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The impacts of amalgamation on police services in the Halifax Regional Municipality

Abstract: On 1 April 1996, the Nova Scotia government amalgamated the Town of Bedford, the cities of Dartmouth and Halifax and Halifax County to create the Halifax Regional Municipality. The Halifax amalgamation is one in a series of such mergers that have happened recently in Ontario, Quebec and the Atlantic Provinces. This study compares the costs, resources, service levels, crime rates, workloads and citizen perceptions of police services before and after amalgamation. The findings suggest that, overall, amalgamation of police services in the Halifax region is associated with higher costs (in real-dollar terms), lower numbers of sworn officers, lower service levels, no real change in crime rates, and higher workloads for sworn officers. The findings from three citizen surveys that compare perceptions before and after amalgamation indicate that when the comparisons are focused on persons who actually called the police in 1997 and 1999, nearly thirty-two per cent of those surveyed in 1997 felt that police services had gotten worse since amalgamation, and nearly twenty-five per cent felt the same way in 1999. In 1995, thirty-nine per cent of survey respondents expected services to get worse with amalgamation. Claims about the efficiency and cost-effectiveness of amalgamations have tended to rest on evidence that is generally inadequate to assess the actual consequences of this kind of organizational change. The current study suggests that when predictions are tested, there is a considerable gap between the rhetoric and what actually happens when police departments are amalgamated in an urban setting.

Sommaire : Le 1^{er} avril 1996, le gouvernement de la Nouvelle-Écosse a procédé au regroupement des villes de Bedford, Dartmouth et Halifax et du comté de Halifax pour créer la municipalité régionale de Halifax. Ce regroupement de Halifax fait partie d'une série de fusions similaires qui se sont produites récemment en Ontario, au Québec et dans les provinces de l'Atlantique. La présente étude compare les coûts, les ressources, les niveaux de services, les taux de criminalité, les charges de travail et la perception qu'ont les citoyens envers les services de police avant et après le regroupement. D'après nos conclusions, le regroupement des services de police dans la région de Halifax est d'une manière générale associé à des coûts plus élevés (en

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termes de dollars indexés), à un nombre réduit d'agents de police assermentés, à des niveaux de service inférieurs, à des taux de criminalité essentiellement inchangés, et à des charges de travail plus élevées pour les agents de police assermentés. Les conclusions de trois enquêtes menées auprès des citoyens comparant leurs impressions avant et après le regroupement indiquent que, dans le cas des personnes ayant fait appel à la police en 1997 et 1999, près de 32 % des personnes interrogées en 1997 estimaient que les services de police s'étaient dégradés depuis le regroupement et près de 25 % exprimaient la même opinion en 1999. En 1995, 39 % des personnes ayant répondu à l'enquête s'attendaient à ce que les services se dégradent avec le regroupement. Ceux qui mentionnaient l'efficacité et le rapport coût-efficacité des regroupements avaient tendance à se fier à des preuves généralement inadéquates pour évaluer les conséquences réelles de ce genre de changement organisationnel. Notre étude laisse entendre que lorsque les prédictions sont mises à l'épreuve, on constate l'existence d'un important fossé entre la rhétorique et la réalité lorsque les services de police sont regroupés dans un milieu urbain.

Amalgamation of local governments has been and continues to be controversial. Strongly held beliefs about cost-savings, service quality and governance mark both scholarly and media debates. This study reports findings from the amalgamation of Halifax and its contiguous local governments. By focusing on police services, it is possible to compare key variables before and after amalgamation and to show the cost and service-related impacts. The findings suggest that amalgamation has not saved money but has resulted in increased police workloads and lower service levels.

On 1 April 1996, the Town of Bedford and the cities of Dartmouth and Halifax were amalgamated with Halifax County to become the Halifax Regional Municipality. Part of that change included amalgamating the three existing police departments in Bedford, Dartmouth and Halifax. The three departments had operated in different environments – Bedford was the smallest of the three (twenty-four sworn officers) and served a community that was primarily residential. The departments in Halifax and Dartmouth were of different sizes (Dartmouth had 138 sworn officers in 1995 and Halifax had 286 sworn officers), but both operated in mixed residential, commercial and industrial environments.

From the time of amalgamation, the three departments were expected to deliver police services to the residents of the three municipalities and, at the same time, successfully integrate into one Halifax Regional Police Department. The political context of the amalgamation had created expectations about cost-savings and service levels that were reflected in the expected outcomes from integrating the three police departments.¹ In addition, the amalgamated police department was responsible for negotiating and managing the contract with the provincial detachment of the RCMP to police Halifax County.

This article is part of a larger Donner Canadian Foundation-funded study

of the Halifax amalgamation and focuses on the changes in resources, service levels, crime rates, workloads and perceived service quality associated with amalgamating police services. Comparisons of the three years before amalgamation with the four years after create opportunities to see how amalgamation has affected the performance of the police in the municipality. A total of fourteen indicators will be compared over time both visually and numerically. Taken together, these indicators provide a level of detail on the changes associated with amalgamation that is not possible for any other service affected by the 1 April 1996 change.

The article will address six questions:

1. Were there cost-savings in police services associated with amalgamation?
2. What changes in policing resources occurred during and after amalgamation?
3. What changes in service levels are associated with amalgamation?
4. How did crime rates change with amalgamation?
5. How did workloads change with amalgamation?
6. How did residents of the Halifax municipalities affected by amalgamation perceive the quality of police services?

These questions reflect the range of issues that underpin much of the discussion and controversy that has surrounded amalgamations in Canada and the United States. Although the literature does address most of these questions, coverage is incomplete, and existing evidence in any one study is often narrow and unable to convincingly address these questions.

In addition to the quantitative and survey-based data that are useful for discerning trends before and after amalgamation, it will also be possible to summarize the findings from interviews that were conducted with current and former police chiefs and senior officers in the three police departments.

Background

The provincial discussion that led to the amalgamation of the three municipalities and Halifax County into the Halifax Regional Municipality occurred over several years. With respect to police services, the Ministry of Municipal Affairs had commissioned an independent review of several options for the three municipal police departments, including full amalgamation. The *Consensus Report: Regional Policing*, prepared by C. William Hayward, canvassed the views of the police chiefs as well as elected officials in Bedford, Dartmouth, Halifax and Halifax County.²

The report recommended a full amalgamation of the three police departments, beginning on 1 April 1996. Included in the report were projections of the costs of amalgamation and the savings that were expected from consolidating the three departments. Annual future savings of at least \$800,000 as a

result of amalgamation were forecasted. Using a combined pre-amalgamation estimated budget of \$33,774,678 in 1995 nominal dollars as a baseline, this is a projected saving of 2.4 per cent of the projected 1995 combined budgets of the three departments.

The Hayward consensus report recommended that most of the projected cost-savings be used to improve services in the three communities. That recommendation was intended in part to address the objections of the elected officials in the communities, who generally did not favour the amalgamation option because they were concerned that services to suburban areas would be reduced.

One clear shortcoming of the existing research is the lack of data for multiple-year before/after comparisons of costs and other key indicators

The timing of the Hayward report gave the three police chiefs some opportunity to discuss the process and the costs of amalgamating their departments, although elected officials' resistance to this option prevented substantial planning in advance of the general amalgamation announcement in the fall of 1995. The report also summarized current policing budgets and manpower levels as of 1994. Actual budget numbers for 1993 and 1994 were included together with projected budgets for 1995. The numbers of sworn officers for the combined departments were also included. These figures are useful in before/after comparisons of resources available for policing in the three communities.

Existing research

A recent monograph by Robert Bish summarizes the research that assesses the impacts of local government amalgamations in the United States and Canada.³ Bish concludes that expectations adduced for amalgamations have not been borne out by experience. Predictions of cost-savings, improved services, and improved governance have not been corroborated by the research done to date.

Andrew Sancton draws similar conclusions in his review of the history and results of amalgamations in North America, Britain, New Zealand and Australia. In addition to their reviews of existing research, Bish and Sancton summarize some of the key features of the amalgamation process in the Halifax region. Igor Vojnovic presents some of the first findings from the Donner Canadian Foundation-funded project to assess the entire amalgamation.⁴ The review of existing research in this article will complement these studies by focusing on the amalgamation of police departments in North America.

