

**Analysis of Hour Allocation and Job Satisfaction  
at SW Event Technology**

Presented to

**Craig Westley**

General Manager

SW Event Technology

Kelowna, BC

Prepared By

**Morgan Brandt**

Undergraduate

UBC Bachelor of Arts

English 301

**December 19, 2019**

**Letter of Transmittal**

To: Craig Westley, General Manager

From: Morgan Brandt, English 301 Technical Writing Class Member

Date: December 19, 2019

Dear Mr. Craig Westley,

As proposed in September 2019, the following report is based on the primary research and study of SW Event Technology from the months of September 2019 to December 2019. A 39-question survey was released to SW technicians about hour allocation during summer and winter months, training, job preferences and job satisfaction.

The findings of this survey have a positive outlook for the unified workforce discussed in our interview. Accordingly, the primary areas of improvement remain in hour allocation and open communication between staff and management for goals and time management. By increasing staff communication during the tactical and strategic scheduling phases, and cross-training staff in audiovisual competencies, the companies increased flexibility would see a distinct lift in productivity onsite.

If you have any questions about the enclosed report, please contact me at

m.brandt@alumni.ubc.ca

**Sincerely,**

**Morgan Brandt**

## Table of Contents

List of Figures.....	4
Abstract.....	5
1 Introduction .....	6
1.1 Background of SW Event Technology and The Audiovisual Industry.....	6
1.2 Purpose of this report.....	7
1.3 Proposed Solution.....	7
1.4 Method of Research.....	8
1.5 Scope of this inquiry .....	8
1.6 Brief description of data sources .....	9
2 Feasibility Analysis.....	10
2.1 Current Scheduling/Booking Procedures .....	10
2.2 Seasonal Hour Allocation Comparison.....	12
2.3 Job Satisfaction Analysis .....	15
2.4 Recommendations .....	21
2.5 Time Buffers.....	21
2.6 On Call Roster.....	21
2.7 Increase Flexibility through Cross-Training Departments.....	21
3 Conclusion .....	22

## List of Figures

Figure 1: SW Hour Allocation and Job Satisfaction Survey .....	10
Figure 2: SW Hour Allocation and Job Satisfaction Survey .....	11
Figure 3: SW Hour Allocation and Job Satisfaction Survey .....	12
Figure 4: SW Hour Allocation and Job Satisfaction Survey .....	13
Figure 5: SW Hour Allocation and Job Satisfaction Survey .....	13
Figure 6: SW Hour Allocation and Job Satisfaction Survey .....	14
Figure 7: SW Hour Allocation and Job Satisfaction Survey .....	14
Figure 8: SW Hour Allocation and Job Satisfaction Survey .....	15
Figure 9: SW Hour Allocation and Job Satisfaction Survey .....	17
Figure 10: SW Hour Allocation and Job Satisfaction Survey .....	18
Figure 11: SW Hour Allocation and Job Satisfaction Survey .....	18
Figure 12: SW Hour Allocation and Job Satisfaction Survey .....	19
Figure 13: SW Hour Allocation and Job Satisfaction Survey .....	20
Figure 14: SW Hour Allocation and Job Satisfaction Survey .....	20
Figure 15: SW Hour Allocation and Job Satisfaction Survey .....	20

## **Abstract**

The following document researches how hour allocation and job satisfaction can be improved at SW Event Technology's Kelowna Branch. A research study was taken on, surveying the technicians anonymously about hour allocation to compare festival and corporate seasons, job preferences, and job satisfaction at SW Event Technology. Overall, the limited flexibility of staffing for lighting, audio, and visual prevents the branch from maximum productivity, resulting in extended overtime and inaccuracies in event quotes. To improve these areas, three solutions are proposed founded in the work of Jonas Ingels and Broos Maenhout. Firstly, to create time buffers around set up and dismantles to prevent infringing on other event calls. Second, to incorporate a on-call roster to have an arrange emergency crew member for each department. Lastly, to invest in cross-training staff in audio, lighting, and video to improve adaptability.

## 1 Introduction

### 1.1 Background of SW Event Technology and The Audiovisual Industry

The audiovisual industry is a precarious labour market as it is based on freelance contractors and a multitude of businesses to provide equipment, labour, staging, operating technicians, management and talent, to produce a show. However, the industry goes beyond stages and arenas, but into the broadcasting of press conferences, banquets, and galas as well. To work in this field, technicians must be skilled in audio, lighting, and video to remain competitive and flexible on jobsites.

Looking at the outlook for this industry, the Audiovisual Integrated Experience Association (AVIXA), found 2016 to 2018 had “positive sales and employment,” with AVIXA’s Industry Outlook and Trends Analysis (IOTA) founding “\$59.2 billion in 2018 in North America and is forecast to reach \$71.4 billion in 2023” (1). Accordingly, such projections are positive for the thriving business of SW Event Technology based in the Okanagan.

