

E-work in the Capital Regional District

A Feasibility Study

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EXECUTIVE SUMMARY

This report is a response to inquiries by several of the Capital Regional District's (CRD) member municipalities about the merits and feasibility of e-work¹. The purpose of this report is to investigate the feasibility of e-work programs for local governments in the Capital Region. It assesses opportunities and challenges and identifies ways to overcome or eliminate challenges in order to develop and implement successful e-work policies and programs in the CRD. This report is a component of an ADMN 598: Applied Policy Report for the Master of Public Administration program at the University of Victoria.

The conceptual framework used to assess the feasibility of e-work in the CRD focuses on these three areas: relationships, task completion and implementation strategies. Relationships were investigated using the sub-categories of relationships between employees and supervisors, co-workers, local governments, and society. Task completion was analysed through the sub-categories of management of projects and administration, information technology, worksite set-up, and productivity.

This report is based on a literature review and interviews of CRD employees. The literature review used academic, grey literature, and personal communication with organizations that have an e-work program. In addition, open ended, critical incident interviews were conducted with eleven CRD employees. Respondents were asked to identify potential challenges and opportunities, local governments might face, when designing and implementing e-work programs.

Overall, the literature and respondents were optimistic about the feasibility of local government e-work programs. Respondents identified more opportunities than challenges and suggested specific implementation strategies to help overcome many of the challenges. Through the literature review and interviews six recommendations, for increasing opportunities while reducing challenges, emerged.

The main theme that emerged from the interviews is that e-work makes sense for local governments for the following reasons:

- Times are changing,
- Employees and organizations benefit from flexible work schedules,
- Local governments are committed to being employers of choice, and
- Local governments are committed to the triple bottom line.

However, for most local governments, the main challenges to implementing e-work will be the traditional nature of the organization and management resistance. The following recommendations can help local governments overcome these significant challenges.

¹ For this project e-work is defined as a formalized voluntary work option where, under the right circumstances, an employee regularly works from home one or more days a month. This concept is also known as telework, telecommuting or e-commuting.

Recommendation 1: Find a general management champion and establish an e-work task force

There was consensus among interview respondents that it is important to have a general manager to champion e-work, while the literature focused on establishing an e-work committee composed of senior representatives from various departments. General managers were identified by respondents to be the biggest potential barrier to e-work, so they felt that an internal champion would be an effective way to educate and win over other managers. This is consistent with Cunningham and Kempling's findings that the most important principle in implementing organizational change is the presence of a "guiding coalition" that includes senior managers acting as a "committed leadership team" (2009, p. 332).

Recommendation 2: Establish clear policies

All of the respondents identified the need for clear policies and procedures as a way to overcome challenges and maintain or enhance the quality of relationships and tasks. E-work policies can be used to describe program guidelines, responsibilities, and expectations. An example of a program expectation is that e-workers will work during office hours, so their colleagues can contact them and they can access technical support. Also, some positions and people are not suitable for e-work; therefore, clear written eligibility criteria, that are equitable, can help the employee and employer determine eligibility. Eligibility criteria are usually stated in a written policy and based on past performance appraisals and the position's suitability.

Thomas (2009) argues that e-work policies need to answer four questions: 1) Who is eligible?, 2) What are the employee's responsibilities?, 3) What are the employer's responsibilities?, and 4) What remote technological support is provided? (See Appendix 1 for sample policies).

Recommendation 3: Start with a pilot e-work program

Some organizations choose to start with an e-work pilot project as a trial before making a full commitment. Pilot programs can help determine if any changes need to be made to the program. They also help the organization ease into e-work and allow managers and employees to try a test run. This helps employees and managers build confidence and trust in the program and each other.

Recommendation 4: Limit e-work to two days a week

Ten of the eleven respondents agreed that in order to minimize challenges, e-work should be limited to low-intensity time at home. The definition of low-intensity varied, but the majority of respondents thought one to two days a week would maximize the benefits of e-work, while minimizing the challenges. The literature also identifies working from home for two days a week as the optimal amount for most people. However, it is important to remain flexible, since some people may prefer two days a month, while others benefit from two days a week.

Recommendation 5: Provide education and training

Education for local government employees and society could help dispel myths and provide an opportunity to discuss relationships and e-work strategies. Effective management and employee skills can be developed for e-work programs; therefore, training is suggested for managers and employees.

Recommendation 6: Develop a regional e-work organization

A regional e-work organization could promote and support the development of e-work programs in public and private workplaces. An e-work organization would help the CRD meet its goal of reducing the number of people commuting by automobile in the region. Regions with organizations that promote and support e-work tend to have fairly high e-work participation. For example, Commuter Connections, in Washington DC, promotes and helps develop e-work programs for public and private organizations. Currently 19 % of the regional workforce e-works an average of 1.5 days a week (see Table 1, p.10) (Ramfos, 2010).

Several jurisdictions have regional organizations that promote e-work within local public and private workplaces. These organizations are usually funded by three levels of government. The CRD could investigate a partnership with WORKshift, which is based in the City of Calgary. WORKshift was started by Calgary Economic Development, the Province of Alberta and Transport Canada to help promote e-work in the business community. WORKshift has developed several on-line tools for promoting, developing and monitoring e-work programs.

TABLE OF CONTENTS

EXECUTIVE SUMMARY 2

 Recommendation 1: Find a general management champion and establish an e-work task force 3

 Recommendation 2: Establish clear policies..... 3

 Recommendation 3: Start with a pilot e-work program..... 3

 Recommendation 4: Limit e-work to two days a week 3

 Recommendation 5: Provide education and training 3

 Recommendation 6: Develop a regional e-work organization4

ACKNOWLEDGEMENTS 7

INTRODUCTION 8

 Background..... 8

 Who e-works?..... 9

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW 12

Relationships 13

Relationships between supervisors and employees 13

Relationships among employees..... 14

Relationships between local governments and employees 15

Relationship with society 15

Task completion 16

Management of projects and administration 16

Technology 17

Worksite 17

Productivity 18

Implementation strategies..... 18

Establish an e-work committee..... 18

Pilot program 19

Policy design..... 19

Eligibility.....20

Training 20

Evaluation 21

METHODOLOGY 22

Research question.....	22
Research objectives	22
Literature review.....	22
Interviews.....	22
Sampling.....	22
Interview design.....	23
Methods of analysis	23
FINDINGS.....	25
Relationships.....	25
Tasks	30
Implementation strategies.....	32
DISCUSSION.....	34
CONCLUSION.....	41
RECOMMENDATIONS	42
Recommendation 1: Find a general or senior management champion and establish an e-work task force	43
Recommendation 2: Establish clear policies.....	43
Recommendation 3: Start with a pilot e-work program.....	43
Recommendation 4: Limit e-work to two days a week	44
Recommendation 5: Provide education and training	44
Recommendation 6: Develop a regional e-work organization	44
BILIOGRAPHY	45
Appendix 1 - Policies	49
Appendix 2 - E-work agreements with employees	50
Appendix 3 - Eligibility criteria	50
Appendix 4 - Collective agreements	52
Appendix 5 - Home office	52
Appendix 6 - Training	52
Appendix 7 - Evaluation	53
Appendix 8 - Information technology and security	53
Appendix 9 - Additional resources.....	55
Appendix 10 – Interview questions	58

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INTRODUCTION

As a response to inquiries by several of the Capital Regional District's (CRD) member local governments, the CRD would like to investigate the possibility of e-work programs for local governments in the Capital Region. For this report, e-work is defined as a formalized voluntary work option where, under the right circumstances, an employee regularly works from home one or more days a month. This concept is also known as telework, telecommuting or e-commuting. This report is important to local governments because, if properly implemented, e-work can help organizations reduce costs, increase job satisfaction, reduce Green House Gas emissions and congestion, and improve employee recruitment and retention. Darryl Perkinson, National President of the American Federal Managers Association states:

Telework has the potential to revolutionize [public] agency operations. Creating a flexible and modern workforce to compete with the private sector demands innovative management techniques and supervisory training. Telework is a vital resource in meeting the challenges of retaining experienced professionals and enticing talented employees (cited in Auten 2007, p. 4).

A voluntary e-work program is a significant organizational change that must be carefully considered. Kurt Lewin's Force Field Analysis sheds light on the difficulties organizations face when adopting change. He argues that for an organization to change the facilitating forces (opportunities) must outweigh the restraining forces (challenges). Further, organizational change is more likely to be successful when most of the restraining forces are eliminated (Lewin, 1969, cited in Cunningham and Kempling, n.d.). For the purposes of this paper the forces will be referred to as opportunities and challenges.

E-work programs can offer many social, environmental, organizational and personal benefits; however, potential challenges need to be identified and overcome before the benefits can be realized. Potential challenges include collective agreements, management resistance, employee perceptions, lack of information technology (IT) capability, lack of trust between management and staff, inadequate training, and incompatible management strategies. *The purpose of this project is to identify ideas for developing e-work policies and programs by assessing opportunities and challenges to their implementation in the Capital Regional District.*

Through a literature review and interviews of CRD employees this project will help assess possible opportunities and ways to overcome the potential challenges local governments may face when adopting e-work programs. Interview respondents included 1) General Managers, 2) Senior Managers and 3) employees from various CRD departments. The following sections include background information about the CRD, a description of organizations that have e-work programs, an overview of the literature, conceptual framework, methodology, findings, discussion, conclusion, and recommendations.

Background

The CRD provides regional governance for Southern Vancouver Island, which includes 13 municipalities and three electoral areas. The CRD is governed by a Board of Directors composed of elected officials from the region.

In 2005 the CRD adopted the *TravelChoices Strategy* with the mission: "to significantly increase the proportion of people walking, cycling, using transit, ride-sharing or using other alternatives to driving alone" (Capital Regional District, 2005, p. 2). The *Strategy* describes e-work as an alternative work arrangement that can help the CRD achieve its goal of reducing automobile use within the region. The *TravelChoices Strategy* discusses potential regional trip reduction programs such as e-work, but to date little has been done in this area.

The CRD is committed to reducing automobile travel in the region. Currently automobile trips make up 76% of all trips in the Capital Region. The CRD, through the *TravelChoices Strategy*, is committed to an 8% reduction resulting in an overall auto mode share of 70% by 2026. The CRD has identified e-work as a program that can help achieve this goal (Capital Regional District, 2005). The CRD is currently engaged in a comprehensive Travel Demand Management (TDM) project for the region (through a consultant). This e-work project is seen as a complimentary piece of the *TravelChoices Strategy* and corporate TDM project. The CRD has both internal and external climate action goals. While employee commuting does not fall within the scope of the CRD's commitment to become Carbon Neutral in its operations, e-working will contribute to local and regional community emission reduction targets.

Who e-works?

While the popularity of e-work has not fulfilled the large predictions made in the 1970s and 1980s; the number of people e-working continues to grow around the world. Estimates of the number of e-workers vary widely because of differences in definitions of e-work; however, the research shows small but steady increases in e-work over the past twenty years (Mokhtarian, Salmon & Choo, 2005; Walls & Safirova, 2004). Statistics Canada reports that in 2008, 11.2% of employees worked from home with a median of 8 hours per week, if they were employed full-time (Turcotte, 2010).

In 2000, the United States passed legislation that requires all federal agencies to have e-work programs (United States Office of Personnel Management & United States General Services Administration, n.d.). In Canada, the Treasury Board provides guidance for federal departments creating e-work programs. Adoption of e-work in the Canadian Federal Government has been lower than the US, in part because the Canadian Government does not actively encourage or promote e-work to the extent of the American Government (Transportation Canada, n.d.).

Employee participation in *voluntary* e-work programs varies, but is rarely above 10%. In 2007, 2% of Canadian Revenue Agency employees participated in the organization's e-work program (Canadian Revenue Agency, 2008). In comparison, 8.67% of eligible of US Federal Government employees e-worked in 2008 (US OPM, n.d.).

Few Canadian local governments have established internal e-work programs. The City of Ottawa has had a telework policy since 2003 (City of Ottawa, 2011). The City of Calgary has identified e-work as one of its main environmental priorities and is an e-work leader. In 2007, the City of Calgary conducted a successful e-work pilot project with 100 employees. As a result a corporate wide e-work program was started by the City of Calgary Human Resources Department in 2009 and currently has 130 employees participating, or 2.6 % of eligible employees. The City is focusing on education and training to increase e-work participation. (Personal communication, March 22, 2010).

Through a grant from Transport Canada, the City of Calgary has partnered with WORKshift to establish, support, and monitor the e-work program (Transportation Canada, n.d.). WORKshift was started by Calgary Economic Development to help promote e-work in the business community. There are several examples of similar partnership organizations that are dedicated to encouraging e-work in the United States, including Commuter Connections in Washington DC and Telework!VA in the Commonwealth of Virginia.