Research on the impacts of amalgamating police departments tends to support the conclusion that costs increase, and, where they do not, service levels are reduced as the numbers of sworn officers are reduced. In addition, Elinor Ostrom, Roger Parks and Gordon Whitaker point out in their study of policing in seventy-five Standard Statistical Metropolitan Areas of the U.S. that as the size of police departments increases, the percentage of sworn officers deployed for patrol-related duties decreases.⁵

Proponents of amalgamation have made the argument that increasing the size of the service producer will capture economies of scale, resulting in a lower average unit-cost of police services. The existing research on scale economies tends to support the opposite conclusion: as the scale of police departments increases, unit-costs tend to increase.

Robert Helsley concluded that there are dis-economies of scale in municipal policing.⁶ The primary reasons for these dis-economies are related to the fact that the policing function is highly labour intensive and that these kinds of services typically necessitate substantial investments in supervision personnel and structures. As well, police consolidation tends to result in an increase in the police-officer salary structure.

In addition to research specifically examining the question of scale economies, there are also general syntheses of existing research and studies of particular urban areas that have consolidated police services. The balance of this research review summarizes these two kinds of studies.

In a summary of the experiences of thirty-four policing agencies in the United States that had experienced amalgamation, T.W. Koepsell and C.M. Girard concluded that consolidation rarely reduces the cost of police service in terms of actual dollars.⁷ Consolidation may provide for more law enforcement service per dollar than could have been provided under the individual police services but the actual dollar cost of policing in these amalgamated areas is higher than that of the independent police agencies prior to amalgamation.

Koepsell and Girard suggest that one of the reasons why costs increase after amalgamation is due to the fact that citizens are not satisfied with the level of service offered by the (former) independent police departments. Once amalgamation takes place, there is a tendency to increase manpower to provide more specialized services. In addition, this increase is accompanied by higher salaries and benefits as the amalgamated police department "levels up" the salaries and benefits to match the highest levels among the component departments before amalgamation.

A study by Rian Hamby summarizes the experiences of selected local governments in the United States in amalgamated police departments.⁸ His review highlights some additional results that are relevant to this study.

Table 1 summarizes some of the findings from Hamby's review of police department amalgamations. The table has been organized to reflect the key

Table 1. Results of Selected Police Department Amalgamations: Costs, Service Levels, Workloads and Citizen Assessments

<i>Amalgamations</i>	<i>Overall costs</i>	<i>Salaries of sworn officers</i>	<i>Number of sworn officers</i>	<i>Service levels</i>	<i>Workloads</i>	<i>Citizen expectations/ Citizen assessments</i>
Las Vegas-Clark County (Nevada, 1973)	Overall costs increased (1972 to 1974)	Increased to match the highest-paid department				Demands for more services in the rural areas
Nashville-Davidson County (Tennessee, 1962)	Per capita costs were reduced (1962 to 1965)		Number of sworn officers reduced	Poorer service during the transition process		
Jacksonville-Duval County (Florida, 1969)	Overall costs increased by 67 per cent (2 years before versus 2 years after)	Increased to match the highest level pre-amalgamation		More specialized services but fewer patrol officers		
Lancaster County (Pennsylvania, 1972)	Lower overall costs (1 year before versus 1 year after)		Number of sworn officers reduced			
Abbotsford-Matsqui (British Columbia, 1994)	Overall cost increased (1995 to 2000)		Number of sworn officers reduced after the amalgamation	Reduced service levels	Increased workloads per officer	

questions that will be addressed in the Halifax study. In addition to the four U.S. jurisdictions, the Abbotsford-Matsqui, British Columbia, case is added since it is one of the few Canadian amalgamations for which there is recent police-related evidence.⁹

The table shows that where before/after data are available, they span only a few years. The short-term findings suggest that overall cost trends are mixed. In the Las Vegas-Clark County and Jacksonville-Duval County cases, costs increased, whereas in the Nashville-Davidson County and Lancaster County cases, short-term costs decreased. Where costs decreased, sworn officers were reduced and those reductions tended to be associated with reduced service levels. Of note is the tendency for salary increases after amalgamations to be associated with overall cost increases.

Summary of previous research findings

Overall, local governments that have amalgamated police services have experienced a tendency for costs to increase, principally due to the process of levelling up wages and benefits. In addition, costs associated with purchasing and maintaining new or more sophisticated equipment have increased because the size of police departments has increased.

There do not appear to be any substantial economies of scale in the production of police services overall. There may well be scale economies in the production of support services like communications, records, identification and crime lab functions, but these are more than offset by the substantial labour cost increases that are usually associated with amalgamations.¹⁰ Where costs have decreased, there have been corresponding decreases in service levels. In some cases, post-amalgamation cost-increases have also been accompanied by service decreases.

One clear shortcoming of the existing research is the lack of data for multiple-year before/after comparisons of costs and other key indicators. Several of the studies summarized in this article have focused on the two years just prior to and after amalgamation. Other studies do not have any evidence of costs or other variables before amalgamation, making it impossible to assess the changes. This shortcoming will be addressed in the current study.

Methodology

The principal sources of data for this study were documented records of costs, manpower levels, populations and crime rates; findings from three community surveys; and interviews. Personal or telephone interviews were conducted with senior police officers in the current Halifax Regional Police Department, as well as with chiefs and senior officers from the former police departments of Bedford, Dartmouth and Halifax. Some of these interviews were intended to corroborate quantitative data obtained from records or from other interviews, and others were intended to identify issues that were

felt to be important for understanding the overall process and the results of amalgamation.

The Hayward consensus report (1994) was a valuable source of budgetary and manpower figures for the years 1993 through 1995. The numbers for 1993 and 1994 were actual figures, and the 1995 figures were aggregated estimates from the three police departments.

The post-amalgamation budgets of the Halifax Regional police department (1996–97 to 1999–2000) provided sufficient detail to make it possible to construct a seven-year time-series for key indicators of costs and manpower: three years before amalgamation and four years after, including 1996. This time-series makes it possible to display the trends before and after amalgamation and compare the percentage changes in key indicators as amalgamation occurred.

A key issue in constructing before/after comparisons of police services was validating the assumption that the scope of policing services had not changed with amalgamation. In different words, it was important to ascertain that the same functions that had been performed in the pre-amalgamation departments were performed afterwards and that no substantial additional functions were added after amalgamation.

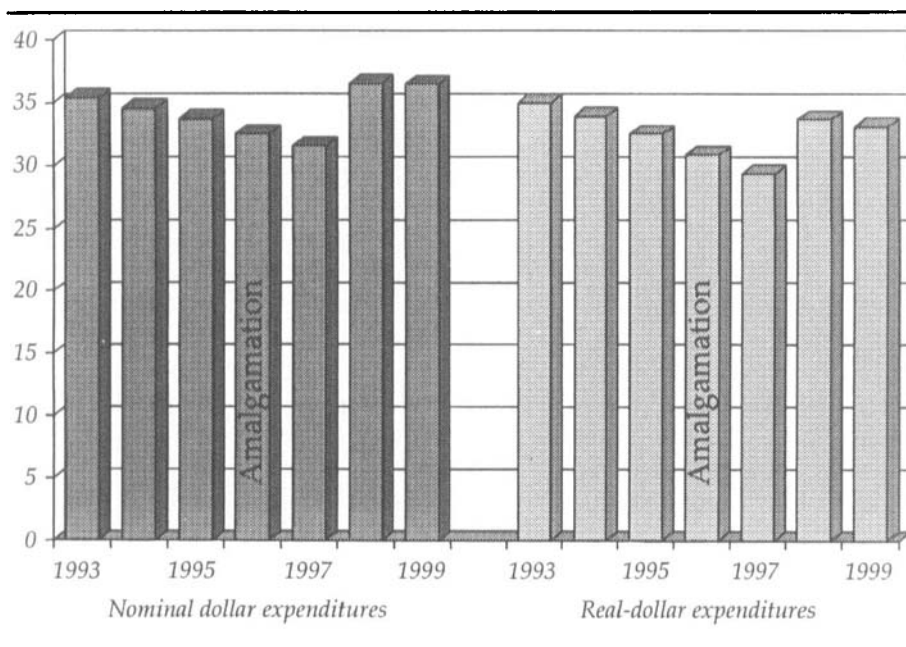
Interviews with senior officers in the Halifax Regional Police Department and with former chiefs of the municipal departments indicated that all the current functions in the amalgamated police department had been performed by one or more of the three municipal departments. In fact, both the Halifax and Dartmouth police departments performed the full range of policing functions after amalgamation. The Bedford Police Department (twenty-four sworn officers out of the 448 in the three departments) did not have the same investigative capacity as did the other departments. The organizational structure of the department changed as amalgamation occurred, principally to implement a district-based allocation of patrol resources. But overall, observed cost increases would not be due to the Halifax Regional Municipality having added new functions.