SW Event Technology was founded in 1989 by Cal McCarthy and Grant Mackeny in Kelowna, British Columbia, becoming the in-house audiovisual providers for the Grand Hotel and Convention Centre (“History of SW Event Technology”). Since 1990, SW Event technology acquired Showtime Event and Display, a tradeshow management and supply provider, becoming an anomaly in the industry as one of the only companies with business throughout corporate and festival season (“History of SW Event Technology”). From there, SW Event technology now serves North America out of the Kelowna, Nanaimo, and Vancouver offices (“History of SW Event Technology”).

## **1.2 Purpose of this report**

There is a disparity in how hours are allocated, leaving some jobs over or understaffed, assigning some staff members under 30 hours per week and giving others over 50 hours per week. As most of the senior staff has been with the company for over a decade and with time comes lifestyle changes such as growing families, career goals, and external business ventures. Shift work becomes inconsistent to schedule around, especially when the allotted hours do not accurately reflect overtime in the schedule, sometimes working passed the scheduled work period. This disrupts the staff's work/life balance, causing some resistance to commit during peak seasons.

## **1.3 Proposed Solution**

The plausible solutions under investigation involve working with the employee's goals and desires when possible to foster a dedicated workforce during peak seasons. One possible solution is revamping hour allocation based on staff survey responses for what types of shifts, gigs, and venues they prefer, while matching these parameters to the labour demands of the event. This lifestyle survey could occur during SW Event Technology yearly appraisals to identify the wants and desires of the employee regarding job demands, performing meaningful and challenging work, as well as providing a balance between work and personal life. Currently, SW carries out a thorough appraisal regarding career growth and goals, however, by coupling the lifestyle survey into this routine, the data derived from the document would prevent miscommunication of personal needs throughout the year and provide a foundation for shared work expectations between the worker and employer. So, by catering to these

needs and desires most of the year, employee job satisfaction should increase, fostering a dedicated workforce in the peak seasons.

#### **1.4 Method of Research**

Field research will include interviews with management: Craig Westly, General Manager, Barry Fisher, Assistant General Manager. These interviews will be used to discuss questions of inquiry and derived the data to create an anonymous survey. In this survey, staff were asked a series of questions about work/life balance, meaningful work, and job preferences. The resulting survey has responses from 8 SW technicians for the 39-question anonymous survey designed to analyze staff perception of hour allocation, job efficiency on site, and general job satisfaction. An analysis of this data is used to see the potential solutions to better distribute hours amongst staff during festival and corporate seasons. With this information, environmental preferences for employees will be based on three factors: event type, travel opportunities, and labour requirements.

#### **1.5 Scope of this inquiry**

To assess the feasibility of improving the system of hour allocation at SW Event technology, I plan to pursue the seven areas of inquiry:

1. How does management allocate hours currently?
2. How much training is available and provided to staff to prepare them for a variety of jobs?
3. What factors are currently taken into consideration for every job estimate?
4. What are employee preferences for hour allocation and shift preferences?



5. Does every employee feel that their skills are utilized and valued regularly?
6. Can the annual employee appraisal be modified to assess changing lifestyles to better serve how hours are allocated?
7. Where does management see room for improvement?

### **1.6 Brief description of data sources**

The sources utilized for this study cover hour allocation and flexibility, overtime versus hiring costs, and shift work scheduling with family life. First, El-Awady Attia, Philippe Duquenne, and Jean-Marc Le-Lann's study, "Considering Skills Evolutions in Multi-Skilled Workforce Allocation with Flexible Working Hours" investigates flexibility of staff by diversifying skill base and using hour allocation to reinforce skills as an investment in human resources. This provides a foundation for the recommendations for hour assignment to improve skill diversity.

In Jonas Ingels and Broos Maenhout's article, "The Impact of Overtime as a Time-Based Proactive Scheduling and Reactive Allocation Strategy on the Robustness of a Personnel Shift Roster," a cost-based analysis on whether overtime scheduling or hiring is more efficient. Their findings give logistics as to how staffing should be handled during corporate and festival season. Now Robert Tuttle and Michael Garr's article, "Shift Work and Work to Family Fit: Does Schedule Control Matter?" addresses how shift work effects family life. Their conclusions round out the analysis of how hours are allocated at SW Event Technology currently.

