Organizational Work-Related Road Safety Situational Analysis: More Than Just an Audit Tool

Bevan Rowland, Research Associate
Centre for Accident Research and Road Safety – Queensland

Darren Wishart, Research Fellow
Centre for Accident Research and Road Safety – Queensland

Abstract

Although safety statistics indicate that road crashes are the most common form of work-related fatalities, many organizations fail to treat company vehicles in the same manner as other physical safety hazards within the workplace. Traditionally, work-related road safety has targeted primarily driver-related issues and not adequately addressed organizational processes, such as the organizations’ safety system and risk management processes and practice. This inadequacy generally stems from a lack of specific contextual knowledge and basic requirements to improve work-related road safety, including the supporting systems to ensure any intervention strategy or initiative’s ongoing effectiveness. Therefore, informed by previous research and based on a case study methodology, the Organizational Work-Related Road Safety Situational Analysis was developed to assess organizations’ current work-related road safety system, including policy, procedures, processes and practice. The situational analysis tool is similar to a safety audit however is more comprehensive in detail, application and provides sufficient evidence to enable organizations to mitigate and manage their work-related road safety risks. In addition, data collected from this process assists organizations in making informed decisions regarding intervention strategy design, development, implementation and ongoing effectiveness. This paper reports on the effectiveness of the situational analysis tool to assess WRRS systems across five differing and diverse organizations; including gas exploration and mining, state government, local government, and not for profit/philanthropy. The outcomes of this project identified considerable differences in the degree by which the organizations’ addressed work-related road safety across their vehicle fleet operations and provides guidelines for improving organizations’ work-related road safety systems.

Résumé

Bien que les statistiques de sécurité indiquent que les accidents de la route sont la forme la plus courante de décès liés au travail, de nombreuses organisations ne parviennent pas à traiter les véhicules d’entreprise de la même manière que les autres risques pour la sécurité physique sur le lieu de travail. Traditionnellement, la sécurité routière liée au travail a ciblé principalement les problèmes liés aux conducteurs et a délaisse les processus organisationnels, tels les systèmes de sécurité des organisations et les processus et pratiques de gestion des risques. Cette insuffisance découle généralement d’un manque de connaissance du contexte spécifique et des
exigences de base pour améliorer la sécurité routière au travail, y compris des systèmes de soutien aux stratégies d'intervention ou à l'efficacité dans le temps des interventions. Par conséquent, incorporant les résultats des recherches précédentes aux résultats de notre étude de cas, une analyse organisationnelle de la situation de la sécurité routière liée au travail a été développée pour évaluer les activités actuelles liées à la sécurité routière au travail, incluant entre autres les régulations, les procédures, les processus et les pratiques. L'outil d'analyse de la situation, similaire à un audit de sécurité, est cependant plus complet en termes de détails et d'application et fournit des éléments de preuve suffisants pour permettre aux organisations de gérer et d'atténuer les risques liés à la sécurité routière au travail. En outre, les données recueillies par ce processus aident les organisations à prendre des décisions éclairées concernant la conception, le développement, la mise en œuvre et le suivi dans le temps de la stratégie d'intervention. Ce manuscrit présente l'efficacité de l'outil d'analyse de la situation pour évaluer les systèmes de sécurité routière liée au travail après analyse de cinq organisations différentes et de caractéristiques diverses: exploration de gaz et l'exploitation minière, organisations gouvernementales, collectivités locales, et organisations à but non lucratifs. Les résultats de ce projet ont identifié des différences considérables dans le degré par lequel les organisations traitent la sécurité routière liée au travail dans leurs opérations de la flotte de véhicules et fournit des lignes directrices pour l'amélioration des systèmes de sécurité routière liée au travail des organisations.