A review of the police budgets for the municipality indicated that in 1998, the costs of the dispatch/911 function were transferred from the police budget to corporate services in the municipal budget structure. Because that function had historically been a part of police budgets even before amalgamation, and there was no reliable way to estimate the cost of that function before 1996, a decision was made to add the costs of the communications centre back into the budgets in 1998 and 1999.

Overall, the cost figures before and after amalgamation are comparable. The availability of these data is a real advantage in examining the cost-related consequences of the decision to combine the three police departments on 1 April 1996.

Finally, because annual budget numbers are partially influenced by infla-

Figure 1. *Halifax Regional Police Department Expenditures: Nominal and Real (1992) Dollars before and after Amalgamation (Millions)*



tionary pressures, all the annual budget totals were converted into 1992 constant dollars, using the Nova Scotia consumer price index for each of the years from 1992 through 1999. As Figure 1 shows, the net effect of converting nominal dollars to real dollars is to reduce the magnitudes of the budgets for post-1992 years in the time-series.

Findings

Two complementary ways of presenting the findings will be used to summarize the changes associated with amalgamation in 1996. Bar charts and tables will be used to display trends and the magnitudes of changes over time.

A total of fourteen indicators based on available cost, manpower, population, and crime data have been constructed. These indicators are among the ones that are often used to measure the performance of police departments or to benchmark police services. They have been grouped into expenditures, sworn officers, service levels, crime rates and workloads. They are presented consecutively in figures 1 to 14.

Changes in Police Expenditures

Figures 1, 2 and 3 display comparisons of police expenditures from 1993

Figure 2. *Expenditures Per Capita in Inflation-Adjusted Dollars, before and after Amalgamation*

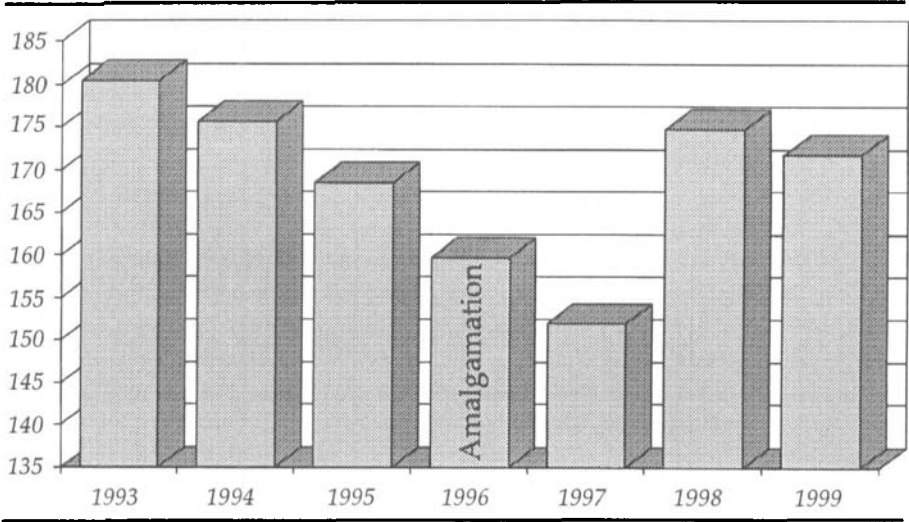
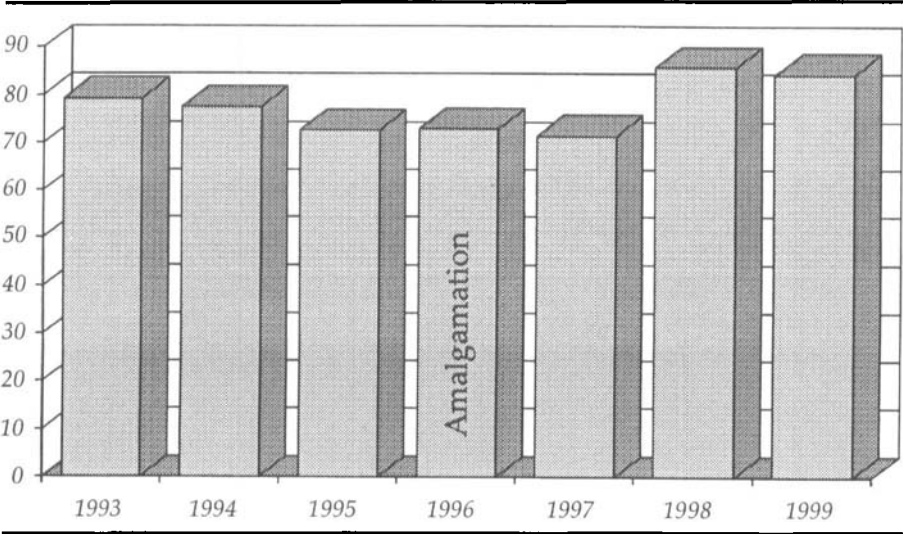


Figure 3. *Expenditures Per Sworn Officer in Inflation-Adjusted Dollars before and after Amalgamation (Thousands)*



through 1999. Since amalgamation occurred in 1996, there is an opportunity to compare trends for the three years before amalgamation with the four years (including the year that amalgamation occurred) after.

Figure 1 shows total police expenditures in both nominal and real (1992) dollars. Although nominal dollar figures suggest that police expenditures increased substantially in 1998 and 1999, when inflation is taken into account, the increases are more modest. In fact, the highest level of expenditures occurred in 1993 (\$34,989,130 in 1992 constant dollars).

There is actually a discernable downward trend in total expenditures from 1993 through 1997, suggesting that amalgamation did not really affect that trend. In 1998 and 1999 there was a substantial increase in overall expenditures. Those two years coincided with the implementation of a settlement with the police union in 1997 that included substantial salary increases.

Figure 2 displays expenditures per capita in 1992 constant dollars. As was true for Figure 1, there is a downward trend from 1993 through 1997, followed by sharp increases in 1998 and 1999. Clearly, if a pre/post comparison of 1995 and 1996 had been done, the "trend" would have indicated that amalgamation resulted in lower per-capita costs. The longer time-series captures the delayed effects of salary increases that were included in the collective agreement arbitrated in 1997. Even in 1998 and 1999, real expenditures per capita were less than for 1993 and 1994.

Figure 3 shows real police expenditures by the number of sworn officers. The trend over seven years suggests a modest decrease through 1996 and 1997, followed by increases in 1998 and 1999. In this figure, the cost per sworn officer in the last two years is higher than at any other point in the time-series. This reflects the fact that from 1996 through 1999, there was a reduction in the number of sworn officers in the force. As this was happening, salaries were substantially boosted in 1998, resulting in higher costs per officer.

Changes in Sworn Officers

The reduction in the number of sworn officers post-amalgamation can be seen clearly in Figure 4. From 1995 (the year before amalgamation) through 1998, there were reductions each year. In fact, between 1995 and 1998, there was a 12.3-per-cent reduction in sworn officers.

Figure 5 tracks the number of patrol-related sworn officers and shows that there was a very gradual increase from 1993 through 1996, followed by successive reductions in 1997, 1998 and 1999.

