Dynamic coding used to be a thing, particularly in the context of VBA and excel based reporting.

SAS can offer more robust results in a less error-prone and likely faster and more auditable way.

Once you transpose your delinquency data applying the proper Prefix (DQ90_Year_), By variable (account_number in this case), id (for year of delinquency) and var (times delinquent); you can go through a large amount of data and align them properly irrespective of their month on book and vintage, since the purpose of this particular exercise is to calculate and see the total number of mishap/offense/event (you call it) subject to further analysis.

Consider a portfolio of active or non-performing loans with different maturities and vintages. You want to identify those with a high number (you define what's high for your taste) of 90-day delinquency regardless of when they were originally booked. Once you have this cluster, you can turn your data into bins or further look and see if there are patterns of commonalities in terms of credit, performance, vintage attributes. And of course, whether there are significant newcomers lately or spikes during the Covid-19 Pandemic, etc.?

It doesn't matter if an account has only 3 months of performance or 357 months, all totals will be listed under one column. The array function will ignore the missing values varying between different vintages but will correctly sum any existing number representing the count of event in a specific year and provide you with the total for that particular account, either in form of a life to date total or within the boundaries you selected.

```
1       options obs=max nocenter nodate nonumber compress=yes;

2       data folder.transposed2 (keep= _all_);

3

4                       set folder.transposed1;

5

6       array DQ90_XCY(*)

7       DQ90_Year_2000

8       DQ90_Year_2001

9       DQ90_Year_2002

10      DQ90_Year_2003

11      etc....

12      DQ90_Year_2019

13      DQ90_Year_2020; /*these were explicitly entered in purpose*/

14
```

```
15                              do i= 1 To dim(DQ90_XCY);
16                              Total_DQ90_XCY =sum(of DQ90_XCY[*]);
17
18      end;
19      drop i;
20      run;
```

Account_Number	DQ90_Year_2000	DQ90_Year_2001	Etc….	DQ90_Year_2020	Total_DQ90_XCY

All errors are mine