THE TRUE COST OF FREE

Reducing budget impact and reclaiming time through automated workforce solutions built for public safety

PRESENTED BY **Safe Cities™**

CONTENTS

INTRODUCTION

Public safety agencies are devoted to one purpose: Serving their community. Yet in order to do so effectively, they must be run as any other organization, which includes bureaucratic and administrative needs and considerations to ensure smooth operations – 24/7/365.

These tasks are essential, however they can also become overwhelming and, in many cases, divert resources away from the intended job functions – and ultimately service of the community. Especially for supervisors and those in valued positions of leadership, it is too easy for their time to be claimed by process-based functions that are vital to thev success of the organization, but inadvertently result in the inefficient and ineffective use of key personnel. In many cases, this can exacerbate hardships already felt within the agency that are occurring as a result of resource shortages – understaffing, overtime, and the consequent fatigue which often accompanies overworking.

When these challenges converge, the outcome is often:

- ◆ Budgetary strain preventing the hire of needed staff
- ◆ Time strain on existing staff leading to fatigue and low morale
- ◆ Ineffective use of valuable personnel, such as leadership
- ◆ And ultimately further difficulty for all employees and the organization to serve their community

In order to maximize the time spent focusing where it matters most, the best solution for public safety agencies to perform their necessary administrative functions is the one that yields the quickest and most accurate results. In terms of what solution the right one may be, there is no perfect one – every agency is unique, has its own operational considerations, as well as rules, policies, procedures, and more which must be taken into account.

However, one of the greatest opportunities to make the most significant impact lies with tools and procedures that are perceived to be free, but are often the most expensive of all.

The below case studies explore five different agencies – all of varying sizes, disciplines, and locations – and their successes identifying areas of opportunity to improve their operations, recover lost time and money, and most importantly <u>maximize the happiness and the effectiveness of their workforce</u> through the optimization of key administrative processes.

All of these agencies transitioned from free (or mostly free), manual processes that relied on their time and energy to oversee and manage. All of these agencies realized that the true cost, then, is the cost of the labor hours being routinely dedicated to functions which could otherwise be automated. All of these agencies saw that the recovery of those costs, and the subsequent recovery of the hours, represented the greatest opportunity to add to their agency resources and effectively gain additional budget and employee headcount by making only a few high-impact adjustments.

This white paper explores this problem – and its solutions – as it specifically relates to 24/7/365 public safety scheduling. However, the principles discussed here can be easily applied to a variety of administrative functions and their possible product- or service-based solutions.

Additionally, the section CALCULATING THE POTENTIAL VALUE OF A NEW SOLUTION offers a step-by-step exercise to help you and your agency assess the return on investment (ROI) when evaluating solutions for administrative processes – not only scheduling, and not only software. The final page of this document is a customizable worksheet designed to make the process simple, and to serve as a resource to bring to the decision-makers in your organization.

REDUCING BUDGET IMPACT AND RECLAIMING TIME WITH AUTOMATED WORKFORCE SOLUTIONS

The data presented in each of the following five case studies comes from public safety agencies across the country who self-reported their results after transitioning to an automated scheduling software from their previous solutions. To provide you with this information, they were requested to identify:

- Average hourly wage of any and all individual(s) who performed scheduling tasks
- Average hours per week spent on scheduling tasks *before* implementing a software solution
- Average hours per week spent on scheduling tasks *after* implementing a software solution

In some cases, these agencies transitioned from a completely manual process, such as pen and paper, Excel spreadsheets, or similar (Agency No. 2). In others, they transitioned from alternative software solutions that did not meet the unique needs of public safety scheduling environments, such as 24/7/365 coverage, the ability to schedule based on roles or qualifications, or the enforcement of rules, regulations, policies, and procedures to ensure all activities are compliant and auditable (Agency No. 1).
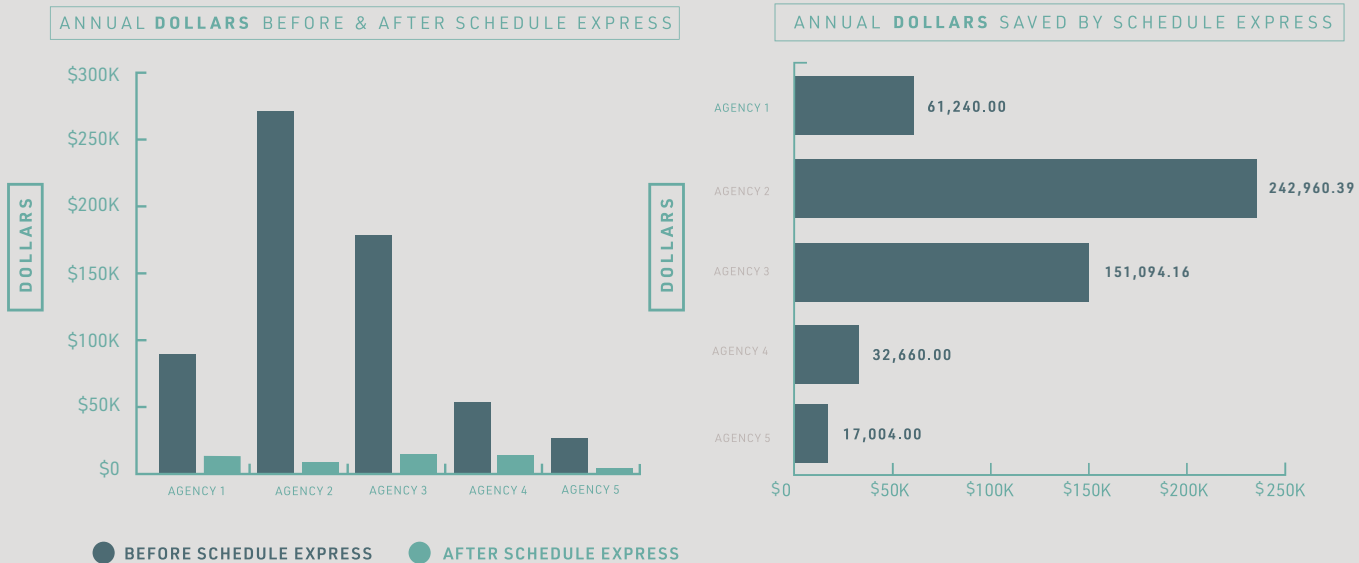
PERCENTAGE

| 0 | 20 | 40 | 60 | 80 | 100 |

87.0%

70.2%

● TIME SAVED ● DOLLARS SAVED
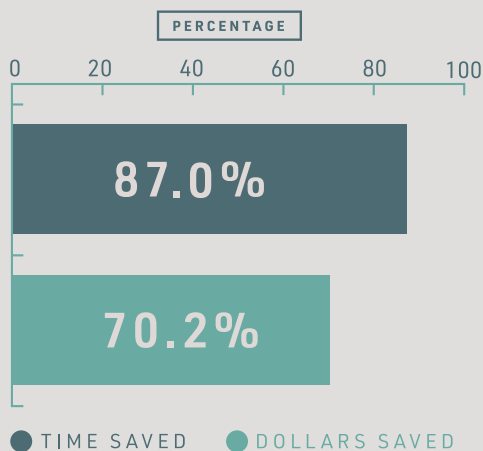
In all cases, the implementation of an automated solution yielded:

- An average time savings of 87.0% based on annual hours

- An average financial savings of 70.2% based on annual cost of labor

This means, generally speaking, if your agency currently spends 50 hours per week on scheduling, the transition to an automated solution can reduce those hours to approximately 6.5 per week.
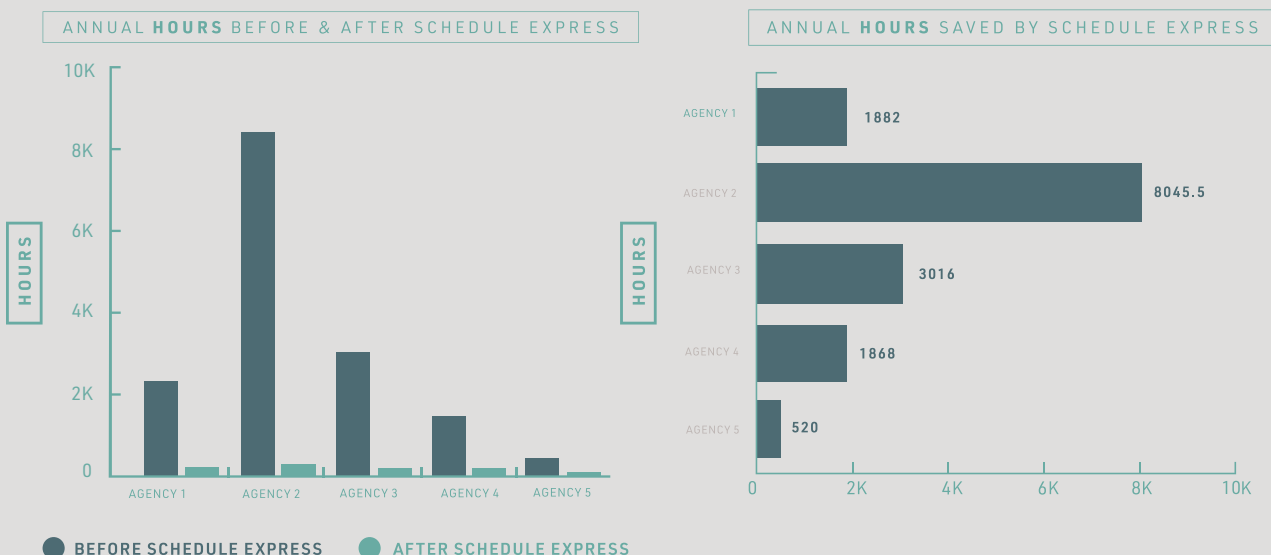
- For all five agencies, the time dedicated to scheduling their workforce using free or low-cost solutions and systems ranged from 600 to 8,300 hours per year, for an average of approximately 3,313 hours per year, or 63.7 hours per week. This includes averaging routine tasks which happen on a weekly (or even hourly) basis, as well as less common functions, such as vacation bidding. Overall, the labor expense of their manual methodologies ultimately represented the efforts and energies of approximately 1.5 full-time employees per year.

◆ For all five agencies, the dollars dedicated to scheduling their workforce using free or low-cost solutions and systems ranged from $26,200 to $271,000 per year, for an average of approximately $123,000 per year. This is calculated by taking the average hourly wage of the individuals who would be responsible for those tasks, multiplied by the number of hours it would take them to execute those tasks.

ANNUAL **DOLLARS** BEFORE & AFTER SCHEDULE EXPRESS

DOLLARS

$300K
$250K
$200K
$150K
$100K
$50K
$0

AGENCY 1 · AGENCY 2 · AGENCY 3 · AGENCY 4 · AGENCY 5

● BEFORE SCHEDULE EXPRESS   ● AFTER SCHEDULE EXPRESS

ANNUAL **DOLLARS** SAVED BY SCHEDULE EXPRESS

DOLLARS

AGENCY 1 — 61,240.00
AGENCY 2 — 242,960.39
AGENCY 3 — 151,094.16
AGENCY 4 — 32,660.00
AGENCY 5 — 17,004.00

$0 · $50K · $100K · $150K · $200K · $250K

◆ For all five agencies, the expense of a specialized scheduling solution ranged from $4,800 to $19,100 annually for an average cost of $12,775 annually.

◆ For all five agencies, the recovery of their labor dollars totaled to an average of $101,000 annually, which includes the cost of the program to be a comprehensive net savings. The recovery of their labor hours totaled to an average of 3,066 hours annually, or 58.9 hours per week – reducing their 63.7 hours per week down to 4.8 hours per week, and their 3,313 hours per year to 247.3 hours per year.

Perhaps most significantly, the greatest value in implementation is returning valuable employees – especially those in supervisory positions – back to their intended job roles.