CONTEXT

Within Australia a large proportion of vehicles on the road are utilised for work purposes. For example, approximately 75% of locally produced passenger vehicles are purchased as organizational fleet vehicles [1-2] and fleet vehicles represent more than half of all new vehicle registrations annually [1-3]. Previous research and occupational safety statistics indicate that road crashes are the most common form of work-related fatalities [4]. Work-Related Traumatic Injury Fatality statistics indicate a high proportion of work-related deaths have occurred during work-related vehicle travel [5]. In addition, Figure 1 illustrates the high proportion of work fatalities involving motor vehicles (46%) as the primary mechanism of injury compared to the next highest mechanism of injury consisting of being hit by moving objects (12%) and falls from heights (11%) [5]. Furthermore, there has been little change in work-related vehicle fatalities compared to previous years, with 49% in 1989-92 [6] through to the period 2003-10 where 46% of all fatalities [5] resulted from vehicle incidents. Although there had been a decrease in vehicle-related fatalities in recent years (e.g., 2009 – 112 fatalities, 2010 – 80 fatalities, 2011 – 77 fatalities), in 2012 work-related vehicle incident fatalities increased in Australia to 87 fatalities [5]. Although driving for the purpose of work has been included in both previous [7] and current [8] occupational health and safety legislation, there is no substantial evidence that government regulators practice enforcement in the area of work-related road safety [2]. In addition, despite the legal obligations, costs and trauma associated with work-related vehicle incidents, many organizations lack commitment, as well as, the necessary risk management frameworks and processes central to minimizing work-related road safety risk [2, 9-11].

In Australia, a vehicle utilized for the purpose of work is classified as a workplace under the national Work, Health and Safety legislation [8]. Therefore, employer organizations and other
stakeholders are obligated to ensure a safe place to work and safe system of work in the use of all work-related vehicles. However, many organizations fail to treat company vehicles in the same way, even though it is acknowledged as effective health and safety practice to assess and control these risks in the same way as other physical hazards at work. A growing body of evidence suggests that strategies to address the work-related road safety (WRRS) problem should be directed toward the employer organization and its safety system, as well as driver skills, ability and behavior. However, anecdotal evidence suggests that many organizations are generally limited in specific knowledge and experience relating to WRRS issues and subsequent control measures [12].

Figure 1 - Worker fatalities: Proportion by mechanism of incident, Australia, 2003–04 to 2009–10 combined [2]

In an endeavor to improve WRRS, organizations have traditionally adopted a “silver or golden bullet” approach aimed at developing and implementing a single strategy or countermeasure to encompass and address all WRRS issues or problems [11]. Intervention strategies have invariably been implemented in reaction to an increase in numbers or severity of work-related vehicle crashes or incidents [11]. These intervention strategies often involved an overreliance on driver training, generally based on enhancing driver skills and not targeting specific driver behaviors or organizational influences [13]. An emphasis on strategies to improve the driving skills of drivers, exemplifies the perceptions of organizational management that the driver, more specifically a lack of driver skills and ability, is primarily to “blame” for work-related incidents/crashes [8]. In contrast, road safety researchers and professionals have advocated a more proactive approach to work-related road safety intervention strategies, aimed at preventing incidents occurring [10-11,13]. Furthermore, if WRRS intervention strategies are to be effective then there is a reliance on an organizations’ WRRS management system to be sufficiently developed to not only maintain but also support the ongoing effectiveness of any strategy or countermeasure aimed at improving WRRS.

Accordingly, there is a need to not only understand the scope and nature of work-related road safety, but also the organizational influences and enablers for improvement. Subsequently, in order for organizations to improve WRRS they would need to ensure that WRRS is sufficiently addressed within the organization’s occupational health and safety management system. However, for many organizations the knowledge and experience related to addressing WRRS
problems remains limited and therefore safety management systems do not address WRRS issues adequately.

OBJECTIVES

The identification of safety hazards and risks and their associated control measures provides the foundation for any safety program and essentially determines the scope, content and complexity of an effective occupational health and safety management system (OHS MS) [14-15]. However, if these basic risk management principles are performed ineffectively, the ability of the OHS MS to sustain health and safety will be limited, and the OHS MS may degenerate into a “paper system” [16]. Similarly, the level of commitment to safety by both management and employees has a significant bearing on the level in which safety issues are addressed within the organization. For example, if the direction of the organization is to only maintain legislative compliance and not proactively target safety hazards and risks, then the potential effectiveness of the OHS MS is reduced.

