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SOLID WASTE ASSOCIATION
of North America

Results of 1st Annual Municipal Safety Data Survey

SAFETY  **MATTERS**

August 24, 2016

Background

SWANA believes the current safety performance of the waste industry is unacceptable

- **5th highest fatality rate in the U.S.**
- **Higher fatality rate than police/fire**
- **Thousands of accidents/year**
- **Thousands of recordable injuries/year**

SWANA is expanding its safety program to address these issues.

#SWANAsafety

- 2016 WASTECON Safety Summit - 6 sessions
- Safety Ambassadors in chapters
- Fatality info to chapters
- Safety Monday – now in Spanish!
- Slow Down to Get Around
- Classroom safety/compliance training
- Partnering with NWRA/ISRI – Stand Downs
- Partnering with NGVA – natural gas trucks
- New Safety Awards
- Municipal injury/accident data



Safety Data Collection

Federal safety data sources do not provide sufficient information for municipal waste operations

- BLS data collection for NAICS 562 focuses on private sector
- BLS data counts contract workers in a different category
- DOT large truck crash data is late and not consistent year over year
- There are concerns that not all private sector operators record all injuries and illnesses.
- No one collects safety data solely from public sector solid waste operators – need better understanding of their issues/rates



Data Collection - Process

SWANA developed a 28 question survey for members concerning accident and injury data that was available at: <https://swana.org/safety/survey>

Most respondents filled out survey; several sent spreadsheets or other data sets

Results were aggregated – no individual local government's data has been or will be revealed

Who responded?

A broad cross-section of cities and counties in both the United States and Canada responded to the survey

There were 44 participants, from 18 states and provinces.

- Texas, Florida and Arizona had most participants

There was substantial variability in the size of the participants, ranging from a 1 truck operator to several of the largest cities in North America.

- we have not examined yet whether the participants are representative on either a size or geographic basis



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Results

Significant variability among participants on frequency of accidents and injuries, when measured either by number of employees or collection vehicles.

Larger operations did not always have better safety performance

In many industries, the larger the employer, the better their safety record



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Results – Injury Frequency

The federal government measures injury/illness frequency based on number of employees. Using that methodology, the respondents had the following frequency:

Average: .228 injury/illness per employee

Median: .184 injury/illness per employee

Range: .000 - 0.738 injury/illness per employee

According to BLS, the injury/illness rate for the solid waste collection industry (NAICS 562111) is 7.1 per 100 FTE. When the national companies are excluded, this number would likely be 10 or higher.