ANNUAL **HOURS** BEFORE & AFTER SCHEDULE EXPRESS

HOURS

10K
8K
6K
4K
2K
0

AGENCY 1 · AGENCY 2 · AGENCY 3 · AGENCY 4 · AGENCY 5

● BEFORE SCHEDULE EXPRESS   ● AFTER SCHEDULE EXPRESS

ANNUAL **HOURS** SAVED BY SCHEDULE EXPRESS

HOURS

AGENCY 1 — 1882
AGENCY 2 — 8045.5
AGENCY 3 — 3016
AGENCY 4 — 1868
AGENCY 5 — 520
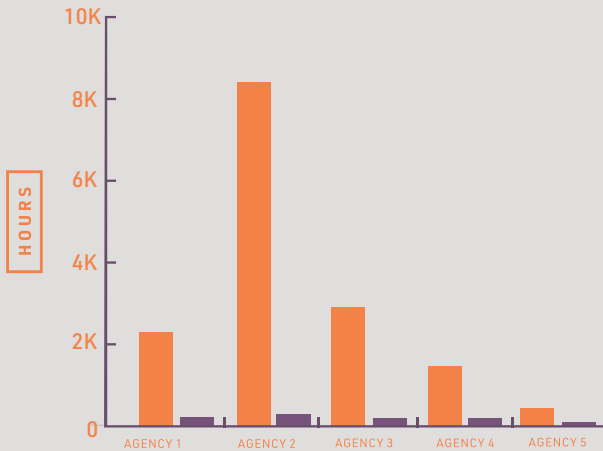
0 · 2K · 4K · 6K · 8K · 10K

OVERVIEW

The data presented in each of the following five case studies comes from public safety agencies across the country who self-reported their results after transitioning to an automated scheduling software from their previous solutions.
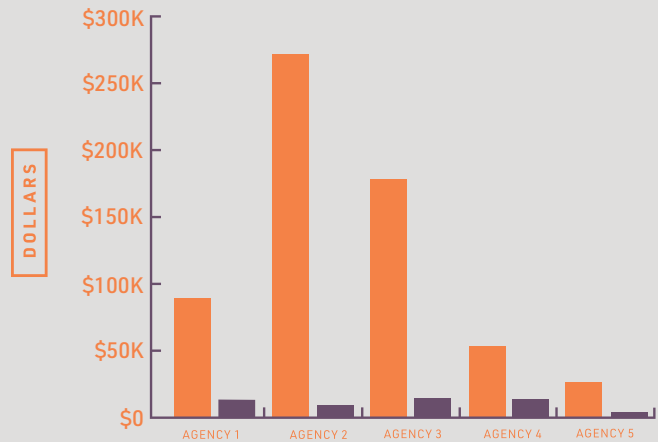
Schedule Express

POWERED BY **Safe Cities™**

ANNUAL **HOURS** SAVED BY SCHEDULE EXPRESS

HOURS: 10K, 8K, 6K, 4K, 2K, 0

AGENCY 1, AGENCY 2, AGENCY 3, AGENCY 4, AGENCY 5

ANNUAL **DOLLARS** SAVED BY SCHEDULE EXPRESS

DOLLARS: $300K, $250K, $200K, $150K, $100K, $50K, $0

AGENCY 1, AGENCY 2, AGENCY 3, AGENCY 4, AGENCY 5

● ANNUAL LABOR HOURS/COSTS BEFORE SCHEDULE EXPRESS   ● ANNUAL LABOR HOURS/COSTS AFTER SCHEDULE EXPRESS

In some cases, these agencies transitioned from a completely manual process, such as pen and paper, Excel spreadsheets, or similar (Agency No. 2). In others, they transitioned from alternative software solutions that did not meet the unique needs of public safety scheduling environments, such as 24/7/365 coverage, the ability to schedule based on roles or qualifications, or the enforcement of rules, regulations, policies, and procedures to ensure all activities are compliant and auditable (Agency No. 1).

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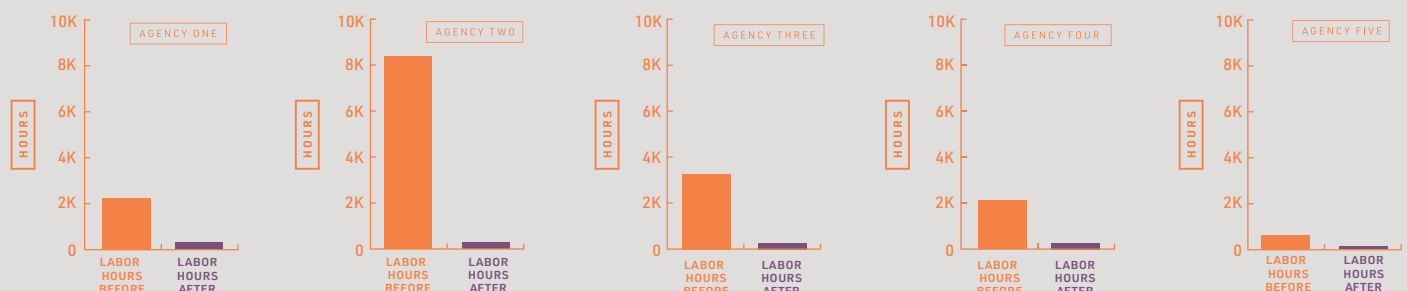
ANNUAL LABOR COSTS SAVED BY SCHEDULE EXPRESS

● ANNUAL LABOR COSTS BEFORE SCHEDULE EXPRESS   ● ANNUAL COSTS OF SCHEDULE EXPRESS   ● ANNUAL LABOR COSTS AFTER SCHEDULE EXPRESS

AGENCY ONE, AGENCY TWO, AGENCY THREE, AGENCY FOUR, AGENCY FIVE
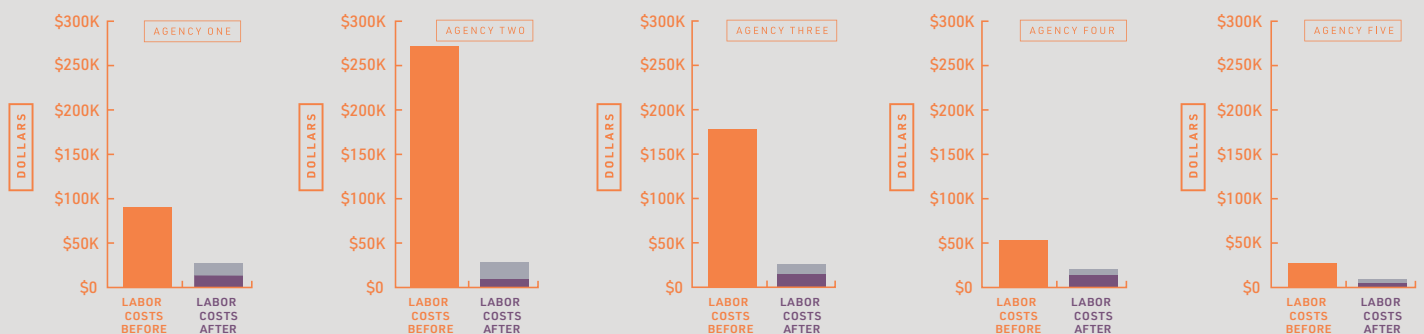
ANNUAL LABOR HOURS SAVED BY SCHEDULE EXPRESS

● ANNUAL LABOR HOURS BEFORE SCHEDULE EXPRESS   ● ANNUAL LABOR HOURS AFTER SCHEDULE EXPRESS
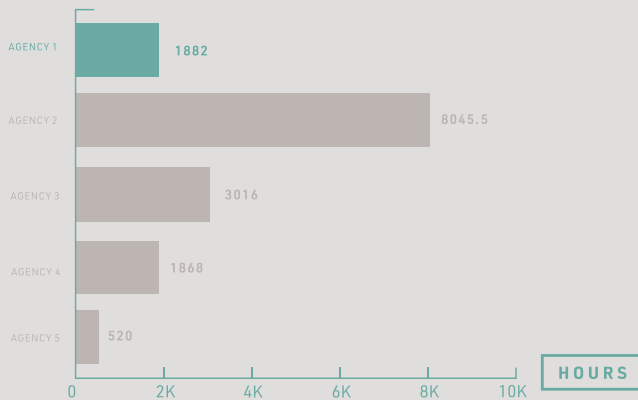

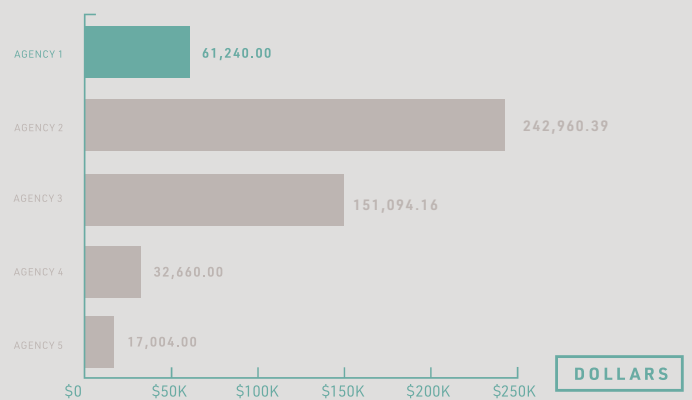AGENCY ONE, AGENCY TWO, AGENCY THREE, AGENCY FOUR, AGENCY FIVE

AGENCY NO.1
OVERVIEW

ANNUAL HOURS SAVED BY SCHEDULE EXPRESS

AGENCY 1	1882
AGENCY 2	8045.5
AGENCY 3	3016
AGENCY 4	1868
AGENCY 5	520

0   2K   4K   6K   8K   10K

HOURS

ANNUAL DOLLARS SAVED BY SCHEDULE EXPRESS

AGENCY 1	61,240.00
AGENCY 2	242,960.39
AGENCY 3	151,094.16
AGENCY 4	32,660.00
AGENCY 5	17,004.00

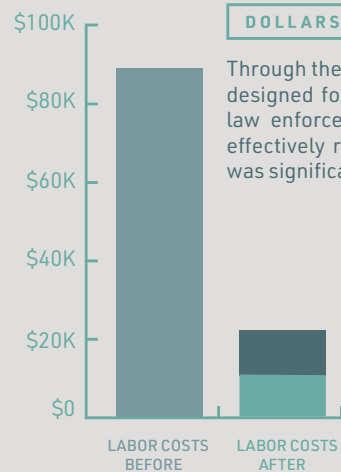$0 $50K $100K $150K $200K $250K

DOLLARS

Agency No. 1 is a law enforcement agency located in a growing Minnesota suburb with a population of about 65,000 residents. Their agency has a staff of 90 employees, 71 of which are sworn officers.

HOURS

"We picked Schedule Express specifically based on the fact that it was built for public safety, keeping in mind the 24/7/365 schedule," the captain said. "It recognizes unique police schedules, and the program can be designed and built for any rotation, any amount of hours; it tracks time-off banks, it communicates with payroll, and the smartphone app allows you to log in from any location."

LABOR HOURS BEFORE	LABOR HOURS AFTER

DOLLARS

Through the use of an administrative tool designed for the operational needs of a law enforcement agency, the ability to effectively recover lost time and dollars was significant.

LABOR COSTS BEFORE	LABOR COSTS AFTER

● ANNUAL LABOR HOURS/COSTS BEFORE SCHEDULE EXPRESS   ● ANNUAL LABOR HOURS/COSTS AFTER SCHEDULE EXPRESS   ● ANNUAL COST OF SCHEDULE EXPRESS

0   20   40   60   80   100

84.8% **TIME**

69.0% **DOLLARS**

PERCENTAGE SAVED

As a result, the value to their agency came in the form of time, money, and the ability to maximize the personnel and resources already in place. Their weekly hours saved from the transitions came out to more than 36 – nearly the equivalent of gaining a new full-time employee while using pre-existing headcount. Further, their cost savings totaled more than $60,000 annually – or nearly 1 more full-time employee.

