
LIFE ON & OFF THE JOB:

A Time- Use Study of Nova Scotia Teachers

REPORT PREPARED BY

Dr. Andrew S. Harvey
and
Jamie E.L. Spinney

OF THE TIME-USE RESEARCH PROGRAM,
SAINT MARY'S UNIVERSITY

March 2000

Life On & Off the Job: Time-Use Study of Nova Scotia Teachers
(March 2000)

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Cataloguing-in-Publication Data

Harvey, Andrew S., and Jamie Spinney. (2000). **Life On & Off the Job: Time-Use Study of Nova Scotia Teachers** / [...researched and written by Dr. Andrew S. Harvey and Jamie E.L. Spinney].

Includes bibliographical references.

ISBN: 0-9686965-0-3

1. Time use. 2. Time-use research. 3. Nova Scotia. 4. Teachers.
5. Stress. 6. Time perception. 7. Diary. 8. Activity codes.

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ACKNOWLEDGEMENTS

This document was researched and written by Dr. Andrew S. Harvey and Jamie Spinney of the Time-Use Research Program, Saint Mary's University, Halifax, Nova Scotia.

Sincere appreciation is extended to Mary Jane Cadegan, Gail Doucette and Dawn Harvey for their continued support and assistance throughout this project.

The authors extend a special thank you to all those teachers who willingly took time out of their already busy schedules to participate in this project.

THE AUTHORS

Dr. Andrew S. Harvey (BA, University of Maine; MA and PhD, Clark University) is Professor of Economics and Director of the Time-Use Research Program at Saint Mary's University and President of the International Association for Time-Use Research (IATUR). Dr. Harvey's research interests cross several disciplines, focusing particularly on the study of time use and the definition, measurement and valuing of human activity. In 1971, he directed a time-space study: DOMA (Dimensions of Metropolitan Activity). Since then he has been extensively involved in the design, implementation and analysis of time-use surveys. Dr. Harvey has served as a consultant to the FAO, the UN Statistical Office, UNDP, the World Bank, Statistics Canada and a number of other organisations. From 1992 to 1996, he co-ordinated a project on time use and the valuation of non-market production for UN INSTRAW. He recently authored a chapter on time-use data collection methodology for a World Bank publication. With funding from SSHRC, commencing in 1994, Dr. Harvey and several colleagues have been exploring the concept of activity settings. He is the author of numerous monographs and articles in a number of areas including time-use methodology, social indicators, leisure studies, ageing, gender studies, urban and regional economics and planning, transportation, occupational science, evaluative research, and secondary data analysis.

Jamie E.L. Spinney (BA, Saint Mary's University; BEd, Dalhousie University; Dip. Fish. Dev., Marine Institute of Memorial University; and MURP, Dalhousie University) is currently a Research Associate at the Time-Use Research Program at Saint Mary's University, Halifax, Nova Scotia. Mr. Spinney is best described as a geographer, with professional certification as both a teacher and a planner. Mr. Spinney's research experience is inherently interdisciplinary, focusing on both physical and social sciences, and the role of information technology in sustainable development through regional planning. During 1999, Mr. Spinney was involved in the analysis of multi-national time-use data to examine issues of flexibility and mobility for the Dutch Ministry of Transportation. In 2000, Mr. Spinney has examined a proposed activity-coding scheme for the International Labour Organisation of the United Nations.

EXECUTIVE SUMMARY

A project "Life On and Off the Job: A Time-Use Study of Nova Scotia Teachers" was commissioned by the Nova Scotia Teachers Union to explore the temporal realities of teaching activities and the way they interface with personal and family life. The study was motivated by a need to understand the implications of increasing demands made on teachers by multiple and uncoordinated changes, including increased accountability, a policy of inclusion, centralised curriculum development, and downsizing being imposed on the system, resulting in job intensification. This is the first report based on data collected for that project. It describes the methodology used, the sample from whom data were collected, and initial findings from the data.

The methodology adopted was based on the internationally accepted standard time-diary approach, which is widely accepted as the most reliable means of collecting accurate and reliable time-use data (see Appendix A for coding scheme and Appendix B for diary format). The current study expanded on the traditional time-diary approach by disaggregating the time spent on the job to better understand the range of activities teaching entails. Typically, in time-diary studies, time at work has been included as a "black box" in aggregate terms only. Internationally, this study is among the pioneers to utilise a standard time-diary approach to explore the teaching profession.

The survey instrument used to collect the data for this report was an expansion of one used every five years since 1975 in the Netherlands. It was sent to 1800 randomly sampled teachers throughout the province of Nova Scotia. The sample was deemed to reflect adequately the distributions of both regional school boards and school levels. Overall, there was a 45.7% response rate, which varied considerably from one regional board to another.

More than three-quarters of the respondents are classroom teachers and female. More than one-third have greater than 25 years of experience. Almost 75% of the respondents have children in their household. In processing the data full-time and part-time teachers were distinguished, and the data were adjusted to reflect the appropriate allocation of days of the week.

Preparation time is both desirable and necessary for several reasons, such as the opportunity to commit to and get involved in change, and for restricting the process of intensification in teachers' work (Hargreaves, 1990, 1991). Results from this study indicate that teachers are receiving an average of 179 minutes of preparation time per cycle, which is simply not enough time, given all the changes occurring within the classroom and in education generally. This assertion is supported by the time-diary data, which indicate that teachers perform an average of 630 minutes of preparation activities per week.

A result of the demanding nature of the teaching profession, over 90% of teachers either seldom or never feel they have time on their hands. Additionally, over 80% either often or always feel rushed each day. Therefore, we suggest that teachers do not have adequate time to reflect on their teaching, they do not have time to work collaboratively with their peers, and they do not have time to refuel emotional and physical reserves.

The nature and demands of teaching have changed significantly, with many activities generating increased demands on teachers' time. Changing job demands, followed closely by other paperwork, work-related meetings, and IPP's have led to the greatest increase in the time required to perform different teaching

activities. The intensification of teachers' work invariably leads to prioritising of activities that are rewarded over those activities that are not (Robertson, 1996).

Students are perceived as the losers in the process of recent educational changes since the greatest perceived decrease has been in time spent with individual students, suggesting that activities with individual students are often not rewarded by the system, while paperwork and meetings typically are.

Teachers believe that other people's perceptions of the teaching profession have changed for the worse over the past five years. Teachers appear to believe that the greater the distance between other people and the daily realities of the classroom, the lower their view of the teaching profession. The ramifications of this are that, in the teachers' view, federal and provincial politicians are perceived to have the poorest understanding or appreciation of the teaching profession, yet these people are the power brokers of our society. These results suggest the potential for fostering a sense of hopelessness, cynicism and demoralisation among Nova Scotia's teachers.

More than 80% of respondents indicated they feel they are trying to take on too many things at once, and about 75% feel that others expect too much of them. Seventy-five percent said they worry about not spending enough time with family and friends. Obvious ramifications include feelings of guilt, resentment of job demands, and anxiety from the fear of not meeting expectations. The most stressful job-related activities are teaching, professional development and other meetings. Teachers identified teaching and professional development as the most stressful aspects of their lives.

Teaching (employed work) is the most stressful activity performed by teachers. However, teaching is comprised of a myriad of different, yet interrelated, activities. Of these teaching-related activities, student discipline is the most stressful activity, followed by committee work and IPP's. Stress associated with class instruction ranks seventh out of the fifteen different teaching activities.

Interestingly, the teachers' estimate of time they spend on teaching-related activities, 51 hours a week, is lower than the diary estimate of 52.5 work-hours of teaching-related activities per week. For classroom teachers, over 40% of these hours are spent on class instruction, amounting to less than half of their total work time. Hence, activities other than instruction contribute very significantly to their workday and are often performed as "homework."

- One-third of teachers' time is spent on class instruction and tutoring.
- Twenty percent of teachers' time is spent on preparation, most of which is homework.
- Over ten percent of teachers' time is spent on marking and grading.
- Meetings and paperwork/report cards each consume another four to seven percent of teachers' time.
- Other work-related activities, mainly supervision, administration, and extra-curricular activities, account for the remaining time.

School administrators perform 56.7 work-hours of teaching-related activities per week. Administrators, expectedly, spend the greatest (23.8%) proportion of their work-hours on administrative activities. These activities -- combined with paperwork, meetings, telephone calls, and preparation-- account for almost three-quarters of their total work hours.

Based on survey results, more than 80% of teachers are involved in some aspect of the IPP process. These teachers are each responsible for an average of 4.8 IPP's. The responsibilities associated with these students constitute a demand on teachers' time resources of an average of 4.2 additional work-hours per week for teachers with IPP's compared to those without IPP students.

INTRODUCTION

Whatever else may be said about teaching, few would disagree that the nature and demands of the job have changed profoundly over the years. For better or worse, teaching is not what it was.

(Hargreaves, 1992)

Recent changes to public education in Nova Scotia have generated interest in the realities of teaching and in the lives of teachers on and off the job. The purpose of this project was to gather objective and subjective data on the daily lives of teachers to provide more accurate information on teacher worklife and overload. The 1992 Canadian General Social Survey time-use data provided information to explore the amount, timing and location of paid, work-related time of teachers and the way that time interfaces with their lives away from their work. As with all traditional time-use studies, it provided no insight into the content of the work time, yet the content of paid work activity and its timing and location significantly affect the quality of work life and the student, teacher and societal benefits generated by it. In order to fill the void in our understanding of the objective and subjective dimensions of teaching, the Nova Scotia Teachers Union commissioned a time-use study covering school teachers and school administrators in the province. This report presents findings from that study.

The findings presented in this report are preceded by a brief introduction to the purpose, background and justification for a time-diary study into the daily lives of teachers, followed by a presentation of the research methods, which includes instrument development and implementation, sampling procedure, and response rates. The results are categorised into six distinct but interrelated sections, beginning with demographics and contextual attributes. Other sections, in order, are the IPP process, teachers' perception of their time, perceived affirmation, stress, and finally the results from the time diary. After the results have been presented, this report provides summarised conclusions and a list of references.

Background

Previous work suggests a number of forces leading to an intensification of the job of teaching. For example, Smyth (1993) suggests that bigger classes, additional managerial tasks, new technology, and new information systems have contributed to an increased workload for teachers. Hargreaves (1992) suggests that mainstreaming, changing class composition and accountability requirements have contributed to an increased workload for teachers. Hargreaves found that preparation time reduced stress, helped restore life outside teaching, and enabled teachers to do things better. However, more frequently it provided an opportunity to cope with immediate demands. This idea raises a number of points relevant to a study of the time allocation of teachers. In particular, it suggests that merely capturing the objective passage of time will provide an incomplete picture of teachers' time on and off the job. As a result, there exists a need to capture certain subjective dimensions of time use as well.

