



**AUDIT ANALYTICS
IN EDUCATION**

Harnessing the power of analytics to drive better results from analytics is an on-going challenge for audit, compliance and fraud investigation groups. Since 2003 Arbutus continues to serve and listen to our users in the education community. Arbutus is known for its simplicity and power in providing the best interface between your data and the answers you're looking for. Here are some examples of how analytics are being used in education.

COMPLIANCE - RESEARCH

- Identify expenditures made outside grant effective dates
- Identify unaccountable charges (administrative costs) based on grant rules
- Identify invalid cost transfers
- Identify high-risk transactions (e.g., foreign travel, high dollar equipment, subcontracts, etc.)
- Monitor grant deficits
- Identify unauthorized use of animals or human subjects

REGISTRATION

- Calculate the number of days past tuition due date for course withdrawals with non-payment
- Identify admitted studies with grades or test scores that do not meet entrance requirements
- Identify excessive course loads
- Identify frequent grade changes
- Identify local students with out-of-state or foreign permanent addresses
- Identify unusual grade changes (e.g., D to A, large percentage increase)

VENDOR MANAGEMENT

- Calculate hours for all reported activities for evaluation of conflict of commitment
- Match employee records to vendor records to identify employees who are also paid as independent contractors
- Compare employee addresses and phone numbers with vendor files
- Analyze independent contractor payments for reasonableness of amount, frequency of services, invoice sequence (indicating evidence of sole employer)
- Extract multiple vendors with the same address
- Extract vendors with drop box addresses
- Identify vendors with no phone number or address
- Match vendor names/addresses/tax IDs to payroll records for employees
- Review for compliance with bid limits, payments within five percent of limits

CONFLICT OF INTEREST

- Compare disclosed outside activities to research sponsors
- Identify patents/copyrights files by employees
- Compare outside activity location with travel location

OUTSIDE ACTIVITIES

- Compare outside interest/entity to vendor files, and identify payments to related vendors from employee's department
- Compare reported outside interest with corporate ownership/officer information
- Compare travel locations/activities to outside activity locations and dates of activities
- Identify patents/copyrights held by faculty
- Match outside activity entities with sponsors (grants) and donors

PURCHASING AND ACCOUNTS PAYABLE

- Identify duplicate invoices numbers
- Identify duplicate payments (e.g. same amounts, common dates, etc.)
- Identify high amount invoices with no encumbrances (indicating no advanced approvals)
- Identify unreleased encumbrances to clear excess funds
- Review for compliance with tax regulations
- Review sequential invoice numbers for evidence of invoice splitting or sole customer

ACADEMICS

- Calculate average class size by professor
- Calculate average grade by class or professor
- Identify excessive grade changes by professors, departments, or students
- Identify excessive permits by class
- Identify students with very few professors (indicating work for credit/grades)
- Identify underutilized classes, space, etc.

ACCOUNTS RECEIVABLE

- Age accounts receivable
- Identify collected receivables previously written off
- Identify uncollectable accounts

SALARIES & PAYROLL

- Compare active employee social security numbers to the federal government's list of deactivated social security numbers
- Compare dual academic appointments for excessive hours, recompute overtime
- Compare salary rates for compliance with approved rates for the course
- Extract duplicate names and social security numbers
- Extract employees with more than two address changes in the last year
- Extract employees with no benefit payments
- Extract multiple paychecks to same bank account
- Identify employee addresses that are drop boxes or postal boxes
- Identify excessive overtime in a department or by an employee
- Identify permanent employees with no pay increases or no more than two pay increases in the last year
- List employees with increases greater than 15 percent
- List employees with no vacation or no more than two consecutive day vacation in the last two years
- Search for skips in manual check sequence
- Stratify hourly employees to review for excessive pay rates
- Stratify manual checks to review for individuals with more than two manual checks

TRAVEL

- Extract travel over holiday periods for potential personal travel
- Identify duplicate reimbursement (indicating double-dipping from two funding sources)
- Identify excessive expenditures
- Identify frequent travelers
- Identify high-risk travel (e.g. foreign grant travel, travel greater than \$5,000)

INFORMATION TECHNOLOGY

- Compare authentication/authorization files to employee files to identify terminated employees
- Identify inactive accounts
- Identify large numbers of invalid access 'errors' or log on attempts by users
- Review access granted to temporary employees and students
- Review access levels to job class by identifying high level access with low job class

TUITION BILLING

- Compare check amounts per ledger to electronic bank files
- Compare refund check addresses to employee addresses or drop boxes
- Compare refund payments to refund policy
- Extract refunds for tuition outside refund dates
- Identify missing refund check numbers
- Identify multiple refunds to payee (by check or by electronic transfer to bank account)
- Recalculate billings
- Review students with more than three address changes in the current year, or more than two in the current term
- Review tuition waivers for agreement with registered hours, undergraduate vs. graduate classification, and out-of-state or foreign residency (when applicable)
- Stratify refund checks to look for frequent name, irregular amounts, etc.

FINANCIAL AID

- Calculate number of days from course load decrease/ withdrawal to financial aid repayment
- Extract course withdrawals below full-time course load, without related reduction in aid
- Identify aid in excess of needs assessment
- Identify overpayments
- Monitor progress of requirements for aid (e.g. grades, completed course load, required major, etc.)
- Monitor temporary loan agreements for repayment



ARBUTUS ANALYTICS

Arbutus delivers the very best in purpose-built audit analytics technology to meet the exacting demands of today's business environment.

Auditors, business analysts, and fraud investigators rely on Arbutus to enhance their testing, analysis and compliance capabilities.

SALES ENQUIRIES

enquiry@Alpha-Vantage.com