What happened to the percentage of sworn officers that were patrol-related from 1993 to 1999 is shown in Figure 6. In 1996 there was a sharp increase in the percentage (from 65.8 per cent in 1995 to 72.1 per cent in 1996). That increase reflects the fact that, initially, the Halifax Regional Police Department committed itself to meeting or exceeding the patrol levels prior to amalgamation, in part to address criticisms that patrols would be withdrawn from the suburban and rural areas of the municipality in preference to the core. But, as the number of sworn officers was reduced, patrol services

Figure 4. *Total Sworn Officers in the Halifax Regional Municipalities before and after Amalgamation*

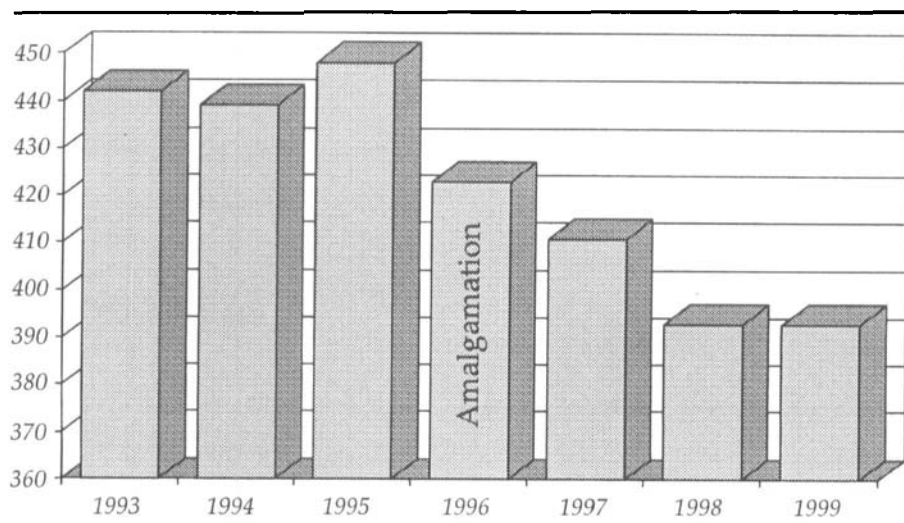
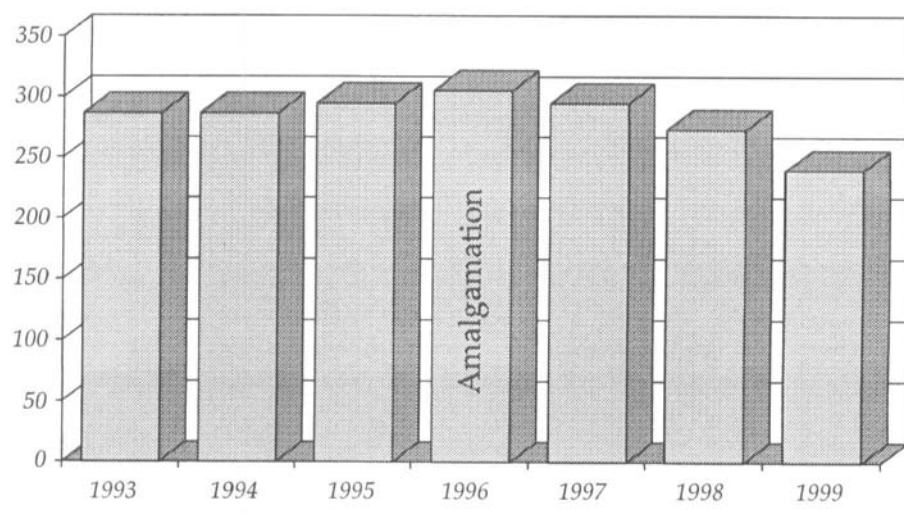


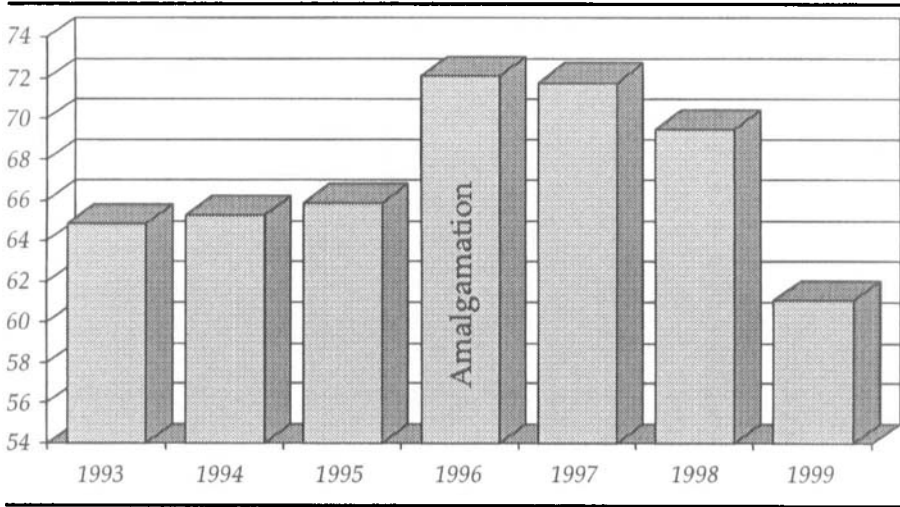
Figure 5. *Total Patrol-Related Sworn Officers before and after Amalgamation*



were reorganized, and in 1998 the traffic division was eliminated. The end result of these changes was that patrol officers were clearly a smaller component of the sworn complement. In fact, between 1996 and 1999, the proportion of sworn officers that were patrol-related decreased by 15.2 per cent.

Downsizing of the Halifax Regional Police Department as a whole

Figure 6. *Percentage of Sworn Officers that are Patrol-Related before and after Amalgamation*



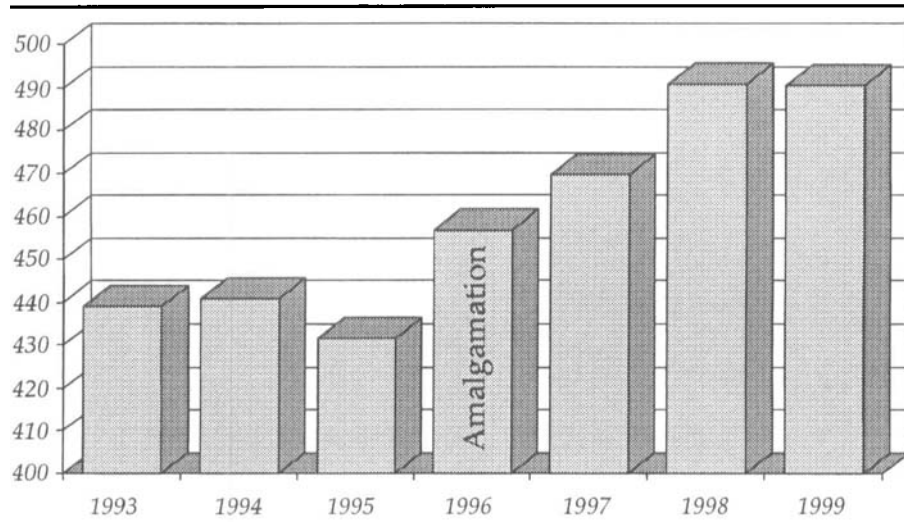
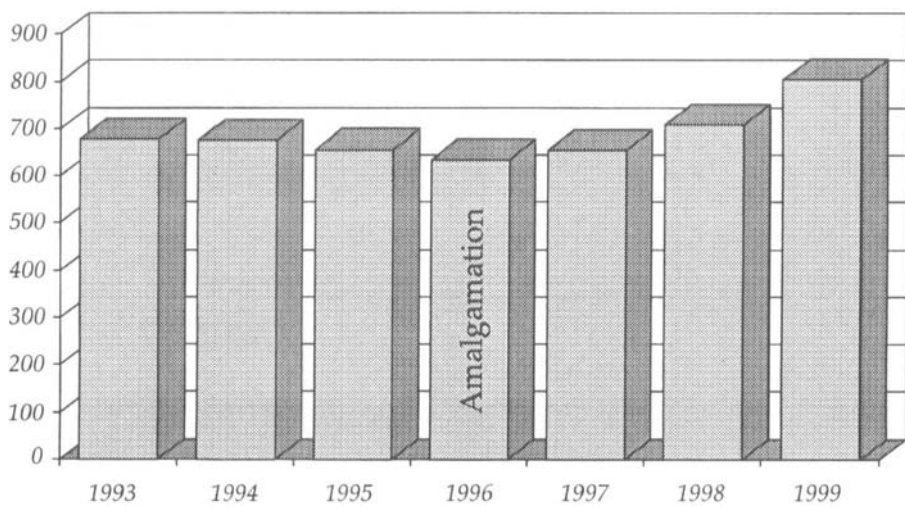
appears to account for part of the reduction – between 1996 and 1999, the department shed thirty sworn officers. But that is not the whole story. In that same time-frame, the number of patrol-related officers decreased from 305 to 240, more than double the number of officers lost in the department overall. This change is similar to the one reported in the 1972 amalgamation of police departments in Lancaster County, Pennsylvania.¹¹

Changes in service levels

Figures 7 and 8 display the ratios of population to sworn officers and patrol-related officers, respectively. In both figures, there is an upward trend from 1996 to 1999, indicating that there were fewer officers serving the population over time. Although it is possible to benchmark these ratios against standards for urban police departments, and even conclude that decreases in officers in relation to population brings the Halifax Regional Police Department into line with others in the region, the fact that there are more people to be served per officer over time suggests that the capacity to provide services has been negatively affected and that this change is associated with amalgamation.

