

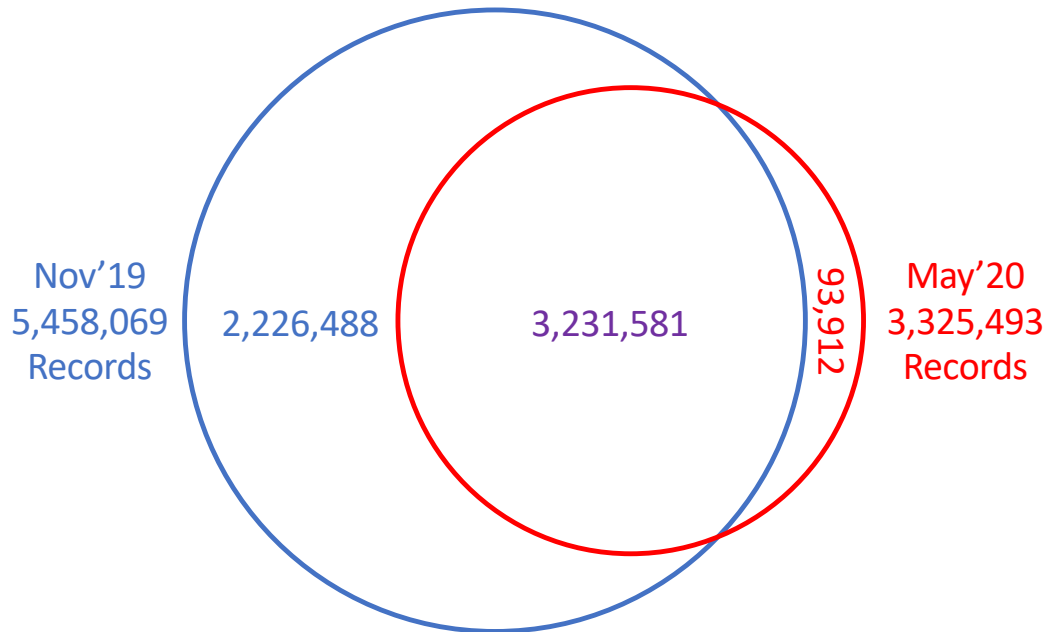
Overview

- Bulk download of entire PermlD open dataset
 - 11-24-2019 and 05-03-2020
- Weekly updates
 - 05-10-2020 & 05-17-2020
- Data comparison
 - Between the 2 bulk downloads
 - 05-03-2020 vs. 05-10-2020
 - 05-10-2020 vs. 05-17-2020

Nov'19-May'20 Comparison

- Bulk download comparison

- 41% of records (PermIDs) in Nov'19 were deprecated in May'20
- Decrease of 39% in number of records (PermIDs) between Nov'19 and Nov'20
- 3% of May'20 are new records (PermIDs), not seen in Nov'19
- All fields experience changes, ~1.2M changes in the 3,231,581 records that are common in Nov'19 and May'20
 - Driven mostly by changes to LEI

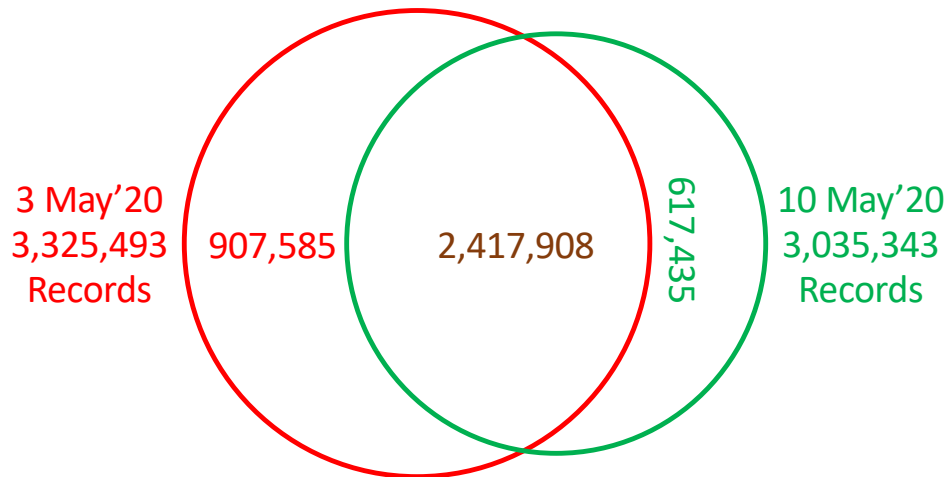


Changes for Records in Both Nov'19 & May'20	
status	6,003
domiciled	1,154
organization_name	8,067
headquarters_address	45,521
headquarters_phone	6,649
incorporated	3,081
url	10,936
headquarters_fax	3,196
registered_address	56,251
registered_phone	7,091
primary_business_sector	15,868
primary_economic_sector	15,362
primary_industry_group	16,162
latest_organization_founded_date	14,277
inactive_date	5,437
organization_primary_quote	2,322
primary_instrument	357
registered_fax	6,070
lei	897,901
ipo_date	28,368
holding_classification	24,594
Total	1,174,667