In the case of WRRS, there is a gap within current knowledge, research and practice regarding the assessment of WRRS safety systems and practice. In order to mitigate this gap and develop a tool for assessing WRRS safety systems, the authors used a conceptual framework [14] developed for the assessment of generalist occupational health and safety management systems comprising of three major approaches. The three major approaches that have emerged in general OHS MS research include: a safe place, safe person and safe systems (see Figure 2). In relation to WRRS, the OHS MS framework [14] encompasses three general albeit priority areas that influence the effectiveness of any WRRS system, hence safety maintenance and improvement. In terms relating to WRRS, a “safe place” refers to the work vehicle or site; a “safe person” indicates driver related influences and outcomes; and “safe systems” represents organizational WRRS policy, procedures, processes and practice.

![Figure 2 - Strategies for dealing with complex hazards](image)

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24ème Conférence canadienne multidisciplinaire sur la sécurité routière, Vancouver, B.C., 1-4 juin 2014
By utilizing this systems approach framework and based on a case study methodology, the Organizational Work-Related Road Safety Situational Analysis was developed. The situational analysis tool is similar to a safety audit, however is more comprehensive in detail, application and provides sufficient evidence for the improvement of WRSS systems and more effectively inform intervention strategy development, implementation and ongoing effectiveness. The primary objective of this project was to assess the ability of the Organizational Work-Related Road Safety Situational Analysis tool to identify areas for WRSS improvement within organizations. Specifically, trialing and reporting the facilitation of the situational analysis tool within differing and diverse organizations in relation to organizational WRSS systems.

TARGET GROUP

The Organizational Work-Related Road Safety Situational Analysis tool is designed to be utilized across any organization where driving for work purposes is performed. This paper reports on the effectiveness of the situational analysis tool to assess WRSS systems across five differing and diverse organizations; including gas exploration and mining, state government, local government, and not for profit/philanthropy. Although all organizations stated that they wanted their organization name and specific area of operations to remain confidential, the following details provide a greater indication on the type of industry and related work tasks undertaken by each organization:

- **Organization A** – Liquid natural gas exploration and mining company operating in rural and remote areas of Queensland, Australia. The organization operates with a considerable contractor workforce as well as their own company employees;
- **Organization B** – Similarly, Organization B is a liquid natural gas exploration and mining company also operating within rural and remote areas of regional Queensland. However, Organization B is a subsidiary of a larger international company. Also, the organization operates with a considerable contractor workforce as well as their own company employees;
- **Organization C** – State government owned corporation providing management, operation, maintenance and services relating to natural resource provision;
- **Organization D** – Local government authority operating in south-east Queensland, Australia; and
- **Organizational E** – Not for profit organization providing a number of philanthropy and voluntary services. The organization has a considerable volunteer worker/driver workforce.

ACTIVITIES

Data collection utilized multiple information sources, including documents, archival records, interviews, direct observations, participant observations, and physical artifacts. For example, Figure 3 provides an outline of the situational analysis process where data collection is divided into four major parts: 1) a review of organizational WRSS records, documentation and initiatives, including an analysis of crash data, prior to any organization site visits; 2) on site interviews with all levels of staff related to WRSS practice within the organization; 3) observations of WRSS activities at sites/workplaces; and 4) organizational physical artifacts.
including site and vehicle inspections. In relation to the OHS MS framework (Figure 2), parts 1 and 2 of the WRRS Organizational Situational Analysis method assessed the “safe systems” component for each organization. In addition, part 3 identified issues relating to “safe persons” and part 4 targeted the “safe place” component.