## 2 Feasibility Analysis

### 2.1 Current Scheduling/Booking Procedures

SW Event Technology currently employs over 100 employees at their multiple branch locations in Western Canada. While scheduling has migrated to the digital shift planning software Humanity, an online application for job information and timecards, hour allocation relies on deliberation during the tactical staffing phase, 1 of 3 phases in hour allocation introduced by Ingels and Maenhout (144). The creation of a duty roster during Ingels and Maenhout's tactile phase involves scheduling with the following uncertainties in mind: uncertainty of demand, the variability of the demand for employees (144); uncertainty of arrival, when the demand for employees will increase (144); and uncertainty of capacity surrounding "unexpected absenteeism and sick leave" (144). In the interviews conducted with General Manager, Craig Westley, and Assistant General Manager, Barry Fisher, the estimate and scheduling process were discussed. Fisher

13. During Corporate season SETUP and DISMANTLES, how many people are working onsite (including sideshow)

8 responses

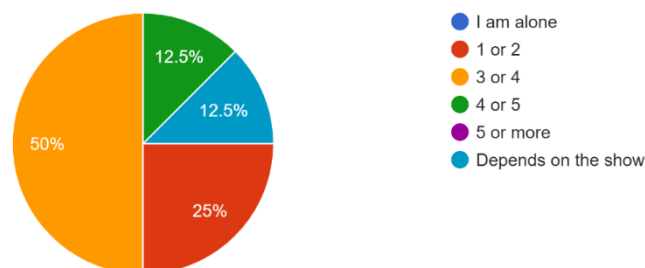


Figure 1: Question 13. SW Hour Allocation and Job Satisfaction Survey

14. During Festival season SETUP and DISMANTLES, how many people are working onsite (including sideshow)

8 responses

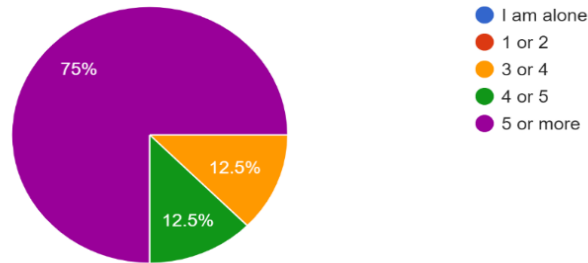


Figure 2: Question 14. SW Hour Allocation and Job Satisfaction Survey

notes that management's work in allocating hours would benefit from having more project managers to carry on the jobs after sales. Nevertheless, creating quotes are non-biased as they focus on what roles need to be satisfied: operating technicians, set up and dismantle technicians to lead audio, lead video, lead lighting, and general labour. The labour requirements are restricted primarily by budget and employee demand, as illustrated in figure 1 and 2, festival season requires more labour to carry out the job demands outside of the lead technicians whereas corporate season relies more so on lead technicians work. While this strategy sustains SW, the application of proactive overtime hour allocation during the operational and tactical phases, especially with smaller crews, would decrease the need for overtime as a reactive measure would minimizing disruptions in employee availability (Ingels and Maenhout 143, 145).

## 2.2 Seasonal Hour Allocation Comparison

The difficulty of formulating a strategy to maintain a workforce is the nature of the event industry. To demonstrate this, staff was polled to compare hours from festival season (figure 3) and corporate season (figure 4), now these figures in conjunction with the number of technicians onsite during these given seasons demonstrate a need for either increased man power or increased flexibility as Attia et al. found that to reduce the risk of losing core competencies, increasing versatility amongst staff prevents the need to outsource labour during peak seasons (Attia et al. 4548). Therefore, investing in training staffs core competencies in audio, video, and lighting increases flexibility in job allocation, particularly on-site job completion. The issue then returns to providing hours to reinforce such competencies as to not lose efficiency, especially for junior technicians that may not always be allocated hours against lead technicians during the strategic and tactical planning phases of scheduling, When this was brought up in conversation with Craig Westley, the yearly employee appraisals are central when organizing