AGENCY NO.1

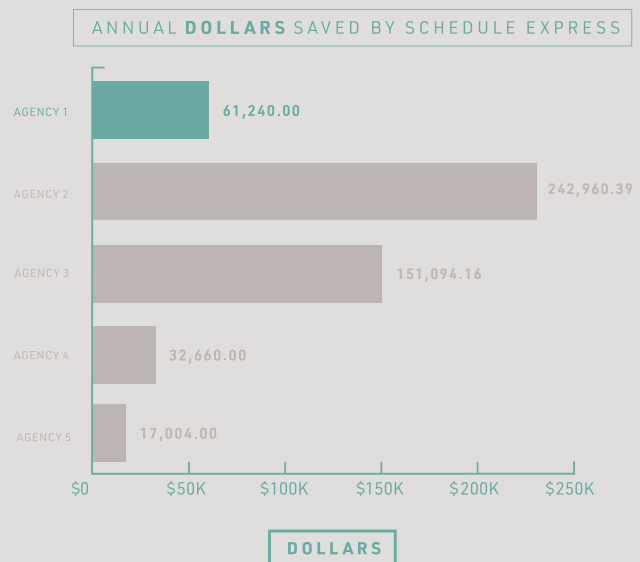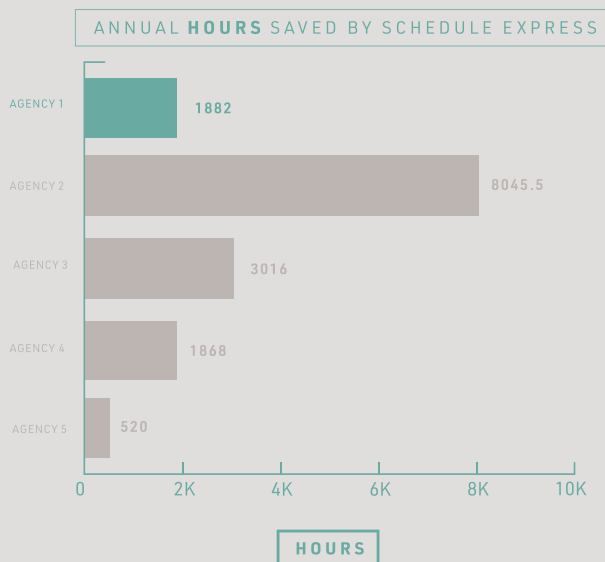## CASE STUDY

LAW   👥 **90**   💲 **40/hr**

Agency No. 1 is a law enforcement agency located in a growing Minnesota suburb with a population of about 65,000 residents. Their agency has a staff of 90 employees, 71 of which are sworn officers. Their captain indicated some of their most notable and unique needs include two sporting events – both of which draw an average of 25,000 spectators per day – as well as one concert which attracts about 20,000 fans. Understandably, and in his own words, "It creates a large scheduling nightmare for myself and other supervisors."

In their more daily needs, scheduling an agency of nearly 100 is still no simple task. Prior to Schedule Express, Agency No. 1 had actually taken action to transition away from manual methods and attempted to implement automated solutions, an initiative considered ahead of the curve as compared to many agencies across the country. While the initial implementation was successful, they learned quickly that tools not built to support public safety operations cannot easily be manipulated into fitting such unique needs. Ongoing schedule management remained a significant challenge despite the marked improvement.

The captain indicated they first attempted to use three different programs for their scheduling operations:

- One was an off-the-shelf scheduling program intended to handle day-to-day coverage. It did not function for 24/7/365 environments. It also did not account for the qualifications of those being scheduled.
- The second was a text alert app that would enable them to mass communicate with their officers, such as in the case of an overtime shift being made available. It did not communicate with or integrate with their scheduling program.
- The third was a custom program used to track and assign overtime. Because Agency No. 1 assigns overtime based on last job worked, rather than seniority or first-come-first-serve volunteering, it remained very labor intensive to control that portion of the program and ensure accuracy. Additionally, it did not integrate with the scheduling program, meaning efforts had to be replicated in both.

AGENCY 1	1882
AGENCY 2	8045.5
AGENCY 3	3016
AGENCY 4	1868
AGENCY 5	520

0   2K   4K   6K   8K   10K

HOURS

AGENCY 1	61,240.00
AGENCY 2	242,960.39
AGENCY 3	151,094.16
AGENCY 4	32,660.00
AGENCY 5	17,004.00

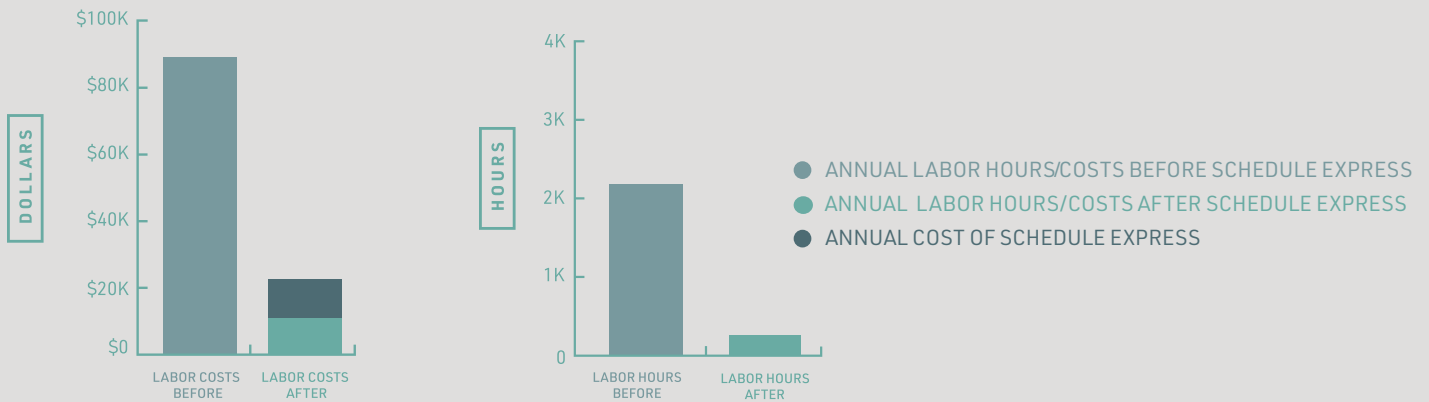$0 $50K $100K $150K $200K $250K

DOLLARS

Consequently, challenges included:

- ◆ Convoluted and tedious workarounds to compensate for the ill-fitted scheduling program.
- ◆ Manual entry of overtime assignments which required replicating efforts in all three programs.
- ◆ Inability of any program to track time-off banks, requiring a fourth program for use in HR.
- ◆ No communications of time cards with payroll.
- ◆ The annual shift bid remained a paper-based process despite efforts to the contrary.

Although this first iteration of scheduling solutions was ultimately incomprehensive and did not succeed as a long-term solution, it did serve as a powerful example of what could be possible with the right tool designed for their operating environment – and most importantly demonstrated the shortcomings of the manual pen-and-paper system they sought to replace.

"We picked Schedule Express specifically based on the fact that it was built for public safety, keeping in mind the 24/7/365 schedule," the captain said. "It recognizes unique police schedules, and the program can be designed and built for any rotation, any amount of hours; it tracks time-off banks, it communicates with payroll, and the smartphone app allows you to log in from any location."

Through the use of an administrative tool designed for the operational needs of a law enforcement agency, the ability to effectively recover lost time and dollars was significant.

DOLLARS

$100K
$80K
$60K
$40K
$20K
$0

LABOR COSTS BEFORE   LABOR COSTS AFTER

HOURS

4K
3K
2K
1K
0

LABOR HOURS BEFORE   LABOR HOURS AFTER

● ANNUAL LABOR HOURS/COSTS BEFORE SCHEDULE EXPRESS
● ANNUAL LABOR HOURS/COSTS AFTER SCHEDULE EXPRESS
● ANNUAL COST OF SCHEDULE EXPRESS

"My biggest thing with Schedule Express is the overtime capabilities. Previously that was just a nightmare, with Schedule Express it significantly reduced my time – I can create a job in Schedule Express, and it sends out a text alert to whoever I want it to with one click of a button. The officers can then volunteer from their location, they don't have to come into the office, they don't have to call – they can just access it remotely," the captain said. **"Looking back at how much we expected our front-line supervisors to be in the office manipulating the schedule based on officers' vacation or sick requests – getting them out of the office and back to the street was a significant benefit to us."**
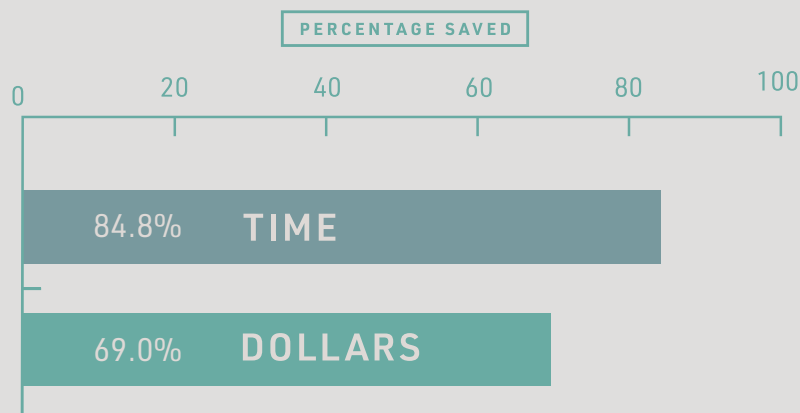
PERCENTAGE SAVED

0   20   40   60   80   100

84.8%   **TIME**

69.0%   **DOLLARS**

As a result, the value to their agency came in the form of time, money, and the ability to maximize the personnel and resources already in place. Their weekly hours saved from the transitions came out to more than 36 – nearly the equivalent of gaining a new full-time employee while using pre-existing headcount. Further, their cost savings totaled more than $60,000 annually – or nearly 1 more full-time employee.

"I want to show others who are in my position that there is a program out there to make their job very easy and cut back drastically on labor hours."
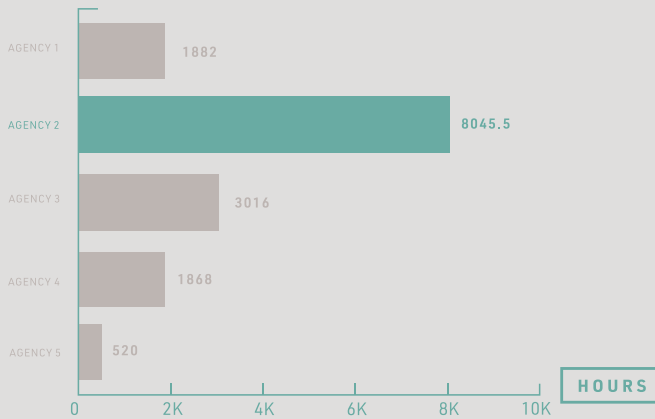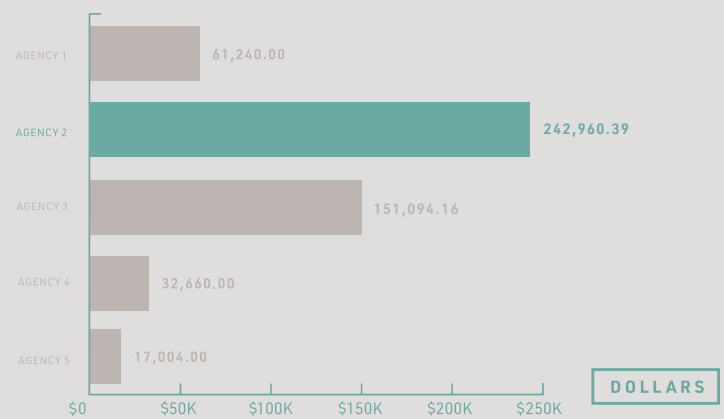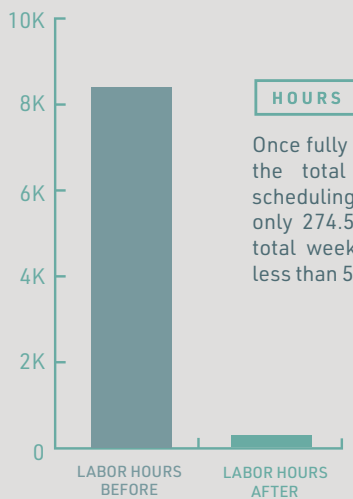
AGENCY NO.2
OVERVIEW

911 ● 151 USERS ● $ 32.58/HR
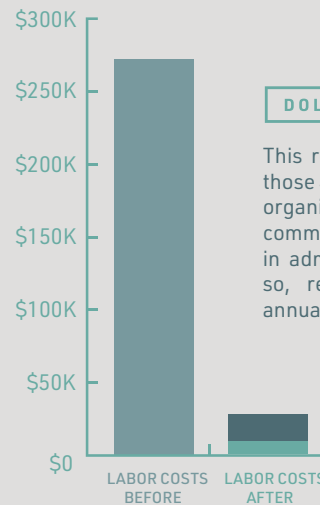
ANNUAL **HOURS** SAVED BY SCHEDULE EXPRESS

Agency	Hours
AGENCY 1	1882
AGENCY 2	8045.5
AGENCY 3	3016
AGENCY 4	1868
AGENCY 5	520

HOURS

0   2K   4K   6K   8K   10K

ANNUAL **DOLLARS** SAVED BY SCHEDULE EXPRESS

Agency	Dollars
AGENCY 1	61,240.00
AGENCY 2	242,960.39
AGENCY 3	151,094.16
AGENCY 4	32,660.00
AGENCY 5	17,004.00

DOLLARS

$0 $50K $100K $150K $200K $250K

Agency No. 2 is a public safety communications center located in the northeast and serving a county with a population of approximately half a million residents. They are staffed by nearly 150 employees and, prior to the implementation of Schedule Express, relied on an extremely manual system of multiple clipboards to develop and manipulate their schedule.