**Figure 3 – Organizational Work-Related Situational Analysis Outline and Data Collection Methodology**

Primarily, this project focussed on determining the effectiveness of current work-related road safety within each of the five employer organisations. The multi-level process adopted a triangulation approach with the data from each stage (or part) of data collection being drawn from different sources. The term triangulation is borrowed from navigational circles, where it is a strategy for taking multiple reference points to locate an unknown position and was first applied in the academic setting in 1959 to enhance research [17]. In the academic setting triangulation refers to the use of a combination of research methods to gain a holistic understanding and to depict more accurately the phenomenon being investigated [17]. Likewise, the WRRS Organisational Situational Analysis methodology used dissimilar but complementary methods of data collection to achieve convergent validity (see Figure 3). This amalgamation of methods was adopted to counterbalance the weaknesses of one method with the strengths of other methods [17].
1. Review of Organizational Records, Documentation and Initiatives

Part one included a review of all current organizational documentation, data and evidence related to work-related road safety from each organization. For example information requested included: policy and procedures, risk assessments, crash data records/databases, driver infringement records, complaints reports/records, investigation reports, crash/incident report forms, pre trip inspection forms, maintenance data, intervention or initiative details and evaluations (if applicable), training and education plans/schedules and completion, driver competency and assessments, safety meeting minutes, vehicle suitability and selection processes, driver history check processes, and site and vehicle safety inspection reports. Prior to attending any organization’s site or conducting interviews/focus groups the above information was requested for initial review and analysis. The information was requested to be sent to researchers via email or as discussed previously with organizational contacts.

Table 1 reveals that none of the organizations who participated within this project adequately addressed all targeted areas within the WRRS Organizational Situational Analysis. However, Organization B which is in the early developmental stage or construction phase of their operations at the Surat Basin Queensland did target many of the areas. For Organization B, the considerable focus in the area of WRRS was a direct result from policy and processes already developed by Organization B’s parent company (international mining/gas organization). In contrast, Organizations A, C, D and E did not adopt many of the important factors that influence or impact on WRRS. Rather, the areas addressed by these organizations primarily concentrated on more administrative areas or reactive data collection (e.g., incident reports) and not on proactive areas to improve WRRS or prevent work-related vehicle incidents occurring.

A sample of each organization’s work-related vehicle crash/incident data was requested so as to analyze potential problems or trends specific to each organization. Five years of crash/incident data was requested, however Organizations C and E could only provide three years; Organizations A and B, due to the companies early developmental stages of operations, could only provide approximately one year of work-related vehicle crash/incident data; and Organization D did not record crash data on a database (only individual incident reports were kept). Unfortunately, there were considerable discrepancy across all organizations in relation to the type and extensiveness of data recorded for work-related vehicle incidents. Subsequently, analysis could not effectively compare incidents/trends across the five organizations. Rather, this process highlighted deficiencies in data collection and recording for all organizations involved.

In relation to previous WRRS intervention strategies or initiatives implemented within the participating organizations, no organization had any records of evaluations or documentary evidence relating to the effectiveness of any strategies or initiatives. Both Organizations A and B had implemented driver training programs relating to general driving safety and four wheel drive safety specific training. However, no records regarding evaluation or effectiveness of programs were reported or recorded. In addition, Organization C did recently (3 years prior) introduce generic driver training via a third party driver training organization. However, no records were kept in relation to the success or effectiveness of the training nor were any noticeable improvements in relation to the organization’s work-related vehicle crash rates in following years.
<table>
<thead>
<tr>
<th>Documentation/Data/Information</th>
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<th>C</th>
<th>D</th>
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</tr>
</tbody>
</table>

Table 1 - Outline of organizations' WRRS related documentation developed and in use
2. Organizational Staff Interviews/Focus Groups

Data collection for Part two of the case study approach aimed to elicit data from two areas. Firstly, the interviews/focus groups proved to be instrumental in the identification of additional organizational records, documentation and initiatives not provided previously by organizational management. Secondly, Part two utilized a combination of key informant semi-structured interviews and/or focus groups to obtain specific data relating to:

1) Organizational systems including policy, procedures, processes and practice related to the organization's work-related road safety;
2) Work-related road safety risk management strategies and controls;
3) Organizational factors including management commitment and support;
4) What intervention strategies and/or initiatives have previously or are currently utilized within each organization;
5) Enablers for and barriers to intervention strategy and initiative ongoing support; and
6) Identification of any additional documentation, records or initiatives not previously provided as part of Part One.