French (1998), studying perceptions of the IPP process, found that time required for IPP's could impact upon general teaching responsibilities. The degree of the impact was related to the number and nature of high-need students in the class. Among other recommendations, she suggested that "sufficient time be factored into educators' schedules to accomplish the numerous tasks associated with the IPP process" (p.15). This suggests a need to gather some detail on actual tasks performed by teachers.

The Saskatchewan workload and worklife study provides a good literature overview relating to the aggregate time allocation of teachers (Saskatchewan Teachers Federation, 1995). Beyond that, it provides an ideal starting point for a more in-depth study of the time allocation of teachers and the interface between their lives on the job and outside the job. The study identifies several categories of teaching activity: instructional activities, preparation time, supervision, extracurricular activities, and other teaching-related activities, many of which may, in fact, be manifest away from the job. An extensive list of preparation activities, extracurricular activities, special events and projects, and teaching-related activities are detailed in the report. These provided guidance for construction of the detailed activity list in the diary used in this study. The study also draws attention to teachers' social interactions, in addition to those with students, that teachers engage in with colleagues and parents. Additionally, the Saskatchewan study identifies a long list of stressors identified in the diaries. This list provided guidance both for questions to be asked on the survey protocol and for analysis once the data had been collected.

Justification for a Diary Study

To understand fully the worklife of teachers, one needs to capture the activities in which teachers engage and the context in which they occur. One needs to know where the activities took place, who was present, what was done before and after, and ideally certain subjective dimensions, such as the amount of stress experienced in doing the activity and possibly the amount of pre-planning involved. Such information can only be collected by means of the diary. Data collected in this way enable one to study how various aspects of the respondents' daily living impact upon other aspects. Often it is not the quantity of time that poses problems and generates stress, but rather the context of the activity or its juxtaposition with other activities. The diary enables us to understand such relationships.

A particular advantage of the diary format is its ability to track social contact and work location as well as activities performed. It has been suggested that time diaries are the only viable method of obtaining valid and reliable data on activities (Juster, 1985; Robinson, 1985). Respondents indicate where they are (e.g., school, home, other place) and whom they are with (e.g., alone, with family, class, single student, parents, colleagues, friends, others). In addition to the diary, the questionnaire obtains background information on the respondents, their school situations, and other relevant dimensions of daily life, including measures of occupational and homework stress.

RESEARCH METHODS

This section of the report provides an outline of the research methods used from data collection to final analysis. It begins with the development of the instrument, followed by implementation, sampling procedure, response rates, and data processing.

Development of the Instrument

The survey instrument was developed from analysis of a variety of other questionnaires and time diaries. The instrument was developed as two distinct sections. The first section follows a survey format, and its purpose is to acquire information about demographics and other qualitative and quantitative aspects of Nova Scotia teachers and their worklife. The second section of the instrument is comprised of the time diary (Appendix B) with an associated coding scheme (Appendix A).

A draft version of the instrument was initially developed with input from teachers and pre-tested on a focus group of seven participants, representing a diversity of teaching positions. Each participant had completed an initial version of the instrument over a four-day period. The focus group session was intended to explore the process by which the participants had filled out their diaries, their perceptions of the survey questions in the first section, the clarity of both the format and presentation of the instrument, and their overall views about completing the diary. As a result of the comments emanating from the focus group, several adjustments were made to the wording of questions and the categorisation of potential responses.

The next phase in the instrument development process consisted of piloting the survey with 251 teachers throughout the province. While the response rate was low, the results from the piloted instrument were impressive in the quality and clarity of responses. As a result of feedback from the pilot study, the number of diary days was reduced from four to two. Other changes included rewording a few questions and the diary instructions, and changing the pages from a legal to a letter-size format, which permitted the 24-hour diary to fit neatly into the booklet format. Once the instrument was reviewed and approved by stakeholders, it was distributed to the randomly selected teachers.

Implementation of the Instrument

The process for distributing the instrument began with a letter of intent being sent to each of the union local presidents. The local presidents were asked to hold a meeting with school representatives both to explain the process and distribute a package to each school representative. Each representative's package consisted of a large return envelope (stamped and addressed), a set of written instructions, and a list of respondents. The package also included a return envelope for each respondent, which contained the instrument and a letter from the president of the NSTU.

Respondents were asked to complete a diary for each of two consecutive days of the week, as indicated on each teacher's envelope. Once both diaries were completed, respondents were asked to return the instruments in a sealed envelope to the school representative. The school representative then returned the completed diaries in the provided prepaid envelope, along with a copy of the list of participants. The list of participants was used to gauge response rates. Completed instruments were entered into digital form, and the researchers at the Time-Use Research Program, Saint Mary's University, then analysed the data.

Sampling Procedure

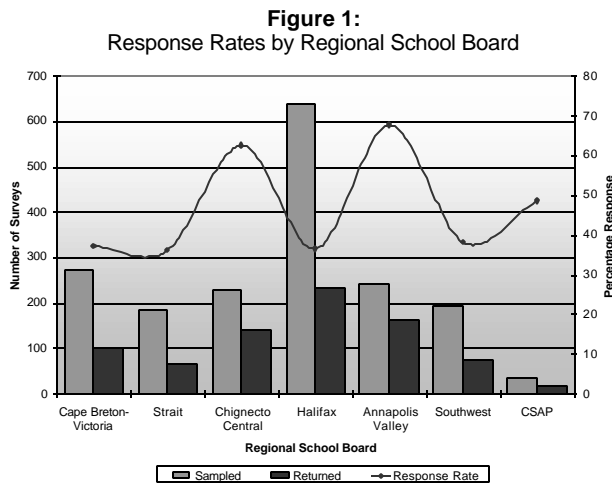
The population used for this project was 10,228 teachers at 511 public schools. Thirty percent of the schools were randomly sampled, producing a sample of 154 schools. It was important that the distribution of schools within the random sample resemble the actual distribution of schools among the different school boards. The results of the sample were fairly consistent with the population, as is expected with a random sampling procedure.

The actual number of teachers varies from year to year and may differ slightly from last year’s database, which was provided by the NSTU. A total of 3,136 teachers are considered to be valid teachers working at the 154 randomly sampled schools. However, only 1800 teachers were deemed necessary to provide the desired number of respondents, based on expected response rates. As a result, from the 3,136 teachers, exactly 1800 teachers were randomly sampled and subsequently assigned to the primary list of respondents. The remaining 1,336 teachers were assigned to a secondary respondent list, to be used as potential replacement teachers if a selected teacher no longer existed within the sampled school.

Important considerations in the random sample of teachers were the distribution of teachers across the different regional school boards and distribution of teachers among the different school levels. Since the distribution of schools was fairly consistent with the actual distribution, it was reasonable to expect a similar distribution of teachers. In fact, the distribution of sampled teachers was fairly consistent with the teacher population.

Response Rates

The distribution of the returned surveys closely resembles the sample distribution (Figure 1). Of the 1800 survey instruments distributed, a total of 1006 instruments were returned, representing a response rate of 55.9%. However, not all of these surveys were complete. That is, 18.3% of the surveys were returned either partially complete or incomplete, and they have been excluded from all subsequent analyses. A total of 822 completed diaries were used for the subsequent analyses, representing a response rate of 45.7%. These response rates are considered acceptable for a distribution of unsolicited questionnaires to teachers, approximating response rates described by Goddard (1999), French (1998), and others.



Data Processing

Prior to analysis of the time-diary data, some pre-processing was necessary. The most notable processing was the creation of two variables that are central to analysis of the time-diary data. The first variable created was FULLTIME – used to select what appear to be full-time teachers (i.e., 100% positions). The variable represents only those teachers claiming to work in excess of 35 hours per week. Secondly, the response was not proportional for each day of the week. In fact, Saturday was underrepresented by 25%, while Sunday was underrepresented by 37%. Therefore, a weighting variable, DAYWEIGHT, was created to facilitate the proportional analysis of activity data for mean hours per week. Where values are weighted, it will be indicated.

RESULTS

The following presents the results obtained from “Life On & Off The Job: A Time-Use Study Of Nova Scotia Teachers.” The results begin with basic demographic and contextual data in Section A. Section B provides an examination of teachers’ involvement in the IPP/IMP process. Section C provides an indication of how teachers perceive their own time. Section D presents teachers’ perception of how other people’s view of the teaching profession has changed over the past five years. Section E examines stress by describing situations that sometimes arise in people’s lives. The final section of the results is an analysis of the time-diary data.

Section A – Demographics and Contextual Attributes

This section examines basic demographic and contextual data. One may expect significant variation among different groups of teachers. By capturing these data it is possible to link them to the diary information and compare the results among different positions within the school, years of experience, gender, family status, age, teacher certification level, school level, and grades taught. These data also provide a sample of the personal attributes of the teachers of Nova Scotia.

Position within School

It is important to understand the different types of teachers involved in the daily operation of the education system within Nova Scotia’s schools. Therefore, all teachers have been included within this study. There are obviously more classroom teachers than any other category, as indicated by the graphical depiction of respondents’ positions within the school. In fact, classroom teachers comprise 77.6% of all respondents. The other three positions are made up of other specialists (10.6%), resource teachers (6.8%), and school administrators (5%).

Years Teaching in Nova Scotia

The total number of years spent teaching in Nova Scotia provides an indication of the level of teaching experience and provides a basis upon which different teachers may be compared. It is expected that the number of years of teaching experience will influence the number of hours spent on teaching-related activities. Less than half of the teachers have between 0 and 20 years teaching experience, while more than half of the teachers have in excess of 20 years experience.

Gender

The results indicate that 77% of the respondents are female, while the remaining 23% are male. This distribution is significant with respect to the amount of time spent teaching. Because women are traditionally responsible for household care-giving activities, the teaching burden generates a double burden. As a result, one needs to examine family status to determine more accurately the number of respondents with children in the household. The presence and extent of the double burden of job and home can be expected to add to stress levels.

Family Status

The results indicate that the vast majority of respondents have children in their household (almost 75%). Of these respondents with household children, more than 90% are married. The high frequency of married teachers with children indicates a high level of household commitments these teachers face on a daily basis, keeping in mind that there is often teaching-related work also to be completed during evening hours.

Age

The survey suggests an ageing teaching force with almost 60% of the respondents being 45 years of age or older. These data suggest a low number of young teachers in Nova Scotia’s classrooms, presumably due to the low number of full-time jobs available to new teachers.

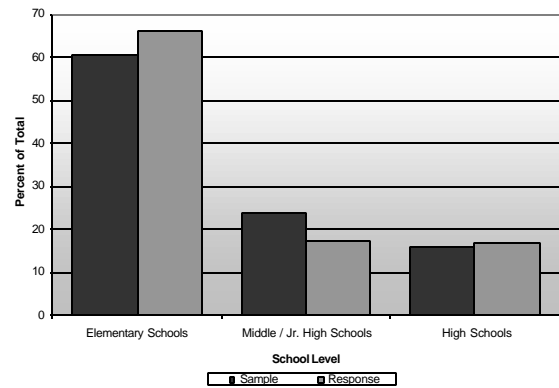
Teaching Certificate

The teaching certificate held by teachers in Nova Scotia is indicative of the level of education achieved. Very few teachers have a TC4, formerly granted by now-closed schools such as the Nova Scotia Teachers College. The vast majority of teachers responding (44.2%) have a TC5, representing a BEd. There is also a high percentage of teachers with a TC6 (32.8%). Only 18% of the responding teachers have a TC7 or greater. The teaching certificate is not necessarily a good measure of either the quantity of experience or the school level. Therefore, it is important to understand the school level and specific grades taught.

