

## Case Study: Labor Analytics Reporting for an Apple Growing Operation

### Client Background:

Our client, an apple growing operation managing dozens of contracted orchards across Washington State, faced significant challenges in managing labor costs. With hundreds of employees working in multiple orchards, labor was the largest and most complex cost to manage. Inefficiencies and inaccuracies in labor management and pay were reducing the margin earned on each piece of fruit.

### Challenges:

1. **Inefficient Labor Reporting:** Comprehensive labor reporting was limited to weekly updates due to the time-consuming manual data extraction and spreadsheet reporting process.
2. **Limited Data Access and Analysis:**
  - Existing labor tracking platform did not support deeper analysis of cost performance drivers across farms/blocks.
  - Piece rate adjustments were made several days after the fact, leading to delayed decision-making.
3. **Payroll Mistakes:** The sheer volume of data to analyze resulted in uncorrected payroll mistakes, costing the company money each week. **Downtime:** Line changeover times were highly variable, leading to material downtime. Operator skill and training were identified as contributing factors to slow changeovers.

### Root Causes:

1. **Manual Data Extraction:** The labor tracking platform required manual extraction of data, leading to excessive time spent on data preparation.
2. **Lack of Analytical Tools:** The raw data available did not support comprehensive analysis or timely decision-making. Previous analyses focused on simple process bottlenecks and provided generalized recommendations. However, these did not factor in labor, shift management, machine effectiveness, which were crucial to addressing the productivity issues.

### Solutions:

1. **Custom Data Pipeline:** Developed a custom pipeline into a data warehouse that updates labor data every hour, daily.
2. **Web-Based Reporting Suite:** Created a web-based reporting suite supporting cost-driver analysis at various levels, including farm, fruit, variety, tree-block, team (crew), and employee. Enabled management to answer critical questions such as "Which teams run more efficiently and why?", "Which piece rates are optimal?", and "Where did payroll logging errors occur on a given date?"

### Results:

1. **Improved Reporting Efficiency:**
  - Automated hourly updates reduced the time spent on manual data extraction and reporting.
  - Enabled comprehensive and timely labor reporting.
2. **Enhanced Decision-Making:**
  - Provided deeper insights into cost performance drivers, allowing for more informed decision-making regarding labor management and piece rate adjustments.
  - Reduced the delay in making piece rate adjustments, leading to more responsive and effective labor management.
3. **Increased Payroll Accuracy:** Identified & corrected payroll logging errors, reducing costs associated with payroll mistakes.

### Client Testimonial:

*"Labs8's expertise in data management has revolutionized our labor reporting processes. The custom data pipeline and web-based reporting suite have provided us with the insights and efficiency we needed to manage our labor costs effectively. We can now make timely decisions*