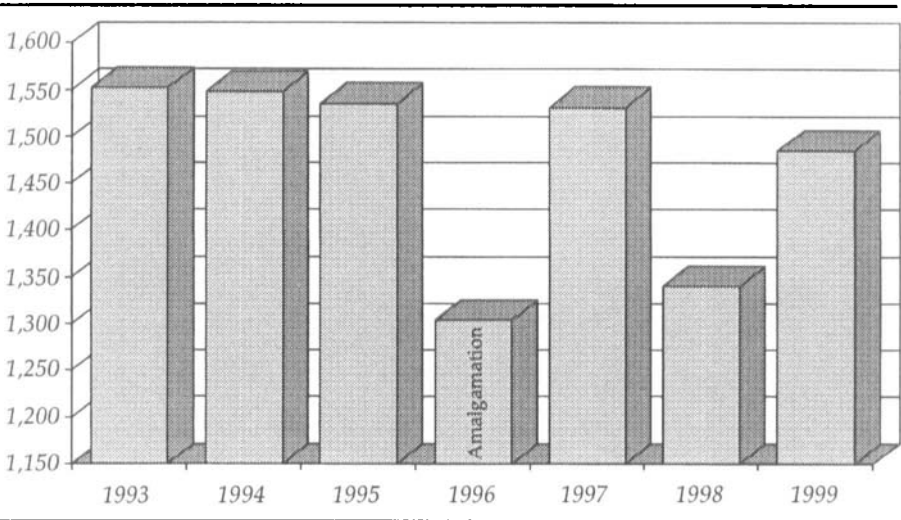
Changes in crime rates

Figures 9, 10 and 11 display person, property and total offences reported per 100,000 population, respectively. For person crimes, which include homicide, attempted murder, robbery, assaults, sexual offences, and abductions,

Figure 7. *Population Per Sworn Officer before and after Amalgamation*Figure 8. *Population Per Patrol-Related Officer before and after Amalgamation*

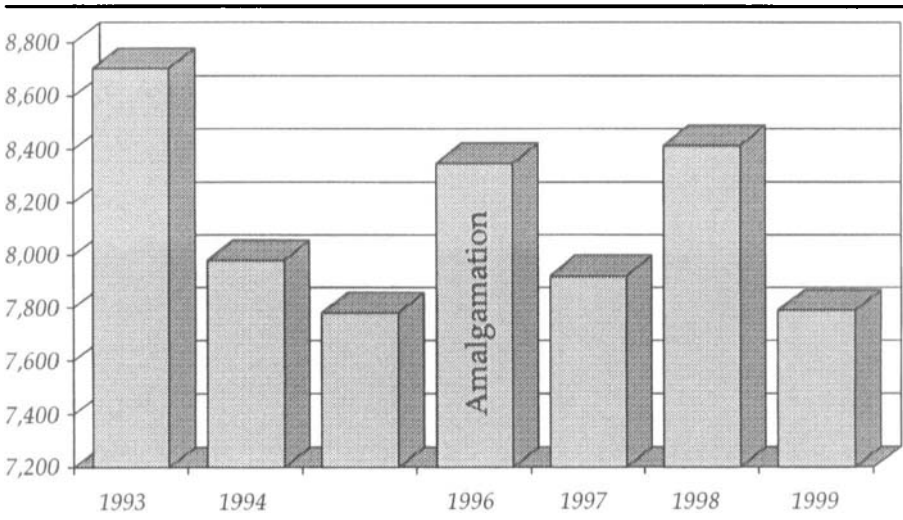
the rate is relatively stable for the three years prior to amalgamation and fluctuates considerably from 1996 onwards. In fact, if Figure 9 is compared to Figure 10, the crime rates for person and property offences (which include burglary, auto theft, property theft, fraud, and possession of stolen goods) tend to be inversely related – person offences are low in 1996 and 1998,

Figure 9. *Person*-Crime Rate before and after Amalgamation*



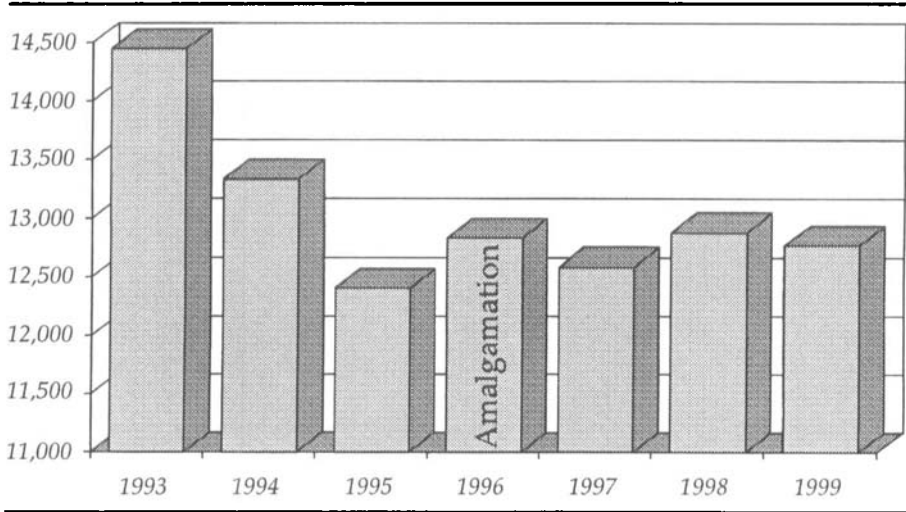
*Person crimes include homicide, attempted murder, robbery, assaults, sexual offences and abductions.

Figure 10. *Property*-Crime Rate before and after Amalgamation*



*Property crimes include burglary, auto theft, property theft, fraud and possession of stolen goods.

Figure 11. *Total Crime Rate before and after Amalgamation*



whereas property offences are relatively high. Conversely, when the rate of property offences is high (1997, 1999), the rate for property offences is low.

When the total crime rate is displayed in Figure 11 (person offences, property offences and other criminal offences) the rate is actually quite stable from 1995 onwards, suggesting that there is no real change in crime rates associated with amalgamation.

Changes in workload

One indicator of workload is the ratio of crimes reported to the number of sworn officers. That ratio is a measure of the volume of crime-related activities that a typical officer must handle in a year. Figures 12, 13 and 14 display these ratios for person, property and total crimes.

For person and property crimes per officer, there is no pronounced trend over time. The ratio of person crimes per sworn officer increases slightly between 1997 and 1999 so that the ratios for 1997 and 1999 are the highest in the time-series. For property offences per officer, the post-amalgamation level is nearly flat but is somewhat higher than the pre-amalgamation levels.

Looking at total criminal offences reported per officer in Figure 14, there is a marked downward trend prior to amalgamation (from 63.4 in 1992 to 53.5 in 1995). Between 1996 and 1999, there is a general upward trend and the post-amalgamation average across the four years (60.9 reported crimes per officer) is somewhat higher than the pre-amalgamation average (58.6 reported crimes per officer).