School Level

For specific purposes of this study, and in general, schools in Nova Scotia are divided into three levels: Elementary, Junior High School/Middle School, and High School. There may be, however, combinations of these three levels, such as P to 12 or 7 to 12 schools. The distribution of both the sample and responses are depicted in Figure 2. There is a higher proportion of both Elementary and High Schools in the response data than in the sample, while Middle/ Junior High Schools are slightly under-represented compared to the sample distribution. However, these variations from the sample percentages are relatively small and are considered adequate to approximate the distribution of the school population. Another more detailed approach to examining school level is to look at the grades currently taught by the teachers who responded.

Figure 2:
School Level Taught by Respondent



Grades Currently Taught

The grades currently taught are merely a reflection of the school level at which the respondent has teaching responsibilities. However, due to the variety of school-level possibilities, the grades currently taught provide a better indication of the different school levels without having to group the different schools into three distinct categories. As one would expect from previous results, the majority of teachers are teaching grades P through 6 (66%). The fewest teachers (16%) are teaching grades 7 through 9, while there are slightly more teachers (18%) responsible for grades 10 through 12.

Size of Homeroom Class

There is evidence to suggest class size has been increasing over recent years. The debate continues concerning the benefits and costs of decreasing the ratio of students per teacher. This issue is not explored in detail in this report, but time-diary data would facilitate it. Therefore, at this point only the basic statistics of homeroom class sizes are presented here (Table 1).

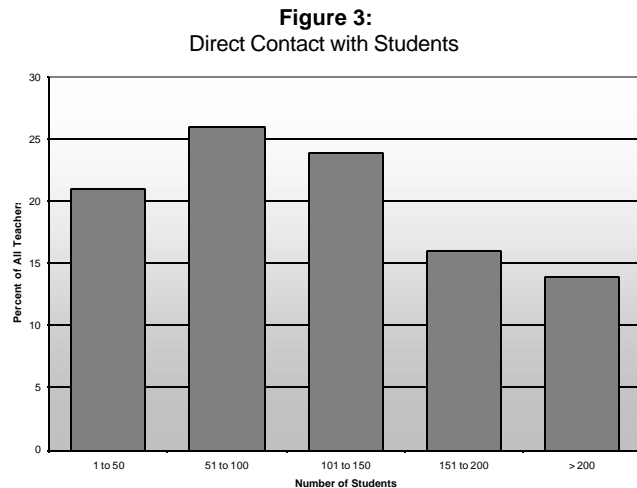
Table 1:
Size of Homeroom Class (# of students)

Mean	Mode	Maximum	Minimum
24.5	26	37	5

The mean homeroom class size for all teachers responding is 24.5 students, which closely resembles provincial statistics for 1997-98 at a mean of 23.5 students. These results, coupled with a modal value of 26, may suggest that class sizes are increasing, or at least that the results are skewed toward a class size larger than the mean.

Direct Contact with Students

The mean number of students with whom teachers come in contact is 71.1 students per day, while the mode is 100 students. Teachers are on the “front lines,” so to speak, when it comes to the operation of the schools throughout Nova Scotia. The number of students with whom teachers come in direct contact is a function of several factors, including number of teachers, number of students, and the teachers’ role (i.e., specialist teacher or administrator). As a result, there is a considerable variation in the number of students with whom different teachers come in contact per day (Figure 3). Clearly, teachers face the challenge of finding time for individual students. They have suggested that of all the different teaching activities, the greatest decrease has been time with individual students.



Another important factor that may influence the number of students with whom teachers come in direct contact per day is the number of different classes they are required to teach. For example, elementary teachers are normally responsible for the same class of students for the majority of the day, while high school teachers are normally responsible for five different classes of students. Additionally, if a teacher is required to perform “lunch duty,” he or she may come in contact with most of the students at the school. The main point is that the more students that teachers are “responsible” for, the less amount of time they are able to devote to “individual” students. Time with students is an essential component of understanding the different skills and abilities of each student. “The more distant teachers become from their students, the more depersonalised their teaching” (Robertson, 1996). One consequence of depersonalised teaching is an even more alienated relationship between teachers and students.

Section B – The IPP Process

The Nova Scotia Department of Education and Culture is responsible for establishing provincial goals and policies for public education, and guidelines for programs and services. The Nova Scotia Education Act (1995-1996) delineates the legislated requirements regarding who may attend public schools and students’ rights to an appropriate education. In addition, the Special Education Policy Manual (1996) describes the expectations placed on school boards for including children with special needs. The policy manual highlights the necessity of developing Individual Program Plans (IPP’s) for students with special needs.

Carmel French (1998) developed a questionnaire to examine the perceptions of educators toward IPP’s and their efficacy, as well as the process of developing, implementing and evaluating IPP’s. In the final report, “Educators’ Perceptions of the IPP Process,” French suggests:

While the Special Education Policy Manual highlights the necessity of developing Individual Program Plans (IPP’s) for students with special needs, many teachers feel they do not have the time, support, or expertise to participate in the process to the extent they would like. Indeed, some teachers (as is evident in resolution 97.2 from the Council ’97 meeting) question the validity of the IPP process. (French, 1998, p.1)

French’s study suggests that the IPP process is necessary and potentially rewarding and beneficial for both the teachers and students involved. French found that almost all (98.5%) respondents agreed that IPP’s are necessary, although more than “90% felt that IPP’s were time consuming, a lot of work and caused stress” (p.1). It is thus necessary to understand both the level and type of involvement in the IPP process to assess the additional time allocated to involvement in that process.

Number of IPP’s

Respondents indicated that on average they are involved with 4.8 IPP’s. The majority of teachers (74 percent) are responsible for 1 to 5 IPP’s, clearly evident in Figure 4. The IPP process has been an important issue on personal and political agendas in recent years. In subsequent sections the issues that surround the IPP process are examined in greater detail than provided here.

More than 80% of teachers are involved in the IPP process in some capacity (Table 2). The following section examines more closely the number of teachers and their associated level of involvement in the IPP process. This survey, like the one by French (1998), surveyed the type of involvement in the IPP process, the results of which are presented in Table 2. French’s (1998) results indicated that 65.2% or more of the respondents participated in different aspects of the IPP process. The two sets of results are quite comparable and suggest most teachers are, in some way, involved in this process. The results also indicate that involvement in the IPP process may be increasing.

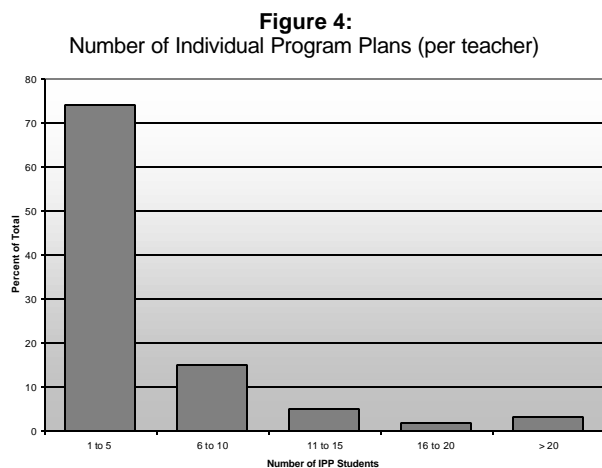


Table 2:
Involvement in the IPP Process

Type of Involvement	Percent of Total
Involvement in some capacity	80.7
Identifying students with special needs	57.5
Implementing IPP's	54.4
Reviewing and evaluating IPP's	51.1
Participating in a school planning team	50.2
Development of IPP's on an ongoing basis	48.3
Providing classroom teacher with information for IPP's	45.0
IPP co-ordinator in your school	10.1
Other	7.7

The results suggest that almost all these IPP activities are performed by about half of the respondents. More than half of the teachers in this study are involved in identifying students with special needs (57.5%), implementing IPP's (54.4%), reviewing and evaluating IPP's (51.1%), and participating on a school planning team (50.2%). An exception is school co-ordinators, who account for about 10% of the teachers. Due to the low response rate for the "other" category, one may interpret that this list of IPP activities is fairly comprehensive.

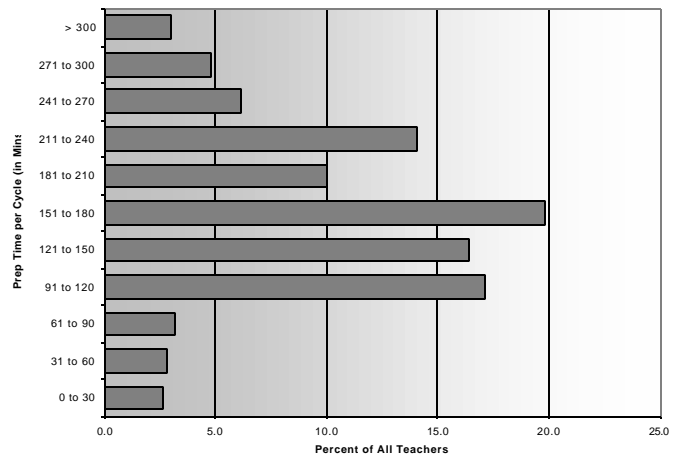
Teachers are often involved in more than three or four of the categories presented in Table 2. With more than 80 percent of respondents involved in the IPP process in some capacity, this represents a considerable assignment for these teachers. Time-diary data, presented in Section F, indicate that involvement in the IPP process requires an average of 2.6 more hours per week on primary activities alone, with an additional 1.6 hours per week on secondary activities. The combination of primary and secondary activities represents an additional 4.2 hours per week (Table 10). It would be interesting to examine whether these teachers are also afforded extra time and other resources to help them accomplish this additional amount of work. If not afforded sufficient time, it could be anticipated that teachers feel under considerable pressure in attempting to carry out their work.

Section C – Time Perception

This section provides an indication of teachers' perception of their own time. The responses show how teachers feel about their daily routines. Do teachers feel rushed? How many minutes of preparation time do they have per cycle, which varies between 4 to 7 school days? How often do they have time on their hands? How many hours do teachers believe they work in an average workweek? The answers to these questions provide valuable subjective insights into how teachers spend their time. These insights may then be used to further our understanding of the teachers' working conditions and daily lives, both on and off the job. The first part of this section shows how much preparation time teachers have per cycle. For analysis of prep time, only full-time classroom teachers are included in Figure 5.