HOURS

Once fully functional in Schedule Express, the total annual hours dedicated to scheduling were reduced from 8,320 to only 274.5 hours per year – making the total weekly hours reduced from 160 to less than 5.5 hours per week.

LABOR HOURS BEFORE / LABOR HOURS AFTER

DOLLARS

This returned the time and energy of those 4 full-time employees back to the organization – and to service of their community – rather than being tied up in administrative tasks, and, in doing so, recovered more than $242,000 annually for the agency.

LABOR COSTS BEFORE / LABOR COSTS AFTER

● ANNUAL LABOR HOURS/COSTS BEFORE SCHEDULE EXPRESS ● ANNUAL LABOR HOURS/COSTS AFTER SCHEDULE EXPRESS ● ANNUAL COST OF SCHEDULE EXPRESS

PERCENTAGE SAVED

96.7% **TIME**

89.6% **DOLLARS**

Due to the size of their agency, the inefficiencies in their manual system, and therefore the significant margin for improvement, while the average ROI for agencies using Schedule Express is approximately 87% of previous hours and 70.2% of previous labor dollars, Agency No. 2 was able to secure a remarkable 96.7% of hours and 89.6% of labor dollars by making the transition.
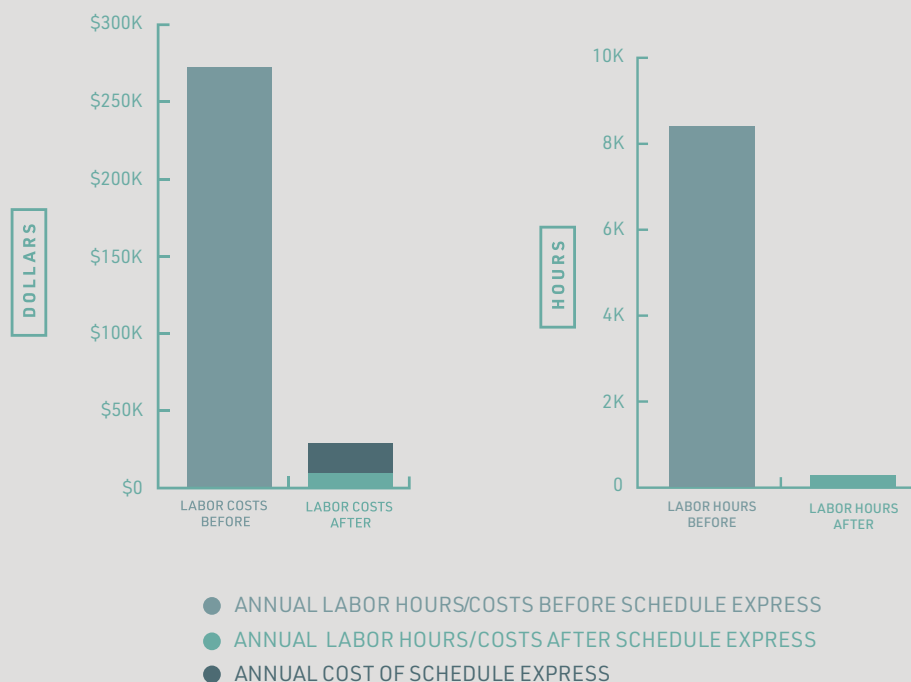
Agency No. 2 is a public safety communications center located in the northeast and serving a county with a population of approximately half a million residents. They are staffed by nearly 150 employees and, prior to the implementation of Schedule Express, relied on an extremely manual system of multiple clipboards to develop and manipulate their schedule.

Especially for an agency with a staff of more than 100, the drain this system caused on their time, budget, and other resources was significant. On average, the public safety shift supervisor estimated that it required approximately 8,320 hours per year to perform all tasks related to scheduling – this includes routine tasks which happen on a regular basis, as well as functions that are out of the ordinary, such as vacation bidding. While the number of hours spent weekly would vary depending on need, throughout the year it averaged to around 160 hours per week – exactly the time and value of 4 full-time employees.

- ANNUAL LABOR HOURS/COSTS BEFORE SCHEDULE EXPRESS
- ANNUAL LABOR HOURS/COSTS AFTER SCHEDULE EXPRESS
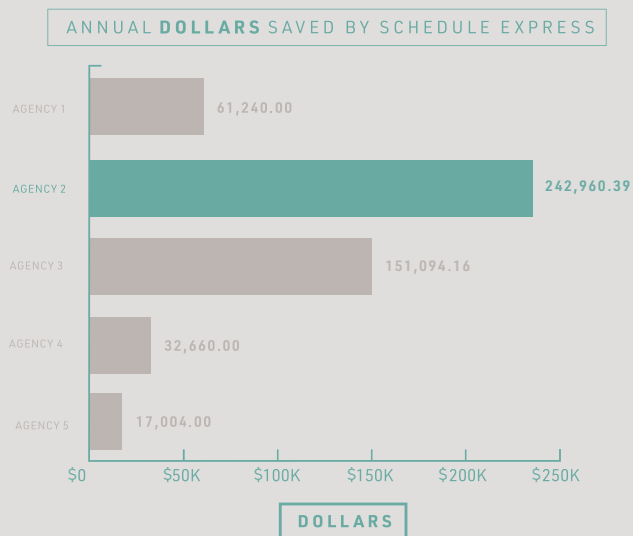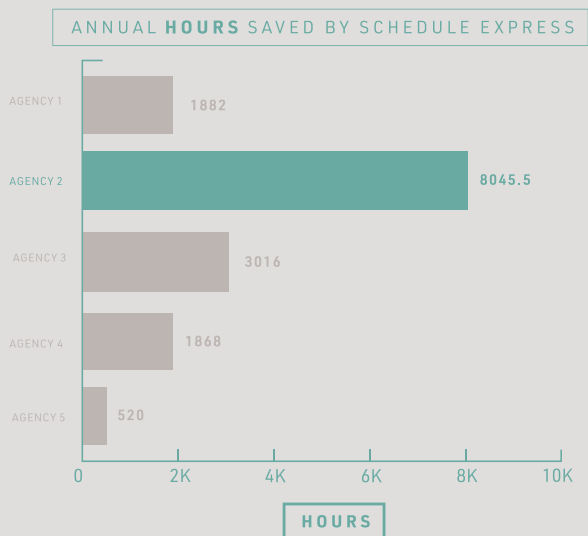- ANNUAL COST OF SCHEDULE EXPRESS

As a result of their labor-intensive systems, the opportunity for improvement upon transitioning to an automated solution was stark, and ultimately paid off significantly. Once fully functional in Schedule Express, the total annual hours dedicated to scheduling were reduced from 8,320 to only 274.5 hours per year – making the total weekly hours reduced from 160 to less than 5.5 hours per week. This returned the time and energy of those 4 full-time employees back to the organization – and to service of their community – rather than being tied up in administrative tasks, and, in doing so, recovered more than $242,000 annually for the agency.

Due to the size of their agency, the inefficiencies in their manual system, and therefore the significant margin for improvement, while the average ROI for agencies using Schedule Express is approximately 87% of previous hours and 70.2% of previous labor dollars, Agency No. 2 was able to secure a remarkable 96.7% of hours and 89.6% of labor dollars by making the transition.

PERCENTAGE SAVED

| 0 | 20 | 40 | 60 | 80 | 100 |

96.7%   TIME

89.6%   DOLLARS
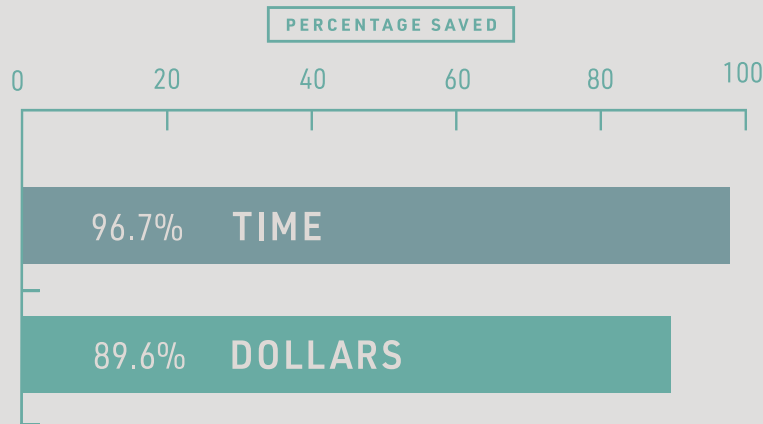
"We've looked at other programs and there are features in Schedule Express we have never seen any other program come close to, and these are things we could not live without," the public safety shift supervisor said. "It wouldn't matter if it cost the most or cost the least, it's in our budget, it's proved the value of our budget, and we'll be with you because of the impact it's made in our agency. It truly has saved thousands of hours of supervisory time."

ANNUAL **HOURS** SAVED BY SCHEDULE EXPRESS

AGENCY 1	1882
AGENCY 2	8045.5
AGENCY 3	3016
AGENCY 4	1868
AGENCY 5	520

| 0 | 2K | 4K | 6K | 8K | 10K |

HOURS

ANNUAL **DOLLARS** SAVED BY SCHEDULE EXPRESS

AGENCY 1	61,240.00
AGENCY 2	242,960.39
AGENCY 3	151,094.16
AGENCY 4	32,660.00
AGENCY 5	17,004.00

| $0 | $50K | $100K | $150K | $200K | $250K |

DOLLARS

AGENCY NO.3
OVERVIEW

LAW   FIRE   911

100 USERS $ 54.01/HR

ANNUAL **HOURS** SAVED BY SCHEDULE EXPRESS

AGENCY 1	1882
AGENCY 2	8045.5
AGENCY 3	3016
AGENCY 4	1868
AGENCY 5	520

0   2K   4K   6K   8K   10K

HOURS

ANNUAL **DOLLARS** SAVED BY SCHEDULE EXPRESS

AGENCY 1	61,240.00
AGENCY 2	242,960.39
AGENCY 3	151,094.16
AGENCY 4	32,660.00
AGENCY 5	17,004.00

$0 $50K $100K $150K $200K $250K

DOLLARS

Agency No. 3 is an example of multiple departments collectively sharing the expense of administrative software and other technology-based solutions. They are located in a suburban California city which serves approximately 40,000 residents , and acquired Schedule Express to be purposed for their fire department, communications center, and law enforcement agency.

HOURS

4K

3K

2K

1K

0

LABOR HOURS BEFORE   LABOR HOURS AFTER

Prior to transitioning to an automated solution, scheduling claimed approximately 63 hours per week, or the equivalent of 1.5 full-time employees. This meant on an annual basis, more than 3,000 labor hours were being diverted to scheduling rather than remaining available and accessible for agency use.

DOLLARS

$200K

$150K

$100K

$50K

$0

LABOR COSTS BEFORE   LABOR COSTS AFTER

While the cost of Schedule Express was around $12,000, the expense is able to be shared between all three departments and return a value of $150,000 annually between all three operations.