Figure 12. *Person Crimes per Sworn Officer before and after Amalgamation*

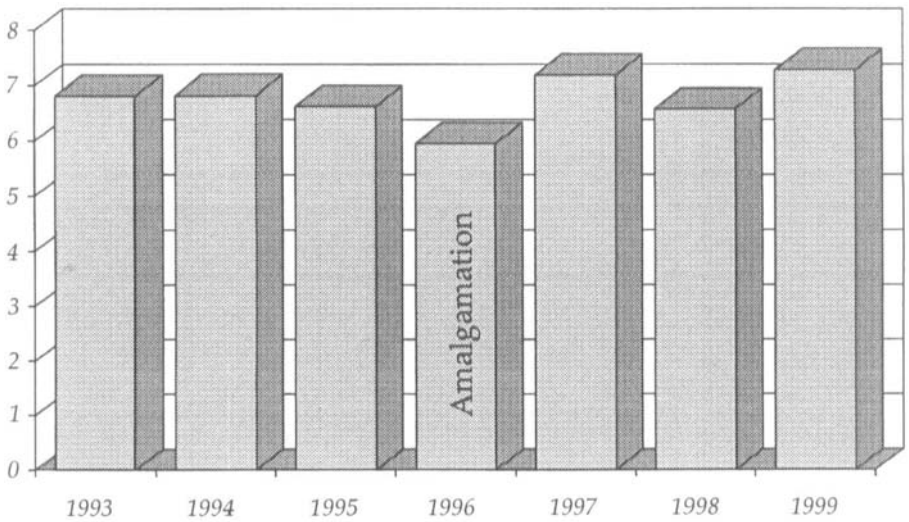
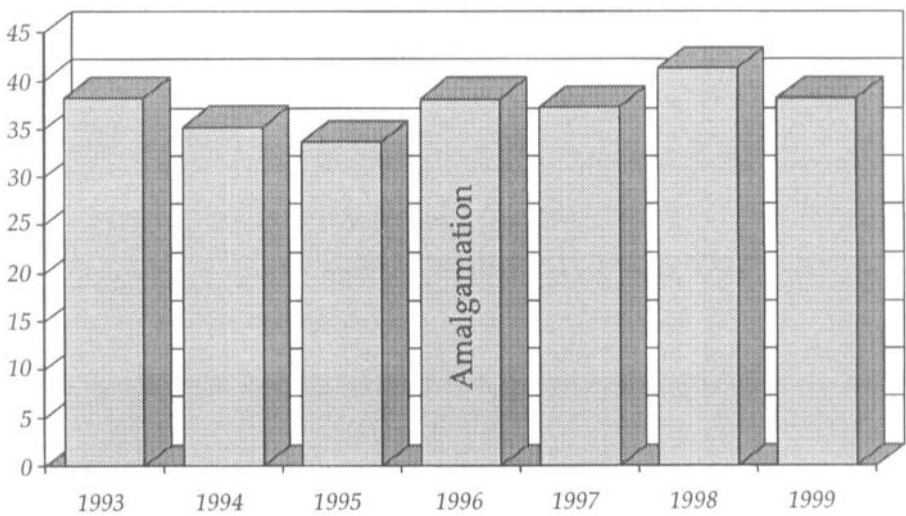
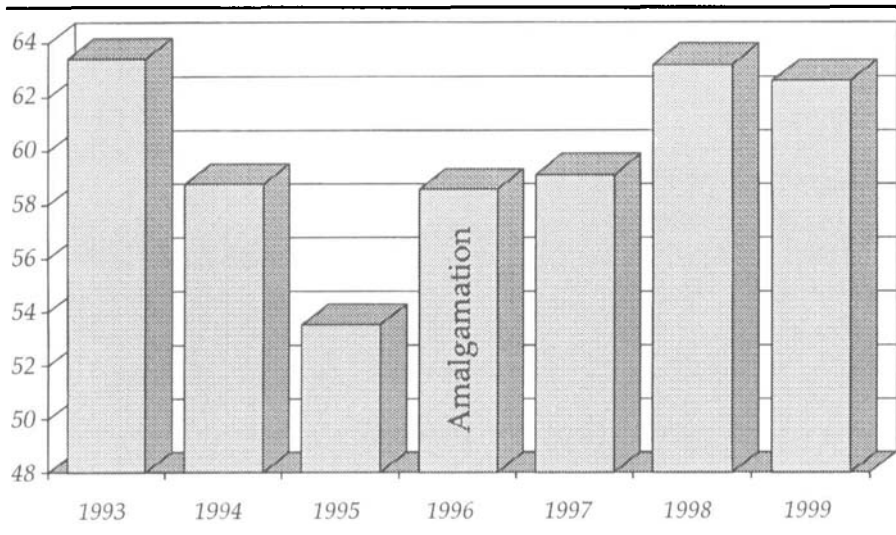


Figure 13. *Property Crimes per Sworn Officer before and after Amalgamation*



Assessing the quantitative changes associated with amalgamation

The trends in Figures 1 through 14 offer a visual representation of the changes that have occurred between 1993 and 1999. In some cases, there are clear trends: the number of sworn officers has decreased with amalgamation

Figure 14. *Total Crimes per Sworn Officer before and after Amalgamation*

(Figure 4). In other cases, no trend is obvious, or there is a trend for part of the time-series but not for the whole seven years.

One way to summarize the data in the figures and address the first five questions posed at the beginning of this discussion is to construct a table that summarizes and compares the data using percentages that indicate change over time. Table 2 displays three different ways of calculating the trends in the time-series. The first is based on taking an average of the three pre-amalgamation years for each figure, taking the average of the four post-amalgamation years and calculating the percentage change from the pre-amalgamation average to the post-amalgamation average.

The second indicator of change compares the last year pre-amalgamation (1995) with the last year post-amalgamation (1999). The intention here is to capture the change from the immediate pre-amalgamation point to a point that is most likely in the time-series to represent a "stable" post-amalgamation number.

The third way of calculating change over time is to compare 1996 – the year in which amalgamation occurred – to 1999. This creates an estimate of the trend in each indicator from the point when amalgamation occurred to the end of the time-series.

No comparisons of the year prior to the year after amalgamation are presented. Because of the transition process, these comparisons would not be as stable as the ones discussed above.

Table 2 is divided into sections that correspond to the first five questions

Table 2. Trends in Halifax Regional Police Department Expenditures, Sworn Officers, Service Levels, Crime Rates and Workloads

Indicator	Averages			Last year pre- Last year post-			Post-amalgamation trend		
	Before	After	Percentage Change	1995	1999	Percentage Change	1996	1999	Percentage Change
Expenditures									
Expenditures in real-dollars	\$33,845,740	\$31,750,400	- 6.2	\$32,569,602	\$33,117,225	+1.7	\$30,838,348	\$33,117,225	+ 7.4
Expenditures per capita	\$174.82	\$164.55	- 5.9	\$168.47	\$171.80	+ 2.0	\$159.69	\$171.80	+ 7.6
Expenditures per sworn officer	\$76,420.23	\$78,581.16	+ 2.8	\$72,700.00	\$84,267.75	+ 15.9	\$72,903.89	\$84,267.75	+ 15.6
Sworn Officers									
Total sworn officers	443.0	405.0	- 8.6	448.0	393.0	- 12.3	423.0	393.0	- 7.1
Total patrol-related sworn officers	289.3	278.2	- 3.8	295.0	240.0	- 18.6	305.0	240.0	- 21.3
Sworn officers that are patrol-related	65.3	68.6	+ 5.1	65.8	61.1	- 7.1	72.1	61.1	- 15.2

Table 2. (Concluded)

Indicator	Averages		Last year pre- Last year post-			Post-amalgamation trend		
	Before	After	Percentage Change	1995	1999	Percentage Change	1996	1999
<i>Service Levels</i>								
<i>Population per sworn officer</i>	437.0	476.9	+ 9.1	431.5	490.5	+ 13.7	456.9	490.5
<i>Population per patrol-related sworn officer</i>	669.2	699.4	+ 4.5	655.3	803.2	+ 22.6	633.4	803.2
<i>Crime Rates</i>								
<i>Person crimes per 100,000</i>	1,545	1,415	- 8.4	1,535	1,485	- 3.2	1,304	1,485
<i>Property crimes per 100,000</i>	8,155	8,131	- .3	7,782	7,792	+ .1	8,347	7,792
<i>Total crimes per 100,000</i>	13,396	12,766	- 4.7	12,405	12,767	+ 3.4	12,831	12,767
<i>Work Loads</i>								
<i>Person crimes per officer</i>	6.8	6.8	0.0	6.6	7.3	+ 10.0	6.0	7.3
<i>Property crimes per officer</i>	35.6	38.7	+ 8.6	33.6	38.2	+ 13.8	38.1	38.2
<i>Total crimes per officer</i>	58.6	60.9	+ 4.0	53.5	62.6	+ 17.0	58.6	62.6

Sources: Halifax Regional Municipality, 1996/1997 Budget Working Papers, 1997/1998 Consolidated Budget, 1998/1999 Consolidated Budget, 1999/2000 Consolidated Budget (Halifax: Municipality, 1996, 1997, 1998, 1999, respectively).

that were posed at the beginning of this article. Using the percentage change figures in the table together with the visual trends in the figures, it is possible to address each question.