3 May'20 – 10 May'20

- Weekly update comparison

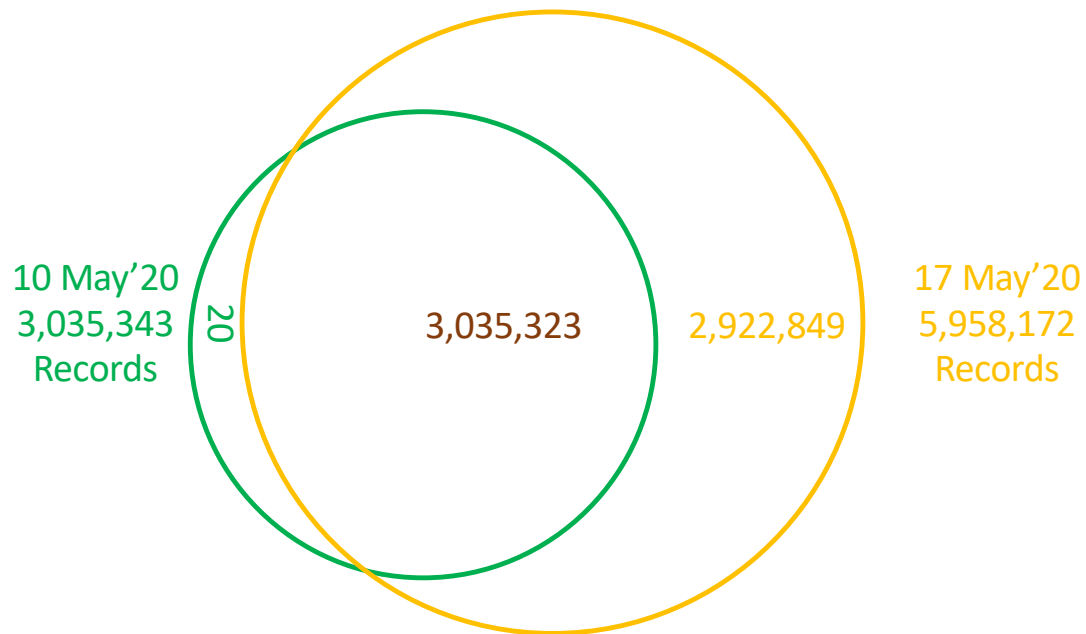
- 28% of records (PermIDs) on 3 May were deprecated on 10 May
- Decrease of 9% in number of records (PermIDs) between 3 May and 10 May
- 20% of 10 May are new records (PermIDs), not seen on 3 May
 - A small number of “new” records are ones that had disappeared between 24 Nov and 3 May
 - Some “new” records are same-name-different-PermID – Change in PermID seems to be related to duplicate PermIDs in older data
- All fields experience changes, ~1.3M changes in the 2,417,908 records that are common in 3 May and 10 May
 - Driven mostly by changes in headquarters_address, registered_address, and LEI



Changes for Records in Both 5 May & 12 May	
status	294
domiciled	273
organization_name	559
headquarters_address	501,335
headquarters_phone	3,994
incorporated	1,732
url	1,536
headquarters_fax	2,185
registered_address	334,508
registered_phone	2,633
primary_business_sector	12,428
primary_economic_sector	12,355
primary_industry_group	12,449
latest_organization_founded_date	2,171
inactive_date	668
organization_primary_quote	1,405
primary_instrument	35
registered_fax	1,975
lei	334,508
ipo_date	27,285
holding_classification	23,552
Total	1,277,880

10 May'20 – 17 May'20

- Weekly update comparison
 - 0% of records (PermidIDs) on 10 May were deprecated on 17 May
 - Increase of 96% in number of records (PermidIDs) between 10 May and 17 May



Summary

- Very volatile updates
 - Large changes in the number of records
 - Only 2,324,718 organizations in all 4 files
 - Large number of changes in fields
 - Driven by large number of changes in a few fields (e.g. lei)
- Recommend consultation with PermID technical staff to understand this volatility

A	B	Total A	Total B	In A and B	In A, not B	In B, not A
11/24/2019	5/3/2020	5,458,069	3,325,493	3,231,581	2,226,488	93,912
5/3/2020	5/10/2020	3,325,493	3,035,343	2,417,908	907,585	617,435
5/10/2020	5/17/2020	3,035,343	5,958,172	3,035,323	20	2,922,849
11/24/2019	5/10/2020	5,458,069	3,035,343	2,854,178	2,603,891	181,165
11/24/2019	5/17/2020	5,458,069	5,958,172	5,457,677	392	500,495
5/3/2020	5/17/2020	3,325,493	5,958,172	3,325,456	37	2,632,716

Closest in number of records in A and B

Difference of more than 2M records