

ACHIEVING ENTERPRISE DATA QUALITY:

Best Practices in Oracle's PeopleSoft Campus Solutions



Enterprise Data Quality

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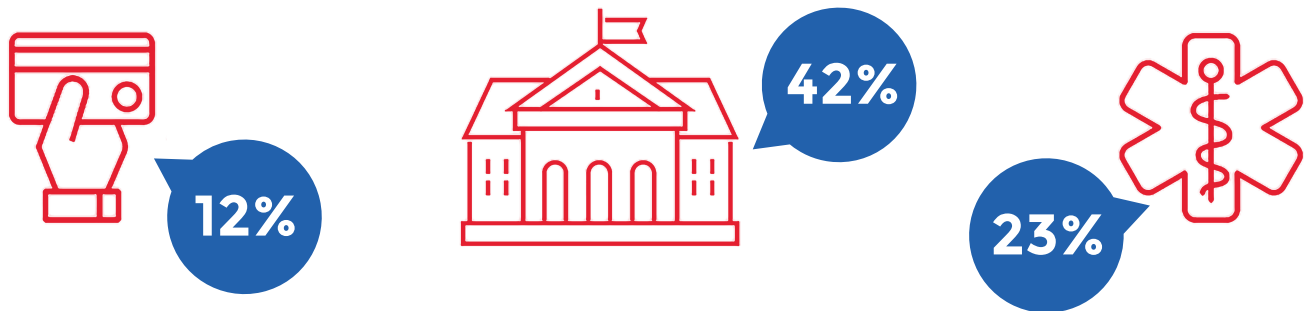
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Poor contact data quality affects the planning and execution phases of all business initiatives and could potentially be one of the causes for an institution never realizing their enrollment or retention potential. Poor data quality also affects operational efficiency, risk mitigation, and agility by compromising the decisions made in each of these areas. Institutions have several ways that contact data is entering their PeopleSoft Student Information System (SIS) that involve real time data entry, student updates, and importing lists. The validity of an institution’s contact data directly affects compliance, governance, and being cost effective. Institutions allow contact data to migrate through PeopleSoft pages, self-service, and eventually into the address tables - which is later leveraged by various departments in their respective business processes. The validity of all of the student, alumni, employee, and vendor contact data assimilated will drastically influence costs both directly and indirectly at an institution.

But what if that contact information is filled with invalid street numbers, misspelled addresses, incorrect names, or other bad contact data?

Oracle’s PeopleSoft Campus Solutions is currently delivered without any solutions or applications to mitigate data entry errors and inaccurate, or invalid information from being stored in an institution’s database. There is a huge difference between just any contact data and Enterprise Data Quality.

WHO CAN BEST USE MY DATA?



“When students are asked to pick an industry best able to use their personal information to improve their experience, a college or university ranks #1 ahead of a doctor’s office and a financial company, such as a credit card or bank.”

- Ellucian

A recent survey from a global management benchmark report¹ found the following:

- The most common data errors for higher education institutions include incomplete or missing data and outdated information;
- E-mail is the top communication channel for higher education institutions;
- 95 percent of higher education institutions have a data quality strategy, primarily to increase efficiency, improve customer satisfaction and to enable more informed decisions;
- Over the next five years, social media, mobile applications and the Web site are expected to increase in usage;
- 70 percent of higher education institutions have experienced e-mail deliverability challenges in the last 12 months;
- 96 percent of higher education institutions are driven to turn data into insight; and
- 90 percent of higher education institutions have data management projects planned in the next 12 months, the most popular being data integration and data cleansing.

¹Loudhouse, Experian Data Quality 2016 Global Data Management Benchmark Report

The global data management benchmark report is based on a November 2015 poll of more than 1,400 people from eight countries and a wide variety of industries, including information technology, telecommunication, manufacturing, retail, business services, financial services, public sector, utilities and education.

In a recent publication² from Ellucian related to college students and their personal data, it was found that almost all (98%) respondents said they want their school to use their personal information to focus on the core mission of the institution: improve academic, financial, and career processes. This further emphasizes the requirements of accurate contact data to engage students.

²College students and their data: What they expect of institutions, Ellucian Company L.P.

A focused approach towards data governance and data management can have far-reaching benefits. A proactive approach towards controlling, monitoring and driving data quality is the key, rather than reacting to data failures or making bad decisions based on inaccurate data.