Interviews/focus groups were facilitated at each organizations’ site or head office and encompassed three levels of staff, including executive management (primarily Head Office staff) and operational management, supervisory staff and team leaders, and operational staff/employees and contractors (work-related vehicle drivers). While most interviews (i.e., management) were conducted on a one-to-one basis, focus group discussions were facilitated with groups of 5-10 participants. Overall, the number of participants (see Table 2) depended upon the size of the organization and staff members available at the time of the interviews/focus groups. The questions used within the interviews and focus groups were developed as part of the WRRS Organizational Situational Analysis process. For instance, comprehensive questions were cultivated and aimed at eliciting information relating to 26 major areas of a WRRS system, such as (to name a few): policy and procedures, communication, responsibility and accountability, risk management, employee professional development plans, WRRS budget, vehicle maintenance procedures, driver behavior, etc.

<table>
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<td>Supervisors and team leaders</td>
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<td>8</td>
<td>6</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Employees and contractors</td>
<td>24</td>
<td>30</td>
<td>16</td>
<td>17</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 2 - Number of participants from each staffing level

Although Part 2 was primarily concerned with ascertaining the presence and effectiveness of the various elements of WRRS within each organization, Table 3 shows major themes that emerged from the interviews/focus groups and provides examples of participant responses relating to issues identified by participants as major WRRS factors or influences. The major themes identified in Table 3 provide additional information in relation to the comprehensiveness and/or inadequacies of WRRS processes and practice for the participating organizations.
<table>
<thead>
<tr>
<th>Theme</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy and procedures</td>
<td>“I am not aware of any specific policy or procedures related to work-related driving safety” (Operational employee – Organization C).</td>
</tr>
<tr>
<td>WRRS systems and processes</td>
<td>“What systems … most of the guys don’t even do the mandatory vehicle pre-start checks because they know no one checks them” (Field employee – Organization C).</td>
</tr>
<tr>
<td>Risk management strategies</td>
<td>“We do risk assessments for all general work tasks but not for work-related driving” (Supervisor – Organization A).</td>
</tr>
<tr>
<td>Management commitment and support</td>
<td>“Productivity will always reign over safety … there’s no commitment or support for work-related driving safety” (Employee – Organization E).</td>
</tr>
<tr>
<td>Consultation and communication</td>
<td>“We are informed about OHS (occupational health and safety) changes but I’ve never been informed about any work-related road safety issues, etc” (Volunteer worker – Organization E).</td>
</tr>
<tr>
<td>Ownership of WRRS</td>
<td>“The problem with work-related road safety is that no one takes ownership … fleet say it’s a workplace health and safety issue and the Occupational Health and Safety department believe it is a fleet department problem” (Supervisor – Organization C).</td>
</tr>
<tr>
<td>Productivity versus safety</td>
<td>“It is common knowledge that our staff make up time when driving between jobs, we know it is unsafe but our clients need us” (Area Supervisor - Organization E).</td>
</tr>
<tr>
<td>Previous WRRS intervention</td>
<td>“I can’t remember our company ever introducing any work-related road safety interventions, and I’ve been employed with the company for about 15 years” (Field worker – Organization D).</td>
</tr>
<tr>
<td>strategies or initiatives</td>
<td></td>
</tr>
<tr>
<td>WRRS Knowledge, Experience and</td>
<td>“I don’t think anyone in the organization has experience in work-related driving issues, because no one is willing to address the problem … I don’t even think anyone has even considered driving for work as a work-specific safety issue” (Team Leader – Organization A).</td>
</tr>
<tr>
<td>Training</td>
<td></td>
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</tbody>
</table>