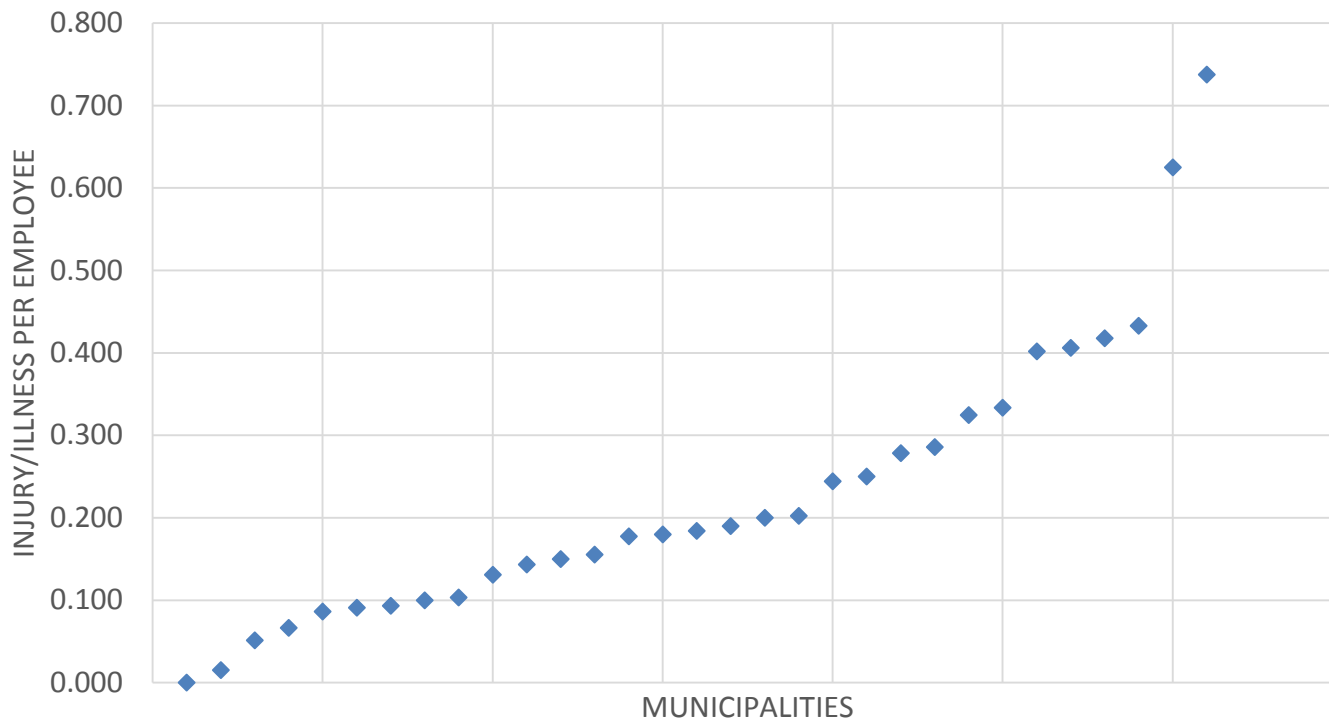


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Results – Injury Frequency

INJURY/ILLNESS PER EMPLOYEE



A substantial number of participants were between .051 and .433.



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Results – Injury Frequency

Data is consistent with NIOSH findings for public sector refuse and recyclable material collectors from 2008-10.

Possible reasons:

- Older age of public sector employees
- More manual rear trucks in use
- Underreporting by private sector



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Results – Accident Frequency

- **No federal entity collects comprehensive data on accidents involving solid waste collection vehicles.**
- **SWANA asked for “3rd Party Property Damage Claims (other vehicles, structures).”**

Average: .537 3rd party claims/vehicle

Median: .458 3rd party claims/vehicle

Range: .060 – 1.745 3rd party claims/vehicle

It is not clear whether data received includes trucks that overturned. We used accidents/truck as the metric, recognizing that miles traveled may be a significant factor when comparing participants.