The City of Vancouver has an informal e-work agreement with CUPE 15 (see Appendix 4). Like most informal e-work arrangements participation in the Vancouver program is limited; employees usually request to work from home because of special circumstances, such as personal injury, that prevent them from coming to the office (Personal communication, March 16, 2010).

Commuter Connections is a network of public and private organizations, based in Metropolitan Washington DC, which promote alternative commuting options, including e-work. It is funded by three state departments, including the US Department of Transportation. Commuter Connections promotes and helps develop e-work programs for public and private organizations. Currently 19 % of the regional workforce e-works an average of 1.5 days a week (see Table 1) (Ramfos, 2010).

Table 1: Frequency of E-work in Metropolitan Washington DC, 2007

Number of days worked from home	Percentage of E-workers
3 or more days per week	22%*
2 days per week	16%
1 day per week	18%
1-3 times per month	26%
Less than once per month/emergency	8%
Occasionally for special projects	10%

Table adopted from 2007 Commuter Connections State of the Commute Survey

**Note: The data included public and private organizations, some of which have full-time e-work programs, which skews the data*

Regions with organizations that promote and support e-work tend to have fairly high e-work participation. For example, Virginia has ambitious e-work goals for all commuters and has created an organization called Telwork!VA that reports that 12% of Virginia commuters e-work on occasion (Alcott, 2010).

Unless an e-work program is designated as full time, the majority of e-workers choose to work from home two or less days a week (Personal communication, March 22, 2010; United States Office of Personnel Management, 2009). For example, in the US federal government's voluntary program most e-workers work from home one or two days a week (see Table 2 below).

Table 2: Frequency of E-work in the US Federal Government, 2008

Number of days worked from home	Percentage of E-workers
3 or more days per week	13%
1-2 days per week	51%
At least once per month	36%

Table adopted from Status of telework in the Federal Government: Report to Congress, August 2009

Many organizations, managers and employees benefit from e-work programs; however e-work is not suitable for everyone or every organization (Cascio, 2000; Horung & Glaser, 2009). The following literature review describes some of the challenges and opportunities organizations may face when designing, implementing and participating in an e-work program.

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

The feasibility of e-work in the CRD is conceptually framed using the concepts of relationships, task completion, and implementation strategies, or ways to overcome challenges. Relationships are the connections that are developed and maintained between members of a team, organization or community and are an important component of teams and organizations (Mathieu & Rapp, 2009). Tasks are the specific units of work that are agreed to by team members and will lead to the completion of the team's objectives (Broadfoot, 2001). Relationships and tasks were selected for analysis because they are key indicators of organizational success (Broadfoot, 2001; Hart & McLeod, 2002; Mathieu & Rapp, 2009; Relja & Bandalovic, 2008; Walvoord, Redden, Elliot & Coovert, 2008). These two concepts are broken down into sub-categories to further investigate how local governments achieve successful relationships and task completion (see Table 3 for descriptions of the sub-categories).

Opportunities and challenges within relationships and tasks are identified throughout the literature review and findings. Force Field Analysis asserts that the opportunities (facilitating forces) must outweigh the challenges (retraining forces) before an organization can successfully implement a significant change. Therefore, ways to overcome (or eliminate) challenges are discussed. The conceptual framework is outlined in the Table 3 below.

Table 3: Conceptual Framework

Relationships	Task Completion	Implementation Strategies
Between Supervisors and Employees describes the way leaders/supervisors relate to employees in helping, coaching, trusting and supporting.	Management of Projects and Administration describes the way people set and achieve goals and objectives, and meet to discuss and solve problems.	Education and Training helps explain the rationale of e-work and develop effective skills.
Among Employees describes the way people relate to each other in helping, trusting and supporting others.	Information Technology is a tool that can enable e-work.	Upper Management Champion who is an internal supporter of e-work.
Between Employers (Local Governments) and Employees describes the way local governments relate to employees.	Worksite safety can facilitate effective task completion.	Low-intensity is usually defined as working from home three or less days a week.
With Society (Citizens) describes the way local government employees relate to citizens in carrying out the organization's mandate.	Productivity is a measure of a person's output in relation to the amount of time devoted to the task.	Pilot Program a small test e-work program.

The majority of the literature focuses on organizations with formalized e-work programs and policies, because ad hoc e-work arrangements tend to have lower participation and poorer outcomes (Ramfos, 2010; Thomas, 2009). E-work programs offer many potential benefits for employers, employees, society and the environment. However, there are often several barriers to overcome, such as management resistance, employee resistance, communication barriers, inadequate information technology, information security, liability concerns, and collective agreements. Recognizing and addressing these potential challenges can increase the success of an e-work program. This paper investigates potential opportunities and challenges that local government relationships and tasks may face when developing and implementing e-work programs.

E-work is more widespread and developed in the private sector than the public sector. However, in the past ten years, the public sector, especially in the United States and Europe, has begun to catch-up. E-

work is playing an increasing role in the public sphere. This literature review describes potential program challenges, opportunities and strategies for program development and implementation. Both relationships and task are faced with unique challenges and opportunities that are outlined in the following sections.

Relationships

Relationships are connections between individuals and are an important component of teams and organizations (Mathieu & Rapp, 2009). This report looks at relationships between local government employees and their supervisors, colleagues, employer, and citizens.

Relationships between supervisors and employees

Management issues are usually the biggest hindrance to the adoption of a successful e-work program (Cascio, 2000; Reneker, J., March 22, 2010; Staples, Hullard & Higgins, 1999; US OPM, 2009;). However, in general, once managers become involved in an e-work program they are increasingly positive towards e-work (Auten, 2007; Reneker J., March 22, 2010; Telework Coalition, 2006). For example, a study of three public-sector organizations and ten private-sector organizations found high levels of management resistance prior to implementing e-work; however, most managers became supportive of e-work, after the program began. In all thirteen organizations, management resistance dissipated once e-work programs were implemented and organizational benefits became clear (Telework Coalition, 2006).

Cascio found that many managers were afraid they would become obsolete if their employees were not always in the office; however, instead of reducing the number of managers, organizations found that improved supervisory skills within the existing managers were necessary (2000). Managers might not have the appropriate skills to supervise people who are not physically present. Training can help provide an opportunity to discuss concerns, dispel myths and learn effective e-work practices. Managers of e-workers are outcomes focused and manage projects (results), not time (activity). This may involve a shift from evaluating employees based on the amount of time spent on a project to the results of the project (Cascio, 2000; Peailson & Sounders, 2001).

Managers and e-workers often report significant improvements in their relationship and communication, because information isn't relayed as they pass each other in the hall; instead communication is planned, deliberate and more formal. Organizations find it beneficial to have detailed agreements that clarify communication expectations, home office set-up, and timelines for working on organizational tasks. Furthermore, managers and employees can benefit from setting clear expectations of e-worker availability; managers and employees can establish times when an employee must be available by phone, email or in-person (Peailson & Sounders, 2001; US OPM & US GSA, n.d.).

An organizational culture based on trust can be established to ease managers' fears. Managers and e-workers often find that their relationships improve as a result of e-work, because of increased level of trust and employee empowerment (Cascio, 2000). Managers can help by making an effort to include e-workers when setting goals, assigning tasks and up-dating team members. Consistent open communication helps e-workers continue to be involved.

The skills that are required to manage e-workers are not unique to this arena; Cascio suggests that while great management strategies are important in any organization, they are essential for e-work programs (2000). These skills include results orientation, strong informal and formal communication, effective delegation and support, open attitude, and solutions focused. Similarly, employee resistance is often a result of lack of knowledge and/or understanding of e-work.

Relationships among employees

Similar to managers, employee resistance to e-working usually stems from inaccurate perceptions. For example, a common concern of staff is that e-working will reduce their opportunities for advancement; however, research has shown that this is not the case (Gajendran & Harrison, 2006; Horung & Glaser, 2009). Education and training programs can help dispel common myths about e-working.

Research suggests that a balanced approach to e-working is best. For example, individuals who spend the majority of time working from home are more likely to report feelings of isolation and negative working relationships with colleagues (Gajendran & Harrison, 2006). Gajendran and Harrison found that individuals who spend the majority of their time working from home (high-intensity e-workers) often reported poorer relationships with supervisors and co-workers. In contrast, employees who balance their time between the office and home (low-intensity) benefit from improved relationships with their colleagues and supervisors (2006). The literature defines low-intensity as working from home 1 or 2 days a week (Gajendran & Harrison, 2006). Therefore, when given the option, most e-workers choose to work from home two or less days a week (Ramfos, 2010; Reneker, J., March 22, 2010; US OPM, 2009).

Teams will continue to benefit from face-to-face meetings to determine goals and outcomes. E-working provides employees with increased flexibility with their time and work environment. However, this added flexibility works best if some formal structures are developed, like meeting schedules (Cascio, 2000; Peailson & Sounders, 2001).

E-working is not suitable for everyone or every work position. When people work from home, the borders between work and family can become blurred, which can be difficult for some people to manage (Hill, Hawkins & Miller, 1996; Horung & Glaser, 2009). For example, Hill et al found that a minority of e-workers complained that they were "always at work," which interfered with their family life (1996, p. 298). Successful e-workers are able to develop strategies that separate work from the rest of their lives (Hill et al, 1996; Shaw, Andrey, & Johnson, 2004).

Several studies have found that the majority of e-workers find it easier to balance their family and work demands (Cascio, 2000; Hill, Hawkins & Miller, 1996; Horung & Glaser, 2009). Research shows that most e-workers experience an increased work-life balance. Also, employees report reduced stress because they spend less time commuting, have more autonomy, and work in a more relaxed work environment (Hillbrecht, et al, 2008; Shaw, et al, 2004; US OPM & US GSA, n.d.).

Some of the benefits to individual employees, like increased job satisfaction, can help improve their relationship with their employer.

Relationships between local governments and employees

Collective agreements form the basis of the relationship between local governments and the majority of their employees. Most of the literature focuses on private organizations and the few studies of public e-work programs do not mention collective agreements. In 2007, the City of Vancouver negotiated a Letter of Understanding with the Canadian Union of Public Employees (CUPE), local 15, regarding telecommuting (see Appendix 4). During negotiations CUPE's main concerns were e-worker isolation and potential lack of resources (Fung, J., March 16, 2010). Initially, the City of Calgary's unions were also concerned about equality if more people applied than were eligible; however, after discussions the union was satisfied with the City's process of determining eligibility based on job duties and performance appraisals (Reneker, J., March 22, 2010).

The State of Oregon found that unions were concerned with employee equity and productivity. First, some unions viewed e-work as a benefit that was limited to certain positions. Second, the increasing focus on results raised concerns that e-workers would become overworked. However, both public and private organizations find that they are able to address union concerns by involving unions throughout the design of e-work programs (Oregon Department of Energy, cited by telework Virginia; Telework Coalition, 2006).

Another opportunity for employers and employees is reduced expenses through e-work. Cost savings for organizations with e-work programs are largely a result of reduced use of office space, increased employee retention, productivity, and decreased absenteeism. After an e-work pilot project the City of Calgary estimated that if an e-work program was implemented the City would save an average of \$3,600 per e-worker a year (City of Calgary, 2010). The majority (89%) of City of Calgary supervisors found that e-work improved retention within their department (City of Calgary, 2010). In addition, organizations often report financial benefits as a result of increased e-worker productivity.

Horung and Glaser describe e-work as an "employee -oriented human resource practice" (2009, pp. 395-402). They studied public sector employees in Germany and found increases in both work-life balance and job satisfaction for e-workers, findings that have been replicated many times. Furthermore, e-work programs have also improved employee morale and reduced absenteeism (InnoVisions Canada, 2010; US OPM & US GSA, n.d.). An improved relationship between local governments and their employees could benefit society.

Relationship with society

Local Governments are responsible to their local citizens and are engaged in a complex relationship. Several aspects of e-work could be of particular benefit to society, specifically the reduced environmental impact, emergency preparedness, reduced costs and increased productivity.

Citizens in the CRD are becoming increasingly concerned about climate change, reducing their environmental impact and traffic congestion. Depending on the extent to which e-working is adopted by an organization there can be significant reductions in employee automobile use, which reduces Green House Gas (GHG) emissions. A common concern is that e-workers will continue to run errands on the days they work from home, which would reduce the benefits of e-work. However, research shows that

e-workers usually limit their personal automobile travel to days when they are commuting to the office and therefore, reduce overall kilometres travelled (Kitou, 2008; Mokhtarian & Salomon, 1994).