● ANNUAL LABOR HOURS/COSTS BEFORE SCHEDULE EXPRESS   ● ANNUAL LABOR HOURS/COSTS AFTER SCHEDULE EXPRESS   ● ANNUAL COST OF SCHEDULE EXPRESS

0   20   40   60   80   100

PERCENTAGE SAVED

92.1%   **TIME**

85.4%   **DOLLARS**

In the case of Agency No. 3, this enabled them to purchase and implement the software, generating a significant return on investment. Weekly hours spent on scheduling tasks were reduced from the initial 63 hours to only 5 hours – a recovery of 92.1% on previously lost time. In turn, that time was able to be returned to the agency, essentially providing them with more than 1 additional full-time employee.

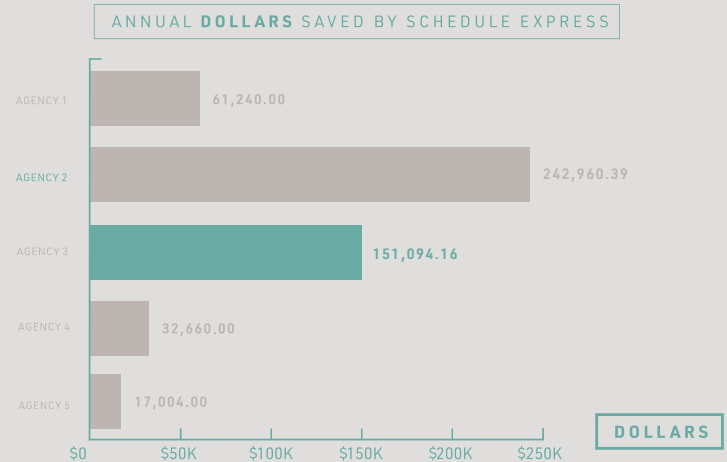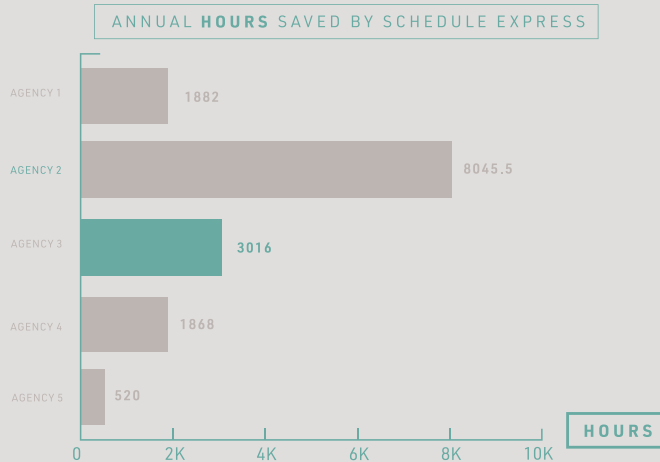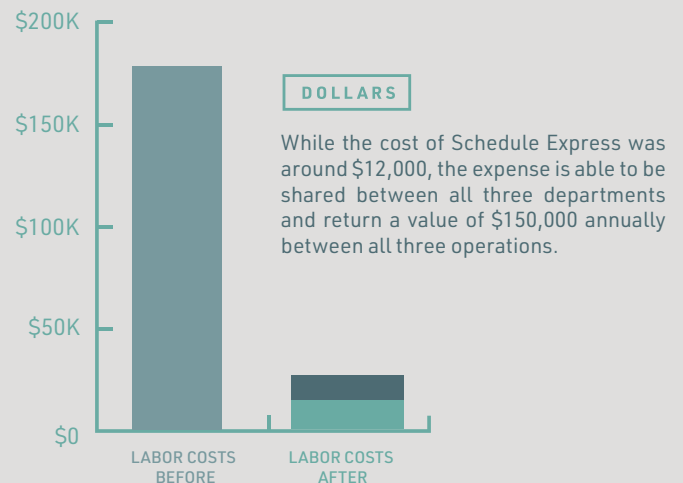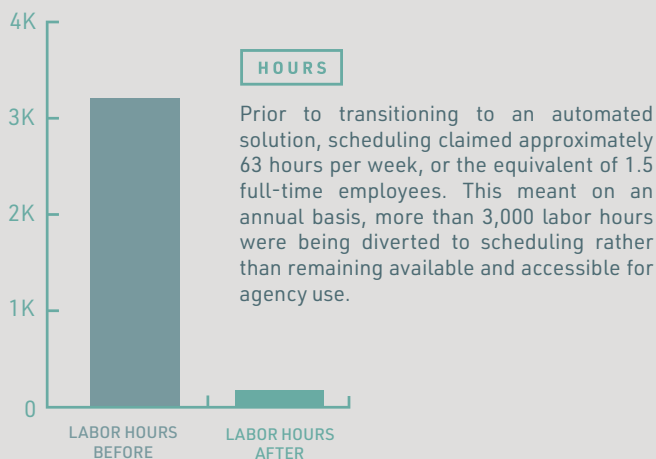# AGENCY NO.3
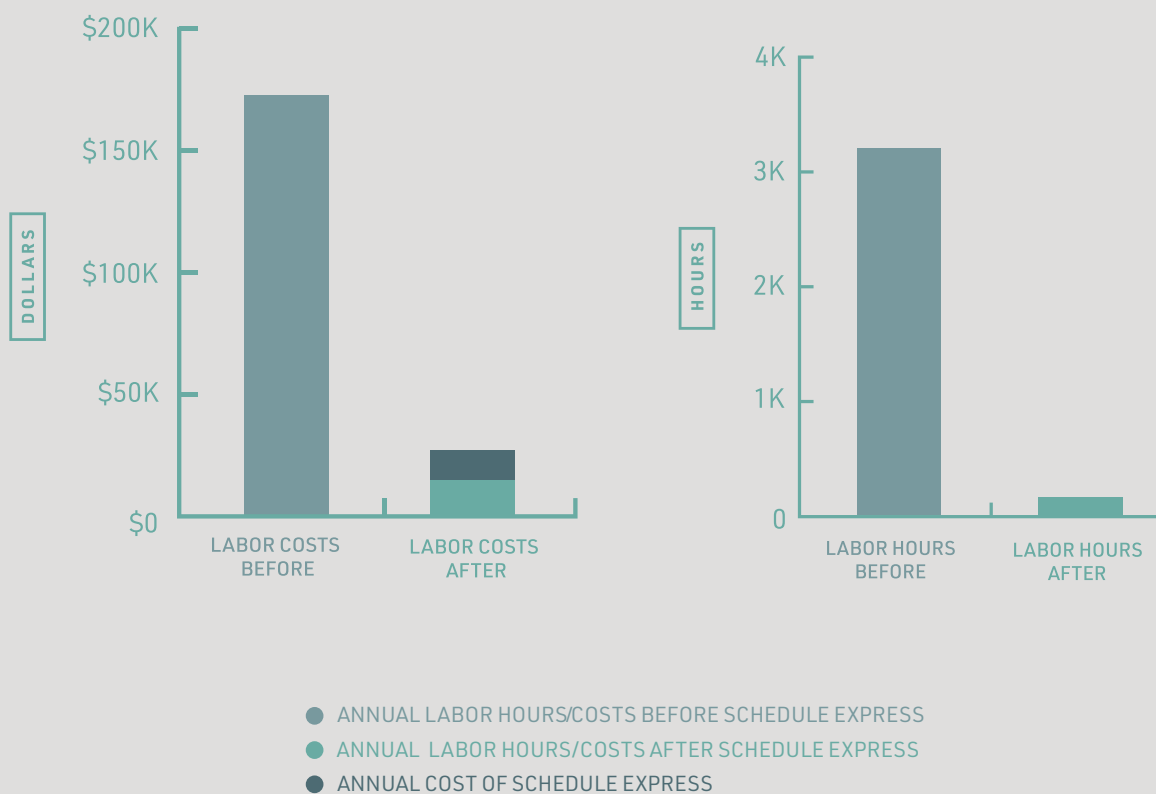## CASE STUDY

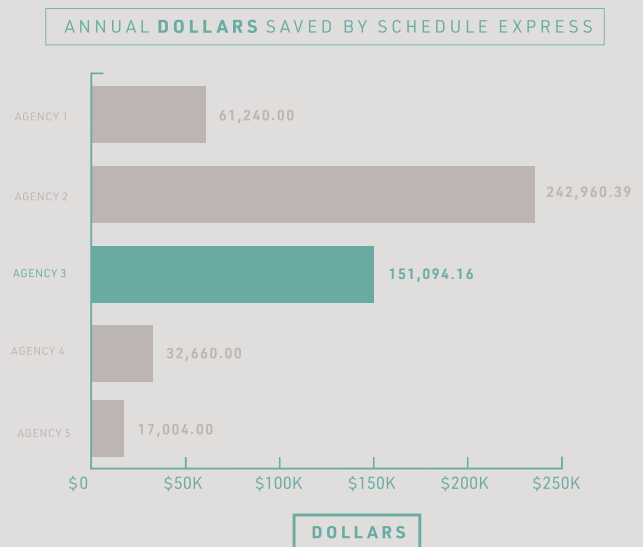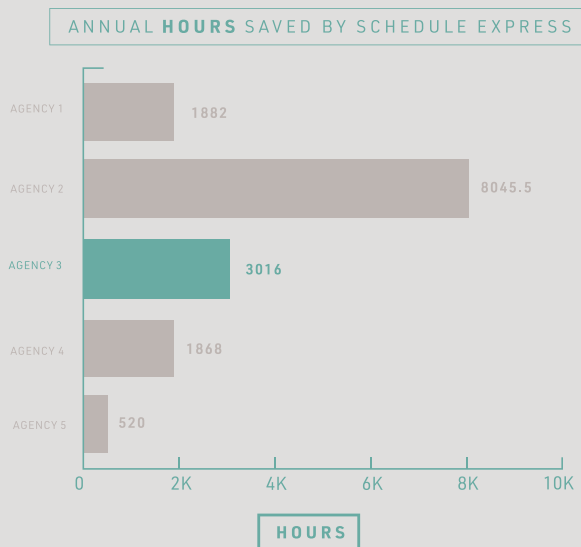**LAW**   **FIRE**   **911**

100   **$ 54.01/hr**

Agency No. 3 is an example of multiple departments collectively sharing the expense of administrative software and other technology-based solutions. They are located in a suburban California city which serves approximately 40,000 residents , and acquired Schedule Express to be purposed for their fire department, communications center, and law enforcement agency.

DOLLARS

$200K

$150K

$100K

$50K

$0

LABOR COSTS
BEFORE

LABOR COSTS
AFTER

HOURS

4K

3K

2K

1K

0

LABOR HOURS
BEFORE

LABOR HOURS
AFTER

● ANNUAL LABOR HOURS/COSTS BEFORE SCHEDULE EXPRESS
● ANNUAL LABOR HOURS/COSTS AFTER SCHEDULE EXPRESS
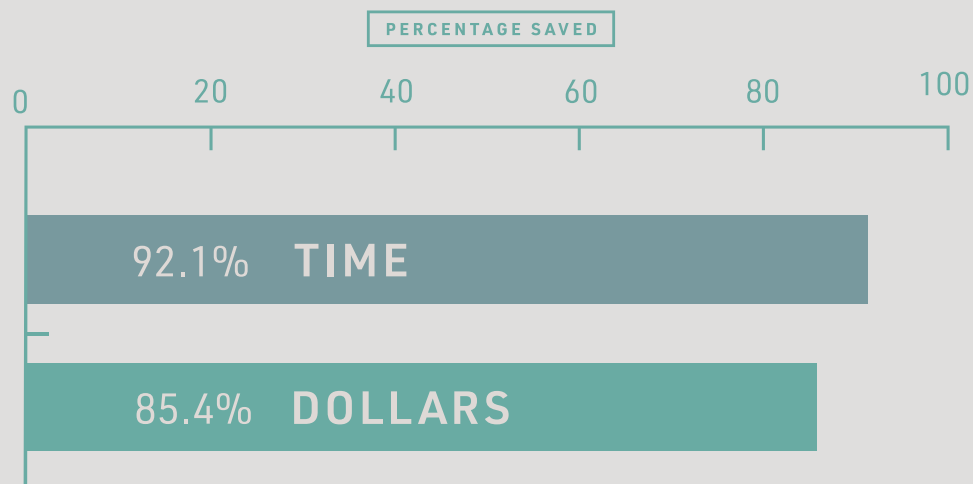● ANNUAL COST OF SCHEDULE EXPRESS

Prior to transitioning to an automated solution, scheduling claimed approximately 63 hours per week, or the equivalent of 1.5 full-time employees. This meant on an annual basis, more than 3,000 labor hours were being diverted to scheduling rather than remaining available and accessible for agency use.