Based on provincial policy, the mean scheduled time was expected to be around 216 minutes, but is more than half an hour less than expected, at 179 minutes. According to the data in Figure 5, there is considerable variation among the different amounts of preparation time per cycle. The diary data, however, indicate that teachers actually spend an average of 630 minutes per week on preparation. This may indicate that teachers do not have the scheduled time necessary for preparation. A consequence of insufficient "prep time" is that preparation activities usually become homework, with the teachers' workload bleeding into their personal lives. Figure 6 depicts the time of day that teachers spend on preparation activities, a common homework activity.

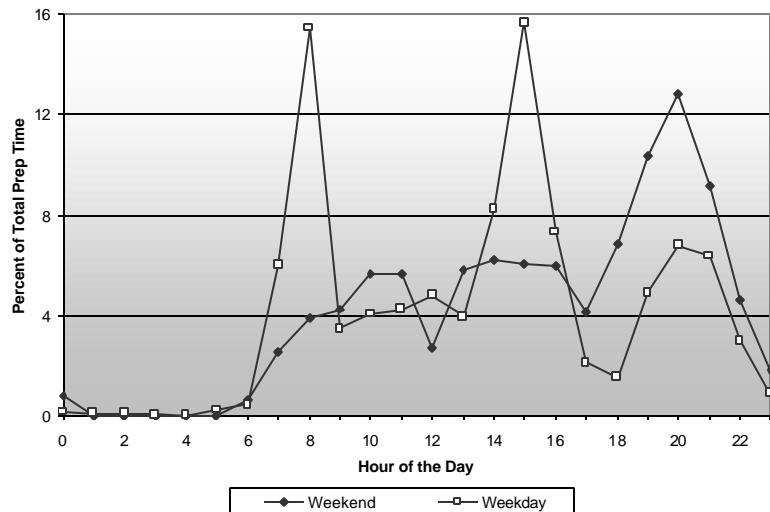
Figure 5:
Assigned Preparation Time
(in minutes per cycle)



Mean Prep Time = 179 mins.

Other teaching-related activities also become homework for teachers. For example, preparation time accounts for almost one-quarter of teaching-related activities. Clearly, the timing of homework is variable between weekday and weekend. Throughout the weekdays, preparation typically occurs before school, after school, or (to a lesser degree) during the evening hours. Apparently, less than 20% of preparation activities are performed during school hours. The importance of evenings during the weekend for completion of preparation is highlighted in Figure 6 as well. Of specific concern here is the amount of preparation time beyond 6 pm on both weekdays and weekends.

Figure 6:
Timing of Preparation Activities
(24-hour clock)



To acquire an indication of the amount of time spent on teaching-related activities, teachers were asked to estimate the total number of hours they typically spend on these activities per week.

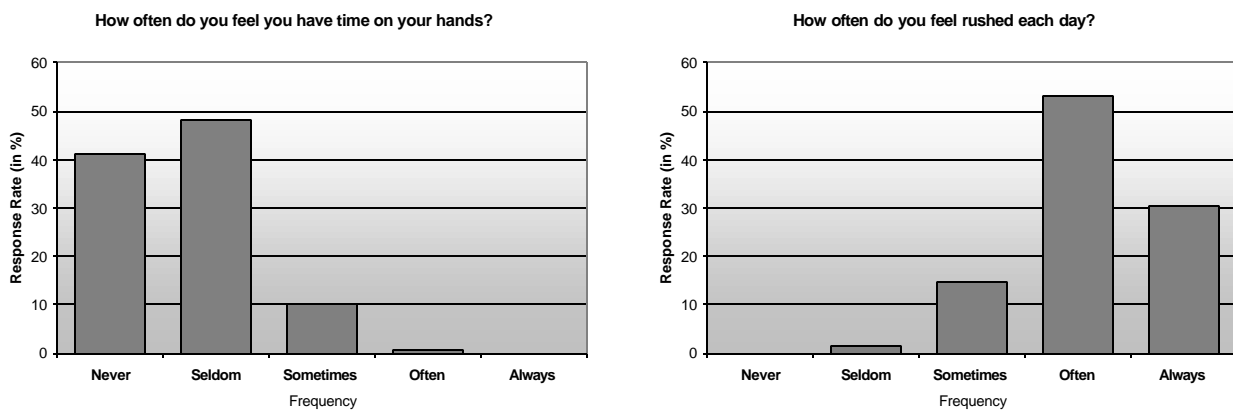
Table 3:
Estimated Time Spent on Teaching-Related Activities (hours per week)

Mean	Mode	Minimum	Maximum
51	50	31	91

The mean time spent on teaching-related activities is more than 50 hours per week (Table 3). These results include only full-time teachers. Part-time teachers (those who work less than 30 hours per week) have been excluded from the following analysis. The maximum value is interesting since it suggests that some teachers estimate they spend up to 91 hours per week on teaching-related activities. There is considerable variation in the amount of time spent on teaching-related activities by different teachers, as the sizeable range suggests. As the amount of time spent on teaching-related activities increases, so does the likelihood that these activities are performed at home. The level of homework may thus leave teachers feeling pressed for time.

Two important aspects of feeling pressed for time, sometimes called the “time crunch” variable (Michelson & Harvey, 1999), are how frequently people feel they have “time on their hands” and how often they “feel rushed each day.” These two factors have direct effects on stress levels endured by people who continually feel pressed for time. Figure 7 depicts the response rate for each of these aspects of the time crunch variable.

Figure 7:
Two Aspects of Feeling Pressed for Time



Based on the results presented in Figure 7, it is clear that Nova Scotia teachers are pressed for time. When teachers were asked how often they felt they had time on their hands, the results suggest over 90% of teachers seldom or never feel that they have “time on their hands.” Additionally, over 80% of teachers indicated that they often or always feel “rushed each day.” These results clearly evidence the existence of stress among Nova Scotia teachers.

Another means of examining teachers’ time is to explore whether the amount of time spent on different teaching-related activities has increased, decreased, or remained the same over the past five years (Table 4). The list of teaching activities is not intended to be exhaustive, rather sufficiently comprehensive to acquire an appreciation for the dominant activities performed by teachers. This should provide some evidence to help understand whether recent changes have been for the benefit or to the detriment of teachers’ time.

Table 4:
Change in the Time Required by Different Teaching-Related Activities (in %)

Teaching Activities	Increased	Same	Decreased	No Comment
Coping with changing job demands	84.7	10.0	1.4	4.0
Other paperwork	83.4	11.3	3.6	1.6
Work-related meetings	77.8	19.2	1.6	1.4
Individual Program Plans	66.6	15.8	2.9	14.7
Committee work	62.1	29.9	4.9	3.1
Parent communication	61.0	32.6	4.7	1.6
Student discipline	58.8	31.4	8.0	1.9
Marking/ grading	55.3	28.9	10.2	5.6
Preparation	53.8	20.4	23.7	2.1
Report cards	50.3	36.4	9.3	4.0
Professional development	49.8	33.0	14.8	2.4
Collaboration with other teachers	48.6	31.5	18.4	1.5
Supervision	36.0	45.2	6.6	12.2
Administration (telephone, organising)	29.6	35.5	5.5	29.4
Extra-curricular activities	27.9	50.4	15.1	6.6
Time with individual students	34.1	17.9	44.7	3.2
Mean	55.0	28.1	11.0	6.0

NOTE: The highest frequencies for each category are shaded.

The different teaching-related activities presented in Table 4 are listed in order of perceived increased time required over the past five years.

- Coping with changing job demands tops the list with almost 85% of respondents suggesting that recent changes have caused an increased amount of work for Nova Scotia’s teachers.
- Other paperwork ranked second, with more than 84% of teachers indicating that this activity requires more time to complete than it did five years ago.
- Work-related meetings ranked third highest for increased time required.
- The development and implementation of IPP’s since 1996 has resulted in an increased amount of time required of teachers. In fact, diary data indicate that involvement in the IPP process requires an additional 4.2 hours per week.
- Only three activities (supervision, administration, and extra-curricular) require about the same amount of time to complete as they did five years ago. Even these three activities have relatively high response rates for an increased amount of time required for these activities.
- Over the past five years, only time with individual students has experienced a significant decrease.

The majority of teaching-related activities have created increased work time required of teachers. This reflects findings consistent with the increased time allocated to meetings, administration, student discipline and preparation of IPP’s noted elsewhere in this study. It is important to clarify that administration applies to all administrative activities (e.g., telephone calls, organising) and not just activities performed by school administrators.

These data do not paint a positive image of teachers’ perceptions of their own time. Teachers perceive that they are not receiving adequate preparation time, they seldom have time on their hands, they often feel rushed each day, and the only time that has decreased is the amount of time they have with individual students. This section has quantified teachers’ perceptions of their own time. The following section examines how teachers feel about other people’s perception of the teaching profession.

Section D – Perceived Affirmation

The purpose of this section is to determine teachers' perceptions of how other people's views of the teaching profession have changed over the past five years.

J.T. Goddard (1999) suggests that teachers have expressed the view that opinions of many people who work outside the educational enterprise have changed for the worse. Goddard examined the perception of teaching by six different groups of people, and his results suggest that the overall perception of the teaching profession by these six groups has changed slightly for the better. The most significant perceived change for the better came from Educational Program Assistants and Guidance Counsellors. The most striking change for the worse came from provincial politicians. Both federal politicians and parents have had an equivalent change for the worse in their perception of the teaching profession. Goddard's results also indicate that four of the six different groups' perceptions of the teaching profession have changed for the worse.

This study (Harvey and Spinney) has identified eleven different groups of people, the purpose of which is to determine teachers' perceptions of how these groups view the teaching profession and whether teachers perceive that these views have changed over the past five years. The values in Table 5 are listed in decreasing order for the mean value. This arrangement allows for ease in examining whose perceived view of teaching is to have changed the most and whether that change was for the better or worse.

Table 5:
Perceptions of the Teaching Profession (in % of total)

Numerical Score*	Changed for the Worse		Same	Changed for the Better		Mean Value
	1	2	3	4	5	
Educational Program Assistants	6.9	13.1	36.9	29.7	13.4	3.3
Guidance counsellors	5.6	11.9	50.4	22.3	9.8	3.2
NSTU	6.8	16.0	51.6	20.1	5.6	3.0
School administration	10.0	19.7	41.0	21.3	7.9	3.0
Parents of school-aged children	15.7	34.3	31.2	15.5	3.3	2.6
Teachers	18.5	31.0	32.3	12.7	5.4	2.6
Students	13.5	34.5	41.7	9.4	0.9	2.5
Dept. of Education personnel	15.9	29.0	44.3	9.3	1.6	2.5
General public	27.5	40.9	25.1	6.4	0.1	2.1
Federal politicians	27.8	38.7	29.2	3.8	0.5	2.1
Provincial politicians	29.7	40.6	24.5	4.5	0.7	2.1
Mean	16.2	28.1	37.1	14.1	4.5	2.6

**Numerical Score is the value used to calculate the mean value.*

The two groups that are perceived to have experienced a slightly improved view of the teaching profession are Educational Program Assistants (EPA's) and Guidance Counsellors. While the NSTU and School Administration's views of the teaching profession have apparently remained the same, the remaining seven groups are perceived to have experienced a change for the worse in their view of the teaching profession. The score for the eleven different groups is 2.6, which indicates that teachers believe other people's overall view of the teaching profession has changed for the worse.