Table 3 - Themes associated with WRRS policy, procedures, processes and practice

For all participating organizations the abbreviated results from Part 2 indicated considerable lack of organizational WRRS policy and procedures, addressing basic risk management principles, ownership and accountability of the problem, and mechanisms to promote communication of WRRS issues. Although Organizations A and B were more advanced in developing their WRRS systems, there was still room for considerable improvement. Notably, across most of the organizations there was limited management commitment to WRRS with some management blaming the drivers for work-related vehicle incidents. However, this result
may be a result of a lack of knowledge of the particular risks associated with work-related driving, as well as, few personnel with the relevant experience to address such risks. In addition, it was suggested that a lack of attention toward WRRS issues may also stem from productivity demands and level of resources allocated for WRRS.

3. Observations of Organization’s Work Related Road Safety

The reason for conducting observations (Part 3) was primarily to assess vehicle driver’s/operator’s compliance with their respective organizations’ policy and procedures, as well as, occupational health and safety and traffic management (e.g., road rules) legislation. Observations of the daily aspects of the organizations’ WRRS operations were conducted during site visits. For example, operational aspects included (but not limited to):

- Completion of daily pre-start vehicle checklists;
- Loading, unloading and securing loads on vehicles;
- Vehicle parking, reversing and low speed maneuvering;
- Operation of vehicle on site premises (e.g., speed compliance);
- Vehicle travel on-road;
- Attendance at safety/works meetings; and
- Compliance with road rules and organizational policy/procedures.

Observations revealed that vehicle pre-start checklist procedures were completed on an ‘ad hoc’ basis across all organizations. For example, some drivers completed 100 percent of the required checks whilst drivers at another organization completed the vehicle pre-start checklist forms without undertaking any of the stipulated vehicle checks.

Although all organizations stated within their policy and procedure documentation (including vehicle use guidelines) that all drivers are to comply with road rules, some drivers from across most organizations were observed travelling noticeably above the speed limit on both organizational sites and/or public roads. Interestingly, both organizations A and B fitted In Vehicle Monitoring systems into all work vehicles as a strategy to mitigate particularly speeding behavior. However, drivers were observed travelling above the speed limit at sites and on one occasion through road works.

Attendance at organizations’ safety and works meetings revealed that WRRS was generally not discussed nor was it a standing topic on any safety meeting agenda. However, both Organizations A and B did communicate to staff details regarding any serious WRRS vehicle crashes. Any information provided to staff was in reaction to WRRS events and no proactive safety information was imparted.

Observations based on organizational policy and procedure compliance proved difficult as the majority of the participating organizations had limited policy/procedures relating to specific WRRS practice; except that covered within general vehicle use guidelines.
4. Organization’s Physical Artifacts

Part 4 examined the physical attributes of each organization’s WRRS system and included site and vehicle inspections. In relation to WRRS within organizations, the worksite and vehicle represents the “safe place” component as characterized within the OHS MS framework and an integral element within any WRRS system.

Site inspections revealed that site safety signage, speed limits and directional signage varied significantly between each of the organizations’ sites/premises. Parking areas and parking vehicles also varied across all the organizations sites, with some drivers not complying with their own organization’s policy and procedures.

Vehicles were generally kept in good order with most vehicles inspected showing regular periodic maintenance within vehicle log books. However, storage of equipment both inside and outside the vehicle cabin across most organizations failed to meet either organizational policy and procedures or government legislation (e.g., occupational health and safety). For example, inside many vehicle cabins loose items were positioned on seats, in vehicle centre console or on the dashboard; resulting in potential missiles in a crash. In addition, storage of equipment on the back of some utilities and trucks were not secured appropriately, and in some instances heavy loads were located on one side resulting in the vehicle being visibly unstable. Furthermore, additional tool boxes, ladders racks and other storage devices permanently positioned on vehicles varied across all organizations in relation to the requirements of Australian Standards, manufacturer recommendations, and organizational policy.