AGENCY 1 — 1882
AGENCY 2 — 8045.5
AGENCY 3 — 3016
AGENCY 4 — 1868
AGENCY 5 — 520

0   2K   4K   6K   8K   10K

HOURS

AGENCY 1 — 61,240.00
AGENCY 2 — 242,960.39
AGENCY 3 — 151,094.16
AGENCY 4 — 32,660.00
AGENCY 5 — 17,004.00

$0 $50K $100K $150K $200K $250K

DOLLARS

Because it can be difficult for many agencies to acquire the budget to purchase a new product or service – even one that is proven to return significantly on the investment – it's an excellent strategy to consider how the expense can be shared by multiple departments, effectively reducing budgetary strain on the initial acquisition, recovering time and budget for all involved departments, and ultimately maximizing impact for the community.

In the case of Agency No. 3, this enabled them to purchase and implement the software, generating a significant return on investment. Weekly hours spent on scheduling tasks were reduced from the initial 63 hours to only 5 hours – a recovery of 92.1% on previously lost time. In turn, that time was able to be returned to the agency, essentially providing them with more than 1 additional full-time employee. While the cost of Schedule Express was around $12,000, the expense is able to be shared between all three departments and return a value of $150,000 annually between all three operations.
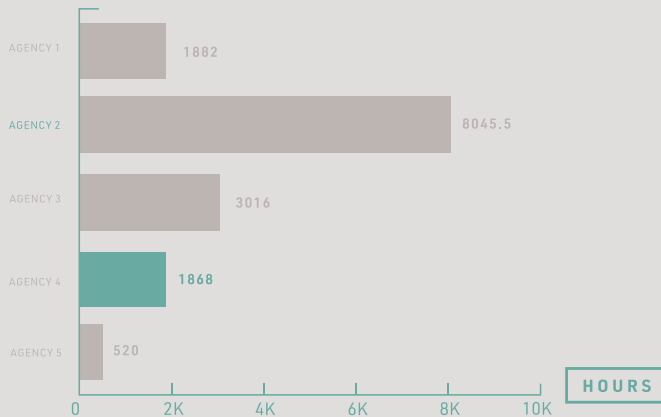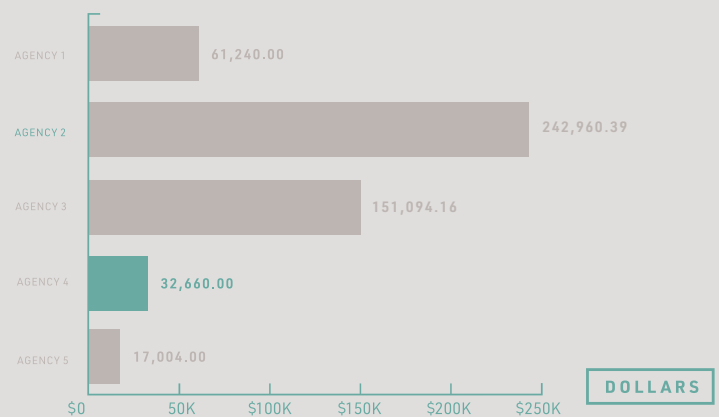
PERCENTAGE SAVED

0   20   40   60   80   100
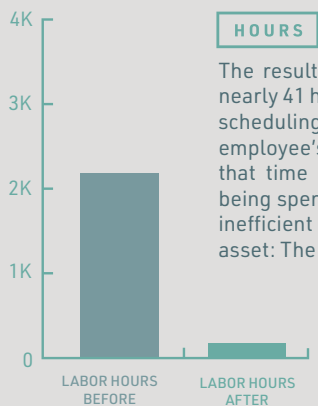
92.1%   TIME

85.4%   DOLLARS

AGENCY NO.4

OVERVIEW

911   90 USERS $ 25/HR
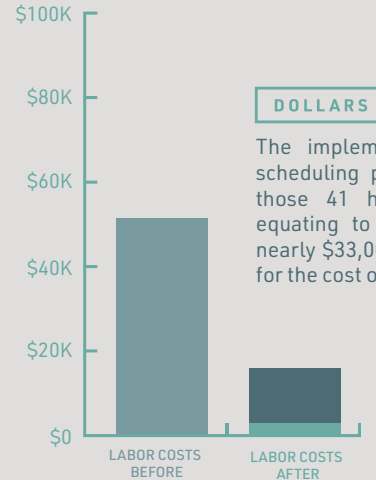
ANNUAL **HOURS** SAVED BY SCHEDULE EXPRESS

AGENCY 1 — 1882
AGENCY 2 — 8045.5
AGENCY 3 — 3016
AGENCY 4 — 1868
AGENCY 5 — 520

HOURS

0   2K   4K   6K   8K   10K

ANNUAL **DOLLARS** SAVED BY SCHEDULE EXPRESS

AGENCY 1 — 61,240.00
AGENCY 2 — 242,960.39
AGENCY 3 — 151,094.16
AGENCY 4 — 32,660.00
AGENCY 5 — 17,004.00

DOLLARS

$0   50K $100K $150K $200K $250K

Agency No. 4 is comprised of four regional communications centers located in the midwest which has a combined staff of approximately 90 employees. Because of their unique operations, it involves multiple individuals at multiple sites to manually develop a schedule which works for each center, as well as other figures of authority who would need to become involved in the event of discrepancies or challenges with documentation.

HOURS

The result of these methods equated to nearly 41 hours per week spent on routine scheduling – more than 1 full-time employee's worth of resources. Further, that time totaled to more than $53,000 being spent on scheduling, as well as the inefficient waste of their most valuable asset: The time of their supervisors.

4K
3K
2K
1K
0

LABOR HOURS BEFORE   LABOR HOURS AFTER

DOLLARS

The implementation of an automated scheduling program freed nearly 36 of those 41 hours on a weekly basis, equating to a net financial savings of nearly $33,000 annually after accounting for the cost of the software.

$100K
$80K
$60K
$40K
$20K
$0

LABOR COSTS BEFORE   LABOR COSTS AFTER

● ANNUAL LABOR HOURS/COSTS BEFORE SCHEDULE EXPRESS   ● ANNUAL LABOR HOURS/COSTS AFTER SCHEDULE EXPRESS   ● ANNUAL COST OF SCHEDULE EXPRESS

0   20   40   60   80   100

87.8%   **TIME**

61.4%   **DOLLARS**

PERCENTAGE SAVED

In addition to the recovered time and dollars, an automated software solution also provides the value of eliminating inaccuracy due to human error, providing a time stamped audit trail, as well as the ability to generate dozens of new reports with data not previously available to the agency. This empowers supervisors to make improved and informed decisions regarding the management of their personnel, and it provides the employees themselves with a new level of flexibility and freedom as the direct result of an intelligent solution that's able to take the work and the guesswork out of time off requests, trades, and more.
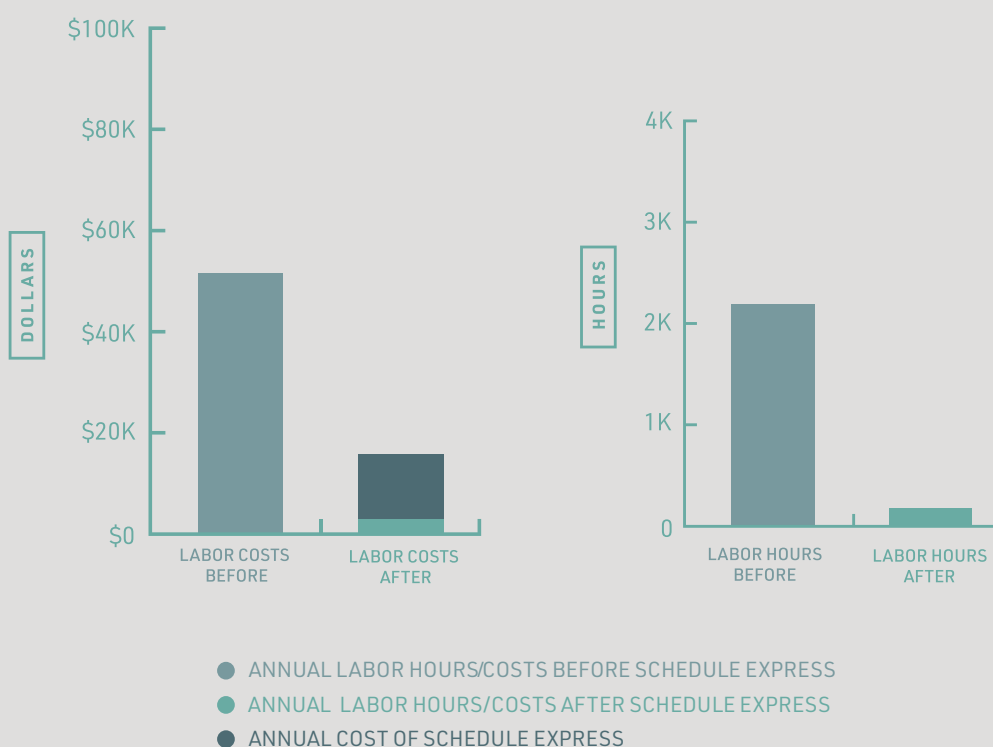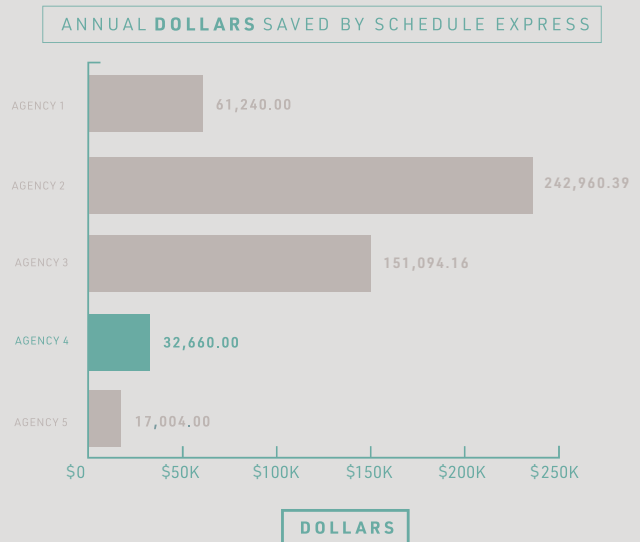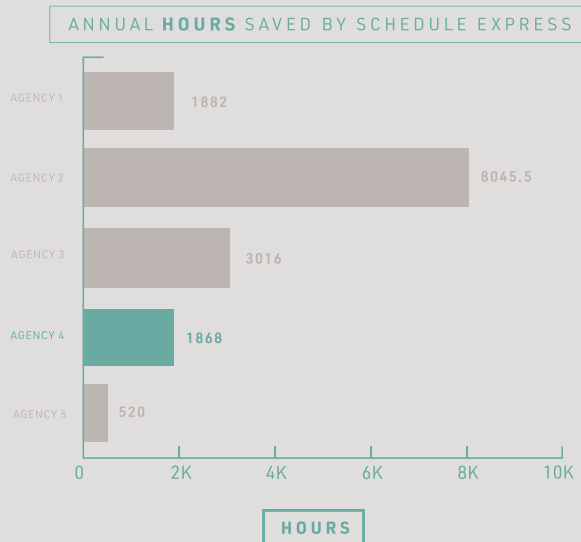
AGENCY NO.4
CASE STUDY

911 • 90 • $ 25/hr

Agency No. 4 is comprised of four regional communications centers located in the midwest which has a combined staff of approximately 90 employees. Because of their unique operations, it involves multiple individuals at multiple sites to manually develop a schedule which works for each center, as well as other figures of authority who would need to become involved in the event of discrepancies or challenges with documentation.