Six common categories allow for comparison between results from this study and the results obtained by Goddard. The difference in the mean values is presented in Table 6.

Table 6:
Comparison of Similar Groups' Perceptions with Goddard's Results

	Harvey & Spinney	Goddard	Absolute Difference
Educational Program Assistants	3.3	4.3	1.0
Federal politicians	2.1	2.9	0.8
Provincial politicians	2.1	2.7	0.6
Guidance counsellors	3.2	3.6	0.4
Parents of school-aged children	2.6	2.9	0.3
School administration	3.0	3.0	0
Mean	2.7	3.2	0.5

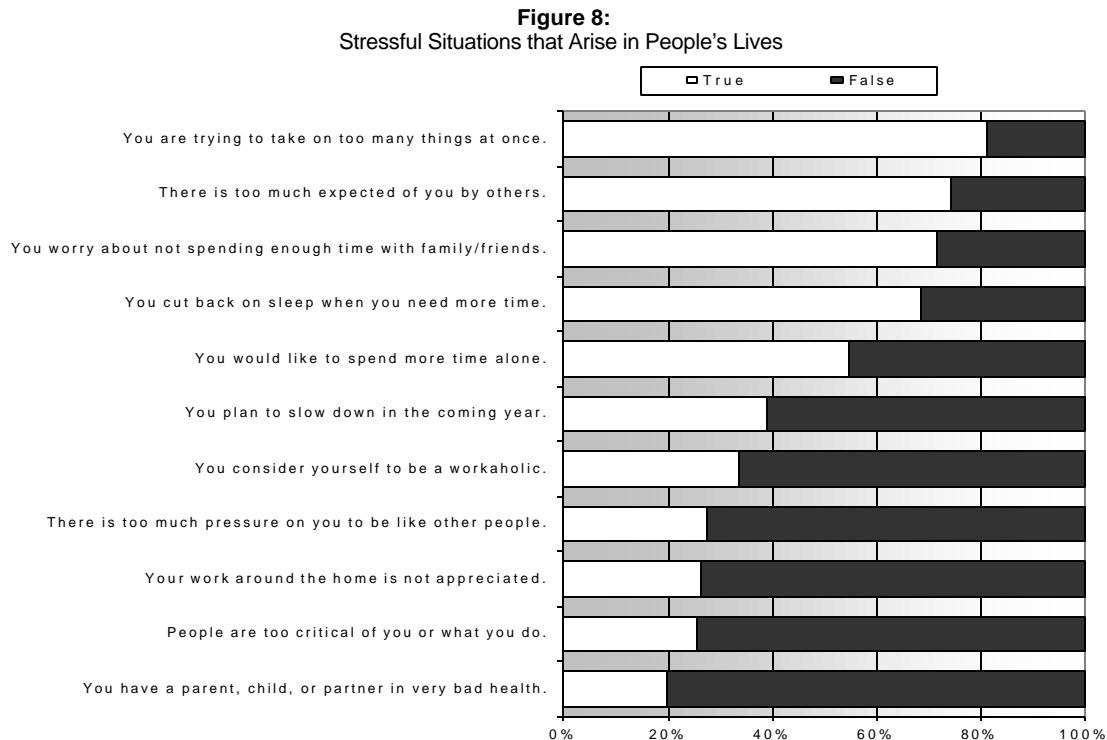
Interestingly, there is very little difference in the results, which reinforces the overall perception of teachers from the two separate, independent studies. In all cases where there is a difference, the results from this study are lower than those achieved by Goddard. This implies a perceived deterioration in the level of affirmation. The most striking difference is for EPA's and both federal and provincial politicians.

Goddard suggested that teachers have expressed the view that opinions of many people who work outside the educational enterprise have changed for the worse. He found that teachers' perceptions suggest the greater the distance "other" people are from the daily realities of the classroom, the lower their view of the teaching profession. This phenomenon may be presented as a "continuum of despair" (Goddard, 1999). This phenomenon may be examined further with the data acquired for this report. Groups of people may be categorised into three "distances" from the daily realities of the classroom. Those closest to the daily realities are people who work within the schools: Educational Program Assistants, guidance counsellors, teachers, and students (Group A). The mid-distance groups are those who are involved in the operation of schools but are not regularly within the classroom: Department of Education personnel, NSTU, and school administration (Group B). Those groups furthest away from the daily realities of the classroom are parents of school-aged children, the general public, federal and provincial politicians (Group C). The results of this categorisation yield mean values of 2.9 for Group A, 2.8 for Group B, and 2.2 for Group C. These results indicate there may be some legitimacy to the "continuum of despair," a concept that merits further analysis.

Teachers believe that the majority of the eleven groups have a worse perception of the teaching profession than they did five years ago. This belief must cause teachers to feel even more pressure than they must already experience from their job. That is, teaching is stressful enough without having to worry about the rest of society discounting and discrediting the teaching profession. Teachers are working harder than they have in the past, yet they are less appreciated than they have been in the past. Teachers' perceptions of the time they spend and other people's view of their profession raise questions about the level of tension or stress experienced by Nova Scotia's teachers. As a result, the next section of this report will examine the level of stress experienced by teachers.

Section E - Stress

This section examines stress by describing situations that sometimes arise in people's lives. The statements in Figure 8 are based on work by John Robinson (1991), and have been adapted by Statistics Canada (1995). They are appropriate to this study because of the changing work environment for teachers, and facilitate the comparison between Nova Scotia teachers and people from other professions. The following figure provides an indication of stressful situations that arise in people's lives.



The results are displayed in order of those statements that are true for the highest number of teachers. The highest response is that teachers are trying to take on too many things at once, suggesting that teachers may feel overwhelmed. About three-quarters of the teachers feel that others expect too much of them, and they worry about not spending enough time with family and friends. These results suggest that teachers are expected to perform an increasing number of tasks and are forced to neglect their family/ friends to meet those expectations. Apparently, teachers are even forced to cut back on sleep when they need more time. About one-third of the respondents consider themselves workaholics, meaning two-thirds might not choose to work so hard if they had a choice. These feelings may lead to anxiety and eventually resentment of the job.

Compared with other persons in Canada whose occupation is education and who participated in the Statistics Canada 1998 time-use study, Nova Scotia teachers are much more likely to worry about not spending enough time with their family/friends. Nova Scotia's teachers are also more likely than other Canadians to cut back on sleep when they need more time, want to spend more time alone, and plan to slow down in the coming year. Teachers are equally as likely as other Canadians to see themselves as workaholics.

Stress may also be measured from the time-diary data. Stress is measured on a scale that ranges from 0 (very relaxed) to 6 (very tense). The actual stress values estimated by teachers are considerably lower than might be expected. This is likely due to an inability adequately to recall the amount of stress associated with activities

performed several hours prior to completing the survey. Additionally, those who work in helping professions under conditions of constant stress are more likely to discount their stress levels. Nonetheless, we may use the data provided in Figure 9 to compare the stress levels associated with different categories of activities. For a detailed description of the activities included within each category, see Appendix A.

Figure 9:
Stress Levels Associated with Different Groups of Activities

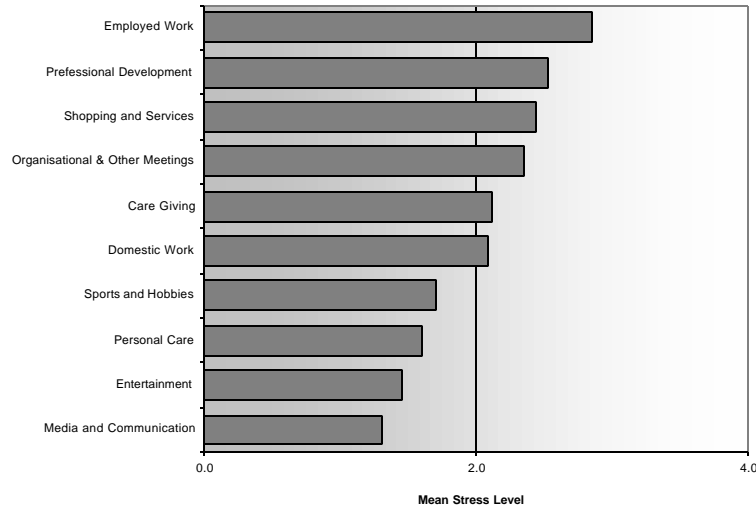
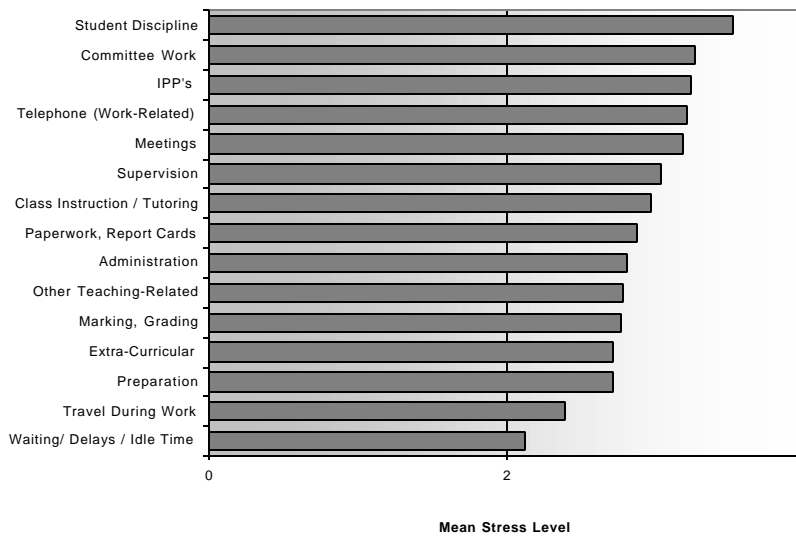


Figure 9 indicates that teaching (employed work) is the most stressful activity performed by teachers. As a result, we need to examine the specific teaching-related activities that are causing the most stress in teachers' lives. Figure 10 outlines the different teaching-related activities with the mean level of stress associated with each. As we can see, student discipline is the most stressful teaching-related activity, while idle time/delays is expectedly the least stressful activity. Stress inflicted by life away from the job may well be evidenced by the relatively high stress associated with shopping and services as teachers try to fit these activities into an already busy schedule.

Figure 10:
Stress Levels Associated with Teaching-Related Activities



Stress is exacerbated by the time demands teachers have outside of their job. In the following section these demands will be examined in the context of total time spent on teaching-related activities and the timing of these activities using time-diary data.

