CATCH intelligence
lead by u *knowing*

TURNING WORKFORCE DEVELOPMENT DATA INTO POWERFUL VISUAL AND SELF-SERVICE INFORMATION

OVERVIEW

A State Department of Labor was awarded several grants for technology-based activities that support and expand the depth of data from programs, such as Workforce Investment Act programs, Wagner-Peyser, Trade Adjustment Assistance, and Unemployment Insurance. The first grant was awarded through the Unemployment Insurance program and allowed for the development of a business intelligence platform to improve the integrity of the UI program for the prevention, detection, and recovery of improper UI benefit payments. The second grant was awarded to Labor Market Information (LMI) and provided for the expansion of the data warehouse to support the development of a longitudinal administrative database that will integrate workforce data and create linkages to enhance data available to educators, students, job seekers and potential employers.

BENEFITS

- **Business Value:** BI projects can deliver extraordinary value by providing the necessary information to make strategic decisions and provide a holistic view of the business.
- **User Productivity:** By providing consolidated business reporting and improving data quality, companies can empower employees with the information they need. Users no longer need to chase down data, reconcile different versions of the truth to obtain required answers.
- **IT Effectiveness:** IT departments often spend more time maintaining the systems than developing new solutions for the business. With a robust self-service BI solution in place IT can spend valuable time on strategic initiatives versus the never ending daily data request.
- **Total Cost of Ownership:** It is important to consider all upfront and ongoing costs associated with a BI implementation, including consulting, software and licensing, hardware, training, maintenance, upgrades and support. These costs can affect timelines, budget and the success of the project.

> **COST SAVINGS:** *Examples based on enhanced fraud detection analysis using the data warehouse to focus on overpayment efforts. It is estimated that an additional 1.5% newly discovered earnings overpayments would be discovered, which would account for an additional $65,000 per calendar year. Focusing rebilling on overpayments less than 2 years old could increase reimbursements by a minimum of 1.0%, which could increase recoveries by approximately $39,000 per year. With an implementation date of 1/1/2012, the anticipated **return on investment would be $104,000 per calendar year** for newly discovered overpayments and reimbursements. An additional $44,000 in overpayments could be prevented per calendar year. Over the four year period from 1/1/2012 through 12/31/2016, that represents a **return on investment of $416,000** and prevented improper payments of $176,000 for a total **return on investment of $592,000**. This is also a benefit to the UI Trust Fund and WDQI.*
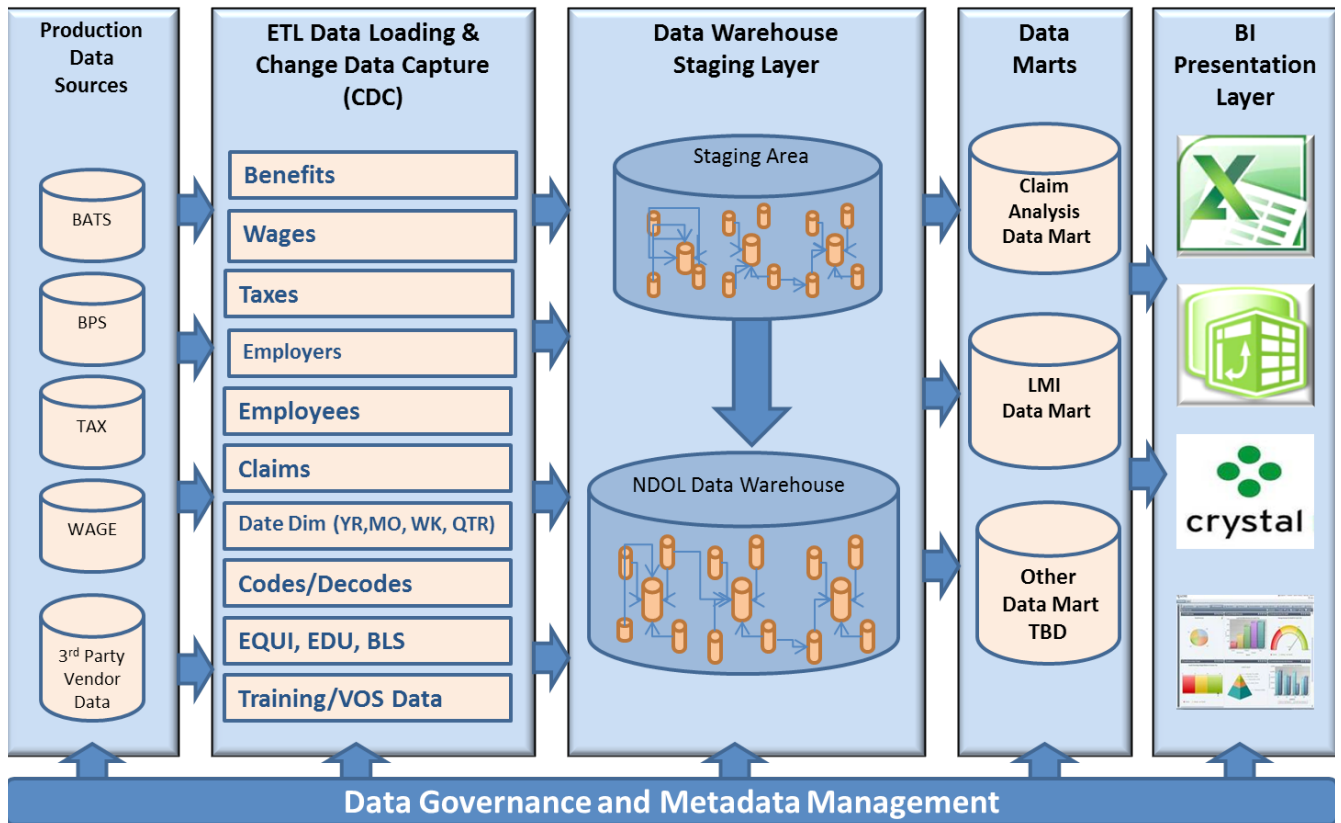
The key benefits of a BI project are:

- Ability to analyze claimants with multiple overpayments related to non-reported or under reported earnings on more than one claim and focus detection/education activities towards these claimants
- Determine overpayments with balances and no payment made in the last 18 months to restart billing activity and focus on skip tracing activities
- Identify specific employers that have a numbers of employees with overpayments and focus education activities towards those
- Analyze known system problem allowing improper payment, analyze UI data to find all instances
- Analyze staff production to better direct resources
- Utilize State's multiple detection and cause codes to analyze overpayment trends and where to focus detection and prevention activity

CONCLUSION

The State Department of Labor had a requirement to build a data warehouse eco-system enabling the business to do ad-hoc reporting, data analysis and dashboard reporting - ensuring that all security principals remain intact and sensitive data remains confidential. CATCH Intelligence was able to create a Data Warehouse using the key principals of data warehouse design; proving access to unemployment data, claim auditing, tax collections and wage data. The foundation that was created will allow the Labor Marketing Group to partner with the Education Department to create a State Longitudinal Data System.

Data Architecture

Production Data Sources	ETL Data Loading & Change Data Capture (CDC)	Data Warehouse Staging Layer	Data Marts	BI Presentation Layer

Production Data Sources: BATS, BPS, TAX, WAGE, 3rd Party Vendor Data

ETL Data Loading & Change Data Capture (CDC): Benefits, Wages, Taxes, Employers, Employees, Claims, Date Dim (YR,MO, WK, QTR), Codes/Decodes, EQUI, EDU, BLS, Training/VOS Data

Data Warehouse Staging Layer: Staging Area, NDOL Data Warehouse

Data Marts: Claim Analysis Data Mart, LMI Data Mart, Other Data Mart TBD

Data Governance and Metadata Management

CATCH Intelligence is focused on turning workforce development data into powerful information, empowering state agencies to make decisions and take action! We offer a proven approach to accelerate your success! Our tools interface with vendor solutions developed for State Workforce Agencies and other data sets to deliver dashboards, visualizations, self-service, ad hoc, analysis, and predictive reporting. At CATCH Intelligence we understand that Business Intelligence is more than just a tool, it's about people, process, practice, technology, data architecture and data governance, all factors needed for true BI success!

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