● ANNUAL LABOR HOURS/COSTS BEFORE SCHEDULE EXPRESS
● ANNUAL LABOR HOURS/COSTS AFTER SCHEDULE EXPRESS
● ANNUAL COST OF SCHEDULE EXPRESS

"We had a person whose job it was to overview the schedule, and that person had a backup person. She would spend at least 2 hours per day on scheduling – five days a week over 52 weeks in the year, and that's just in one center of four," the dispatch supervisor said. "On top of that, we had a person whose job it was just to do an audit once a month. Then, when the auditor and scheduler were at odds, another person would be involved to resolve."

The result of these methods equated to nearly 41 hours per week spent on routine scheduling – more than 1 full-time employee's worth of resources. Further, that time totaled to more than $53,000 being spent on scheduling, as well as the inefficient waste of their most valuable asset: The time of their supervisors.

AGENCY 1   1882

AGENCY 2   8045.5

AGENCY 3   3016

AGENCY 4   1868

AGENCY 5   520

0   2K   4K   6K   8K   10K

HOURS

AGENCY 1   61,240.00

AGENCY 2   242,960.39

AGENCY 3   151,094.16

AGENCY 4   32,660.00

AGENCY 5   17,004.00

$0 $50K $100K $150K $200K $250K

DOLLARS

The implementation of an automated scheduling program freed nearly 36 of those 41 hours on a weekly basis, equating to a net financial savings of nearly $33,000 annually after accounting for the cost of the software.

"We eliminated all of that with Schedule Express – it was a waste of time, except for the fact scheduling is so important. Especially when it comes to overtime, now we know it gets filled immediately – and filled the right way."

In addition to the recovered time and dollars, an automated software solution also provides the value of eliminating inaccuracy due to human error, providing a time stamped audit trail, as well as the ability to generate dozens of new reports with data not previously available to the agency. This empowers supervisors to make improved and informed decisions regarding the management of their personnel, and it provides the employees themselves with a new level of flexibility and freedom as the direct result of an intelligent solution that's able to take the work and the guesswork out of time off requests, trades, and more.
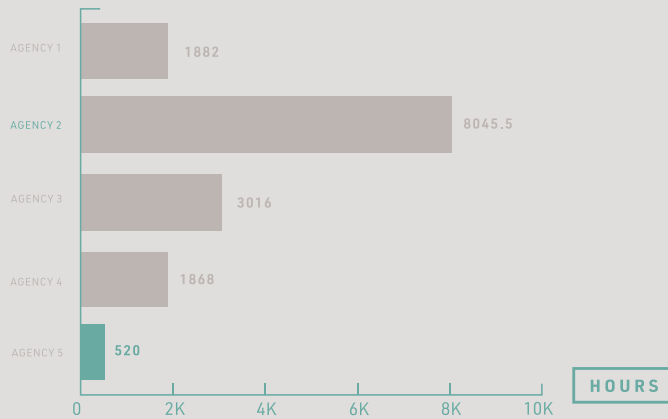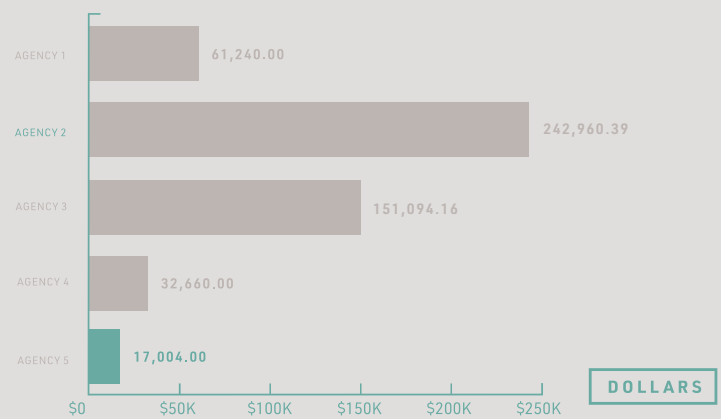
PERCENTAGE SAVED

0   20   40   60   80   100

87.8%   **TIME**

61.4%   **DOLLARS**
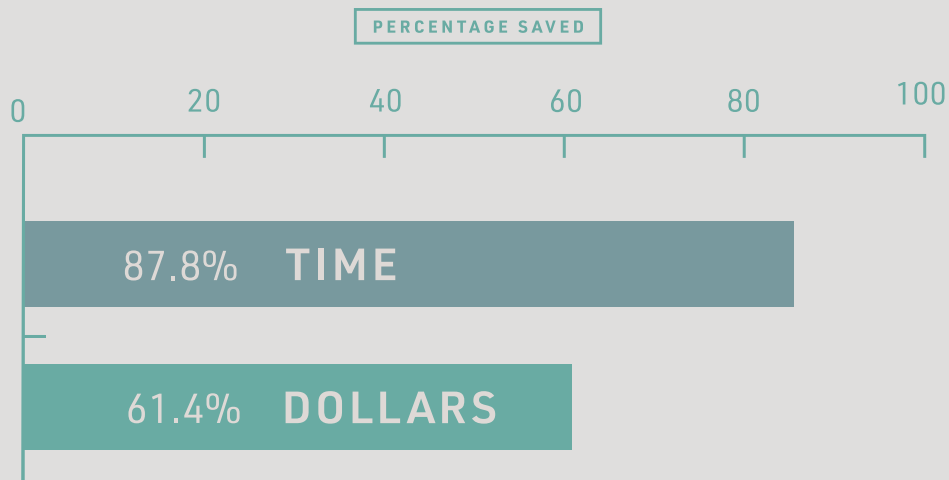
AGENCY NO.5
OVERVIEW

911   **31 USERS**   **42/HR**

ANNUAL **HOURS** SAVED BY SCHEDULE EXPRESS

- AGENCY 1 — 1882
- AGENCY 2 — 8045.5
- AGENCY 3 — 3016
- AGENCY 4 — 1868
- AGENCY 5 — 520

0   2K   4K   6K   8K   10K

HOURS

ANNUAL **DOLLARS** SAVED BY SCHEDULE EXPRESS

- AGENCY 1 — 61,240.00
- AGENCY 2 — 242,960.39
- AGENCY 3 — 151,094.16
- AGENCY 4 — 32,660.00
- AGENCY 5 — 17,004.00

$0 $50K $100K $150K $200K $250K

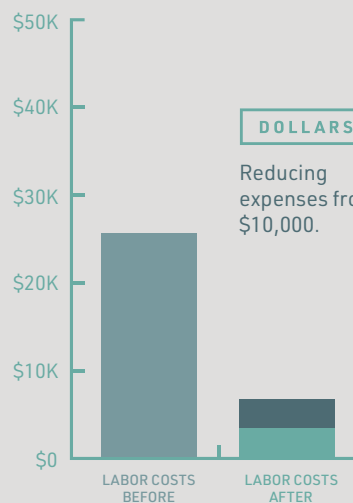**DOLLARS**

Agency No. 5 staffs around 30 employees, and due to their size represents a large number of public safety agencies across the country.

HOURS

In the case of this small agency, the return on investment after implementing Schedule Express was still significant – reducing their weekly hours spent scheduling from 12 in total to just 2 hours per week.

1.0K
0.8K
0.6K
0.4K
0.2K
0

LABOR HOURS BEFORE   LABOR HOURS AFTER

DOLLARS

Reducing their annual scheduling expenses from nearly $30,000 to less than $10,000.

$50K
$40K
$30K
$20K
$10K
$0

LABOR COSTS BEFORE   LABOR COSTS AFTER

- ● ANNUAL LABOR HOURS/COSTS BEFORE SCHEDULE EXPRESS   ● ANNUAL LABOR HOURS/COSTS AFTER SCHEDULE EXPRESS   ● ANNUAL COST OF SCHEDULE EXPRESS

0   20   40   60   80   100

PERCENTAGE SAVED

83.3% **TIME**

64.9% **DOLLARS**

Public safety scheduling – whether for communications, law enforcement, fire, or other – is never simple. The larger the agency, the more moving parts and considerations there may be, and in many cases the greater challenge it is. That said, it would not be accurate to assume for agencies of smaller numbers that the process is simple or easy, or would not benefit from the support of dedicated technology designed to minimize human intervention and maximize the effectiveness of existing staff.
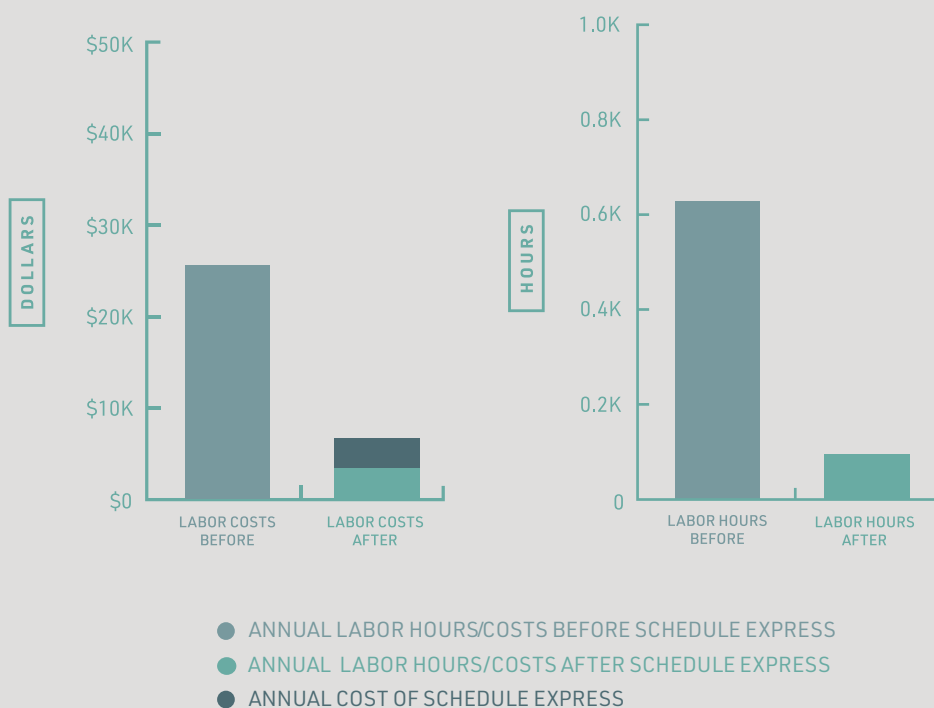
AGENCY NO.5
CASE STUDY

911 | 31 | $ 42/hr

Agency No. 5 is an emergency communications center located in a suburban community on the west coast which serves a population of roughly 150,000 residents, answers approximately 200,000 calls for service per year, and dispatches approximately 70,000 calls for both their fire and law enforcement agencies. Agency No. 5 staffs around 30 employees, and due to their size represents a large number of public safety agencies across the country.
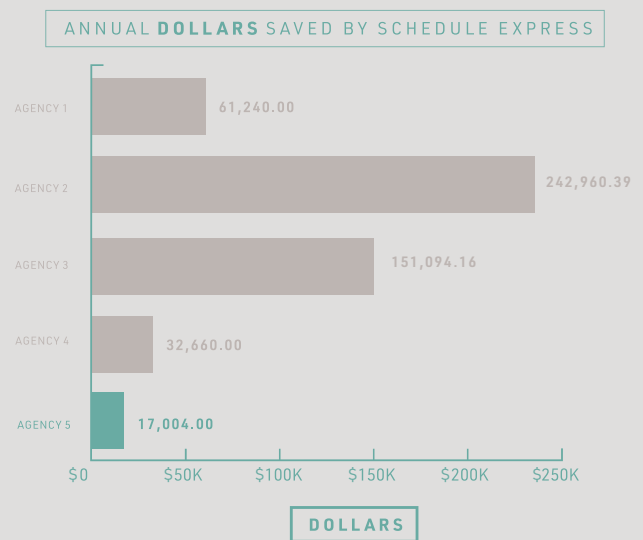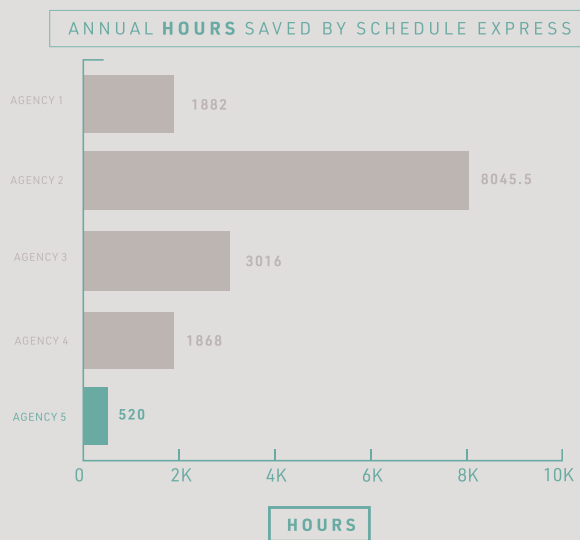
Public safety scheduling – whether for communications, law enforcement, fire, or other – is never simple. The larger the agency, the more moving parts and considerations there may be, and in many cases the greater challenge it is. That said, it would not be accurate to assume for agencies of smaller numbers that the process is simple or easy, or would not benefit from the support of dedicated technology designed to minimize human intervention and maximize the effectiveness of existing staff.