The recommended approach would include the following steps:

1. Capturing and verifying contact data at the point of entry.
2. Correcting and validating existing contact data.
3. Updating and enhancing contact data

Verify Contact Information

Verifying an institution’s contact data is the most important, cost-effective step to optimizing contact data quality. Real-time data verification not only prevents bad data from entering your database, it can also standardize spelling, punctuation, abbreviations and avoid the costs associated with inaccurate data. Whether it’s verifying a record in real time or verifying large lists via batch processing there are several ways to achieve data quality in PeopleSoft.

The most robust data verification solutions are integrated:

Address Verification

Verifying, correcting, and standardizing addresses ensures financial aid forms, brochures, applications, transcripts, and diplomas reach their destinations. Not only does this save time and money otherwise wasted on undeliverable mail (postage and production costs), but it also helps improve response rates for direct marketing campaigns. Some verification solutions can also identify the address type as a residence or business.

Email Verification

Verifying email addresses and domain names helps you maintain contact with your prospects and students– with a valid email you can communicate effectively with your students. The email verification solution should also be able to correct common typos, for instance changing “!” to “@” or “.cm” to “com”, helping improve your valid, active emails.

Name Validation

Validating name spelling will help you improve contact accuracy by ensuring a contact’s name is entered properly. Name validation quickly returns correctly spelled and formatted, clean contact data that will help you reduce duplicate mailings, undeliverable mail, and other problems that drive up an institution’s costs.

THE IMPLEMENTATION OF A DATA QUALITY INITIATIVE CAN LEAD TO



10% to 20% Reduction in **CORPORATE BUDGET**



40% TO 50% Reduction in **IT BUDGET**



40% Reducion in **OPERATING COSTS**



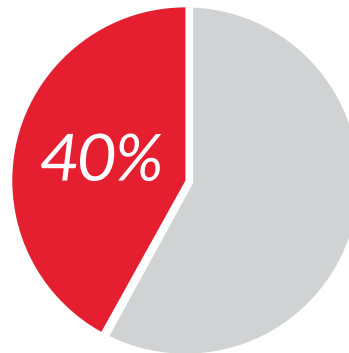
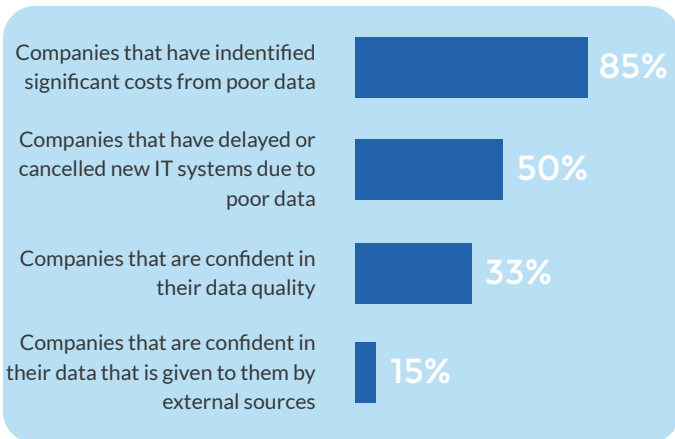
15% TO 20% increase in **REVENUE**

The Costs of Poor Data Quality

BY THE NUMBERS

Data is an elusive goal for most companies because it is treated as a one-time event. No matter how well they do, the data begins to decay immediately. Quality data is important to value from enterprises applications since up to half the trouble tickets logged by help desks are traced to master data errors.

From "The Many Different Path of Data Quality" by Bill Swanton of Gartner



of benefits targeted in the annual capital budget are never realized because of poor data. -Gartner



up to 20%

of overall labor productivity is effected by poor data quality - Gartner

Add Missing Data

Using a methodical approach in dealing with your data will assist in identifying duplicate records and establish parent-child relationships inside your database. Regardless of the solution you intend on using the data should be handled in a specific manner in order to realize the level of data quality you intend on achieving. The steps associated with a data quality initiative should include the following:

- Export the data
- Format and standardize the data
- De-Duplicate the data
- Verify the data
- Enhance and update the data
- Import the data

Filling in the blanks or adding missing information to your data will yield more insight into your students, alumni, employees and vendors– giving you the ability to make more strategic business decisions, enhance your communications, improve deliverability, and cut operational costs.