Section F - Time-Allocation & Diary Data

The work life of a teacher is inherently complex and not readily apparent at first glance. For example, the “teaching day” varies throughout the province and extends beyond the typical school hours, perceived by many people to be between 9 am and 3:30 pm. Since these are the hours during which classes are held, this belief is common to persons not familiar with the daily realities of a teacher. In fact, much of the work performed by teachers occurs outside the perceived 32.5-hour workweek. The result is homework for teachers, which tends to bleed into the personal life of a teacher (Michaelson & Harvey, 1999).

To understand the context of teaching-related activities and the amount of time these activities consume, we must first examine the composite of all activities. Table 7 depicts all the possible activities, in eleven different categories, performed by teachers and school administrators on a weekly basis. For a detailed description of the specific activities within each category, see Appendix A. Time allocated to teaching activities is second only to personal care time for teachers. Because sleep is included within “personal care,” it is bound to be the dominant category.

Table 7:
Time Spent on Activity Categories,
All Full-Time Teachers (hours per week*)

Activity Categories	Primary	Secondary	Total
Personal Care	71.4	3.5	74.9
Teaching	42.2	10.3	52.5
Domestic Work	14.7	4.0	18.7
Media	10.7	21.9	32.6
Travel	8.8	0.3	9.1
Entertainment	5.1	1.3	6.4
Care Giving	4.3	3.0	7.3
Hobbies	3.4	0.4	3.8
Shopping	2.9	0.4	3.3
Meetings	2.2	0.2	2.4
Professional Development	2.0	0.1	2.1

*Data is weighted for proportional distribution of days.

The Teaching Day

For a variety of reasons, school hours of operation vary across regional school boards within the province. Typically, school hours for students are between 9:00 am and 3:30 pm, with about an hour lunch break. The results obtained from this study, however, support the fact that the teaching day does not fit neatly into these “typical” school hours. Rather, teachers normally arrive at school early and leave late, with preparation as the main activity before and after school. As a result, teachers are spending 7 to 8 hours a day at school. However, that is not the end of the teaching day. Teachers can look forward to another hour or two of homework. The cumulative result is that teachers are working 7.5 to 9 hours on weekdays and 1 to 4 hours on the weekend. There is considerable variability in the timing of teaching-related activities throughout the day. Some teachers are up early to prepare for the day, some stay at school to complete their work, while others tend to work late in the evening. As a result, there appears to be no “typical” teaching day outside normal school hours of operation.

A particular strength of time-diary data is that we are provided an opportunity to study the timing of activities or the sequence of different activities throughout different times of the day. The timing of teaching-related activities, both during the day and during the week, will provide further insight into when teachers are working. This section begins with an examination of the time of day that teachers are performing teaching-related activities. An examination of the time-diary data (Figure 11), reveals that an average of more than 10 percent of all work-time begins after 6 pm (18:00). This homework during the week typically invades the evenings, taking away from relaxation and family time.

Figure 11:
Start Hour of Teachers' Work Activities

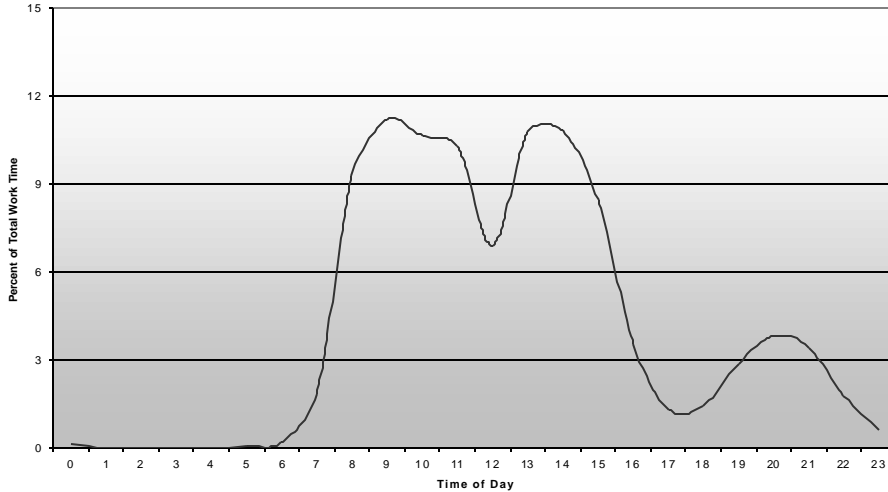
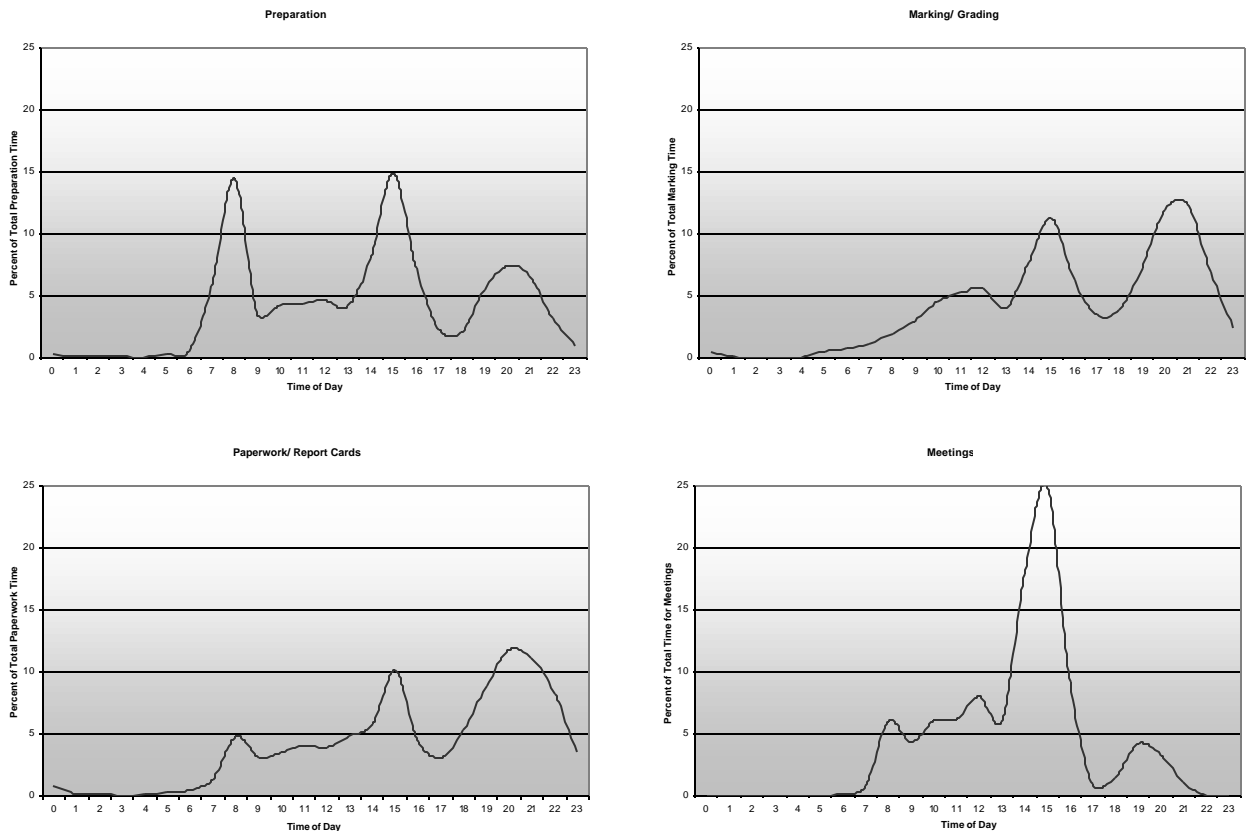


Figure 11 provides an indication of when activities occur throughout the day, averaged over an entire week. To further examine the timing of teachers' activities, the four teaching-related activities that consume the greatest amount of teachers' time are plotted against the time of day (measured with a 24-hour clock). Other than class instruction, which accounts for slightly more than 40% of all work time and obviously occurs during normal school hours, the four teaching-related activities that consume the most of teachers' time are, in order, preparation, marking, paperwork and meetings. Figure 12 graphically depicts the start times for these four activities averaged over 7 days.

Figure 12:
Start Hour of Different Teaching-Related Activities



The four activities presented in Figure 12 are not necessarily performed during school hours. In fact, almost 50% of preparation, 57% of marking/ grading, 60% of paperwork, and 20% of meetings begin outside school hours. Collectively, these four activities constitute a significant amount of homework for teachers that encroaches upon the personal lives of teachers, consequently blurring the distinction between their personal and professional lives.

The Teaching Week

On average, Nova Scotia teachers spend 42.2 hours a week on primary activities and another 10.3 hours for secondary teaching-related activities (Table 8). Collectively, this represents a total of 52.5 work-hours. Work-hours is a measure of total time spent on teaching-related activities, whether it is the primary or secondary activity. Primary activities may be defined as the main activity, while secondary activities are subsidiary to the main activity. For example, class instruction would be the primary activity and student discipline should, ideally, be the secondary activity. Table 8 provides a summary of the distribution of total time allocated to work activities, for all full-time teachers.

Table 8:
Teachers' Work-Time Allocation for
Primary Activities, Secondary Activities and Total Work-Hours (hours per week*)

Teaching-Related Activities	Primary Activities	Secondary Activities	Total Work-Hours	% of Total Work-Hours
Class Instruction, Tutoring	17.6	0.2	17.8	33.9
Preparation	9.4	1.1	10.5	20.0
Marking, Grading	3.8	1.7	5.5	10.5
Paperwork, Report Cards	2.1	1.6	3.7	7.0
Other Teaching-Related	1.7	1.2	3.0	5.7
Supervision	1.9	1.0	2.9	5.5
Meetings	2.0	0.3	2.3	4.4
Student Discipline	0.2	1.6	1.8	3.4
Administration (telephone, organising)	1.1	0.2	1.3	2.5
Telephone (work-related)	0.4	0.7	1.1	2.1
Extra-Curricular	0.8	0.1	0.9	1.7
Waiting/ Delays, Idle Time At Work	0.4	0.1	0.5	1.0
Committee Work	0.3	0.2	0.5	1.0
Individual Program Plans (IPP's)	0.2	0.3	0.5	1.0
Travel During Work	0.2	0.0	0.2	0.4
Total	42.2	10.3	52.5	100

*Data is weighted for proportional distribution of days.

The data clearly reflect the importance of class instruction as a consumer of teachers' time resources, almost 18 work-hours per week. When instruction time and preparation time are combined, a total of 54% of the work-hours are accounted for. Marking, paperwork, meetings, supervision, and student discipline account for another 31%, bringing the total to almost 85% of all time spent on teaching-related activities. The diary data thus provide a unique opportunity to qualify and quantify the complexity of teaching by recognising that teachers' time is spread over a myriad of tasks, performed both alone and in conjunction with other tasks. As a result, time allocation to secondary activities also provides an interesting picture of teachers' lives. Virtually all activities are participated in as both primary and secondary activities. Marking, paperwork, and student discipline are, respectively, the three most common secondary activities. Collectively these three activities comprise 47% of all secondary activities (Table 8).