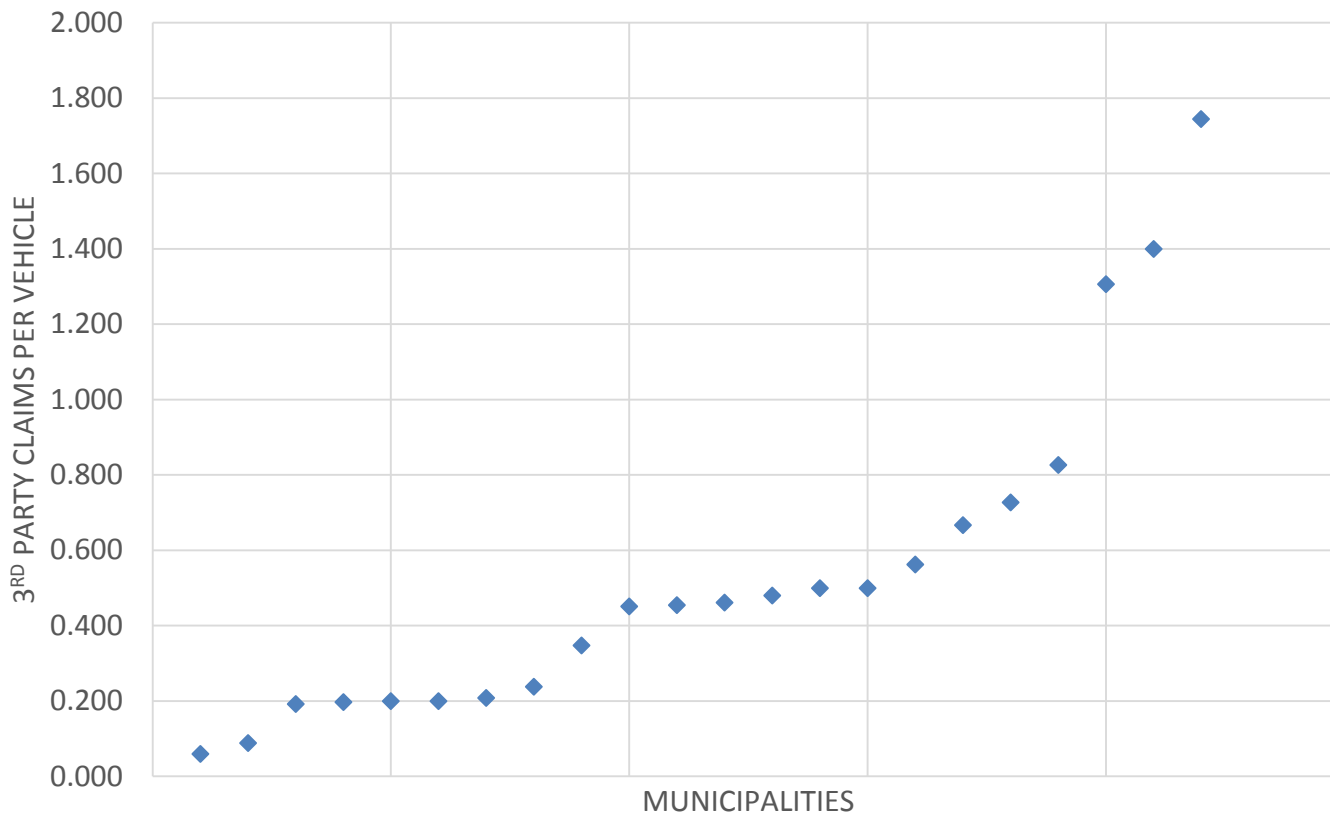


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Results – Accident Frequency