Although it was previously mentioned that vehicle maintenance was undertaken adequately, it was perturbing to note that vehicle tire pressures on many vehicles (across all organizations) were not inflated to correct manufacturer specifications. Many vehicle tires were underinflated with some tires grossly overinflated. This problem accentuates the importance of pre-start vehicle checks and further demonstrates that these checks are not performed or are performed inadequately.

DELIVERABLES

A report was provided to each organization and included detailed description of data collected, comprehensiveness of WRRS practice, and recommendations for improvement. Consequently, the objective of this paper was to assess the ability of the situational analysis to obtain baseline data and inform recommendations for the improvement of WRRS within organizations.

The results obtained from the implementation of the WRRS Organizational Situational Analysis across the five organizations provided a comprehensive insight into the WRRS systems of each organization. Encouragingly, all organizations expressed a willingness to improve their current WRRS systems albeit lacking the necessary knowledge, experience and current allocation of resources to make all the necessary changes. However, results indicated that across all organizations there was a lack of recognition and prioritization of the dangers and risks associated with work-related driving with the same consideration as other workplace hazards. Additionally, most organizations failed to adequately allocate effective ownership and
accountability for WRRS operations, with many in management neglecting commitment and support for fundamental aspects of their respective WRRS system.

All four parts of the WRRS Organizational Situational Analysis highlighted limited documentation related to organizational WRRS policy, procedures, processes and practice. Policy and procedures state the “rules” by which all staff are required to comply, thereby ensuring that all staff are operating under the same guidelines and conditions. In addition, reporting, recording and analyzing data, such as crash-related data, was poorly undertaken by all organizations. The major concern in this area is a lack of attention to the details in reporting and recording crashes. Organizations would need to vastly improve this type of data collection procedures especially if they anticipate utilizing this information to better inform or even evaluate strategies to improve WRRS.

The project highlighted the need for organizations to promptly implement strategies to improve WRRS, ensure the safety of their workforce and members of the public, and reduce the financial burden related to work-related vehicle incidents/crashes. In addition, this project revealed numerous deficiencies across all participating organizations. However, a full disclosure of all deficiencies and recommendations for improvement is beyond the scope and capacity of this paper. However, major recommendations include:

- Utilize a WRRS specialist (e.g., experienced third party) to assist in the development of WRRS;
- Initially target the development of comprehensive WRRS policy and procedures;
- Determine and nominate ownership, responsibility and accountability for WRRS within the organization;
- Allocate suitable time and resources for the development and implementation of the WRRS system;
- Address risk management principles associated with a “safe place” (work vehicle or site); a “safe person” (staff/drivers); and “safe systems” (the organization); and
- Provide proactive promotion of WRRS, such as, including WRRS within employee inductions, standing topic at safety/works meetings, implement suitable training and education, and encourage communication of relevant WRRS issues/changes to all staff.

Work-related driving statistics reveal that driving for the purpose of work can be classified as a high risk operation. Therefore, applying recommendations and improving WRRS systems should result in safer outcomes for the organization, staff and members of the public. Furthermore, improvement of WRRS should lead to reduced work-related incidents/crashes thereby ensuring safer roads and healthier communities for all stakeholders.

In conclusion, the Organizational Work-Related Road Safety Situational Analysis tool was pivotal in determining the extent of WRRS policy, procedures, processes and practice within each of the five participating organizations. The participating organizations not only differed in relation to number of employees and fleet vehicles but also represent a diverse range of industries comprised of different organizational operational requirements. Therefore, the results suggest that the situational analysis tool may be applicable to a wide range of organizational fleet environments to assess WRRS and inform strategies to reduce organizational work driving risk. Future intentions are to increase the uptake of the Organizational Work-Related Road
Safety Situational Analysis tool by organizations and empirically evaluate the tool across a wider range of organizational settings nationally and internationally.

REFERENCES