Environmental benefits from the City of Calgary's four month e-work pilot project with 100 employees included: reduction of 80,487 vehicle kilometres (km) travelled, reduction of 3,656 rush hour commuting trips and 82 tonnes of CO₂ savings (City of Calgary, 2010). Like most environmental programs, higher numbers of participants lead to more substantial results.

A U.S. government study showed that if 20,000 federal workers could telecommute just one day a week, they would save over two million commuting miles, 102,000 gallons of gasoline, and 81,600 pounds of carbon dioxide emissions each week. The emissions savings for one week under this arrangement are equivalent to the amount of carbon dioxide produced by the average car over 9.3 years (Cascio, 2000, p. 82).

Another way e-work benefits society is for continuity planning. Increasingly, e-work is being included in the emergency preparedness strategies of organizations for events such as pandemics and extreme weather. E-workers are often encouraged to work from home during emergency situations; for example, in Washington DC, US federal e-workers were able to work from home during blizzards in February 2010 (Saraion, 2010). The Commonwealth of Virginia found that the 2009/2010 H1N1 pandemic helped shift organizational culture to be more accepting of e-work (Jackson, 2010). Citizens can benefit from being able to access some services when employees are not able to come into the office. E-work has been found to reduce absenteeism during emergency situations, which contributes to significant cost savings.

Task completion

Task completion is an important construct that can direct teams who work in different locations (Broadfoot, 2001). Task completion is a useful unit of measurement, because it is a quantitative measure that supervisors can use to manage and assess performance, regardless of location. Task completion is discussed in terms of management of projects and administration, information technology, and productivity.

Management of projects and administration

Management of projects and administration describes the way people set and achieve goals and objectives, and meet to discuss and solve problems. Within e-work programs the manager's role involves setting objectives and "actively monitoring the overall project and the usefulness of the final product" (Cascio, 2000, p. 86). Managers, e-workers and teams can establish timelines with specific targets along the way.

Managers of e-workers are outcomes focused and manage projects (results), not time (activity). This may involve a shift from evaluating employees based on the amount of time spent on a project to the results of the project (Cascio, 2000; Peailson & Sounders, 2001). These practices are useful for effective project management in a traditional office setting; however, they are essential for management in an e-work program (Cascio, 2000). Also, clear organizational processes for performance management and evaluation that is outcomes based can help management and employees (Cascio, 2000).

Goals are an important component of project management, because goals give meaning and purpose to a set of tasks. Goal setting is especially important for virtual teams, because it contributes to the team's sense of cohesion and commitment (Mathieu & Rapp, 2009). Goals help teams articulate the plan they intend to complete, clarify expectations and help guide decision making (Cascio, 2000). Once goals and objectives have been established team members can often work in various locations as long as they maintain communication.

Communication can be difficult for team members who e-work. Managers and employees may have to develop new skills to ensure e-workers feel part of the team and organization (Cascio, 2000). Managers are often concerned that they will no longer see or hear from e-workers. To overcome this challenge, regular meeting times can be agreed upon, even brief daily telephone check-ins can be helpful (US OPM & US GSA, n.d.). Remote communication is supported by information technology, which can be an additional challenge to e-work.

Technology

Information technology helps employees complete tasks and communicate with team members, regardless of location. E-workers require remote access to internal databases, files, email and other programs (Cascio, 2000). Issues with technology are the main complaints of e-workers, because they are physically separated from technical support; therefore, organizations often take steps to provide remote technical support during regular office hours.

An additional aspect of information technology is information security, which can be a challenge when remote access is granted. Most organizations have existing information security policies that can be adopted by e-work programs. Several steps can be taken to ensure compliance with an organization's security policies:

- provide information security training for all employees,
- ensure home office equipment supports security requirements,
- confidential materials are stored on a secure server, rather than the e-worker's computer, and
- develop and use secure systems for sensitive files and documents.

It is possible to maintain high security standards while having employees work from home. The Department of Defence has the largest e-work program of any US federal department, with 16,871 e-workers, and maintains high security levels (US OPM, 2009). (See Appendix 8 for further information on remote access security).

Worksite

An appropriate worksite is important for effective task completion. It can be costly to set-up and maintain a home office, which may be a deterrent for individuals and organizations. Responsibility for purchasing and maintaining home office equipment is usually clearly established (Cascio, 2000). Most organizations require e-workers to have their own office equipment. The majority of large companies only provide cellular phones for employees who work out of the office (Thomas, 2009). When a City of

Vancouver employee requests to e-work the employee is responsible for all office equipment; however, if the City requires an employee to work from home the City provides the necessary equipment (Fung, J., March 16, 2010).

Workplace safety is important no matter where an employee is working. Employees can be taught how to set up offices that support good ergonomics. Some organizations choose to conduct inspections of the home office to determine suitability, which can raise privacy issues. Other organizations provide home office safety guides, questionnaires and education and may have employees bring pictures of their home office (Frontier, 2005). (See Appendix 5 for examples of home office suggestions and questionnaires.)

The Canadian Labour Code describes a "work place" as any place an employee conducts work for their employer, which can include their home; therefore, employees working from home are covered by Worker's Compensation (Treasury Board of Canada, n.d.). Employees are only covered by Worker's Compensation while performing job duties. Usually, the organization's insurance protects company property when used at an employee's home and the employee's home insurance will cover personal office equipment.

Productivity

Working from home can improve an individual team member's task completion. Studies of e-work programs show increased productivity between 10 and 40 percent for most e-workers (Cascio, 2000; Grantham & Paul, 1995; InnoVisions Canada, 2010). After a four month e-work pilot project the City of Calgary found that 35% of supervisors perceived an increase in employee productivity (City of Calgary, 2010). The majority of productivity increases are attributed to the reduction in interruptions, more relaxed work environment, and a greater ability to focus on tasks (City of Calgary, 2010; Mark, Gonzalez & Harris, 2005; Mallia, 2000; US OPM & US GSA, n.d.).

Implementation strategies

As previously stated, informal ad hoc e-work programs have low participation and success rates; therefore, it is beneficial for organizations to adopt specific strategies to help develop, implement, and monitor e-work programs. A study of 62 experts who specialize in e-work found that five program components were consistently recommended as essential, these include: 1) executive champions, 2) clear and measurable program goals, 3) training for managers, 4) e-worker performance appraisals, and 5) appropriate technology and support (Joice, 2001). Interestingly, the experts did not consider cost/benefit analysis, early involvement of union representatives, or formal program evaluation as essential components of an e-work program (Joice, 2001). The following is a discussion of possible strategies that can help maximize opportunities, while minimizing challenges.

Establish an e-work committee

Many organizations find it beneficial to establish an e-work committee composed of senior representatives from various departments, including: human resources, legal, union, information technology, and management (Joice, 2001; Telework Coalition, 2006). The committee can develop e-work goals, objectives, policies and procedures. Further, support of all departments who will engage with e-workers, is helpful. The Vice Chairman of American Express states:

It's important to have a multifunction team of senior managers promoting and supporting a virtual-office initiative from the start...The individuals must be enthusiastic and not unnecessarily fettered by traditional approaches. And they must be made knowledgeable about all key issues (cited in Cascio, 2000, p. 87).

This is consistent with Cunningham and Kempling's findings that the most important principle in implementing organizational change is the presence of a "guiding coalition" that includes senior managers to act as a "committed leadership team" (2009, p. 332). In addition, Commuter Connections found that e-work programs are more successful when promoted by a "compelling internal champion" (Ramfos, 2010). Organizations often prefer to ease into organizational change, which can be achieved through a pilot program.

Pilot program

Some organizations choose to start with an e-work pilot project as a trial before making a full commitment. Pilot programs can help determine if any changes need to be made to the program. They also help the organization ease into e-work and allow managers and employees to try a test run. A study of thirteen organizations found that pilot projects demonstrated organizational benefits and reduced resistance to the e-work (Telework Coalition, 2006). Similarly, the City of Calgary found that resistance to e-work diminished once the pilot project was established and the benefits of e-work became apparent (Reneker, J., March 22, 2010). Pilot projects can help organizations improve the design of an e-work policy.

Policy design

E-work policies can be used to describe program guidelines, responsibilities, and expectations. Thomas (2009) argues that e-work policies need to answer four questions: 1) Who is eligible?, 2) What are the employee's responsibilities?, 3) What are the employer's responsibilities?, and 4) What remote technological support is provided? Commuter Connections recommends beginning each policy with organizational goals that are measurable (Ramfos, 2010). Program criteria can be developed such as operationally feasible, improves efficiencies, maintains or improves service or production, and does not generate ongoing net additional costs.

Most e-work policies include:

- General program description, rationale and definitions,
- Goals and objectives,
- Description of program participation,
- Eligibility,
- Terms and conditions,
- Work schedule and accessibility,
- Dependent care (e.g. E-workers will not be primary caregivers for dependents during work hours. Exceptions may include teenagers or the elderly if they have minimal care/time requirements),
- Home office requirements (e.g. E-workers will maintain a safe office that is free from distractions),

- Application and implementation procedures,
- Potential reasons for the termination of the e-work agreement.

Policies often clearly state that e-work can end based on operational or performance issues. Brian Auger states, "At the Bank of Canada, each telework agreement has an escape clause whereby either side can terminate the agreement with suitable notice. Fortunately, that's never actually happened. In the few cases where the telework arrangement ended, it was by mutual agreement" (cited in Fortier, n.d.) E-work programs are usually voluntary and can be ended by the employee or employers (see Appendix 1). Potential attachments to the policy include an e-work eligibility self-assessment (Appendix 3), e-work application, home office checklist (Appendix 5), and e-work agreement (Appendix 2).

Eligibility

As mentioned above, some positions and people are not suitable for e-work; therefore, clear written eligibility criteria, that are equitable, can help the employee and employer determine eligibility. Eligibility criteria are usually stated in a written policy and based on past performance appraisals and the position's suitability. Eligibility criteria are often a concern of union representatives, who focus on equality.

E-working is suitable for individuals who are disciplined, flexible, self-sufficient, results oriented, and able to work independently. Many organizations have employees evaluate themselves, through a self-assessment questionnaire, prior to applying for the e-work program (see Appendix 3). Criteria can include: consistent performance reviews, ability to work independently, strong organization and communication skills. Also, e-work programs are usually voluntary; therefore, employees are able to take their individual needs and skills into consideration or withdraw from the program if necessary (Horung & Glaser, 2009).

Eligibility is usually based on criteria in two areas: 1) suitability of job duties and 2) employee suitability (Fortier, n.d.). Fortier recommends union involvement in determining eligibility criteria (n.d.). Fortier also suggests basing selection of eligible positions on job duties, rather than job title. In addition, some positions involve tasks that are only compatible with infrequent e-working and it is up to the organization to determine if these positions can participate on a limited basis, for example, one day a month.

The most obvious criteria for a position is if the employee's tasks must be performed in the office, which is usually determined by the amount of face-to-face contact required; customer service needs; access to equipment that is only available on-site; ability to exchange information confidentially and with ease; and security requirements (Fortier, n.d.). Further, organizations often require a minimum length of employment before an employee can be eligible, usually between three and twelve months; this helps familiarize employees with organizational procedures and culture. Also, employees are usually required to have a safe, suitable home office (Fortier, n.d.). Education and training can help prepare employees prior to e-working.

Training

Most organizations find that management resistance stems from lack of knowledge and/or understanding of e-work and advocate education, promotion and training to help inform managers (Reneker, J., March 22, 2010; Auten, 2007; Telework Coalition, 2006). Effective management and

employee skills can be developed for e-work programs; therefore, training is suggested for managers and employees (Joice, 2001; Staples, Hulland & Higgins, 1999). Several organizations offer formalized e-work training programs specifically designed for e-workers, managers, and teams. Cascio recommends bringing managers and staff together for the initial training so that everyone understands the rationale for the e-work program (2000). During training preconceptions and concerns can be addressed. Training can also provide a forum for managers and e-workers to discuss their relationship and develop e-work strategies (Cascio, 2000). Some organizations train the entire staff despite eligibility for e-work; however, feedback from those who are in-eligible for the e-work program is often negative, because it seemed like a waste of their time (Hill, Hawkins & Miller, 1996).

Commuter Connections, a collection of public and private organizations, found that classroom style training was important to attract and inform e-workers; however, due to repetition after 5 years they recommend switching entirely to on-line training (Ramfos, 2010). The United States Office of Personnel Management (US OPM) and the US General Service Administration (US GSA) offer individualized on-line training for staff, managers and telework coordinators, through www.telework.gov. In addition, the US OPM meets with telework coordinators to offer on-going support and guidance. The telework.gov website also provides forums for staff to discuss their challenges and successes (US OPM, 2009).