7. How many hours are allocated to you on average during a pay period (2 weeks) in the FESTIVAL season?

8 responses

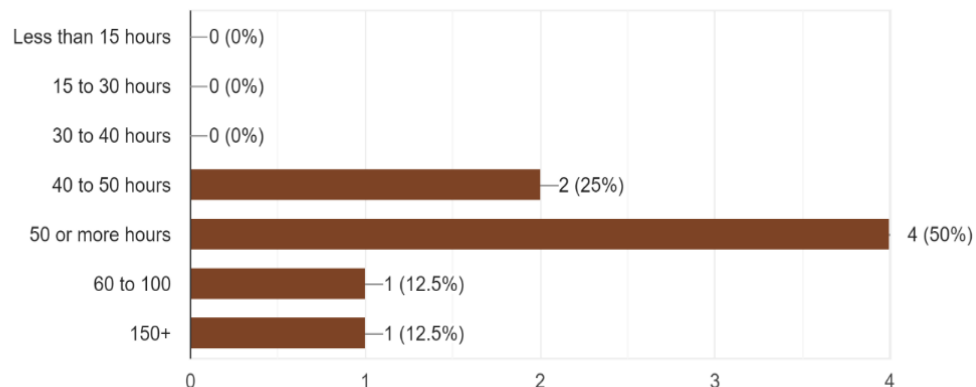


Figure 3: SW Hour Allocation and Job Satisfaction Survey

5. How many hours are allocated to you on average during a pay period (2 weeks) in the CORPORATE season?

8 responses

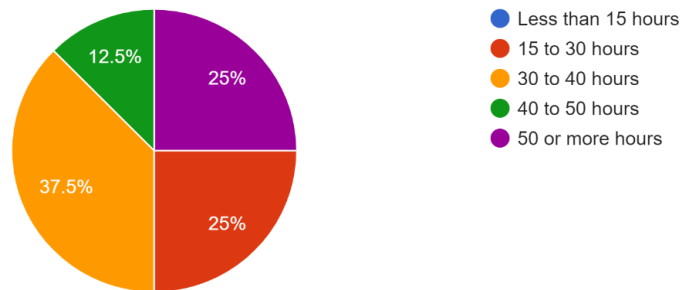


Figure 4: SW Hour Allocation and Job Satisfaction Survey

23. Do you agree with the following statement: "Every technician is trained sufficiently in audio, visual, truck, and site-safety procedures"

8 responses

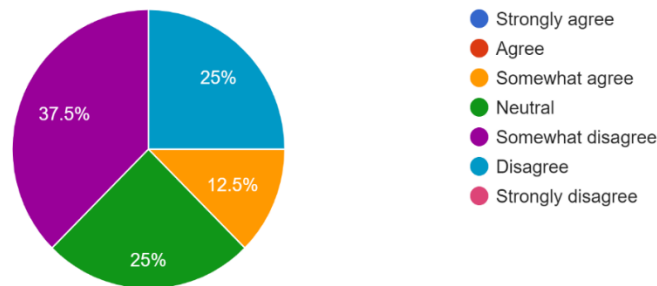


Figure 5: SW Hour Allocation and Job Satisfaction Survey

opportunities for juniors to experience career growth and challenges. As Attia et al. suggest, utilising the same operators for jobs, “companies become dependant upon a small group of individuals, and may be forced to outsource missions within their core competencies” (Attia et al., 4548).

When constructing goals for the new year, Management works along side the employee to arrange a quota of shows to lead to advancing one’s skills. The goals outlined also help management decide which core competencies require further training to be

allocated. In the survey, staff were asked if all technicians are “trained sufficiently in audio, visual, truck, and site-safety procedures (see figure 5). More than 87% of responses disagreed with the statement. Correspondingly, the quality of work based on the number of technicians allocated to a job (see figure 6 and 7) the investment of training staff sufficiently in all core competencies fosters a more confident and

### 15. The labour allocated for events in FESTIVAL season:

8 responses

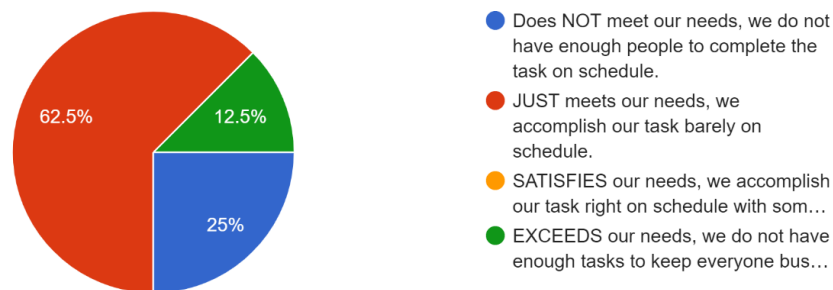


Figure 6: SW Hour Allocation and Job Satisfaction Survey

productive staff.

### 16. The labour allocated for events in CORPORATE season:

8 responses

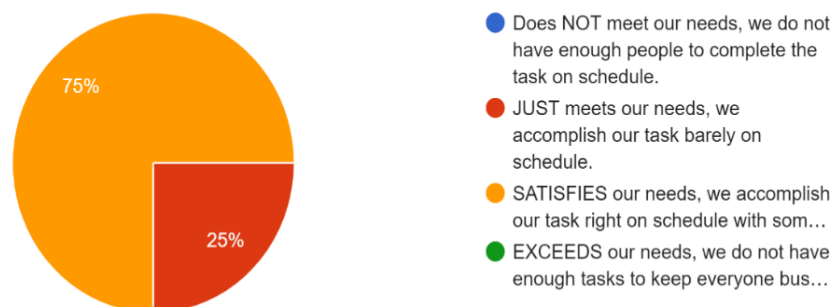


Figure 7: SW Hour Allocation and Job Satisfaction Survey

Therefore, if SW wishes to develop their responsiveness through staff versatility, they should accept the additional labour cost linked to the work of non-ideally skilled operators: this additional cost of industrial activities can be considered as an investment in productivity (attia et al, 4571).