1. *Were there cost-savings in police services associated with amalgamation?*

Table 2 offers nine comparisons of costs over time (three for each of the three cost-related indicators). Most of these yield positive percentage changes (seven out of nine), which suggests that *costs tend to increase with amalgamation*. Two of the comparisons suggest the opposite trend. Specifically, when the total expenditures and the expenditures per capita are averaged before and after amalgamation, costs decrease. Although these findings suggest that amalgamation influenced costs, it is important to keep in mind that the downward trends in total expenditures and expenditures per capita began before amalgamation and extended for two years afterwards. In both of these cases, costs increased in 1998 and 1999 with the arbitrated salary settlement.

Because total expenditures began to decline in 1994–95, it is important to ask whether the pre-amalgamation interest in consolidating police services could have affected expenditures in the three municipalities – inducing local governments to take action early. There is no evidence for this strategy from the interviews that were conducted. What is more likely is that the combination of the province-wide public-sector wage freeze implemented in 1994 and the generally sluggish Nova Scotia economy served to restrain police department expenditures. In the period between 1993 and 1996, the provincial GDP grew at an annual pace of less than one per cent, the lowest it had been in the 1991–2000 period.¹²

An additional issue that is raised by the expenditure trends is whether the arbitration award of 1997 can be attributed to amalgamation. The province-wide wage freeze came off in that year, and the police settlement was one of a series that affected public-sector workers in Nova Scotia. The arbitrated award was the first made to the consolidated police bargaining unit. Although it is not possible to compare the awards that individual police unions would have earned, interviews with senior officers in the Halifax Regional Police Department indicated that having only one union increased its bargaining power and resulted in a salary settlement that was larger than anticipated and was to be implemented more quickly than had been planned. The department “resourced” the salary settlement with attrition.

2. *What changes in policing resources occurred during and after amalgamation?*

In Table 2, there are nine comparisons of trends in policing resources and their associated percentage changes. For eight of the nine percentages, the trends indicate that *resources have decreased with amalgamation*. The exception

is illustrated in Figure 6, wherein the percentage of sworn officers who are patrol-related increases sharply in 1996 and thereafter trends downward. By 1999, the percentage is lower than at any point before amalgamation.

3. What changes in service levels are associated with amalgamation?

There are two indicators of service level in Table 2, and the trends indicate that for all six percentage change figures, *amalgamation is associated with decreased levels of service* (higher ratios of population to officers). The trends in Figures 8 and 9 generally indicate that the trend towards lower service levels begins when amalgamation occurred.

4. How did crime rates change with amalgamation?

The nine indicators of crime rate trends in Table 2 *paint a mixed picture of changes in crime rates associated with amalgamation*. In fact, three of the percentages suggest no trend in crime rates, two others suggest an increase in crime rates, and four others suggest a negative trend. When figures 9, 10 and 11 are examined, there appears to be an offsetting pattern of relatively high and low rates of person and property offences after amalgamation. When the rate of person offences is high, the rate for property offences is low. The overall crime rate in Figure 11 indicates that the trend was sharply downward from 1993 through 1995 (the lowest rate in the seven years). From 1996 through 1999, there is essentially no change in overall crime rate.

5. How did workloads change with amalgamation?

With respect to changes in workload over time, most of the nine percentage changes (seven out of nine) suggest that *workload, measured by reported crimes per sworn officer has increased*. In figures 12 and 13, there is no clear overall trend in crimes per sworn officer. In Figure 14, there are two trends – from 1993 through 1995, total crimes per sworn officer decrease and thereafter increase to 1998.

Citizen perceptions of the quality of police services

Beginning in 1995, a series of surveys was conducted to sample residents' experiences and opinions about local government issues related to amalgamation. Between 1995 and 1999, three surveys were conducted. The first was a telephone survey of 1,267 households in Halifax, Dartmouth and Halifax County and was intended to establish a baseline for assessing service quality and to ascertain peoples' expectations about amalgamation. Residents from Halifax and Dartmouth were included in the survey (n = 803), but Bedford chose not to participate.

In the two subsequent surveys (1997 and 1999), residents of all three former municipalities, as well as residents of Halifax County, participated.

For each of these surveys, households were randomly sampled and surveys were mailed to residents. The response rates for each of the two surveys was approximately sixty per cent ($n = 2,137$ valid cases for the 1997 survey, and $n = 752$ for the 1999 survey). The 1997 survey was conducted by the Halifax Regional Municipality, and the 1999 survey was conducted by the municipality and the School of Public Administration at Dalhousie University.¹³

One question that is similar in all three surveys focused on police services. Respondents in 1995 were asked whether they *expected* police services to get better, stay the same, or get worse after amalgamation. In subsequent surveys, the comparable question asked respondents if they felt police services were now better, the same, or worse than they were since amalgamation.

These three surveys offer an opportunity to address a sixth research question about the amalgamation of police services:

6. *How did residents of the Halifax municipalities affected by amalgamation perceive the quality of police services?*

Table 3 compares the findings across the three surveys for all respondents from Halifax, Dartmouth and Bedford (Bedford was excluded from the 1995 survey and Halifax County residents were excluded from all three surveys). Table 4 will display findings for those persons who had actually contacted the police in the year prior to each of the post-amalgamation surveys.

There are several key trends in Table 3. First, 39.1 per cent of all those questioned in 1995 expected police services to get worse after amalgamation. That percentage goes down to 20.9 in 1997, and down again to 16.1 per cent in 1999.

The findings suggest that overall, amalgamation in the Halifax region is associated with higher costs (in real-dollar terms), lower numbers of sworn officers, lower service levels, no real change in crime rates, and higher workloads for sworn officers

Second, although nearly 16 per cent of respondents in 1995 expected police services to improve after amalgamation, neither of the post-amalgamation surveys approached that figure. By 1999 only 5.8 per cent of respondents believed that police services had improved since amalgamation.

Third, the largest single response over time was the perception that police services had stayed the same. In fact, by 1999, 78.1 per cent of respondents indicated that police services had stayed the same.

The figures in Table 3 suggest that citizen perceptions in 1997 and 1999 are better than expectations of what would happen when amalgamation

Table 3. *Respondent Perceptions of Quality of Police Services in the Halifax Regional Municipality before and after Amalgamation*

Quality of police services	Before		Quality of police services	After			
	1995*			1997**		1999**	
Will get better	121	15.8%	Are better	42	4.1%	28	5.8%
Will stay the same	344	45.1%	Stayed the same	776	75.0%	378	78.1%
Will get worse	299	39.1%	Are worse	216	20.9%	78	16.1%
Totals	764	100.0%		1,034	100.0%	484	100.0%

*In 1995, survey respondents were asked whether police services would get better, stay the same or get worse after amalgamation.

**In 1997 and 1999, respondents were asked whether police services were better, the same or worse since amalgamation.

Table 4. *Respondent Perceptions of Quality of Police Services after Amalgamation for Those Who Reported Contacting the Police*

Quality of police services	1997		1999	
Better	11	3.5%	7	7.5%
Stayed the same	205	64.7%	63	67.7%
Worse	101	31.9%	23	24.7%
Totals	317	100.0%	93	100.0%

occurred. There are more "stayed the same" responses post-amalgamation than before, and fewer "worse" responses after amalgamation than before.

Since most citizens do not actually contact the police in a given year, it is worthwhile looking at the perceived quality of police services for those who reported contacting the police. It turns out that their perceptions of police services are considerably less positive than the samples as a whole. They are summarized in Table 4.