Although school administrators are considered teachers for the majority of this research project, the time-diary data permit examination of administrators separate from other types of teachers. The results of time spent on different teaching-related activities by Nova Scotia's school administrators are outlined in Table 9 and are ranked in descending order according to percentage of total work-hours. School administrators spend 41.0 hours per week on primary activities and 15.7 hours on secondary activities. This represents a total of 56.7 work-hours spent on teaching-related activities per week.

Table 9:
School Administrators' Work-Time Allocation for
Primary Activities, Secondary Activities and Total Work-Hours (hours per week*)

Teaching-Related Activities	Primary Activities	Secondary Activities	Total Work-Hours	% of Total Work-Hours
Administration	12.4	1.1	13.5	23.8
Meetings	5.8	1.4	7.2	12.7
Paperwork, Report Cards	5.1	3.7	8.8	15.5
Preparation	3.6	2.4	6.0	10.6
Supervision	2.7	0.9	3.6	6.3
Telephone (work-related)	2.4	4.2	6.6	11.6
Class Instruction, Tutoring	2.4	0.2	2.6	4.6
Student Discipline	1.5	0.9	2.4	4.2
Committee Work	1.3	0.2	1.5	2.6
Marking, Grading	1.0	0.0	1.0	1.8
Other Teaching-Related	1.0	0.5	1.50	2.6
Extra-Curricular	0.9	0.2	1.10	1.9
Travel During Work	0.5	0.0	0.50	0.9
IPP's	0.4	0.0	0.4	0.7
Total	41.0	15.7	56.7	100

*Data is weighted for proportional distribution of days.

With limited instruction time, school administrators spend the greatest amount (23.8%) of their work-hours on administrative activities. These activities, combined with paperwork, meetings, telephone calls and preparation, account for almost three-quarters of their total work-hours. The remaining one-quarter of their work-hours are spent performing various other teaching-related activities (see Table 9).

The teaching week varies considerably for all teachers, depending upon several different factors. One important aspect to consider, especially for classroom and specialist teachers, is whether the teacher is involved with and/or responsible for IPP's. French (1998) found that one of the most common concerns associated with teacher involvement in the IPP process is the additional time requirements placed upon them. Time-diary data make it possible to quantify the additional time requirements and allow one to determine the specific activities that are responsible for the additional time. The amount of time and type of teaching-related activities are listed in Table 10. The different activities have been sorted in decreasing order of the percentage difference between teachers with IPP's and those without. When examining these results, one should bear in mind that more than 80% of respondents are involved in some aspect of the IPP process.

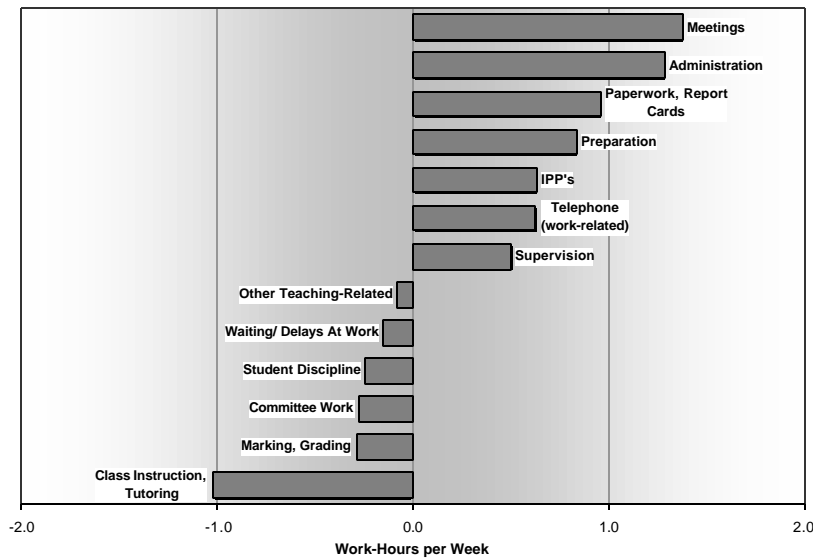
Table 10:
Time Spent on Teaching-Related Activities With/ Without IPP's
All Full-Time Teachers (in hrs/ week*)

Teaching-Related Activities	With IPP's	No IPP's	Difference	Percent of Total Difference
Meetings	2.6	1.2	1.4	33.0
Administration	1.5	0.2	1.3	30.8
Paperwork, Report Cards	3.9	3.0	1.0	23.0
Preparation	10.6	9.8	0.8	20.0
IPP's	0.6	0.0	0.6	15.1
Telephone (work-related)	1.2	0.6	0.6	15.0
Supervision	3.0	2.5	0.5	12.0
Travel During Work	0.2	0.2	0.0	0.6
Extra-Curricular	0.9	1.0	0.0	-0.2
Other Teaching-Related	3.0	3.1	-0.1	-1.9
Waiting/ Delays At Work	0.4	0.5	-0.2	-3.6
Student Discipline	1.7	2.0	-0.2	-5.8
Committee Work	0.4	0.7	-0.3	-6.5
Marking, Grading	5.4	5.7	-0.3	-6.9
Class Instruction, Tutoring	17.7	18.7	-1.0	-24.5
Total	53.3	49.1	4.2	100

*Data is weighted for proportional distribution of days.

The results suggest that teachers involved in the IPP process spend 4.2 additional work-hours per week on teaching-related activities (Table 10). There are other significant differences between teachers with IPP responsibilities and those without, which are graphically depicted in Figure 13. Teachers with IPP's spend less time on class instruction and more time on activities such as administration, meetings, paperwork, and preparation. Given these additional time requirements, and without more time or other resources to help them perform these activities, students end up getting less individual attention.

Figure 13:
Differences in Time Spent on Teaching-Related Activities
Between Full-Time Teachers With IPP's Compared to Teachers Without IPP's



The Second Shift

The teaching week is not limited to the Monday through Friday school hours of operation. Teachers also face a split-shift divided between evenings and weekends. As already indicated above, many activities including preparation, marking/grading, paperwork/report cards, and meetings are undertaken on the evening shift. Additionally, teaching-related activities consume an average of 1.3 hours on Saturday and another 2.3 hours on Sunday (primary activities only). These 3.6 hours represent 8.2% of all weekly work-hours. The main four teaching-related activities performed on the weekends are extra-curricular activities, marking, paperwork and preparation. Collectively, these activities comprise almost two-thirds of all teaching-related activities performed on Saturday and Sunday.

Table 11
Teaching-Related Activities by Weekday and Weekend for
All Full-Time Teachers (percent of total work-hours per week*)

Teaching-Related Activity	Weekday	Weekend
Extra-Curricular	74.1	25.9
Marking, Grading	78.8	21.2
Paperwork, Report Cards	85.0	15.0
Preparation	86.1	13.9
Other Teaching-Related	86.7	13.3
Committee Work	89.4	10.6
IPP's	91.1	8.9
Telephone (work-related)	95.0	5.0
Administration (telephone, organising)	95.0	5.0
Supervision	95.5	4.5
Travel During Work	96.1	3.9
Class Instruction, Tutoring	99.7	0.3
Meetings	99.6	0.4
Student Discipline	99.9	0.1
Waiting/ Delays, Idle Time	100.0	0.0

*Data is weighted for proportional distribution of days.

When comparing the teaching-related activities that are frequently performed during the weekends (Table 11) and the teaching-related activities that are often performed during the evening hours (Figure 12), there are some common results. The common activities are preparation, marking, paperwork and extra-curricular. Based on these results, it is fair to conclude that these are the four most common homework activities. These findings are especially important in terms of distinguishing between the professional and personal lives of Nova Scotia’s teachers. Combined with the fact that homework during the week typically invades the evenings, homework on the weekends also takes away from personal and family time.

Homework for Teachers

Research has shown that teachers’ work is neither confined to fixed school hours nor to the school (Michelson & Harvey, 1999). Indeed, teachers’ work may be carried out anytime and anywhere. The diary study allows us to explore the location and timing of work. Work in the classroom accounts for only three-fifths of total school-related work. Of the remainder, about one-fifth of a teacher’s school-related work is done at home and the other fifth at other locations in and out of the school (Table 12).

Table 12:
Location of Teaching-Related Activities All Full-Time Teachers (in % of total)

Location	Weekdays	Saturday	Sunday	Total
Home	13.3	62.6	79.5	18.3
Classroom	65.7	16.1	11.0	61.4
Staff room	2.5	0.4	0.7	2.4
Office	5.6	0.5	3.0	5.3
Gymnasium	2.0	1.3	0.8	1.9
Outside (school yard)	1.7	1.1	0.3	1.6
Other (in school)	6.6	3.5	0.2	6.2
In Transit	0.5	0	0	0.4
Other Place	2.1	14.6	4.6	2.6
Total	100	100	100	100

Slightly over half of teaching-related activities on Saturdays are carried out at home, meaning that nearly half of Saturday’s work requires teachers to be somewhere other than home. On Sundays approximately three-quarters of the teaching work is at home, leaving one-quarter away from home. Earlier it was shown that teachers perform almost 10 percent of school-related activities on Saturday and Sunday. Table 12 suggests that a significant portion of these teaching-related activities require teachers to be away from home during their weekends. These results indicate that the demands placed upon teachers cause them to work during the day, the evening, on both weekdays and weekends. To place further demands upon teachers to leave home on the weekends, so they can do their “homework,” further diminishes teachers’ personal and family time. With these demands it becomes difficult to distinguish between the professional and personal life of a teacher.

CONCLUSIONS

Over recent years, teachers' responsibilities have become more extensive, and their roles have become more diffuse. Teachers' work has become increasingly intensified, with teachers being expected to respond to greater pressures and to comply with constant innovations under conditions that are at best stable and at worst deteriorating. The timing of this intensification coincides with governmental cuts to funding of the education sector. Basically, teachers are required to do more with less. As a result, there is a cry for a slower rate of change and the provision of adequate supports.

Changing job demands have led to the greatest increase in the time required to perform different teaching activities. The results suggest that the nature and demands of teaching have changed significantly, with many activities generating increased demands on teachers' time. With increased demands, an obvious potential consequence is a reduction in time spent with individual students. It appears that individual student attention has been the greatest casualty accruing from the increased job demands. These findings support the teacher-identified need for time to adjust to recent changes and the need for improved support infrastructure.

The need for adequate supports is a key issue for Nova Scotia's teachers, especially in light of the Department of Education's inclusionary philosophy. More than 80% of study participants were involved in the IPP process. Teachers with IPP responsibilities spend an average of 4.2 more work-hours per week on teaching-related activities. The increased time requirements are primarily for activities such as administrative duties, meetings, paperwork, and preparation. The study suggests that both additional resources (i.e., professional development and EPA's) and time (for preparation, meetings, grading, collaboration, etc.) are needed by teachers, especially those who participate in the IPP process.