Training often includes technical components such as accessing internal files remotely (Thomas, 2009). Training can also demonstrate how to measure productivity in terms of specific outputs, instead of the amount of time spent at the office (Cascio, 2000). Further, e-work training usually includes expectations, work schedules, communication methods, and success strategies. Managers and employees often report benefits from on-going evaluation of the e-work relationship, while organizations may perform overall e-work program evaluation (see Appendix 6 for examples and resources).

Evaluation

E-work programs can be a significant organizational change and may present challenges that require adjustments. E-work evaluations usually include two main components: 1) evaluation of individual e-worker performance and 2) evaluation of the program (Telework Coalition, 2006). These components are sometimes informally evaluated on a regular basis and formally evaluated after a set period of time. Program evaluation can help an organization determine if it is meeting its e-work goals and help identify areas for improvement.

Prior to commencing the program managers and employees often agree on performance expectations that are results focused. Cascio recommends open communication between managers and e-workers to continually evaluate an e-work situation and address problems as they arise (2000). Most organizations use the same criteria to evaluate all employees, regardless if they e-work. Employee evaluation criteria can include quality of work, customer satisfaction, ability to meet deadlines, quantity of work, and employee satisfaction (Telework Coalition, 2006).

Cascio recommends engaging managers in an evaluation process six months after an e-work program begins (2000). The American Federal Government has an extensive telework program for employees. To help evaluate the program, an annual report is issued to Congress with information about the program, such as number of teleworkers, security, and accountability (US OPM & US GSA., n.d.). (See Appendix 7 for examples of evaluation questions).

METHODOLOGY

Research question

How can the CRD and its members develop e-work policies and programs given the opportunities and challenges to their implementation?

Research objectives

To identify and analyse potential challenges and opportunities of local government e-work policies.

To identify and analyse e-work development and implementation strategies.

To develop a PowerPoint presentation the CRD can use to educate other public sector organizations about e-work.

Literature review

The research methods include a literature review and interviews of CRD employees. The literature review is based on academic, grey literature, and personal communication with organizations that have an e-work program. The literature review analyzes how to implement a successful e-work program by overcoming challenges and maximizing opportunities. It also investigates various strategies for designing and implementing e-work programs. Searches were conducted through the University of Victoria's library and the Internet using key words such as "e-work", "e-commuting", "telework", "telecommuting", "remote work" and "work at home".

Interviews

The literature identified management resistance as the main potential barrier to successful e-work programs; therefore, the primary focus of the research was empirical interviews of CRD managers to gain an understanding of local government management perception and attitudes towards e-working. Interviews of three unionized staff members were also conducted.

Sampling

Interviewees were selected from various CRD departments based on their ability to provide a perspective on e-work and the potential for organizational change. A purposeful snowball sampling technique was used, that is my client recommend suitable individuals to be interviewed and then asked if they could suggest anyone else to interview (Auerbach & Silverstein, 2003; O'Sullivan, Rassel & Berner, 2008). An effort was made to select key respondents who will be influential in the success of an e-work program. This method is supported by research on organizational change that highlights the importance of involvement of influential people in the organization (Cunningham & Kempling, 2009).

Eleven CRD employees were interviewed and included: three unionized employees, four managers, and four upper level managers. Data from this sample was rich with common themes and is thought to be "saturated," that is no new trends or patterns were introduced to the data (Bunce & Johnson, 2006; Guest, Auerbach & Silverstein, 2003; Strauss & Corbin, 1998 cited in Cunningham & Kempling, 2009). In addition, the findings and conclusions have been supported by other research.

Interview design

Organizational change is a complex topic; therefore, semi-structured interviews were used as the method of data collection. This method was chosen, because in-depth questions can be asked to better understand the complex subject; further, a semi-structured approach allows for flexibility while ensuring the important aspects of the issue are addressed. Specifically, semi-structured interviews allow for digressions that touch on information that the researcher had not accounted for, which may lead to greater understanding (O'Sullivan, Rassel & Berner, 2008).

The interview questions were based on the conceptual framework and designed to explore respondents' perspectives on the feasibility of e-work programs in local governments in the region. Many of the interview questions were critical incident questions and were designed to gain a deeper knowledge of the local government work context. By asking for examples of important, work related, events critical incident questioning can “provide a rich, in-depth perspective of life in an organization that is usually not apparent through more quantitative methods of data collection” (Marelli, 2005, p. 42). Critical incident questions are limited because they only provide a personalized account of an organization, but can be combined with other types of questions and research.

The three groups of respondents 1) General Managers 2) Senior Managers, and 3) staff were asked the same questions; most of which focused on the opportunities and challenges local governments may face when implementing an e-work program and ideas for overcoming potential challenges. An interview script was used; however, additional questions were asked to allow further understanding of respondent answers. Questions included: *What do you see as the main opportunities/challenges to the success of an e-work program?* and *What ideas do you have for designing and implementing a local government e-work program?* (See Appendix 10 for interview questions).

Methods of analysis

During the interviews the researcher took detailed notes. The notes were then systematically coded, identifying commonalities, patterns and themes. Next the information was analysed, summarized and interpreted (Auerbach & Silverstein, 2003; O'Sullivan, Rassel & Berner, 2008). Analysis is discussed in the following findings and discussion sections.

Figures 1 and 2 are examples of the visual representations used in the discussion section of the paper. These figures are used to illustrate the facilitating forces (opportunities) and restraining forces (challenges) that were identified by respondents. Interview responses were categorized into forces and the strength of the force was determined based on the frequency of similar responses. The strength of the force is based on the number of respondents who discussed the category, not the number of times it was mentioned, which prevents the data being skewed towards an individual perception. As shown in Figure 1, forces that were identified by seven or more respondents were the strongest, forces that were identified by four to six respondents were moderate, and forces that were discussed by less than three respondents were weak. It is important to note that there are limitations to this ranking system, since frequency may not accurately capture strength of force. However, it is a useful method of interpreting and viewing the data.

Figure 1: Legend for Force Field Representations

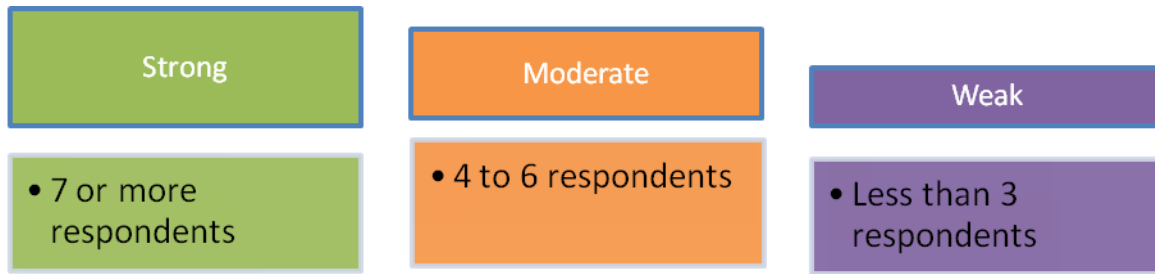
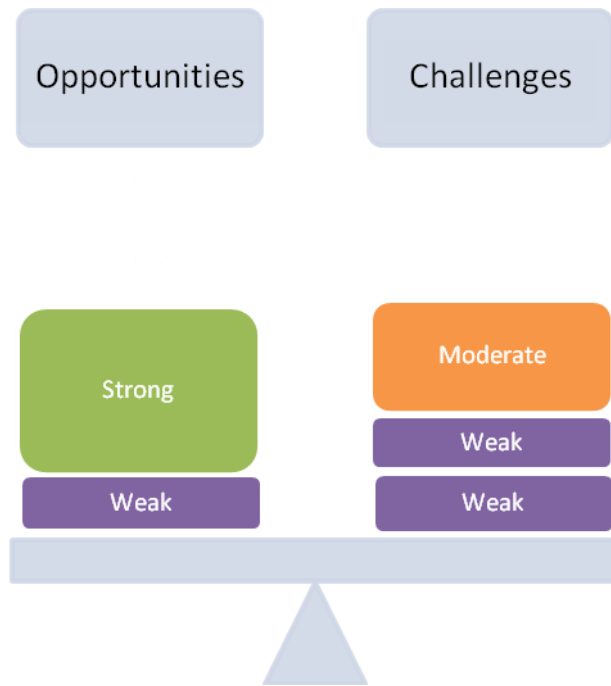


Figure 2 shows how the forces are combined to influence an aspect of the conceptual framework.

Figure 2: Force Field Example



FINDINGS

The following qualitative analysis is based on eleven semi-structured interviews of Capital Regional District employees. The interview questions were designed to explore possible opportunities and challenges of e-work in local government. Respondents were also asked for ways to overcome potential challenges to implementing and maintaining an e-work program. The analysis is categorized into the conceptual framework and explores opportunities, challenges and ways they can be overcome, within relationships and tasks. Each section contains a selection of quotes, from the respondents, to support the findings. Finally, the findings are analyzed using Kurt Lewin's Force Field Analysis.

Table 4: Conceptual Framework

Relationships	Tasks	Implementation Strategies
Between Supervisors and Employees Among Employees	Management of Projects and Administration Information Technology	General/Senior Management Champion Clear policy and expectations
Between Local Governments and Employees	Worksite	Education and Training
With Society (Citizens)	Productivity	Low-intensity time at home Pilot Program

Relationships

To further understand perceptions of e-work and its possible impact on local governments, respondents were asked to describe ways e-work may affect relationships among employees, supervisors, employers and with society. The interview questions focused on communication, trust and the interpersonal atmosphere. Respondents discussed possible opportunities and challenges within each type of relationship.

Relationships with our supervisors and employees

Supervisor employee relations describe the way supervisors relate to their employees in helping, coaching, and being supportive. Similarly to the literature, respondents identified potential management resistance as the main barrier to e-work. Specifically, several respondents argued that resistance would be the greatest among general and senior managers. However, most respondents felt that e-work could help managers develop better management skills, improve relationships, and improve systems and processes. As a result, relationships between managers and employees would improve.

Several respondents felt that the success of e-work depends on the type of manager and their relationship with their employees. There was concern that managers who are used to micromanaging

will have difficulty trusting employees who are off-site. Further, they identified the need for specific management skills that are complementary to e-work, such as focusing on outcomes. This is a potential challenge, because some managers may resist developing new skills. *"It depends on the maturity of the relationship and the people involved. Micro managers will find the lack of control difficult. The effects on relationships will be more of a reflection of the relationship, than e-work."* However, several respondents argued that it is time for managers to develop "more modern ways of supervising" and become less "prescriptive" and e-work could help facilitate this shift.

Some respondents argued that general and senior local government managers will be the most resistant to e-work, since they are more removed and may not have close, trusting relationships with employees. *"The further a level of management is from the employees, the lower their trust and the greater their resistance to e-work."* Several respondents believed that middle management has a more direct, and therefore trusting, relationship with employees. In addition, a few respondents speculated greater general management resistance, because local government general managers are typically an older demographic and may have more traditional views of work and manager/employee relationships.

One of the respondents mentioned that because of better hiring practices senior managers are becoming more trusting of employees. *"We have more trust that we have hired people who want to do good work."* Four of the managers that were interviewed were optimistic about their counterparts' willingness to supervise e-workers. One manager stated: *"There is a current professed willingness to embrace change. Generally, management is excited about the possibilities. We are trying to move into the future and refresh ourselves."* However, they acknowledged that the lack of strong leadership to adopt e-work was a barrier.

An interesting contrast was apparent in the responses; on one hand respondents felt that low-intensity e-work would not change relationships between supervisors and employees, and on the other they felt that the relationships could be improved. In other words, several respondents believed low-frequency e-work would create benefits while reducing, or eliminating the challenges. For example, supervisors may have a greater understanding of an employees work, because detailed work plans and goals would be developed and followed. *"E-work will force managers and staff to have conversations and create a framework. It can increase accountability, if it has markers and methods to report in. E-work forces one-on-one interactions and check-ins, whereas in the office weeks could roll by without checking in."* Overall, respondents agreed that relationships could be improved through e-work, because of the need to have more explicit support and check-in systems.

In addition to more formalized check-ins, many respondents pointed out that more thought and effort may be put into communication, which could improve relationships. *"E-work will force employees and managers to put more focus on their relationship and talk about how they will connect, which will be beneficial."* Respondents thought that this extra effort could help strengthen the level of trust between supervisors and employees.