- ● ANNUAL LABOR HOURS/COSTS BEFORE SCHEDULE EXPRESS
- ● ANNUAL LABOR HOURS/COSTS AFTER SCHEDULE EXPRESS
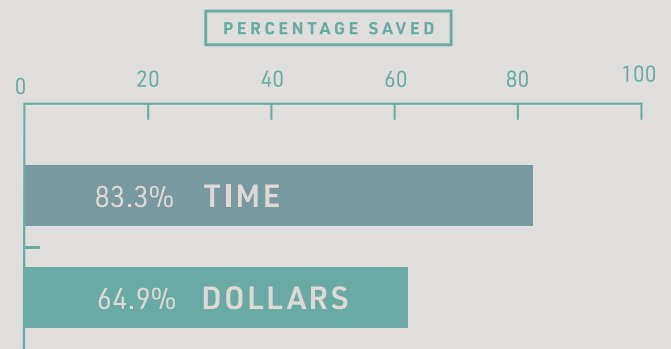- ● ANNUAL COST OF SCHEDULE EXPRESS

In every agency, regardless of size, there are unique challenges felt as the direct result of the public safety industry and its highly specialized operational requirements – 24/7/365 operations, fluctuating staffing minimums, skill sets, qualifications, policies, procedures, laws and regulations, as well as collective bargaining agreements, memorandums of understanding, and other factors which may be entirely unique to a county, city, or even the agency itself. This can then easily be compounded with understaffing, overtime requirements, and balancing fatigue.

This means two things:

- The demands placed on a technological solution will be extremely high, focused, and technical. In order for any software or program designed to ease the burden of administrative work to be effective, it will need to be able to address all of these considerations which the agency addresses daily, often hourly.

- The perceived value placed on the acquisition of such a software is then extremely low, despite the potential for positive impact. **Public safety agencies are too accustomed to compromises and disappointments, which often create more obstacles and challenges than they remove, and in doing so it creates a stagnant environment that is unable and unwilling to explore potentially transformative solutions.**

ANNUAL **HOURS** SAVED BY SCHEDULE EXPRESS

AGENCY 1	1882
AGENCY 2	8045.5
AGENCY 3	3016
AGENCY 4	1868
AGENCY 5	520

0   2K   4K   6K   8K   10K

HOURS

ANNUAL **DOLLARS** SAVED BY SCHEDULE EXPRESS

AGENCY 1	61,240.00
AGENCY 2	242,960.39
AGENCY 3	151,094.16
AGENCY 4	32,660.00
AGENCY 5	17,004.00

$0 $50K $100K $150K $200K $250K

DOLLARS

PERCENTAGE SAVED

0   20   40   60   80   100

83.3%   **TIME**

64.9%   **DOLLARS**

While this makes their reception to new technologies and solutions understandably wary, it also makes it all the more important to challenge the marketplace to deliver products and services which are both comprehensive and impactful. The cost of the failure to do so is burdened on the agency themselves, and in turn the communities they serve when the result is limited resources that are unable to be optimized.

In the case of this small agency, the return on investment after implementing Schedule Express was still significant – reducing their annual scheduling expenses from nearly $30,000 to less than $10,000 anually , and reducing their weekly hours spent scheduling from 12 in total to just 2 hours per week. In the time spent from their communications center manager alone, she said:

"Scheduling used to take me about 8 hours per week using just a pen and paper – and now it takes maybe 1, at most. When it comes to processing absences and shift assignments, it couldn't be easier now and usually takes 10 minutes a day. That's made a big difference for everyone on our team."

CALCULATING
THE POTENTIAL VALUE OF A NEW SOLUTION

While the above scenarios are very typical examples of potential savings, ultimately the final result of upgrading your solutions will be unique to your agency, so the best approach when making a decision is to assess the anticipated value for yourself through the below exercise:

Step 1. Add up the total current time spent on scheduling tasks per week.

Consider overtime management, processing absences (vacation, sick leave, etc.), and any additional tasks such as data entry, training, trades, reports, and more. Don't forget events that may happen less regularly, such as the initial building of schedules and rotations to factor into your averages.

In Agency No. 1, their average time spent before implementing Schedule Express was about 42.7 hours per week, which is how they calculated an annual total of 2,220 hours spent on scheduling.

AGENCY NO.1

42.7 hrs	X	52 weeks	=	2220.4 hrs
AVG. WEEKLY TIME SPENT SCHEDULING		WEEKS / YEAR		ANNUAL HOURS SPENT SCHEDULING BEFORE

Step 2. Then, multiply the total number of hours by the average wage of the supervisory employees executing those tasks.

In this way, you'll gain a fairly good idea of how much money is truly being spent on manual processes – even if they seem free. This is your baseline to compare solutions against when it comes to calculating the value of your potential savings.

In Agency No. 1, the average wage for those managing the schedule is about $40/hour, which, multiplied by their total annual hours, brought their total annual spending to approximately $88,800.

AGENCY NO.1

$40 / hr	X	2220.4 hrs	=	$88,800
HOURLY WAGE		ANNUAL HOURS		TOTAL ANNUAL SPENDING BEFORE

Step 3. Estimate your ROI with all solutions being evaluated.

Request case studies from vendors to get an idea of who they serve and what their results have been. Consider the size of your agency, and any other similarities to existing clients in order to find the closest match. Schedule Express delivers an average time savings of 70.2% based on annual cost of labor.

In Agency No. 1, this is the number they would use to estimate potential savings. Of their initial 2,220 hours, this means they would expect to save 1,931.4 hours. Since this is an average and every agency will vary, their actual time savings ended up being 1,882 – or 69% of their annual labor hours.

AGENCY NO.1

70.2% of 2,220.4 hrs = **1,931.4 hrs**   **VS**   69% of 2,220.4 hrs = **1,882 hrs**

EXPECTED ANNUAL SAVINGS   ACTUAL ANNUAL SAVINGS

Step 4. Find your gross savings.

This will be the cost of the annual hours saved by your new solution.

In Agency No. 1, Schedule Express took their hours spent on scheduling tasks from 2,220 to 338 hours per year which, multiplied by $40/hour, means their total spending went from $88,800 to only $13,520 for a savings of $75,280.

AGENCY NO.1

(2220 hrs - 1,882 hrs) = **338 hrs   X $40 / hr**   =   **$13,520**   ($88,800 - $13,520) = **$75,280**

ANNUAL HOURS   HOURLY WAGE   ANNUAL LABOR COSTS OF SCHEDULING AFTER   ANNUAL SAVINGS

Step 5. Consider the cost of a software solution.

The number you learned above can be taken to decision-makers, which they can then weigh against the cost of implementing a scheduling software in order to demonstrate the total cost savings and reduction to budget. *In Agency No. 1, the cost was $14,040 per year for Schedule Express.*

AGENCY NO.1

$14,040

ANNUAL COST OF SOFTWARE

Step 6. Find your total savings.

This will include the cost of the solution, giving you the final number of what your agency is saving annually, and will continue to save each year you use your new scheduling process.

In Agency No. 1, their annual savings of $75,280 subtracted by the $14,040 cost of the software means they now know making the switch saves them $61,280 every year.

AGENCY NO.1

$75,280	-	$14,040	=	$61,240
ANNUAL COST SAVINGS		ANNUAL COST OF SOFTWARE		TOTAL ANNUAL SAVINGS

Step 7. Account for the impact of your reclaimed hours, too.

More than just the dollars saved, reclaiming those hours means they will become available again for agency use, which can result in effectively gaining additional headcount. For example, recovering 40 hours per week previously spent on manual scheduling tasks is the equivalent of hiring 1 new full-time employee.

In Agency No. 1, their 1,882 hours per year means 36.2 hours per week gained back for the organization, which is nearly 1 additional full-time employee without needing to hire.

AGENCY NO.1

1,882 hrs	÷	52 weeks	=	36.2 hrs
ANNUAL TIME SAVINGS		WEEKS / YEAR		WEEKLY LABOR SAVINGS

Each individual component of scheduling automation is just one piece of the puzzle, so it's important to look at your operations as a whole when making a decision. In almost every case, the more comprehensive you are when evaluating your current time and processes, the more return on investment you will find that your agency will benefit from an automated scheduling software. For many agencies, there are budgetary concerns regarding the cost of purchasing and implementing a new solution. It's an important consideration, but through the above exercise you can gain a fairly comprehensive estimate on what your agency stands to gain when approaching decision-makers.

CALCULATE YOUR SAVINGS

Using the previous example as a reference, you can use this form to make some personalized calculations finding potential value in new scheduling software.

ADD UP THE TOTAL CURRENT TIME SPENT ON SCHEDULING TASKS PER WEEK

$$\underline{\hspace{5cm}} \quad \mathbf{X} \quad \underline{\hspace{2cm}} \quad \mathbf{=} \quad \underline{\hspace{5cm}}$$

AVG. WEEKLY TIME SPENT SCHEDULING   WEEKS / YEAR   ANNUAL HOURS SPENT SCHEDULING BEFORE

MULTIPLY THE TOTAL NUMBER OF HOURS BY THE AVERAGE WAGE OF THE SUPERVISORY EMPLOYEES

$$\underline{\hspace{3cm}} \quad \mathbf{X} \quad \underline{\hspace{3cm}} \quad \mathbf{=} \quad \underline{\hspace{5cm}}$$

HOURLY WAGE   ANNUAL HOURS   TOTAL ANNUAL SPENDING BEFORE

ESTIMATE YOUR ROI WITH ALL SOLUTIONS BEING EVALUATED

$$\underline{\hspace{5cm}}$$

EXPECTED ANNUAL SAVINGS

FIND YOUR GROSS SAVINGS

$$\underline{\hspace{3cm}} \quad \mathbf{X} \quad \underline{\hspace{3cm}} \quad \mathbf{=} \quad \underline{\hspace{6cm}} \quad \underline{\hspace{3cm}}$$

ANNUAL HOURS   HOURLY WAGE   ANNUAL LABOR COSTS OF SCHEDULING AFTER   ANNUAL SAVINGS

CONSIDER THE COST OF SOLUTION

$$\underline{\hspace{5cm}}$$

ANNUAL COST OF SOLUTION

FIND YOUR TOTAL SAVINGS

$$\underline{\hspace{4cm}} \quad \mathbf{-} \quad \underline{\hspace{4cm}} \quad \mathbf{=} \quad \underline{\hspace{4cm}}$$

ANNUAL COST SAVINGS   ANNUAL COST OF SOLUTION   TOTAL ANNUAL SAVINGS

ACCOUNT FOR THE IMPACT OF YOUR RECLAIMED HOURS

$$\underline{\hspace{4cm}} \quad \mathbf{\div} \quad \underline{\hspace{3cm}} \quad \mathbf{=} \quad \underline{\hspace{4cm}}$$

ANNUAL TIME SAVINGS   WEEKS / YEAR   WEEKLY LABOR SAVINGS