Teachers, in general, estimate they spend 51 hours a week on teaching-related activities, slightly short of the 52.5 work-hours of teaching-related activities per week calculated from the more accurate diary reports. School administrators register 56.7 work-hours according to diary data. One-third of teachers' time is spent on class instruction, accounting for less than half of their total work time. An additional 20% of this time is spent on preparation, most of which is performed during their second-shift outside normal school hours. Classroom contact time is typically 5.25 hours per day for 5 days per week. This translates into 26.25 hours of class time per week. Roughly calculated, this means that teachers are required to perform more than 26 hours of homework per week, a large proportion of which is preparation.

Research results indicate that teachers are receiving an average of 179.9 minutes of preparation time per cycle (typically 5 to 7 school days). This is simply not enough time, given all the other changes occurring within the classroom and in education generally. Increased preparation time may reduce stress, improve life outside teaching, enable teachers to be more organised and better prepared, allow teachers to do more things, and improve pedagogy. However, increased preparation time may just allow for a way of coping with immediate demands. That is, there are few breaks throughout the workday and insufficient time for preparation, which often leads to a lack of time necessary for planning, reflection, and collaboration. The consequences of this chronic lack of time are increased levels of stress and feelings of despair.

Teachers identified teaching and professional development as the two most stressful aspects of their lives. The most stressful job-related activities are teaching, professional development, and other meetings. The pervasiveness of stress-related problems associated with teaching is exemplified by the following survey results:

- over 90% of teachers either seldom or never feel they have time on their hands
- over 80% either often or always feel rushed each day
- more than 80% indicated they feel they are trying to take on too many things at once
- almost 75% feel that others expect too much of them
- 75% said they worry about not spending enough time with family and friends.

These statistics suggest that teachers do not have adequate time to reflect on their teaching, they do not have time to work collaboratively with their peers, and they do not have time to refuel emotional and physical reserves. Obvious ramifications of this lack of time include feelings of guilt, resentment of job demands, and anxiety stemming from the fear of not meeting expectations.

In an attempt to explore teachers' perception of their profession, teachers were asked to describe how the perception of others has changed toward the teaching profession over the past five years. Apparently, teachers believe that the greater the distance between people and the daily realities of the classroom, the lower their view of the teaching profession. The ramifications of this are that, in the teachers' view, federal and provincial politicians are perceived to have the poorest understanding or appreciation of the teaching profession, yet these people are the power brokers of our society. These results suggest the potential for fostering a sense of hopelessness, cynicism and demoralisation.

Based on the data provided by Nova Scotia's teachers and analysis of the results, we may conclude that the life of a teacher is complex. This complexity is a result of the sheer number of different tasks required of a teacher on a daily basis. Such tasks are not only performed at school. That is, work tends to "bleed" into the personal life of a teacher. The flexibility offered to teachers by a shorter than average workday may contribute to the bleeding effect. However, when the total time required for teaching-related activities is added together, even a regular 9-5 schedule at the workplace would not provide sufficient time to complete necessary tasks. The result is homework for teachers, to be performed during evenings and weekends. This is especially the case for preparation and marking/ grading activities. If teachers are to be retained and new teachers are to be attracted to the profession, the current working conditions, including respect for the profession and stress levels, must be addressed.

The results of this report do not paint an attractive picture of the teachers' situation. Teachers are overworked, stressed, and frustrated with the dramatic changes to their profession. It has been suggested that the cost for any school reform or change should be measured not only in terms of dollars but also, more appropriately, in terms of the resource of time provided by classroom teachers (Bruno, 1997). We have examined teachers' perception of their time and discovered that the amount of time spent on most teaching activities has increased over the past five years. Those activities, which represent the greatest increase in time, are typically performed during the evening and have consequently increased the amount of homework for teachers. Partially to blame for this increased amount of homework appears to be a systemic lack of sufficient resources, relating to both support infrastructure and preparation time. The results from this study clearly point to the need for any future changes/ initiatives that affect teachers' working conditions to include provisions for adequate supports and resources, as well as consideration for the impact of such changes on both the professional and personal lives of teachers.

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APPENDICES

Appendix A - Contextual & Activity Codes

CONTEXT CODES:

FOR WHOM CODES	WITH WHOM CODES	WHERE CODES	TENSION LEVEL
0 Self	0 Alone	0 Home	0 Very relaxed
1 Single student (not IPP)	1 Single student (not IPP)	1 Classroom	1 Relaxed
2 IPP Student(s)	2 IPP student(s)	2 Staff room	2 Somewhat relaxed
3 Multiple students	3 Multiple students	3 Office	3 Neither relaxed nor tense
4 Administrator	4 Administrator	4 Gymnasium	4 Somewhat tense
5 Family	5 Classroom teacher(s)	5 Outside (school yard)	5 Tense
6 Community	6 Specialist teacher(s)	6 Other (in school)	6 Very tense
7 Teachers Union	7 Spouse/ Partner	7 In transit	
8 Other person(s)	8 Child(ren) of the household	8 Other place	
	9 Other person(s)		

ACTIVITY CODES:

EMPLOYED WORK	PROFESSIONAL DEVELOPMENT
001 Class instruction/ tutoring	500 Full-Time Classes
002 Administration	511 Other Classes (Part-Time)
003 Preparation	512 Credit Courses On Television
004 Supervision	520 Special Lectures: Occasional
005 Extra-Curricular	530 Homework: Course, Career/Self-Development
006 Meetings	550 Breaks/Waiting For Class
007 Student Discipline	560 Leisure And Special Interest Classes
008 Marking, Grading	580 Other Study
009 Paperwork, Report Cards	
010 Telephone (Work Related)	ORGANIZATIONAL, VOLUNTARY AND GENERAL MEETINGS
011 Committee Work	600 Meetings: Professional, Union, Political, Civic Activity, Child/ Youth/ Family, Support Groups, Fraternal and Social Organisations
012 IPP's/ IMP's	610 Meetings: Religious, Religious Services, Prayer/Bible Readings
013 Travel During Work	620 Volunteer Work (Organisations) and Unpaid Help For Others (Housework and Cooking, Repair, Baby-Sitting, Transportation)
014 Waiting/ Delays/ Idle Time Before or After Work	630 Other Organisational, Volunteer, or Religious Activity
015 Work For Pay At Other Jobs	
016 Other Teaching-Related	ENTERTAINMENT (ATTENDING)
	700 Sports, Concerts, Fairs, Parades, Zoos
DOMESTIC/HOUSEHOLD WORK	720 Movies, Films, Museums, Art Galleries, Opera, Ballet, Theatre
100 Meal Preparation (Baking, Cooking, Cleanup)	730 Socialising With Friends/Relatives
120 Indoor Cleaning/ Outdoor Cleaning	740 Socialising At Bars, Clubs (No Meal)
130 Laundry, Ironing, Folding, Clothing Care	750 Casino, Bingo, Arcade
140 Maintenance and Repair (Interior, Exterior, Vehicle, Other)	760 Other Social Gatherings
150 Gardening and Pet Care	
160 Other Household Tasks (Household Management, Stacking And Cutting Firewood, Unpacking Groceries, Packing and Unpacking Luggage)	SPORTS AND HOBBIES (PARTICIPATING)
	800 Coaching
CARE-GIVING FOR HOUSEHOLD MEMBERS	810 Sports Participation, Exercising
200 Child Care (Getting Ready For Bed, School, Personal Care)	820 Hunting, Fishing, Camping, Other Outdoor Activities/Excursions
220 Helping, Teaching, Reprimanding, Reading, Talking/ Conversation With Child, Play With Children, Medical & Other	830 Hobbies, Home Crafts, Music, Theatre, Dance
230 Care of Household Adults (Personal, Medical, Help & Other)	860 Games, Video Games, Leisure Computer Use
	870 Pleasure Drives, Sightseeing, Other Sport Or Active Leisure
SHOPPING AND SERVICES	MEDIA AND COMMUNICATION
300 Groceries and Other Regular Shopping (Everyday Goods, Take-Out Food, Video Rental)	900 Listening To The Radio
310 Shopping For Durable Goods	910 Watching Television
320 Services (Government, Financial, Medical, Dental, Lawyer, Veterinarian)	920 Listening To CD's, Cassette Tapes, or Records
330 Automobile Maintenance And Repair Services	930 Reading Books, Magazines, Pamphlets, Bulletins, Newsletters
370 Waiting For Purchases Or Services	940 Reading Newspapers
380 Other Shopping And Services	950 Talking, Conversation, Telephone
	960 Mail (Reading/ Writing), Other Media and Communication
PERSONAL CARE	TRAVEL
400 Washing, Dressing	091 Travel (Walking)
410 Personal Medical Care (At Home)	092 Travel By Car As Driver
420 Private Prayer, Meditation and Other Informal Spiritual Activities	093 Travel By Car As Passenger
430 Meals /Snacks/Coffee	094 Travel By Bicycle
440 Restaurant Meals	095 Travel By Public Transit
450 Sleep/ Naps	096 Travel By Other Means
470 Relaxing, Thinking, Resting, Smoking	
480 Other Personal Care Or Private Activities	

Appendix B – Time-Diary Instrument (12-hour portion)

Time	What were you doing?	What else were you doing?	For Whom?	Whom Else?	Where?	Tension Level?
4:00 - 4:14						
4:15 - 4:29						
4:30 - 4:44						
4:45 - 4:59						
5:00 - 5:14						
5:15 - 5:29						
5:30 - 5:44						
5:45 - 5:59						
6:00 - 6:14						
6:15 - 6:29						
6:30 - 6:44						
6:45 - 6:59						
7:00 - 7:14						
7:15 - 7:29						
7:30 - 7:44						
7:45 - 8:59						
8:00 - 8:14						
8:15 - 8:29						
8:30 - 8:44						
8:45 - 8:59						
9:00 - 9:14						
9:15 - 9:29						
9:30 - 9:44						
9:45 - 9:59						
10:00 - 10:14						
10:15 - 10:29						
10:30 - 10:44						
10:45 - 10:59						
11:00 - 11:14						
11:15 - 11:29						
11:30 - 11:44						
11:45 - 11:59						
12:00 - 12:14						
12:15 - 12:29						
12:30 - 12:44						
12:45 - 12:59						
13:00 - 13:14						
13:15 - 13:29						
13:30 - 13:44						
13:45 - 13:59						
14:00 - 14:14						
14:15 - 14:29						
14:30 - 14:44						
14:45 - 14:59						
15:00 - 15:14						
15:15 - 15:29						
15:30 - 15:44						
15:45 - 15:59						

DATE OF DIARY

____/____/____
Day / Month / Year

Note: Appendix A lists the activity and contextual codes used to complete this diary.