3RD PARTY CLAIMS PER VEHICLE



A substantial number of participants were between 0.192 and .827



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Injury/Illness Costs

The average cost per injury/illness

\$5,297.55

The median cost per injury/illness

\$3,678.97

70% were under

\$5,000

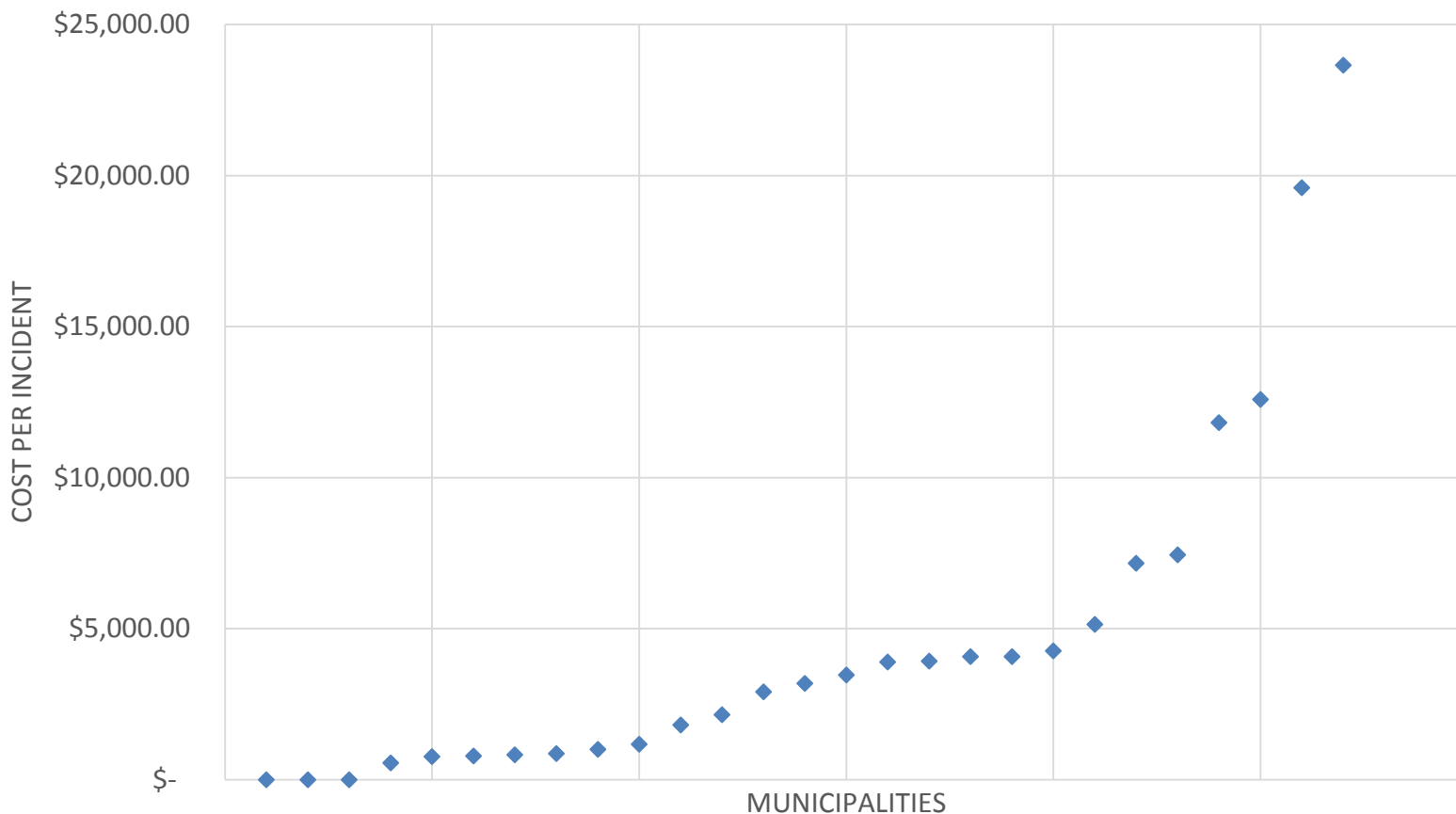


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Injury/Illness Costs

COST PER INCIDENT



The majority were between **\$555.56** and **\$7,447.81**



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3rd Party Property Claim

The average 3rd party property claim
\$1,696.93

The median 3rd party property claim
\$1,419.03

The majority of claims were between
\$211 and \$2,471.43

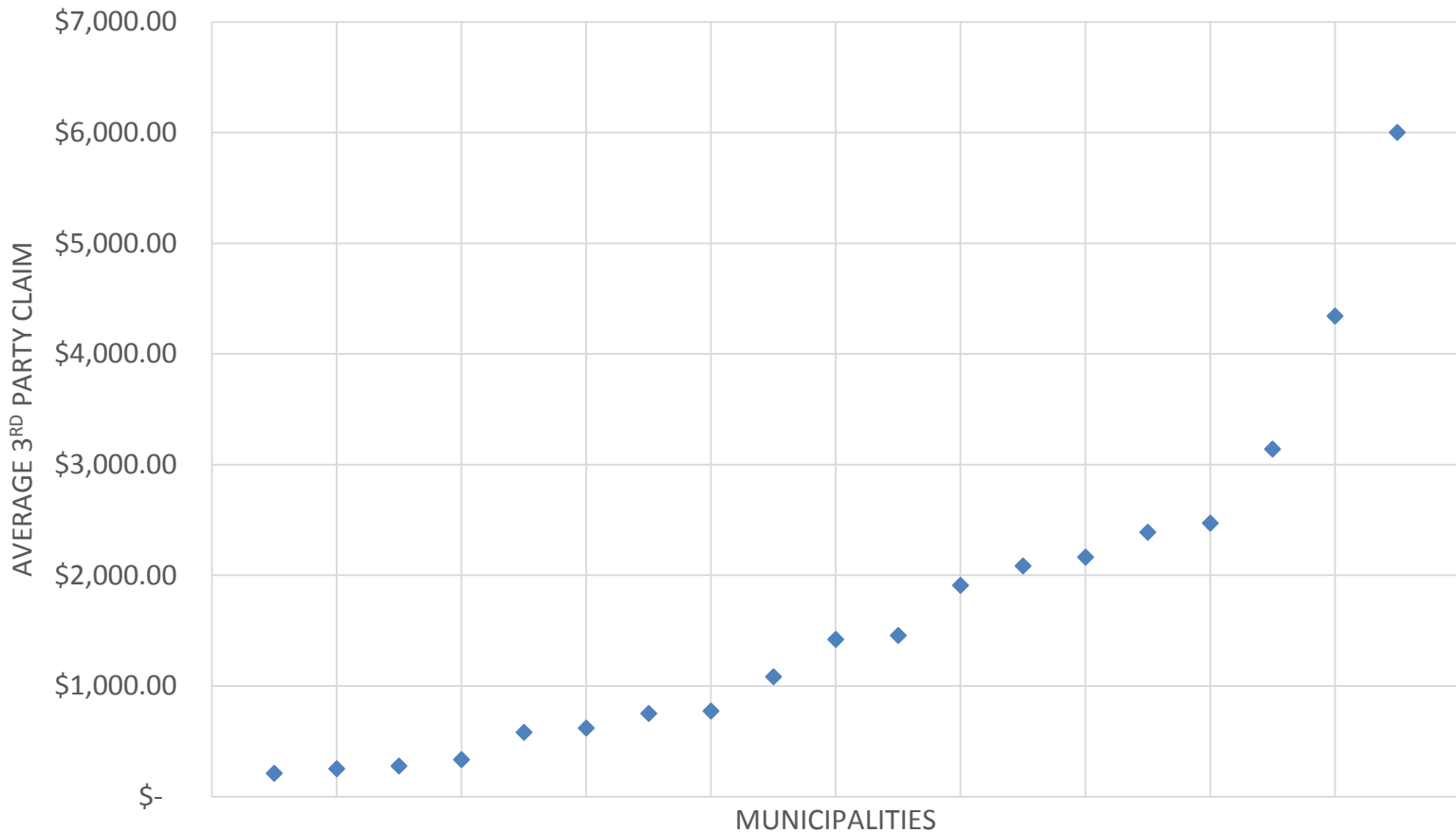


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3rd Party Property Claim

AVERAGE 3RD PARTY CLAIM





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Variability in the Data

There is significant variability between participants re frequency of claims:

- **Some local governments with low average third party property damage claims had high average workers comp claims**
- **Smaller local governments have more workers comp claims per employee**
- **Larger local governments often have a higher average per 3rd party claim**

Common Accidents

We asked participants to identify the 3 most common types of accidents. By far, the 2 most common accidents mentioned were:

- 1. BACKING**
- 2. HITTING FIXED OBJECTS**

According to insurance and other solid waste data sets reviewed by SWANA, backing is nearly always the most common type of accident.

**The second most common type is usually rear end collisions:
Not in the top five in the SWANA survey.**

Common Injuries

We asked participants to identify the 3 most common types of injuries.

- **Strains and sprains were by far the most common type of injury mentioned.**
- **Hand injuries were a distant second.**