Several respondents mentioned that supervisors usually do not see employees on a daily basis, so an employee working from home on occasion would not make a difference. *"If you know what days an employee will be in the office it won't be much of a change, because you don't meet every day anyways. I*

sometimes go a week or two without seeing my manager, even though we work in the same building." Depending on the size of the local government supervisors and employees may not work on the same floor or even the same building, so occasionally working from home may have minimal impact. In some cases managers and employees may already have systems in place to facilitate communication and regular check-ins, regardless of location.

In addition, respondents suggested that managers and employees will work together to make sure there isn't any change. However, if there is a change it may be positive, because managers would be forced to focus on the relationship and develop established means and times for check-ins. Several respondents identified scheduled check-ins as important regardless of e-work and acknowledged that most supervisors and employees already have them in place. *"You need regular scheduled meetings, which isn't a change. Right now your supervisor might be on a different floor and you have mechanisms in place already."* However, they felt that for some managers e-work could facilitate the adoption of more formalized check-ins, which would be beneficial for everyone.

Relationships among employees

Interpersonal support and trust is important in any organization, as it is with e-work, and describes the way people relate to each other in helping, trusting and supporting others. Some respondents saw e-work as an opportunity to improve relationships between employees, because more effort would be required to develop and maintain relationships. One respondent stated: *"We work in segregated environments now, but if we're forced to make more of an effort our contact would increase."* Similarly, several respondents thought that e-work would require teams to become more organized and proactive, which would benefit working relationships and productivity. In some ways team work may be taken for granted and e-work may force people to be more purposeful and proactive when they work together.

Similarly, several respondents saw e-work as an opportunity to improve collaboration and efficiency through new processes and technology. For example, *"We need to make communication smarter. When people are in the office they need to be more intentional and make sure they check-in with the team. E-work will force people to be more organized."* E-work may require new technology and ways of working together that will improve relationships among colleagues. Two respondents mentioned Google Documents as an example of a technology to facilitate working together. Several respondents argued that e-work could facilitate the adoption of collaborative processes and technology that could improve relationships, regardless of where people work. They saw this as an opportunity for all employees regardless of if they e-worked or not.

Respondents identified two main challenges e-work might pose to relationships among employees. First, the most common challenge was the lack of equality and its impact on collective agreements. This was a concern because local governments have many front-line positions, like garbage collection and reception, which are not suitable for e-work. Respondents were concerned that the lack of equality would create tension among employees and be resisted by the union. As one respondent stated, *"Many people won't qualify for e-work, so the union might resist. It may be perceived as unfair to employees who won't qualify, so there needs to be an equalizer to qualify for in lieu."*

The second challenge was decreased face-to-face interactions and its potential influence on developing and maintaining trust. Many respondents thought that a decrease in face-to-face interactions would hurt relationships and lead to a decreased sense of teams. Some respondents were concerned that tension between employees could increase as a result, *"Less face-to-face time can reduce interpersonal relationships. You can't have trust without a relationship."* A few respondents were concerned that lack of trust could become an issue; especially if they could not reach someone. One respondent described the negative perceptions people may have if they cannot reach someone working from home: *"If you call someone at the office and they don't answer you assume they are in a meeting, but if you call them at home you assume they are watching TV or walking the dog. When I'm working at home I might not want to use the bathroom in case I missed a call and someone thought I was goofing off."* This respondent worried about double standards and high expectations for e-workers.

Another consequence to increased reliance on technology and decreased face-to-face interactions is the increased possibility of someone misinterpreting the communication. A lot of communication happens through body language and it is easier to ask clarifying questions in person. Consequently, a few respondents were concerned that misinterpretation of texts or emails could harm relationships.

Respondents also acknowledged that e-work is not suitable for every employee, because some people need more direct interactions. Some respondents were concerned that individuals may feel isolated while working at home. Further, informal interactions that happen in the staff room and halls are important for developing relationships and can provide opportunities for collaboration and brainstorming. Respondents were concerned that the lack of informal interactions could decrease the sense of team and innovation: *"Good business happens during informal coffee chats."*

Relationships with the local government

Although there were no specific interview questions about this relationship, all of the respondents mentioned the relationships between local governments and employees as being critical to the implementation of e-work. Relationships between an employer, in this case local governments, and employees are complex.

The traditional nature of local governments was seen as the main barrier to developing e-work programs; however, most respondents were hopeful that things are changing. *"Local governments are slow cultures to change; currently there is a slow changing of the guard."* Also, the traditional adversarial union relationship was described as a barrier to e-work. *"An outcomes based approach requires trust and collective agreements aren't about trust--they're prescriptive. E-work is a different more modern way of thinking and a big shift in a union environment where traditionally members are in their seat from 8:30 to 4:30."* Several respondents shared the concern that the traditional nature of most unions would be a barrier to e-work; however, some respondents were hopeful that unions could modernize, which could benefit employees and local governments.

Several of the respondents argued that many local government collective agreements are not supportive of current office work environments. They argued that local governments and their unions need to develop a more collaborative relationship. Several respondents felt that local governments and unions were slowly modernizing and becoming more flexible. For example, the CRD and union have

agreed to a “flexibility framework” that allows many employees to start and end work at different times and are not required to be at their desk during the traditional 8:00 to 4:30. *“The organization needs to develop a collaborative relationship with the union, so that everyone is working to make the organization more successful. E-work is a new approach to working that requires everyone to be responsible for making it work, which could be very beneficial.”* This respondent, like several others, felt that e-work could help facilitate the further modernization of local governments and collective agreements.

Overall, respondents were optimistic about the improvements e-working could make in the relationships between local governments and their employees. Most respondents thought that allowing employees to e-work, demonstrates that they are trusted by the employer. As a result, some respondents felt that employees would be more committed to the organization. As one respondent stated, *“The employer can show employees that they are committed to finding better work solutions for them, which increases loyalty.”*

Another improvement that was discussed was that e-work requires updating, and hopefully improving, policies, procedures and technology that would benefit the entire organization. *“E-work will help local governments obliterate dated policy and procedures.”* Several respondents expressed their frustration with the slow pace of local governments in adopting new policies, processes and technology. They felt that e-work could help facilitate the modernization several aspects of local government.

Moreover, several respondents spoke as if e-work was inevitable, because local governments are committed to becoming more modern places to work. As stated by a respondent, *“The lack of trust within local governments is in transition. Attitudes are slowly changing; e-work is going to happen.”* One example respondents gave is that the CRD is changing performance evaluations to be more outcomes based, which they felt would complement an e-work program.

Further, some respondents argued that e-work is in line with many local government values. For example, e-work contributes to all three dimensions of the triple-bottom-line. Economically e-work can increase productivity, while reducing costs, socially e-work reduces congestion and can improve employee quality of life, and environmentally e-work reduces GHGs.

Another potential benefit is that e-work was seen as a program that could attract new employees, specifically people from younger demographics, into local government. As one respondent stated, *“New generations are looking for different things like work-life balance.”* Respondents saw e-work as an opportunity, since local governments want to attract and retain great employees. Several respondents felt that the sustainability and work-life balance aspects would motivate people to join local governments. Attracting quality motivated employees is just one way e-work could benefit local governments and society.

Relationships with society

The relationship between a local government and society is important because, local governments exist to serve their citizens. The relationship with society describes the way the local government employees relate to citizens in carrying out the organization's mandate. Respondents agreed that e-work should not

change the relationship between local governments and society; and many believed that technology could facilitate a seamless transition to e-work.

The main challenge respondents identified was that public servants already have a reputation as being unproductive and e-work might be seen as another example of privileged laziness. *"Public servants are seen as slacking off and e-work could be seen as them taking further advantage."* However, respondents argued that negative perceptions exist no matter what they do. One respondent summarized it, *"Public servants are damned if we do and damned if we don't."* However, several respondents were hopeful that an effective communications strategy could demonstrate the benefits of e-work to tax payers.

Respondents agreed that there was no reason why e-work should affect the day to day interactions with the public, if frontline staff are excluded. Currently, most interactions occur over the phone or email, which, can be done from home. Several respondents discussed a program the CRD uses to send phone messages to an employee's email account, so phone messages can be checked remotely. Respondents mentioned that citizens have an expectation of excellent service and prompt responses, which should be achieved regardless of where an employee works. Similarly, respondents argued that the transition should be seamless: *"The relationship won't be affected if email and other technology are used. We must continue to ensure timely responses to phone and email, which doesn't require being in the office."*

Several respondents saw an opportunity to implement e-work as a response to the public's requests for innovative solutions to climate change and local congestion. *"Local governments need to be ahead of the curve and looking to the future. Look at climate change and congestion--our current systems aren't working."* These respondents were hopeful that the public would recognize e-work as a proactive step that could benefit everyone. Another benefit to society could be improved task completion.

Tasks

E-work programs are outcomes based; therefore, task completion is the main criteria for measuring employee progress. The systems used to direct and support workers task completion are discussed.

Management of projects and administration

Management of projects and administration describes the way people set and meet goals and objectives, and meet to discuss and solve issues.

Overall respondents agreed that low-intensity e-work would have minimal impact on their projects. Again, they disagreed on the definition of low-intensity. One respondent was adamant that e-work be kept to a maximum of one or two days a month, because they felt weekly would be too disruptive. However, the majority of respondents thought that one or two days a week would have minimal impact.

Several respondents argued that e-work would improve the management of projects and administration. For example, *"It is possible to have everyone on the same floor and have badly managed projects. E-work could help improve projects, because we would be forced to have proper systems in place."*

Respondents identified the main challenge as the need for some managers to develop new management skills. Overall, respondents thought changes, such as a focus on outcomes, would be beneficial for local

governments; however, they recognized that it may be difficult for some managers and employees to adapt to. *"We'll need to go to results based management, because managing by time at a desk is out of date. Employees can be held responsible for their time by looking at their results. This shift could be hard for some employees and managers."* Many respondents argued that an outcomes based focus is important, whether local governments have e-work programs or not. They were hopeful that e-work could help speed up and strengthen the adoption of outcomes based management.

Technology

Overall, respondents recognized that times and technology have changed and many local government positions are no longer dependent on working in the office. In general, respondents were frustrated that the public sector was so far behind the private sector with regards to technology and workplace flexibility. Several respondents discussed the ability of e-work to facilitate the adoption of more modern, and useful, technologies. *"The world is becoming more open sourced and that availability of information needs to translate into work."* Some of the respondents were excited about the potential for e-work to speed up the use of more collaborative technologies.

A few respondents mentioned the benefits of e-work for continuity planning. In case of a natural disaster e-workers could continue working from home, rather than risk travelling to work. *"If a crisis hits and the team needs to get together immediately, technology can help get through the short term."*

Several respondents mentioned that the basic technological capabilities already exist in the CRD and that some people, mainly managers, occasionally work from home. *"Local government employees are already working from home a lot, it's just not official."* Respondents who did work from home would usually do so to focus on a project without the usual office distractions. They noted that programs such as with Windows Media player, which allows people to check their voicemail in their email account, were useful.

Respondents addressed four challenges in relation to technology and e-work. First, many people will need to learn how to use new, and existing, technology properly. Using video conferencing as an example, one respondent mentioned that it takes time for people to learn to trust and rely on technology. Similarly, another respondent mentioned that some people are not comfortable with computer web based technology and don't understand its capabilities.

The second area respondents addressed was that e-work will lead to more written communication, which requires a certain degree of professionalism. Local governments already have communication protocols in place, but e-workers may have to be more diligent in following them. *"Reduced verbal direction and increased written means better documentation, which raises FOIA [Freedom of Information] issues, so people will have to follow protocol and not have much commentary in written communication."* Some respondents mentioned that e-work would require clear communication agreements that would be a good reminder for all employees to improve their communication.

The third challenge respondents identified was local government resistance to new technology. Several respondents discussed the tendency of local governments to be slow to adopt new technology. *"Local government IT departments tend to be fairly conservative."* Some respondents saw this as a big change

for local governments, but were hopeful that e-work could be an opportunity to ease IT departments into more modern technology and ways of working.

The fourth challenge was the limitations of technology. One of the concerns was that it may be harder to access technical support when someone is working off-site, which could lead to decreased productivity. Another limitation is that sometimes people need to use hardcopies that are stored in the office. Some respondents argued that it is not always possible to know what a person will need to access, so employees may not always be prepared to work from home.

Worksite

Several respondents argued that most local government employees, in professional positions, have home offices with computers. Some people mentioned the importance of having a comfortable, quiet home office, where it is easy to focus.

Productivity

A few respondents described working from home as a privilege that may motivate people to work harder, in order to keep it. As one respondent stated, "*Conscientious employees may improve their performance, because they will put in extra effort to compensate for being out of the office, and to prove that e-work is a win for the organization.*" This respondent identified a potential explanation, that is not discussed in the literature, for some of the reported increases in productivity.