### 2.3 Job Satisfaction Analysis

On the other side of the company goals, there are the individual goals and preferences of the employees. The primary issues researched are whether SW's hour allocation sustains employee living expenses, how much impact SW has made on career growth, and how much working conditions meet employee expectations.

Having compared the disparity of hour allocation during corporate and festival season, many employees maintain jobs outside of SW either as a freelance contractor or as an employee at another business (see figure 8),

#### 2. Do you have work outside of SW? (Select all that apply)

8 responses

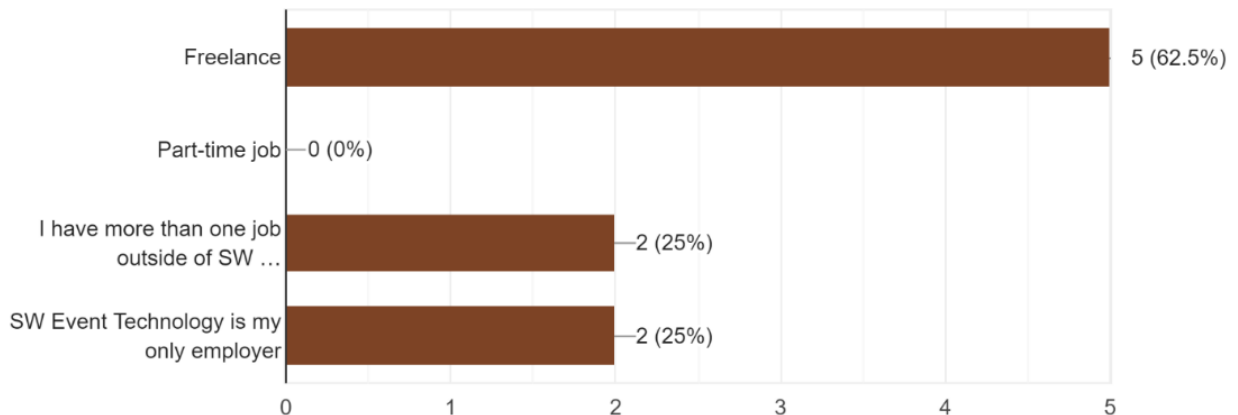


Figure 8: SW Hour Allocation and Job Satisfaction Survey

Accordingly, upon inquiring further with Westley about the slower seasons, he confirms that these hours follow a predictable pattern, with banking hours a proactive measure available to all staff year around. Banked hours work by banking any overtime hours over 80hrs/week to top up slower pay periods; with some scheduling in the summer providing more than 2 months in banked hours pay. To take proactivity a step further, AV technicians often book the slower months off to freelance privately. Westley further states that it is not always the employer's responsibility to provide all the tools to succeed in the industry; it is the employee's responsibility to communicate their scheduling goals, especially in order to incorporate freelancing to supplement the slower months.

On the topic of communicating in the scheduling process, staff were asked their preferences surrounding work locations and shift type. There are nine types of work locations: hotels, press conferences, corporate event spaces, arenas, outdoor festivals, warehouse, office, parks, highway. While all locations are frequently booked throughout the year, survey responses show a distinct preference towards outdoor festivals and arenas (see figure 9 and 10). With the majority of staff interest lying within the festival season, it appears that staff stay during the winter months to avoid the disruption of traveling for freelance jobs in order to settle in the Okanagan. With SW Event Technology holding the monopoly for the AV industry in the Okanagan, they remain the main employment providers by serving both corporate and festival contracts. The draw here being the stability and predictability without having to procure ones own freelance contacts. However, working as shift staff relinquishes the freedom to choose what jobs to integrate in one's schedule.



SW has broken the schedule down into eight types: Setup, Dismantle, Travel, Operate, Office, Hotels, Warehouse, IXR. This breakdown is applied to job quotes to determine what the labour requirements are for the setup, operation, and dismantle. What often occurs is the same team of technicians lead the show from set up to dismantle, with extra technicians allocated for a split shift comprised of a setup and dismantle. When staff were asked what shifts they are often scheduled for compared to the ones they wanted most setup, dismantles and operating shifts remained the most popular (see figures 11 and 12); however, this preference vastly skews towards festival season as projected by figures 9 and 10.