- **Strains and sprains are the most common type of injury on private sector waste industry OSHA logs.**

Common Injuries

- **Local governments have a higher proportion of residential collection than commercial.**
- **Likely have a higher percentage of manual rear load trucks than the private sector.**
- **Additional data will be needed to better understand the connections between the type of vehicle, line of business, and injury frequency.**

Observations

- **A majority of the participants stated their accident and injury rates decreased in 2015 compared to 2014.**
- **Being struck by another vehicle was not a common cause of injury, though it is one of the leading causes of worker fatalities in the solid waste collection industry.**
- **Almost all of reporters engage in weekly/monthly meetings as part of their safety and compliance training.**



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Post-Collection Data

There is insufficient data to reach any conclusions re post-collection except:

- Strains/Sprains and Abrasions/Lacerations were identified as common types of injuries
- Smaller employers had lower frequency and severity (cost per injury or accident)

We will likely do a separate survey re post-collection safety issues by LOB: TS, MRF, LF



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Conclusions

1. SWANA appreciates the participation by the 44 local governments in our first annual safety survey.
2. There is significant variability between participants regarding frequency and severity (measured by \$\$\$).
3. Larger local governments do not necessarily have lower frequency of accidents or injuries.
4. Backing is the number 1 type of accident – additional training and communications re backing is recommended – use SWANA’s Backing resources
5. Strains/Sprains is number 1 type of injury – need to explore which body parts, age of injured, type of truck, etc., to provide better guidance.
6. Participants expressed support for increased focus on safety.