ENHANCE YOUR CONTACT DATA WITH THESE TYPES OF VALUABLE INFORMATION:

Social Media Append

This enrichment leads you to the social platforms affiliated with specific email addresses so you can see where your students or alumni are spending their time and connect with them. Add social handles from 20 different social networks including Facebook, Twitter, and more. When you know your students preferred social platforms, you can create the right message to send and plan it for exactly the right time. Build meaningful student relationships, increase brand awareness, and boost your recruiting and retention numbers

Census

Household and community information.

Demographic

Income, marital status, number of children. Adding demographics will shed greater insight to identify certain population sets for enrollment or alumni strategies

Phone Verification

Verifying telephone numbers will help you improve profitability by focusing telemarketing efforts on active numbers. A phone verification solution should also be able to instantly provide line type identification to help in creating new channels to your prospects. Line type identification can tell whether the number is mobile, landline or VOIP, and whether the number is residential, business or home office.

Geographic

Latitude and longitude coordinates, as well as county name are some of the mapping data sets provided in Geographic data. Mapping data helps you better target your advertising and/or offers via ZIP codes while enabling you to analyze the effectiveness of campaigns. When used in conjunction with contingencies, or strategies GeoData is a very powerful way to visualize the location of population sets. Mapping data is also a valuable tool for enrollment managers and foundations to identify where your applicants, prospective, current, and former students are located in relation to the institution or events.

Delivery Indicator

Identifying the address as a residential or commercial address. This simple but effective solution assists in fraud prevention, allowing the institution to identify whether or not a student applicant is using a residential address.

Change of Address Processing

15% of the US population moves each year which includes individuals, families, and businesses. Over 70% of returned mail is due to move related issues. Having the ability to update your records with the latest delivery address is an invaluable tool for avoiding unnecessary costs. – USPS Statistics



THE CLEAN_STUDENT INTEGRATED APPROACH FOR ORACLE'S PEOPLESOFT CAMPUS SOLUTIONS

Based on the costs incurred through bad data quality, it makes sense to have data quality solutions working within a system (CRM or SIS) that you have invested a great deal of money in. It would be assumed that the solution chosen would meet the requirements mentioned throughout this document in order to provide an institution the best way to maintain the highest data quality standards possible. The ultimate goal for any data quality solution would be to verify, validate, and correct any contact data being entered into your institution's PeopleSoft system. The data quality solution should also be robust enough to process a table or range of contact data that are existing in the institution's database.

There are many benefits of having a pre-built integrated solution including:

- No training involved for functional users
- No software development necessary for the technical staff
- Available reporting tools
- Customizable business rules to set standardization and formatting
- Reduce costs and increase efficiency

The CLEAN_Student integrated solution provides interactive address verification, email validation, and name parsing functionality as a seamless integration for PeopleSoft systems. The integration should be performed using Oracle's native environment to ensure compliance with the PeopleSoft application and recommended integration approach.

The real-time approach should encompass all entry points:

- PeopleSoft Pages
- Self-Service
- Batch processing for existing records or imported lists

By taking a shared integrated implementation approach, this ensures that the user experience is consistent throughout the PeopleSoft application.

So how does CLEAN_Student an integrated data quality solution work? During the PeopleSoft contact data entry process, as the user enters the name, postal address, or email address it should be automatically submitted for verification and validation. The seamless approach should provide the user with a typical data-entry experience in PeopleSoft.