## 9. What kinds of work locations are you scheduled for? (Select all that apply)

8 responses

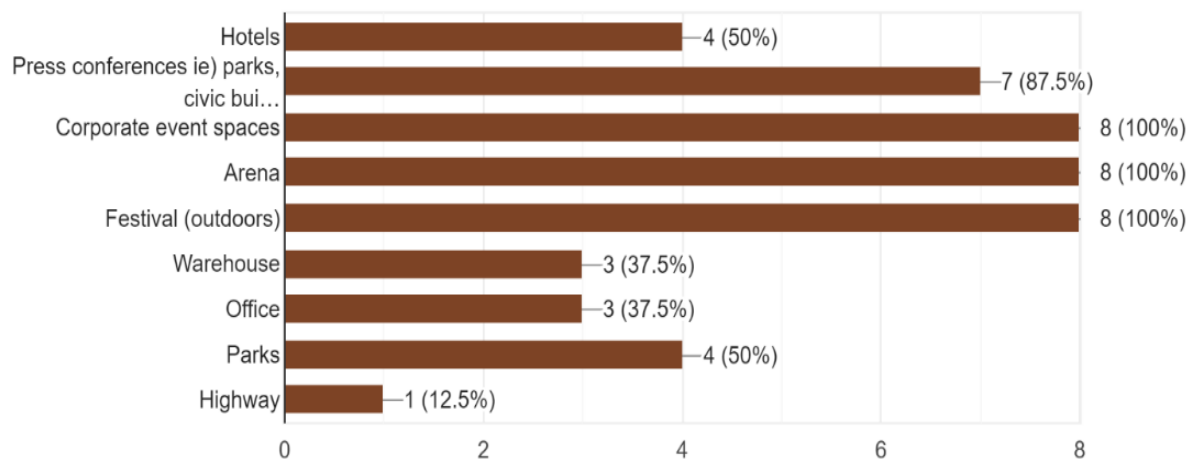


Figure 9: SW Hour Allocation and Job Satisfaction Survey

### 10. What kind of work locations do you prefer? (Select all that apply)

8 responses

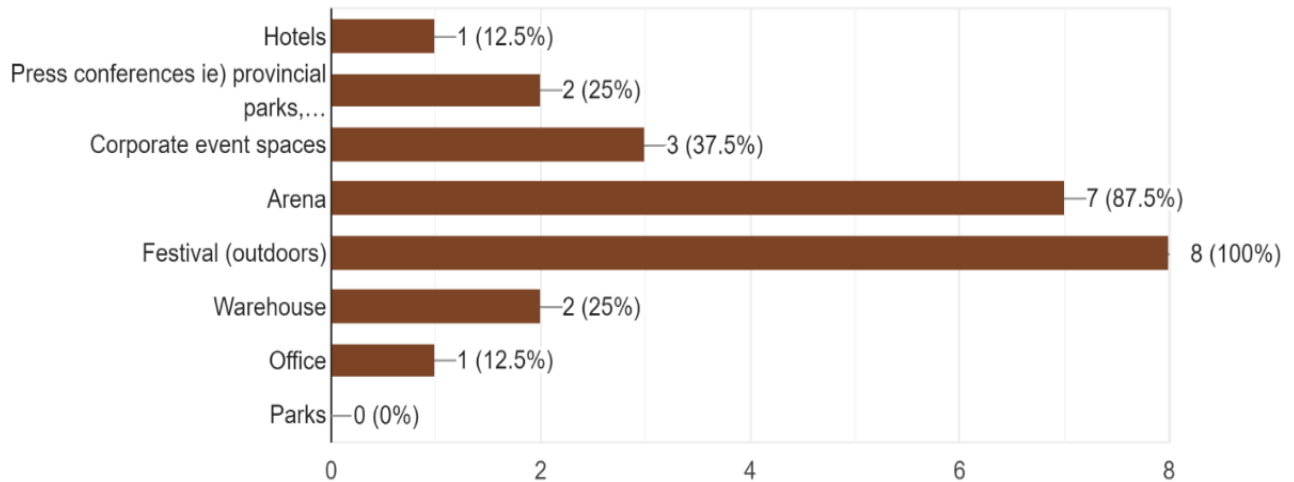


Figure 10: SW Hour Allocation and Job Satisfaction Survey

Does every employee feel that their skills are utilized and valued regularly?