When discussing completing complex or lengthy tasks, respondents described the benefits of being able to work at home without distraction, in an informal, comfortable workspace. Although, one respondent acknowledged that e-work isn't appropriate for everyone, because some people may be less productive at home. Several of the respondents work from home when they have deadlines or tasks that require in depth concentration. As one person stated, "*Working from home reduces diversions and allows for a more intense working environment without distractions.*" Respondents described an increased ability to focus without people walking by their office or calling and asking questions.

Through discussions of potential challenges to relationships and tasks the respondents identified implementation strategies.

Implementation strategies

The respondents identified four ways to overcome potential challenges: 1) General or senior manager as champion, 2) Establish clear structures and procedures, 3) Education and Training, 4) Low-intensity, and 5) Pilot program.

General or senior manager as champion

Respondents discussed the importance of having both "bottom-up" and "top-down" support for e-work. However, they acknowledged that general and senior managers would have the biggest influence. Several respondents discussed the need to have general and senior managers committed to e-work, in order for it to succeed. "*General and senior managers need to buy-in, because it needs support from the top.*" Several respondents argued local governments need a general or senior manager(s) to champion e-work. Since, managers were seen as the largest potential barrier to e-work, respondents felt that an

internal champion would be an effective way to educate and win people over. Respondents also suggested having multiple stakeholders involved in designing an e-work program.

Clear policies and expectations

The third way respondents identified to overcome challenges is to establish clear structures and procedures to help maintain and enhance the quality of relationships and tasks. As mentioned previously, several of the respondents felt that e-work could improve relationships, because more attention would be paid to processes and procedures.

Respondents argued that a clear eligibility policy needs to be developed with the union and communicated effectively. For example, *"You need systems in place, so employees can trust that they will be kept in the loop when they are working from home. People should still have set hours when they are working at home, so you know when to reach them."* Also, several respondents felt that local governments need to have a clear written agreement, outlining expectations, which is signed by the employee and employer.

One of the concerns was that it may be harder to access technical support when someone is working off-site, which could lead to decreased productivity. One way to minimize this issue is to have e-workers work during office hours, so they can access technical support. Also, one respondent suggested that a written expectation could be that if someone cannot fix a technical difficulty in a certain amount of time they have to come into the office.

Education and training

Respondents identified two areas of education local governments can focus on. First, suggestions were made to provide education to ease possible tension among ineligible employees. Respondents agreed that education should discuss the opportunities and challenges and demonstrate that overall e-work benefits local governments, employees and society. One respondent stated, *"You need to be upfront about why there is an e-work program and the potential benefits and issues. So that the organization sees it as an overall benefit that has challenges, but is worth the effort."* Several of the respondents argued that a strong communication strategy needs to be part of an education program. One suggested that webinars could be presented by other local governments that have successful e-work programs.

The second area of education that respondents discussed is the importance of training employees to use technology and work in remote teams. A respondent stated, *"We need to be trained to build relationships over technology and allow more time to develop relationships."* Several respondents argued that technological training is important regardless of whether someone works at home or not. Specifically, a certain message may be more appropriately communicated over the phone rather than email, or when to "reply all." Many local governments provide on-going training and development as part of their mission and strategic goals. Several respondents argued that e-work training could add to available local government training opportunities.

Most respondents discussed the need for changes in local government culture and management styles to be more compatible with e-work. They also agreed that these changes were necessary, and in some cases inevitable, with or without e-work. As one respondent described, *"The CRD is going through a*

leadership campaign called iLead and managers are starting to trust people to step-up. Managers are getting out of their [employees] way." Training could be designed to help managers and employees develop the necessary skills.

Low-intensity

Ten of the eleven respondents agreed that the amount of time someone can work from home should be limited. However, respondents' descriptions of low-intensity e-working ranged from one day a month to two days a week. While respondents varied in their definition of low-intensity e-working, they agreed that low-intensity e-working would have minimal impact on their relationships with each other. Several respondents argued that most people want to work in the office and interact with their colleagues. As one respondent explained, *"Employees want a sense of belonging and to be part of a team, so there as to be time in the office focused on the team."*

Pilot project

Most respondents suggested starting with a small pilot program, as a way to ease a local government into e-work and demonstrate the value by reporting out on the benefits and challenges. *"Start with a robust pilot with 50 employees that includes rigorous monitoring and feedback."* Respondents also suggested recording the reduction in congestion and GHG emissions. One respondent suggested making e-work into a competition among local governments, *"It could be promoted as a municipal challenge to see who can get the most cars off the road."*

DISCUSSION

This paper examines potential e-work opportunities and challenges identified by the literature and interview respondents. Using the literature review and findings, this section discusses the active forces, local governments may face, when developing and implementing e-work programs. Based on this information, the following recommendations describe ways local governments can enhance opportunities and reduce or eliminate challenges.

This section describes the findings and literature review in relationship to Force Field Analysis. A voluntary e-work program is a large organizational change that must be carefully considered. Kurt Lewin's Force Field Analysis highlights the difficulties organizations face when adapting to change. He argues that for an organization to change the facilitating forces (opportunities) must outweigh the restraining forces (challenges). Further, organizational change is more likely to be successful when most of the restraining forces are eliminated (Lewin, 1969, cited in Cunningham and Kempling, n.d.).

The majority of respondents identified more opportunities than challenges for e-work on relationships and tasks. In addition, all of the respondents acknowledged that most of the challenges would be minimized if an individual's frequency of e-work was low. Although as mentioned earlier, respondents' definition of low frequency varied from one day a month to three days a week. However, some of the challenges that were identified are significant and will need to be addressed in order for e-work to be successful. An explanation of the following figures can be found in the methodology section, on page 18.

Figure 3. Force Field: Relationships between Supervisors and Employee



There were many common themes throughout the literature and interviews. Like the literature, respondents predicted that management resistance would be the biggest barrier to establishing an e-work program. As shown in Figure 3, local government facilitating forces outweigh the restraining forces for relationships among supervisors and employees. However, general manager resistance could be a major barrier to developing an e-work program, because general managers will be the main decision makers as to whether to pursue an e-work program.

Similarly to the literature, several respondents saw e-work as an opportunity for managers to improve their management skills and become more outcomes focused. They saw the improvement of management skills as beneficial to local governments, regardless of e-work. However, they acknowledged that some managers may resist developing new skills. The literature and respondents agreed that the best ways to overcome management resistance is to have an internal general or senior manager champion, provide education, and start with a pilot project. Specifically, the management champion and pilot project will help develop trust in e-work and local government employees (see recommendations for further details, p. 42).

Figure 4. Force Field: Relationship among Employees



For relationships among employees, respondents identified the opportunities and challenges as having similar weight, Figure 4. Again, there is an interesting contrast between the opportunities and challenges respondents identified. On one hand, respondents thought that employees working from home would result in less face-to-face interaction and could decrease trust and the quality of relationships. On the other hand, respondents thought that low-intensity e-working would maximize opportunities and minimize challenges. For example, respondents argued that low-intensity e-work could improve relationships between employees, because they would have to put more thought and effort into their interactions.

If e-workers were able to work from home at a high-intensity, respondents argued that less face-to-face interaction would be the main barrier to relationships. Like the literature, the majority of respondents felt that feelings of isolation, potential for miscommunication, and lack of face-to-face time could be minimized if e-work was limited to low-frequency time away from the office. If e-work was limited to low-intensity time at home, respondents thought the main challenge to relationships among co-workers would be the lack of equality for employees who would not qualify for e-work. Several respondents argued that a benefit should be offered to ineligible employees to help compensate. However, the few organizations that the literature identified with ineligible employees, did not find that compensation in lieu was necessary. For example, through discussions, the City of Calgary was able to clarify eligibility criteria and alleviate the union's concerns.

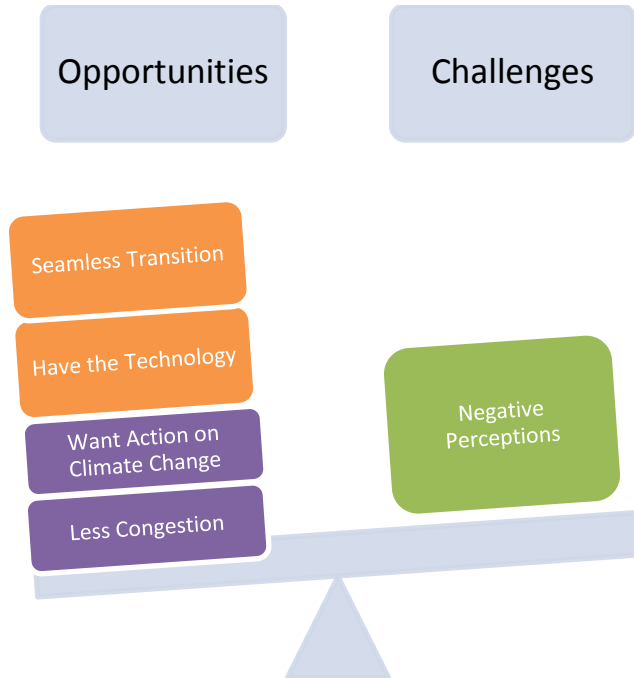
Figure 5. Force Field: Relationships between Employees and Local Governments



Of the relationships in the conceptual framework, respondents thought the relationship between employees and local governments would experience the greatest benefit. They argued that if local governments are going to follow through on their commitments to be employers of choice, then the transition to e-work should be relatively smooth, because the opportunities greatly outweigh the challenges for relationships between employees and local governments (see Figure 4). While respondents acknowledged that the traditional nature of local governments and collective agreements are significant challenges, many argued that local governments and unions are slowly modernizing and initiatives like e-work might be inevitable. Respondents argued that being modern places of work, that have programs like e-work, is a win-win for local governments and employees. Many respondents argued that, by demonstrating that employees are valued and trusted, e-work would help local governments attract and retain quality employees.

The traditional nature of collective agreements and local governments are significant challenges. Respondents and the literature agreed that a manager champion would be essential to help gain support throughout an organization. Interestingly, lack of trust was only mentioned by two respondents as being a barrier, and they thought an internal champion and pilot project would help develop trust.

Figure 6. Force Field: Relationship with Society



As shown in Figure 5, respondents identified four opportunities and one challenge for e-work and employees' relationships with society. All of the respondents described the negative perception the public has of (local) government employees and worried that e-work could give more justification for the idea that local government employees do not work very hard. In order to counter this perception respondents argued that the transition to e-work should be seamless and that employees should be able to meet the needs of citizens regardless of where they are working.

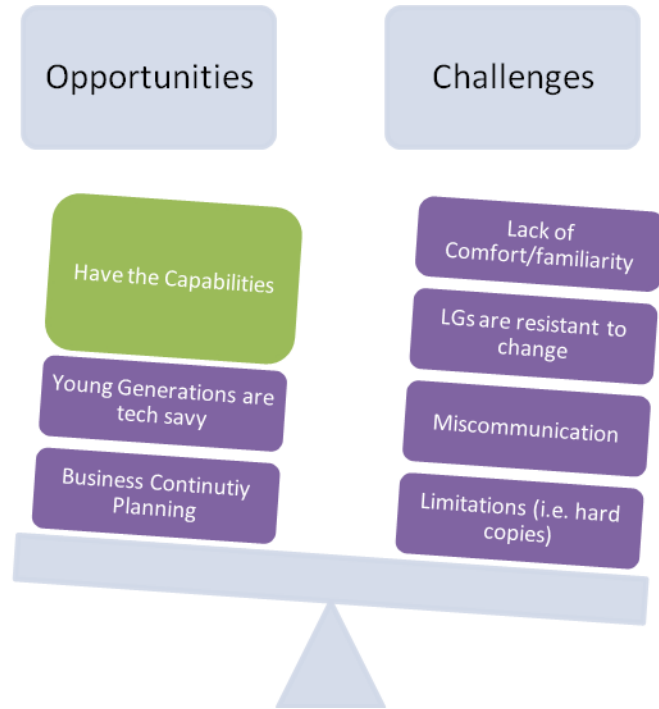
Several respondents were hopeful that an effective communications strategy could help counter negative perceptions. They argued that the focus should be on the environmental and cost saving opportunities to help demonstrate that e-work is a win for local governments, society and employees.

Figure 7. Force Field: Management of Projects and Administration



Respondents and the literature acknowledged that the main opportunity for management of projects and administration could also be the main challenge. E-work may require the development of new project management skills, which could be beneficial for task completion, regardless of whether local governments have e-work programs. However, managers and employees may resist learning new skills. Some respondents argued that the skills that are necessary for e-work may be easier for younger generations to accept and adapt and therefore, are worried it would take time for managers from older demographics to develop new skills, or that local governments would have to wait for some managers to retire.