Name

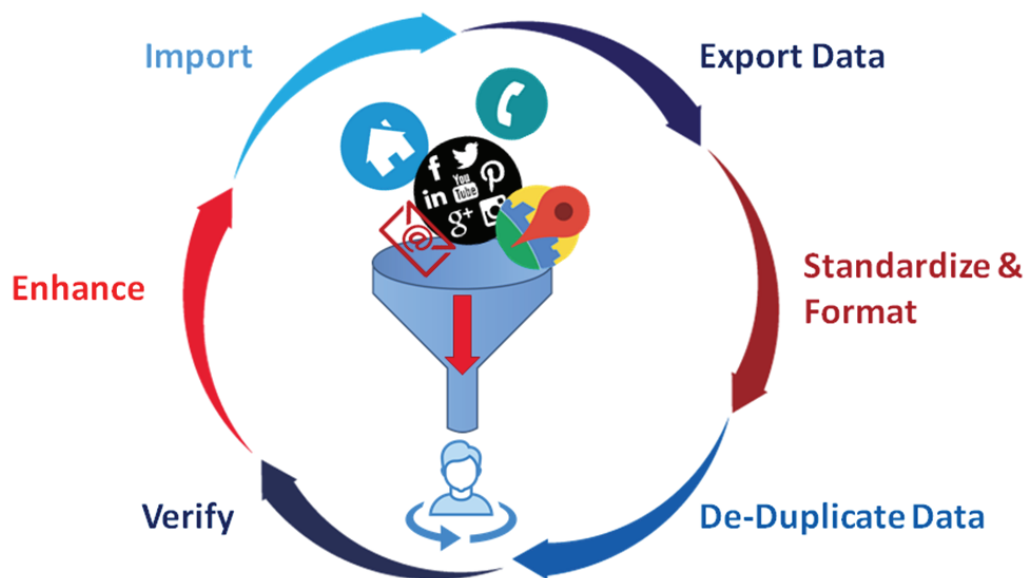
When entering a name, the ideal integrated application would have a database of known and common name spellings to validate against. In the case where a misspelled name is entered the solution would correct or prompt the user to the error.

Address

During the address entry process, if an incomplete or incorrect address is entered, the address should be corrected, and standardized by the address verification and standardization solution. In the instances where the solution is unable to correct the address as entered, a friendly list of suggestions should be provided to the end user to assist in correcting the entry, or selecting the valid address from the provided suggestions.

Email

An email address entered would automatically be validated via a DNS look up to make sure it's deliverable. If there were any data entry errors the application would alert the user to any syntax errors or issues regarding the email address.



List and Batch Processing

Using an integrated approach in PeopleSoft, CLEAN_Student corrects, validates, and formats existing contact data in all of the PeopleSoft address tables. This approach allows institutions to have standardized and formatted data across the enterprise.

Any contact data that an institution has can be formatted, verified, and enhanced to include various data sets for any contact profile to produce a complete contact record. The contact profile can be enhanced to include missing information such as a contact's social media handles, email address, phone number, demographic information, geographical location, or updated to provide their current postal address. These enhancements collectively or individually can help an institution dramatically in its efforts to communicate with its contacts. In the best case scenario it will empower an institution to employ business strategies and benefit from the information derived from leveraging the data assimilated from the contact.

Having better contact data will enable the institution to better engage its students which will assist in better enrollment and retention

Given the current economic challenges and budgetary pressures facing most institutions, there is a substantial desire to eradicate quality issues in data as a way to reduce costs and improve efficiency. Through the use of data enhancement services institutions can leverage contact data for business strategies. Using these services collectively or alone empowers your marketing, human resources, sales, and IT department to become more cost effective. Reducing costs and increasing efficiency is one of the goals in undertaking a data quality initiative.

Every single contact has a lifecycle associated with it and there are certain data sets pertaining to the various stages. By using best practices in combination with an integrated data quality solution enterprise data quality can be achieved.

Sources:

Gartner, "Measuring the Business Value of Data Quality"

Melissa Data, "Lead Validation: Prospect efficiently with clean data"

THE \$1-\$10-\$100 RULE

A common business concept is the 1-10-100 rule. This rule-of-thumb model illustrates the hard costs to an organization chasing mistakes and that failure to take notice and correct mistakes escalate in cost the later they are realized.

The 1-10-100 rule basically states the longer it takes to detect a mistake in the work process, the more expensive and devastating it can be in terms of the time and cost to repair the error which was made. This is a very simple rule that illustrates the impacts of what a lack of data integrity can do to your institution. There are very inexpensive and efficient solutions to combat the issues that involve data quality at an enterprise level in PeopleSoft such as CLEAN_Student.

It costs: \$1 to verify the accuracy of data at the point of entry, \$10 to correct or clean up data in batch form, and \$100 (or more) per record if nothing is done – including the costs associated with low customer retention, and inefficiencies (source: totalqualitymanagement.wordpress.com).

BENEFITS

Ensure everyday address quality and accuracy

Increase the speed and precision of database entry

Increase contact integrity with enhanced information

Reduce waste on print, postage, and returned mail.

For more information visit:

RunnerEDQ.com or give us a call at 561-395-9322