### 11. What types of shifts are you often scheduled for? (Select all that apply)

8 responses

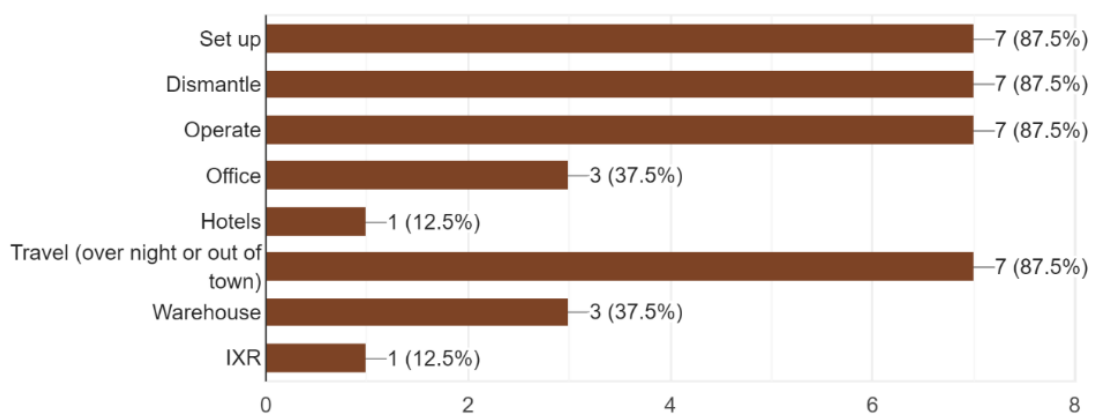


Figure 11: SW Hour Allocation and Job Satisfaction Survey

## 12. What types of shifts do you prefer? (Select all that apply)

8 responses

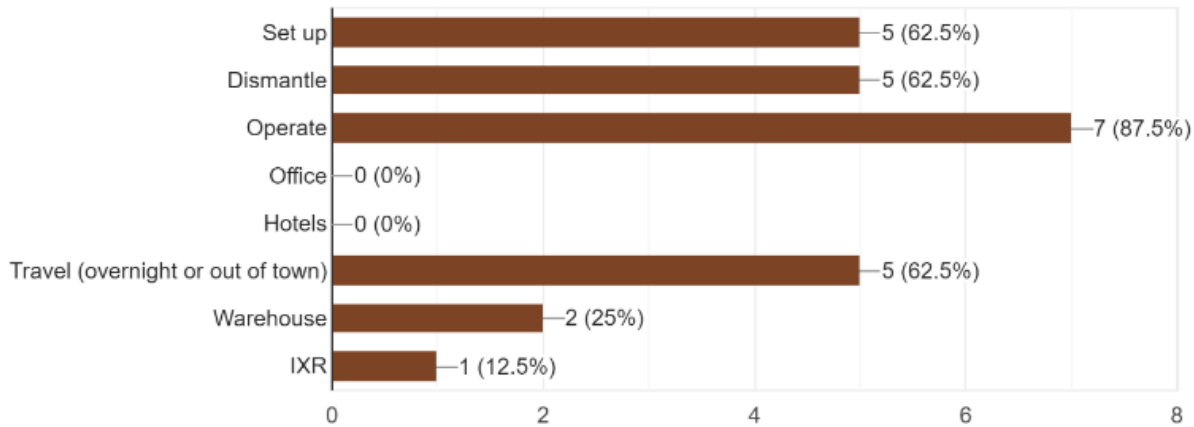


Figure 12: SW Hour Allocation and Job Satisfaction Survey

Now, if job satisfaction is the goal but one is restricted by opportunity, then the compromise of performing duties relating to preferences relies on communication during the strategic and tactical phases of scheduling. For SW, promoting further one-on-one communication between management and staff would increase awareness of times to achieve career goals, booking time off to freelance rather than wait for scheduling to be released, and following the predictable patterns of corporate and festival season.

When Staff were asked about their career growth at SW the following responses positively reflect the impact of hands-on work experience (see figures 13, 14, and 15).