Figure 8. Force Field: Technology and Task Completion



Appropriate technology is essential for e-work. Respondents described more challenges than opportunities for technology and e-work. The majority of respondents argued that the CRD has the basic technology that is required because many CRD employees and managers occasionally work from home. In addition, they were hopeful that e-work would help facilitate the adoption of better technology. Further, they argued that employees who are not comfortable with the necessary technology and were not interested in learning would be unlikely to sign up for e-work. Respondents argued that training would be important to help employees and managers, who were interested in e-work, adapt.

Figure 9. Force Field: Productivity and Task Completion



Like the literature, respondents felt that the majority of employees would be more productive when working from home, Figure 8. The literature discusses the importance of having voluntary e-work programs and clear eligibility criteria, so that a supervisor and employee can better determine e-work suitability. Also, a voluntary program would make it easier for an employee to withdraw from an e-work program, if it wasn't the right fit.

The interview respondents and the literature had similar recommendations for implementation strategies to maximize opportunities and minimize challenges (see the following recommendations section for further details).

CONCLUSION

E-work could help local governments meet their employer of choice goals. The greatest benefits of e-work could be to improved employee satisfaction and increased productivity. E-work can also help local

governments meet their climate action and transportation demand management goals, but would be a small piece of the overall climate action puzzle. This report has investigated the feasibility of e-work programs for local governments in the CRD. This research identified potential challenges, opportunities and ways to mitigate, or overcome the challenges of establishing e-work programs in the public sector. Hopefully, this research provides the CRD and its member local governments with a basis to decide whether to pursue e-work, and if so how and where to start.

This report contributes to the limited literature on public sector e-work programs. To date there has been more research conducted on private sector e-work programs. Further research could be conducted on the possible relationship between e-workers wanting to prove that they are capable and trustworthy and increased productivity. One of the respondents hypothesised that e-workers may have extra motivation to be productive while working at home, in order to keep the privilege of working from home. However, I was unable to find any research to confirm this hypothesis.

Through the literature review and findings, several recommendations emerged. The following section discusses six recommendations for implementing an e-work program.

RECOMMENDATIONS

The literature and interviews revealed several recommendations for increasing the opportunities, while reducing the challenges. The following are based on recommendations made by CRD employees in relation to the literature.

Recommendation 1: Find a general or senior management champion and establish an e-work task force

The interview respondents focused on the importance of having a single senior manager to champion e-work, while the literature focused on establishing an e-work committee composed of senior representatives from various departments. Those departments can include human resources, legal, union and information technology. Since, general and senior managers were seen as the largest potential barrier to e-work, respondents felt that an internal general management champion would be an effective way to educate and win people over. This is consistent with Cunningham and Kempling's findings that the most important principle in implementing organizational change is the presence of a "guiding coalition" that includes senior managers acting as a "committed leadership team" (2009, p. 332).

Several local governments already have task forces or advisory groups that could incorporate developing e-work policies and programs. For example, the CRD has a multi-stakeholder Corporate Development Committee that is composed of general and senior managers. The Committee's mandate is to improve organizational capacity through training, development and workplace policy. E-work is a logical fit in this committee, which could assign a task force to develop an e-work policy and program.

Recommendation 2: Establish clear policies.

All of the respondents identified clear policies and procedures as a way to overcome challenges and maintain or enhance the quality of relationships and tasks. E-work policies can be used to describe program guidelines, responsibilities, and expectations. Thomas (2009) argues that e-work policies need to answer four questions: 1) Who is eligible?, 2) What are the employee's responsibilities?, 3) What are the employer's responsibilities?, and 4) What remote technological support is provided?

Several respondents were concerned that it may be harder to access technical support when someone is working off-site, which could decrease productivity. One way to minimize this issue is to have e-workers work during office hours, so they can access technical support. Also, one respondent suggested that a written expectation could be that if someone cannot fix a technical difficulty in a certain amount of time they have to come into the office. Limiting e-work to regular office hours also allows colleagues to remain in contact, regardless of their location.

As mentioned above, some positions and people are not suitable for e-work; therefore, clear written eligibility criteria, that are equitable, can help the employee and employer determine eligibility. Eligibility criteria are usually stated in a written policy and based on past performance appraisals and the position's suitability. Many organizations have employees evaluate themselves, through a self-assessment questionnaire, prior to applying for the e-work program (see Appendix 3). Potential attachments to the policy include an e-work eligibility self-assessment (Appendix 3), e-work application, home office checklist (Appendix 5), and e-work agreement (Appendix 2). (See Appendix 1 for sample policies).

Recommendation 3: Start with a pilot e-work program

Some organizations choose to start with an e-work pilot project as a trial before making a full commitment. Pilot programs can help determine if any changes need to be made to the program. They

also help the organization ease into e-work and allow managers and employees to try a test run. This helps employees and managers build confidence and trust in the program. For example, the City of Calgary found that resistance to e-work diminished after their four month pilot project, because the benefits of e-work became apparent.

Recommendation 4: Limit e-work to two days a week

Ten of the eleven respondents agreed that in order to minimize challenges, e-work should be limited to low-intensity time at home. The definition of low-intensity varied; however, the majority of respondents thought one to two days a week would maximize the benefits of e-work, while minimizing the challenges. Interestingly, when given the choice, the majority of e-workers choose to work from home two or less days a week.

The literature identifies two day a week working from home as the optimal amount for most people. Studies have found that individuals who spend the majority of their time working from home (high-intensity) often report poor relationships with their supervisors and co-workers, as well as feelings of isolation. In contrast employees who balance their time between the office and home (low-intensity) benefit from improved relationships with their supervisors and co-workers.

Recommendation 5: Provide education and training

Most organizations find that management resistance stems from lack of knowledge and/or understanding of e-work and advocate education, promotion and training to help inform managers. Effective management and employee skills can be developed for e-work programs; therefore, training is suggested for managers and employees. Cascio recommends bringing managers and staff together for the initial training so that everyone understands the rationale for the e-work program (2000). During training myths can be addressed. Training can also provide a forum for managers and e-workers to discuss their relationship and develop e-work strategies. Several organizations offer formalized e-work training programs specifically designed for e-workers, managers, and teams.

Commuter Connections, a collection of public and private organizations, found that classroom style training was important to attract and inform e-workers; however, due to repetition after 5 years they recommend switching entirely to on-line training. Some organizations can be hired to provide training. Also, there are also several public websites that offer free on-line training. The United States Office of Personnel Management (US OPM) and the US General Service Administration (US GSA) offer individualized on-line training for staff, managers and telework coordinators, through www.telework.gov. The online training provides basic logistics information and could be complemented with in-house training. In addition, the US OPM meets with telework coordinators to offer on-going support and guidance. The [telework.gov](http://www.telework.gov) website also provides forums for staff to discuss their challenges and successes (US OPM, 2009).

Training often includes technical components such as accessing internal files remotely (Thomas, 2009). Training can also demonstrate how to measure productivity in terms of specific outputs, instead of the amount of time spent at the office. Further, e-work training usually includes expectations, work schedules, communication methods, and success strategies.

Local governments could hire a facilitator to explain the basic e-work rationale to managers and employees, which could be complemented with some of the on-line resources that are available. This training could help dispel myths and provide an opportunity to discuss relationships and e-work strategies. Additional training on management skills, such as outcomes based management, could be provided.

Recommendation 6: Develop a regional e-work organization

A regional e-work organization could promote and support the development of e-work programs in public and private workplaces. An e-work organization would help the CRD meet its goal of reducing the number of people commuting by automobile in the region. Regions with organizations that promote and support e-work tend to have fairly high e-work participation. Commuter Connections, in Washington DC, promotes and helps develop e-work programs for public and private organizations. Currently 19 % of the regional workforce e-works an average of 1.5 days a week (see Table 1, p.10) (Ramfos, 2010).

Several jurisdictions have regional organizations that promote e-work within local public and private workplaces. These organizations are usually funded by three levels of government. The CRD could investigate a partnership with WORKshift, which is based in the City of Calgary. WORKshift was started by Calgary Economic Development, the Province of Alberta and Transport Canada to help promote e-work in the business community. WORKshift has developed several on-line tools for promoting, developing and monitoring e-work programs.

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APPENDICIES

Appendix 1 - Policies

TransLink: Components of a telework policy.

http://www.travelsmart.ca/~media/documents/customer_info/travelsmart/telework/pilot%20project/components%20of%20a%20telework%20policy.ashx

Treasury Board of Canada Secretariat - Telework policy: <http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12559§ion=text>

Oregon Department of Energy - sample telework policy:
<http://www.oregon.gov/ENERGY/TRANS/Telework/docs/policy.pdf>

The State of Florida Telecommuting policy
http://dms.myflorida.com/human_resource_support/human_resource_management/for_state_hr_practitioners/state_employee_telecommuting_program

WORKshift (Partner with the City of Calgary)
<http://www.workshiftcalgary.com/sites/default/files/Sample%20Telework%20Policy%20Agreement%20PDF.pdf>

Commonwealth of Virginia, Sample Policy: <http://www.teleworkva.org/downloads/PolicySample1.pdf>

Appendix 2 - E-work agreements with employees

Alberta's telework guidelines/agreement <http://www.chr.alberta.ca/Employees/?file=staff/flexible-work/telecommuting/appendix-1>

TransLink - sample telework agreement
http://www.travelsmart.ca/~media/documents/customer_info/travelsmart/telework/pilot%20project/sample%20telework%20agreement%20for%20telework%20programs.ashx

The State of Florida telecommuting agreement
http://dms.myflorida.com/human_resource_support/human_resource_management/for_state_hr_practitioners/state_employee_telecommuting_program

WORKshift checklist for reviewing work-from-home proposals
[http://www.workshiftcalgary.com/sites/default/files/Telework%20Checklist\(1\).pdf](http://www.workshiftcalgary.com/sites/default/files/Telework%20Checklist(1).pdf)

Commonwealth of Virginia, telework agreement:
<http://www.teleworkva.org/downloads/SampleTeleworkAgreement.pdf>

Appendix 3 - Eligibility criteria

TransLink sample selection criteria.
<http://www.translink.ca/~media/Documents/TravelSmart/Telework/Pilot%20Project/Sample%20Selection%20Criteria%20for%20Telework%20Programs.ashx>

The State of Florida guidelines for identifying telecommuting positions
http://dms.myflorida.com/human_resource_support/human_resource_management/for_state_hr_practitioners/state_employee_telecommuting_program



Suitability Checklist for Potential Teleworkers

Are you and your job a potential fit for a telework arrangement? This checklist should help you understand what is involved.

Mandatory requirements - A telework arrangement is not an option if you answer 'no' to any of the following questions:

Job suitability:

My job duties, or parts of it, can easily be carried out from a home office. For example, my job does not always require daily face-to-face contact with other employees, clients or the public.

My job does not always require continual access to specialized files or equipment that is available only at the official workplace.

Employee suitability:

I am a permanent City employee.

I am willing to comply with the conditions as outlined in the *Telework Guidelines and Responsibilities*.

Other considerations - Negative responses may require an adjustment or correction to ensure successful participation in a telework arrangement.

Job suitability:

There are options within my work unit for coverage of phones, customers, breaks.

I have a history of good performance ratings.

I possess the basic skill sets to be a successful teleworker:

I consider myself to be self-motivated in my approach to work, and self-disciplined at avoiding distractions.

I possess good time management and organizational skills.

I can work independently and have a relatively low need for social interaction with co-workers and others at the official workplace.

- I am flexible and can adjust to a change in job routine.

Home office environment suitability:

I am willing to maintain a designated home office that meets The City of Calgary guidelines for communication, technology, and occupational health and safety.

My home office is isolated from distractions such as noise and domestic activities.
 There are no zoning or other restrictions that would prohibit telework in my home.
 I am willing to complete the on-line Home Office Ergonomic Training to ensure my health and safety.