In 1997, a total of 317 surveyed persons in the three Halifax Regional municipalities contacted the police. When asked how police services were since amalgamation, nearly 32 per cent said they were worse – close to the same level as in the 1995 survey. Likewise, nearly 25 per cent the 93 persons contacting the police in 1999 judged police services to be worse since amalgamation. Although this is an improvement over the 39.1 per cent who expected police services to get worse in 1995, a quarter of those who had actual contact with the police in 1999 still offered an unfavourable assessment of the quality of police services since amalgamation.

Summary and Conclusions

The indicators that have been discussed in this article offer an opportunity to systematically compare levels and trends in key variables before and after amalgamation. These data are more complete and extend over more years than the sources of information that have generally been used to assess other police amalgamations in North America. Having cost, manpower, service-level, crime, workload and service-quality indicators in this study makes it possible to examine the amalgamation of Halifax Regional Municipality police services from points of view that have generally not been considered in any one study to date.

[W]hen the comparisons are focused on persons who actually called the police in 1997 and 1999, nearly 32 per cent of those surveyed in 1997 felt that police services had gotten worse since amalgamation, and nearly 25 per cent felt the same way in 1999

The findings suggest that overall, amalgamation in the Halifax region is associated with higher costs (in real-dollar terms), lower numbers of sworn officers, lower service levels, no real change in crime rates, and higher workloads for sworn officers. Although there are specific indicators that point to a contrary conclusion, the strategy adopted here and displayed in Table 2 has been to rely on a systematic interpretation of three different ways of calculating change over time together with the visual interpretations of the figures presented in this analysis.

One of the predictions made by the Hayward consensus report was that there would be at least \$800,000 in savings per year post-amalgamation. If nominal dollar amounts are used, the average yearly saving is about \$325,000. Using 1992 real dollars, and averaging all of the pre- and post-amalgamation expenditures, the savings are more substantial, averaging \$2.1 million per year, or 6.2 per cent of the average pre-amalgamation expenditures.

This finding appears to suggest that amalgamation has saved money and accords with the predictions made by the Hayward report – exceeding the predicted saving if real dollars are used to compare expenditures over time. These findings correspond to the findings in some of the police amalgamations summarized in the review of previous research.¹⁴ But, it is important to keep in mind that the downward trend in total expenditures began in 1994 and extended through 1997. Amalgamation did not change that trend. Further, in 1998 and 1999, there were sharp increases in expenditures, which

can be traced to the substantial salary settlement in 1997. That was the first post-amalgamation settlement with the single police union created when the bargaining units themselves amalgamated in 1996.

Consistent with most other research to date, the average expenditure per sworn officer has increased with amalgamation. The average increase in constant dollars is nearly three per cent. In some of the previous studies there has been evidence that where costs increased, service levels also increased.¹⁵ In the current case, although average pre/post expenditures have decreased, there is evidence that service levels have also declined.

Interviews with current and former senior officers and police chiefs suggest that the quantitative picture of higher costs and lower service levels is borne out by their experiences. For the Halifax Regional Police Department, a key event was the settling of a labour dispute with the police union in 1997. To balance the police budget, older officers were encouraged to retire and, in many cases, were not replaced. Budget constraints also affected the actual levels of service offered in the former three municipalities. Prior to amalgamation, the Bedford Police Department was able to provide vacation checks and night-time business checks. These services were eliminated when amalgamation occurred and have not been restored or offered in any part of the municipality.

The current study suggests that when predictions are tested, there is a considerable gap between the rhetoric and what actually happens when police departments are amalgamated in an urban setting

Further, the police department has adopted a system of selective responses to calls for service, much like Abbotsford has done in British Columbia. Responses to burglaries, for example, are made as time permits – they are a lower priority than was true before amalgamation.

The findings from the three citizen surveys indicate that nearly 40 per cent of residents in 1995 expected police services to deteriorate after amalgamation. By 1999, 16.1 per cent maintained that police services had deteriorated since amalgamation. But when the comparisons are focused on persons who actually called the police in 1997 and 1999, nearly 32 per cent of those surveyed in 1997 felt that police services had gotten worse since amalgamation, and nearly 25 per cent felt the same way in 1999.

Overall, this study of the amalgamation of Bedford, Dartmouth and Halifax police departments suggests that although there were some cost-savings, they were not linked to amalgamation but instead reflected a longer-term trend in the three departments that was influenced by provincial wage

restraint policy and overall economic conditions. Having seven years of data has facilitated looking for trends and magnitudes of change before and after amalgamation.

Claims about the efficiency and cost-effectiveness of amalgamation have tended to rest on evidence that is generally inadequate to assess the actual consequences of this kind of organizational change. The current study suggests that when predictions are tested, there is a considerable gap between the rhetoric and what actually happens when police departments are amalgamated in an urban setting.

Notes

- 1 William Hayward prepared reports that played a key role in justifying the process of amalgamation. See Nova Scotia, Department of Municipal Affairs, *Interim Report of the Municipal Reform Commissioner Halifax County (Halifax Metropolitan Area)*. Prepared by C. William Hayward (Halifax: Queen's Printer, 1993).
- 2 C. William Hayward prepared the report that recommended the amalgamation of the three municipal police departments in the Halifax area. See Nova Scotia, Department of Municipal Affairs, *Consensus Report: Regional Policing*. C. William Hayward, project consultant (Halifax: Queen's Printer, 1994).
- 3 Robert Bish, *Local Government Amalgamations: 19th Century Ideas for the 21st Century* (Toronto: C.D. Howe Institute, 2000). The Bish monograph is a review of all existing amalgamation-related theory and research.
- 4 See Andrew Sancton, *Merger Mania: The Assault on Local Government* (Montreal and Kingston: McGill-Queen's University Press, 2000); and Igor Vojnovic, "Municipal consolidations in the 1990s: An analysis of British Columbia, New Brunswick and Nova Scotia," *CANADIAN PUBLIC ADMINISTRATION* 41, no. 2 (Summer 1998), pp. 239–83; and Igor Vojnovic, "Municipal consolidation, regional planning and fiscal accountability: The recent experience in two Maritime provinces," *Canadian Journal of Regional Science* 23, no. 1 (Spring 2000), pp. 49–72.
- 5 Elinor Ostrom, Roger B. Parks and Gordon P. Whitaker, *Patterns of Metropolitan Policing* (Cambridge, Mass.: Ballinger, 1978).
- 6 Robert Helsley, *Regional Policing: An Economic Analysis*. A report prepared for the Policing in British Columbia Commission of Inquiry (Victoria: Commission, 1994).
- 7 T.W. Koepsell and C.M. Girard, *Small Police Agency Consolidation: Suggested Approaches*. Report prepared for the National Institute of Law Enforcement and Criminal Justice (Washington, D.C.: Department of Justice, 1979).
- 8 Rian Hamby, *Police Agencies Review* (Vancouver: Justice Institute, Public Safety Committee, 1992).
- 9 Ravinder Thandi, "A review of the literature on amalgamating police departments." An unpublished student paper (Victoria: School of Public Administration, University of Victoria, 2000).
- 10 Roger B. Parks and Ronald Oakerson, "Comparative metropolitan organization: Service production and governance structures in St. Louis (MO) and Allegheny County (PA)," *Publius: The Journal of Federalism* 23, no. 1 (Winter 1993), pp. 19–39.
- 11 Hamby, *Police Agencies Review*.
- 12 [n.a.] "Nova Scotia Economic Outlook," *Nova Scotia, Department of Finance* [web site] ([Halifax]: Crown Copyright, 2001), at <http://www.gov.ns.ca/finance/publish/OUTLOOK/0111.pdf>.
- 13 Dale H. Poel, "Amalgamation perspectives: Citizen responses to municipal consolidation," *Canadian Journal of Regional Science* 23, no. 1 (Spring 2000), pp. 31–48.

- 14 See Hamby, *Police Agencies Review*; and J.T. Krimmel, "Northern York County Police consolidation experience: An analysis of the consolidation of police services in eight Pennsylvania rural communities," *Policing* 20, no. 3 (March 1997), pp. 497-507.
- 15 J. Edwin Benton and Darwin Gamble, "City/County consolidation and economies of scale: Evidence from a time-series analysis in Jacksonville, Florida," *Social Science Quarterly* 63, no. 1 (March 1983), pp. 190-98.