# Title: Lead Enrichment Experiments

## **tl;dr**

* ***Clearbit***
  + ... has greater fill-rate (enriches more leads) and provides more information, compared to Clearbit and Crunchbase.
  + ... may be [more expensive](https://confluence.freshworks.com/display/freshsales/Clearbit+API). $36k/yr for 50k requests per month. Custom/Negotiable price for more than 50k.
  + Selectively enriching leads of some customers may be a better option.
* ***Crunchbase***   
  + ... provides funding, acquisitions and other info but has a low fill-rate
  + Presence of a Crunchbase page in itself could be a feature.
  + [Baseline package](https://confluence.freshworks.com/display/freshsales/Crunchbase+API) (internal use only) is $12,000 USD for 12-months, and gives access for 5 developers and up to 25 viewers.
  + Could use the enriched data only for scoring without exposing it to customers directly.
* Enrichment of generic email IDs remains a challenge. [LinkedIn Handle-Lookup](https://developer.linkedin.com/docs/guide/v2/people/handle-lookup) could be used

## About

* [Fields enriched/compared](https://confluence.freshworks.com/pages/viewpage.action?spaceKey=freshsales&title=Benchmark+Schema)
* **Test Set**
  + Internal - FreshDesk
    - 60k **Deals won** last year
  + External - 12 Customers (PDS beta)
    - 17k Leads - Dec & Jan
    - 32k Leads - Jul to Oct
* Generic email IDs were ignored

## Detailed Analysis

* **Desk : Coverage** - Fill Rates of different fields by Crunchbase, Clearbit and Full Contact
* **Desk : Gen vs Biz Email Coverage** - Enrichment of Generic and Business Email IDs by  Clearbit and Full Contact
* **Ext Jul-Oct Leads : Scores** - Enrichment stats for Freshsales customers' leads from July to October
* **Ext Dec-Jan Leads : Scores** - Enrichment stats for Freshsales customers' leads in December and January
* **Field Weights** - Weights used to measure importance of fields

## External Accounts : Enrichment Stats

### Fill Rate averaged over all fields

* Fill rate = Probability of filling a field
  + I.e. (Number of non-null fields across all leads) / (number of leads X number of fields)
* The fields of interest include both "company" and "person" fields.  Please find the list of fields here <https://confluence.freshworks.com/pages/viewpage.action?spaceKey=freshsales&title=Benchmark+Schema>

**Company Fields Coverage**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | Won | Crunchbase | Clearbit | Full Contact |
| B2B | No | 4% | 29.1% | 5.8% |
| Yes | 5.2% | 30.5% | 5.8% |
| B2C | No | 1.8% | 25% | 5.5% |
| Yes | 1.6% | 8.7% | 1.8% |

**Overall (Company+Person Fields) Coverage**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | Won | Crunchbase | Clearbit | Full Contact |
| B2B | No | 4% | 24% | 5.7% |
| Yes | 5.2% | 25% | 5.9% |
| B2C | No | 1.8% | 18% | 5.1% |
| Yes | 1.6% | 17.5% | 15.5% |

### Takeaways

* For Chargebee,
  + Crunchbase enriched 6% of leads lost and 12% of leads won, while also enriching twice as many fields on average.
  + Clearbit enriched 20% of leads lost and 40% of leads won, while also enriching 50% more fields on average.
  + Full Contact enriched 4% of leads and 10% of leads won, while also enriching twice as many fields on average.
* Above results are an average of all companies in a category and do not consider the no. of leads in each company.
* Most B2C companies leads have large no. of generic email IDs (AMA University : >90%) and thereby a low coverage rate.

### Average Fields Filled

* Crunchbase only provides company info
* Clearbit provides company info and person (email ID) info
* FullContact provide person and minimal company info
* No. of fields filled for generic email IDs = 0. Average is mean of fields filled for all leads.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | Won | Crunchbase | Clearbit | Full Contact |
| B2B | No | 2.6 | 11 | 1.76 |
| Yes | 2.1 | 11 | 1.71 |
| B2C | No | 1.8 | 6 | 2.18 |
| Yes | 2.8 | 5 | 1.49 |

**Avg Fields filled (only considering leads with at least one *filled* field)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Category | Won | Crunchbase | Clearbit | Full Contact |
| B2B | No | 10.03 | 13.76 | 4.93 |
| Yes | 8.63 | 11.64 | 3.81 |
| B2C | No | 7.01 | 9.62 | 4.30 |
| Yes | 4.93 | 7.7 | 3.48 |

### **Importance of data enriched**

* Importance values for each field were manually entered
* The details are [here](https://docs.google.com/spreadsheets/d/1s4Cv2BfF3you2gvru5mTEZvvVzvuBnw-dsApkyMpj68/edit?usp=sharing) in the sheet "Field Weights"

|  |  |
| --- | --- |
| API | Importance of fields enriched |
| Crunchbase | 50.93% |
| Clearbit | 64.95% |
| Full Contact | 34.11% |

## Internal accounts (Freshdesk) : Field-wise fill %

Below stats are for ~60K WON deals in 2018.  For the Freshdesk product.

### Detailed stats at field level

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| About | Attribute | Category | Clearbit - Fill % | Crunchbase - Fill % | Full Contact - Fill % |
| Company | Bio | Basic Info | 82 | 18 | 74 |
| Categories | 59 | 22 | 8 |
| Name | 74 | 23 | 75 |
| Picture/Logo | 65 | 22 | 77 |
| Tags/Keywords | 68 | 22 | 0 |
| Public/Private | 82 | 0 | 0 |
| Location | Location | 82 | 19 | 0 |
| ARR | Metrics | 38 | 0 | 0 |
| No. of Employees | 42 | 23 | 0 |
| Funding Stage | 0 | 23 | 0 |
| Funding Amount (Net) | 6 | 23 | 0 |
| Rank (Alexa/CB rank) | 67 | 23 | 73 |
| Age (Since founded) | 23 | 19 | 0 |
| Valuation | 0 | 1 | 0 |
| FB Handle | Social | 43 | 18 | 47 |
| FB Page Likes | 41 | 0 | 0 |
| LinkedIn Handle | 53 | 17 | 0 |
| Twitter Followers | 55 | 0 | 29 |
| Twitter Handle | 55 | 19 | 52 |
| Twitter Location | 55 | 0 | 0 |
| Tech Stack & APIs | Tech | 82 | 0 | 0 |
| Person | Bio | Basic Info | 6 | 0 | 0 |
| Name | 62 | 0 | 0 |
| Display Picture | 19 | 0 | 0 |
| Seniority at Company | Employment Info | 62 | 0 | 0 |
| Role at Company | 39 | 0 | 0 |
| Location | Location | 62 | 0 | 0 |
| FB Handle | Social | 3 | 0 | 9 |
| LinkedIn Handle | 34 | 0 | 26 |
| Twitter Followers | 6 | 0 | 11 |
| Twitter Handle | 6 | 0 | 12 |
| Twitter Location | 6 | 0 | 0 |
| Source | Email/Domain | Basic Info | 100 | 100 | 100 |

* Find more detailed results [here](https://docs.google.com/spreadsheets/d/1s4Cv2BfF3you2gvru5mTEZvvVzvuBnw-dsApkyMpj68/edit?usp=sharing)