= (118) P = .000	R= .2116 n= (118) P = .011
Total SPCI Funding							R=1.0000 n= (118) P = .000

R = Pearson correlation coefficient
n = Number of cases
S = Signifiance level

FINAL REPORT FOR THE EVALUATION OF THE SPECIAL PROGRAM OF CULTURAL INITIATIVES.