### 19. Are jobs assigned to challenge with career growth in mind?

8 responses

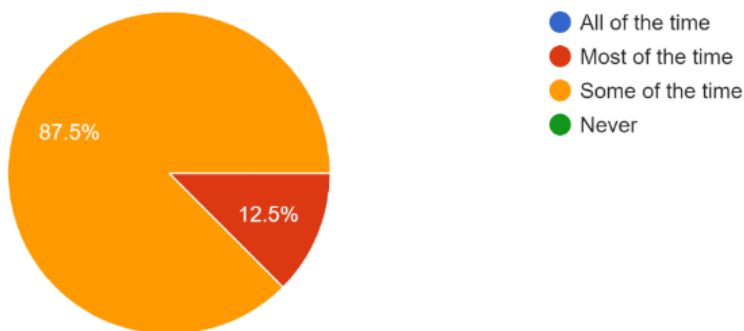


Figure 13: SW Hour Allocation and Job Satisfaction Survey

### 20. These challenges are:

8 responses

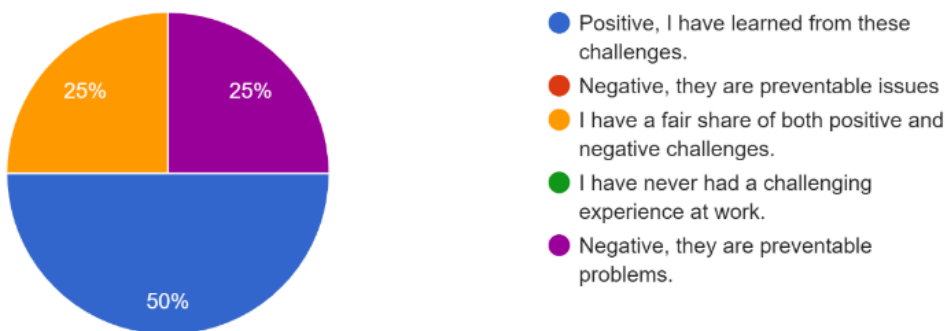


Figure 14: SW Hour Allocation and Job Satisfaction Survey

### 21. SW Event Technology has played a key role in my career growth?

8 responses

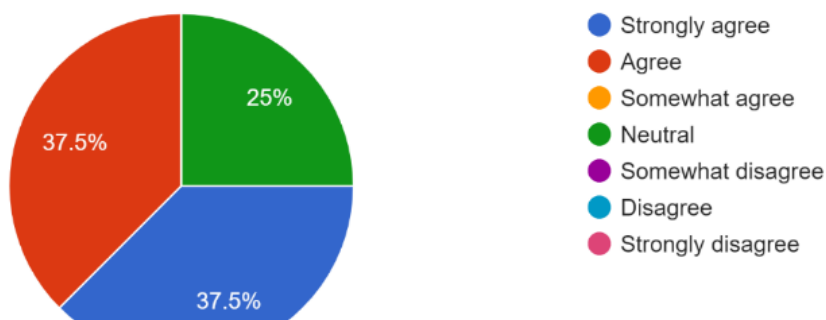


Figure 15: SW Hour Allocation and Job Satisfaction

## **2.4 Recommendations**

By investigating the current policies and strategies used by SW Event Technology, the following recommendations have curated to improve hour allocation and job satisfaction for employees.

### **2.4.1 Time Buffers**

As proposed by Ingels and Maenhout, time buffers increase the “time between two consecutive tasks and are typically applied in project management and personnel task scheduling problems to avoid delay propagation” (Ingels and Maenhout 144). The application of time buffers during the tactical and strategic phases of scheduling at SW would increase accuracy in quoting as well as decrease unscheduled overtime that impedes on the personal lives of employees.

### **2.4.2 On Call Roster**

Another solution is an on-call roster that outlines a pre-defined list of staff to stay on shifts that go overtime. Ingels and Maenhout suggest that disruptions in shifts can be better prevented through on call, than turning off-duty time into working duty (144). In this case, SW can assemble a personal roster for each technical department to be assigned reserve duties or be obligated to lend a hand onsite when unforeseen circumstances affect the timeline for a show.

### **2.4.3 Increase Flexibility through Cross-Training Departments**

The crucial shift that should occur is investing in the cross-training of departments to increase flexibility. While this is emerging in SW’s practices, if every staff member was trained in basic-intermediate audio, lighting, and video, the schedule would not have to

depend on a small group of leads for an extensive allocation of hours, which by proxy provides opportunities for junior technicians to practice the core competencies of the audiovisual industry.

### **3 Conclusion**

What started out as a concern for individual hour allocation developed into a need for increased flexibility of staff in order to improve efficiency and rely on less labour for smaller shows. However, the importance in regularly distributing skilled tasks amongst staff to maintain versatility is key in maintaining the core competencies of the business. By investing in training and promoting one-on-one communication between staff and management, career goals and expectations can be better determined in the strategic and tactical phase of scheduling as well, providing more time for those with freelance opportunities or families to schedule freely around their shifts at SW.

### Works Cited

- Attia, El-Awady, Philippe Duquenne, and Jean-Marc Le-Lann. "Considering Skills Evolutions in Multi-Skilled Workforce Allocation with Flexible Working Hours." *International Journal of Production Research*, vol. 52, no. 15, 2014, pp. 4548-4573.
- AVIXXA. "The Commercial Audiovisual Industry has Enjoyed Two Years of Growing Sales and Employment, According to AVIXA's Monthly Sentiment Index." Targeted News Service, 10/03/2018,
- Fisher, Barry. Personal Interview. 18 November 2019.
- "History of SW Event Technology." SW Event Technology, 19 Feb. 2018, [www.sw-online.com/about-sw-audiovisual/history/](http://www.sw-online.com/about-sw-audiovisual/history/).
- Humanity Inc. "The Leading Cloud-Based Employee Shift Scheduling Software." Humanity, [www.humanity.com/platform](http://www.humanity.com/platform). Accessed 3 December 2019.
- Ingels, Jonas, and Broos Maenhout. "The Impact of Overtime as a Time-Based Proactive Scheduling and Reactive Allocation Strategy on the Robustness of a Personnel Shift Roster." *Journal of Scheduling*, vol. 21, no. 2, 2018;2017;, pp. 143-165.
- Westely, Craig. Personal Interview. 18 November 2019.