Appendix 4 - Collective agreements

City of Vancouver Collective Agreement - page 107 Letter of Understanding regarding Telecommuting:

<http://vancouver.ca/humanresources/pdfs/CACUPE15-Parks07-11.pdf>

Appendix 5 - Home office

Alberta Workers Compensation Board, Fact Sheet:

<http://www.workshiftcalgary.com/sites/default/files/WC%20Employer%20Fact%20Sheet.pdf>

The State of Florida Home Office Checklist

http://dms.myflorida.com/human_resource_support/human_resource_management/for_state_hr_practitioners/state_employee_telecommuting_program

Canadian Centre for Occupational Health and Safety

<http://www.ccohs.ca/oshanswers/hsprograms/telework.html>

Appendix 6 - Training

US Federal government. Free on-line training for employees and managers:

http://www.telework.gov/tools_and_resources/training/index.aspx

E-work.com offers on-line and/or classroom training: <http://www.e-work.com/consulting.html>

Commonwealth of Virginia, How to Train Teleworkers:

<http://www.teleworkva.org/module/employee/index.html>

Commonwealth of Virginia, How to Effectively Manage Teleworkers

<http://www.teleworkva.org/module/managers/index.html>

3. What operating system is on your home-office computer?

Microsoft Windows XP
Microsoft Windows Vista

4. What browser is on your home-office computer?

Microsoft Internet Explorer 5.5	(Supported)
Microsoft Internet Explorer 6	(Supported)
Microsoft Internet Explorer 7	(Supported)
Other (please specify)	(Support TBD)

5. What type of internet connection do you have at home?

Broadband: TELUS High Speed ADSL	(Supported)
Broadband: Shaw High Speed	(Supported)
Other (please specify)	(Support TBD)

6. What City of Calgary software would you need to access remotely in order to work from home?

Please choose all that apply from the following list of existing Citrix applications (see page 2) and include any additional software required that is not on the attached list.

Technical support

- IT will provide remote technical support during regular City business hours – IT Service Desk (403-268-8008).
- Best effort support is provided over phone. IT Support staff will not be dispatched to a teleworker's home or remote site, and client is responsible for his or her own access to the Internet.

Security & confidentiality

- The employee will comply with City policy:
 - Freedom of Information and Protection of Privacy Policy (FOIP)
 - The Acceptable Use of City Technology Resources Policy
 - Information Security Classification and Control Policy
- Teleworkers must not store City documents on their home computer's hard drive.
- Teleworkers must ensure all paper documents are filed and protected appropriately in the designated home office (i.e. separate location from their personal documents).

- Teleworkers must immediately notify their managers and Corporate Security of a compromise (interception, loss, theft, alteration, destruction of information) of City material assets or intellectual property.
- IT will ensure computer network security.

Appendix 9 - Additional resources

Commuting Calculator: <http://www.smartcommuteexpo.ca/smartcommutecalc.aspx>

Workshift, a program of Calgary Economic Development to promote and support e-work programs
<http://www.workshiftcalgary.com/>



THE CITY OF CALGARY – FLEXIBLE WORK OPTIONS

Supervisor Considerations Checklist

What is involved in approving and managing a telework arrangement? This checklist should provide you with a good understanding of things to consider.

I am willing to comply with the supervisor responsibilities associated with a telework arrangement as outlined in the *Telework Guidelines and Responsibilities*.

I am willing to review the job duties to potentially consider a telework arrangement.

I am willing to determine if the individual employee is a good candidate based on factors like: independent worker, goal/results oriented, good performance history, effective communication, meets deadlines, history, effective communication, meets deadlines, trustworthy. If choosing between several employees and all selection factors are equal, seniority may be considered but should not be the primary consideration.

I understand the operational impact of telework and how many employees I can have off-site at any one time (considerations to include flexible work arrangements).

I understand a telework arrangement may require flexibility in my supervisory approach (e.g. I manage by results, and set clear objectives and goals, with agreed standards of performance and due dates so the need to physically observe my employees each day is not critical to my understanding of their performance.)

I understand the benefits of telework on a strategic and corporate level.

I am aware of how a telework arrangement may affect the team and am prepared to discuss the impact with them.

I understand that participation in telework is a mutually agreeable and voluntary arrangement between supervisors and employees.

I am willing to monitor customer/client service and employee productivity.

Job fit considerations:

Does the job require daily face-to-face contact with other employees, clients or the public?

Does the job require continual access to specialized files or equipment that is available only at the official workplace?

Are there options within the work-unit for coverage of phones, customers, breaks, etc.?

Does the employee have specialized equipment/technology that cannot be replicated at the designated home office?

Organizational fit considerations:

Will any changes in the scheduling of job duties impact the working arrangement of the team?

Are there multiple employees interested in telework in the same area? If so, consider factors that affect how each application is approved/not approved.



THE CITY OF CALGARY – FLEXIBLE WORK OPTIONS

Managing telework requests: A resource for supervisors

Given the demand, supervisors are sometimes faced with more telework applications than they can accept. Not everyone is suited to telework, so it's important to manage the expectation that all applications will be approved.

So, what do you do if everyone wants to telework, but you can't accommodate them all? Do you select the best performers? Do you choose according to feasibility and operational need? Do you base your decision on seniority? Or do you choose first come, first serve?


No matter what approach you use, delivering bad news is never easy, especially when you know that those not selected may be disappointed. When there are too many applications, the following tips can help you make the best decision.


education and understanding

It's important that you and your employees understand the telework program by reviewing all related documents and attending information sessions. Doing so increases your ability to select the best teleworkers.

When candidates are well-informed about telework, they tend to understand that it's not an entitlement or a right, but a work option based on a variety of factors, such as suitability, operational feasibility and business needs. They are also more apt to accept that the organization can only absorb and manage a certain number of teleworkers, and that supervisors must occasionally turn down requests based on these limitations. By understanding and comparing themselves against program requirements and suitability criteria, employees can also better self-assess their own suitability and chances of being selected.

When too many apply

When too many employees apply, the first step is to reduce the number of applicants by assessing job fit and then distinguishing qualified versus non-qualified candidates. The [Supervisor Considerations Checklist](#)  can assist you with this step. No matter the situation, basing your decisions on operational feasibility and personal suitability will result in better selection choices and avoids problems.

Consider such elements as the capability to support, the impact on the team, as well as customer and client service. It's also important to help candidates understand the degree to which they meet the personal suitability requirements outlined in the [Suitability Checklist for Potential Teleworkers](#) .

Too many qualified applicants

It's also challenging to be faced with too many qualified applicants. In such cases, consider these approaches:

While you must still turn some of them down, there is no capacity to accommodate more telework arrangements at this time. You can offer to place them on a waiting list.

Despite all being qualified, some are likely more suited than others. To choose the best ones, you can simply rank them according to business, operational and personal

suitability. Consider such elements as impact on the work unit, customer service, benefits to The City, performance history, and ability to perform with minimal supervision. It's important to base your decisions on business reasons.

In some cases, despite your best attempts to rank them, several candidates may appear equally suited to telework. In such cases, consider approaches similar to deciding who gets to take annual leave during the first two weeks of August. For example, you could approve on a first come-first served basis or based on a rotation basis. Seniority may be a factor in these situations, but isn't necessarily the primary consideration.

Employees can sometimes help in the process. With your agreement, open discussion among equally-suited candidates can sometimes lead to solutions. For example, some may agree to compromise, take turns or withdraw.

General tips for Selecting Telework Candidates

Do not feel pressured to approve all applications.

After you have reached a decision, tell the unsuccessful applicants individually and in private that they have not been accepted and explain the reasons as soon as possible.

Be sure your rationale is based on solid business reasons related to operational needs or performance.

Ensure that there are sufficient employees on-site at all times for the proper functioning of the unit. A supervisor may be obliged to refuse an otherwise worthy request in order to retain office effectiveness.

Appendix 10 – Interview questions

Interview

Thank you for participating in this research. As you know, the main focus of this project is to determine if an e-work program is desirable and feasible for local governments in the region; and if so ways local governments can develop and implement a successful e-work program.

The literature suggests that some organizations face barriers to organizational changes such as e-work; therefore, it is important to conduct an assessment of any organization before designing and implementing an e-work program.

I have divided the questions into various sections so that the topic can be viewed from different perspectives. I appreciate your candid responses and any additional ideas you may have that are not covered by the questions.

I intend to use your responses and those of other people I interview, to develop a report for the School of Public Administration and the CRD's Climate Action Program.

Do you have any questions?

Framework Category	Question
E-work in General	<p>1) What is your current understanding of e-work?</p> <p>2) In your opinion, what are some of the benefits of voluntary e-work programs for local governments? What about some of the drawbacks?</p> <p>3) Which of the following terms do you prefer: e-work, e-commuting, flexiwork, telecommuting or telework? Why?</p> <p>Possible options</p> <p>a) A structured voluntary program in which an employee works from home one or more days a week.</p> <p>b) A structured voluntary program in which an employee works from home between one and three days a week. Shares a desk?</p> <p>c) A structured voluntary program in which an employee works from home one or more days a month.</p> <p>d) An informal voluntary program in which an employee works from home on an ad hoc basis.</p> <p>4) Of the four e-work program options identified above, what do you think</p>

	<p>would work best for local governments? Why?</p> <p>5) a) Do you anticipate resistance to an e-work program?</p> <p>b) If so, are there specific groups that might resist this change?</p> <p>c) Do you have any ideas for overcoming the potential resistance?</p>
<p>Relationships with ourselves: Interpersonal Support and trust among staff</p>	<p>Interpersonal support and trust is important in any organization, as it is with e-work, and can be described as the way people relate to each other in helping, trusting and supporting others. It is also described as “who says what to whom?, what is said, why and how it is said.”</p> <p>1) Can you give me examples of ways that you think communication will be affected by an e-work program?</p> <p>2) How can a positive interpersonal atmosphere be maintained with e-work?</p>
<p>Relationships with our Supervisors and employees: Leader member relationships</p>	<p>Leader member relations can be described as the way leaders/supervisors relate to their employees in helping, coaching, and being supportive.</p> <p>1) Can you give examples of ways that you think leader member relations may be affected by an e-work program?</p>

	<p>2) How can a positive interpersonal management atmosphere be maintained (or developed) with e-work?</p> <p>4) How might e-work affect the way organizations might conduct performance reviews and monitor employee progress?</p>
<p>Relationship with citizens</p>	<p>Relationship with citizens can be described as the way the local government employees relate to citizens in carrying out the organization's mandate.</p> <p>1) Can you give examples of ways that you think client relationships will be affected by an e-work program?</p> <p>2) How can positive client relations be maintained with e-work?</p> <p>3) What do you think the external perceptions of a local government e-work program will be?</p>
<p>Management of projects and administration</p>	<p>Management of projects and administration describes the way people set and meet goals and objectives, meet to discuss and solve issues.</p> <p>1) Can you give examples of ways that you think "management of projects and</p>

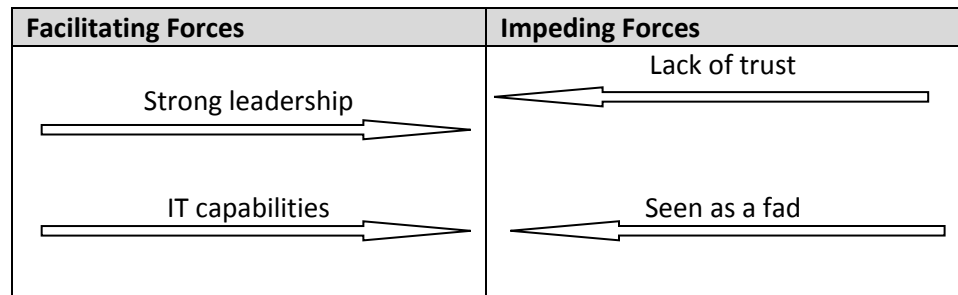
administration” will be affected by an e-work program?

2) How can a positive management and administrative approach be maintained with e-work?

Force field

Force Field Analysis sheds light on the difficulties organizations face when adopting change. The analysis focuses on forces or pressures that can help or hinder organizational change. For an organization to change the positive forces (opportunities) must outweigh the negative forces (challenges). Further, organizational change is more likely to be successful when most of the negative forces are eliminated (Lewin, 1969, cited in Cunningham and Kempling, n.d.). Some examples of negative forces include: seen as a fad, lack of leadership about change, political realities, and unable to mobilize commitment.

Here is an example:



1) What are some of the forces that are currently happening which would make it easier to implement e-work programs in local governments?

(positive force examples: high level of trust, strong leadership, improved communication, increased flexibility...)

	<p>2) What are some of forces that would inhibit this change or make it difficult to implement?</p> <p>(Negative force examples: lack of trust between managers and employees, lack of understanding of e-work, IT capabilities, collective agreement...)</p> <p>3) Can you identify groups or departments in local governments that might assist in implementing an e-work program? To what degree can they influence the organization?</p> <p>(Finance office, building management, IT department...)</p> <p>4) Keeping the potential challenges and opportunities in mind, what recommendations do you have for designing and implementing e-work programs for local governments?</p>
Conclusion	<p>1) Can you think of anything else that is of value that we haven't addressed?</p> <p>2) Do you have any questions?</p>

