

Marriage-Parentage Comparison

Problem Statement

“I want a list of people in my database whose parents aren’t linked with a marriage tag entry. I want to use that list as a search list to find marriages for these people; or, if no direct evidence of a marriage can be found, to examine the evidence and enter a marriage with a *say* date and possible location, if enough indirect and circumstantial evidence can be found to do so. This list would also contain illegitimate births, many of which might deserve closer study. I also want to identify all those children who were born before their parents married, if possible.”

This is not as easy as filtering the database for people with zero marriages and at least one child. Problem considerations include:

- The final report requires: (1) a list of people that includes their date of birth and their parents, and (2) a list of marriages showing both spouses and the date of marriage.
- The TMG List of People can include parents and birth date, but it won’t include anything about the marriage of those parents. The List of People report does not include all spouses, either, only the last viewed spouse.
- The TMG List of Events report includes birth events with dates, but does not include parents. It does allow a list of all marriages, though.
- How would I uncover a couple who was unmarried at the time their child was born, but later married in time for the births of subsequent children?

To solve this problem, it will be necessary to compare the results of two reports: a list that shows parent pairs and a list that shows marriage pairs. If dates of birth and marriage are included in the respective reports, comparing those dates may identify parents married after the birth of a child. The best – and possibly only – way to do this is to create, combine, and analyze two spreadsheet reports.

Creating a Point of Comparison

Each person in TMG has a unique ID number. Combining the individual ID numbers of a parental or marital couple would create unique “Parent ID” and “Marriage ID” numbers, and those two numbers could be compared. Identifying matching numbers would verify the marriage of two parents. The ID numbers must be combined in a way that creates a unique couple number. For example, Chester Ward’s ID number is 4644. His wife, Cora M. Rollins’s, ID number is 1685. These two numbers can be *concatenated* to create a unique couple ID number, e.g., 4644 1685 or 4644.1685. (Note that there must be a separator between the two numbers, and that separator cannot be a mathematical operator, such as “/”.) The formula that creates the first example is: =CONCATENATE(B193," ",E193). It instructs the program to, “Enter the value in cell B193; add a space; enter the value in cell E193.” A child in the list of people report whose parents were not married will be one whose Parent ID number does not appear among the Marriage ID numbers in the list of marriages report.

Creating the List of Parents

Report Filter

Save Filter As: parent_known

For example: People born in Virginia

Filter | Query by Example

(	* Field	Subfield	Operator	Value	)	Connect
(	Father*		Is Known			OR
	Mother*		Is Known		)	AND
	Birth...	Date	Is not emp			AND
	Birth...	Date	> Comes	01 JAN 1775		AND
	Birth...	Date	< Comes	01 JAN 1900		END

This report is designed to compare a child's parents with any marriages of those parents. Therefore, people for whom no parent is known are irrelevant. The first two lines of this filter identify people with at least one known primary parent. The last three lines of this filter limit the scope of the report to those born between 1 January 1775 and 1 January 1900, a limitation unnecessary in the report design.

The output columns must include the names of the child, parents, and the ID numbers. The date of birth is to be compared to the parents' date of marriage, so dates must be output in a form Excel can manipulate. The easiest format to work with is the three-column YYYY MM DD format. Sort order is irrelevant, but the example shows the output sorted alphabetically by the child's name.

Report Options

General Page Options Fonts **Output Columns** Secondary Output Places Miscellaneous

Sort Order	Column Type	Heading	Width
1	Name Group* tag; Last, Given Names	Name	50
2	ID Number	ID Number	10
3	Father's Name Group* tag; Last, Given Names	Father	50
4	Father ID*	Father ID	10
5	Mother's Name Group* tag; Last, Given Names	Mother	50
6	Mother ID*	Mother ID	10
7	Birth Group* tag; Year	Year	4
8	Birth Group* tag; Month	Month	3
9	Birth Group* tag; Day	Day	3
Total			190

.Creating the List of Marriages

Report Filter

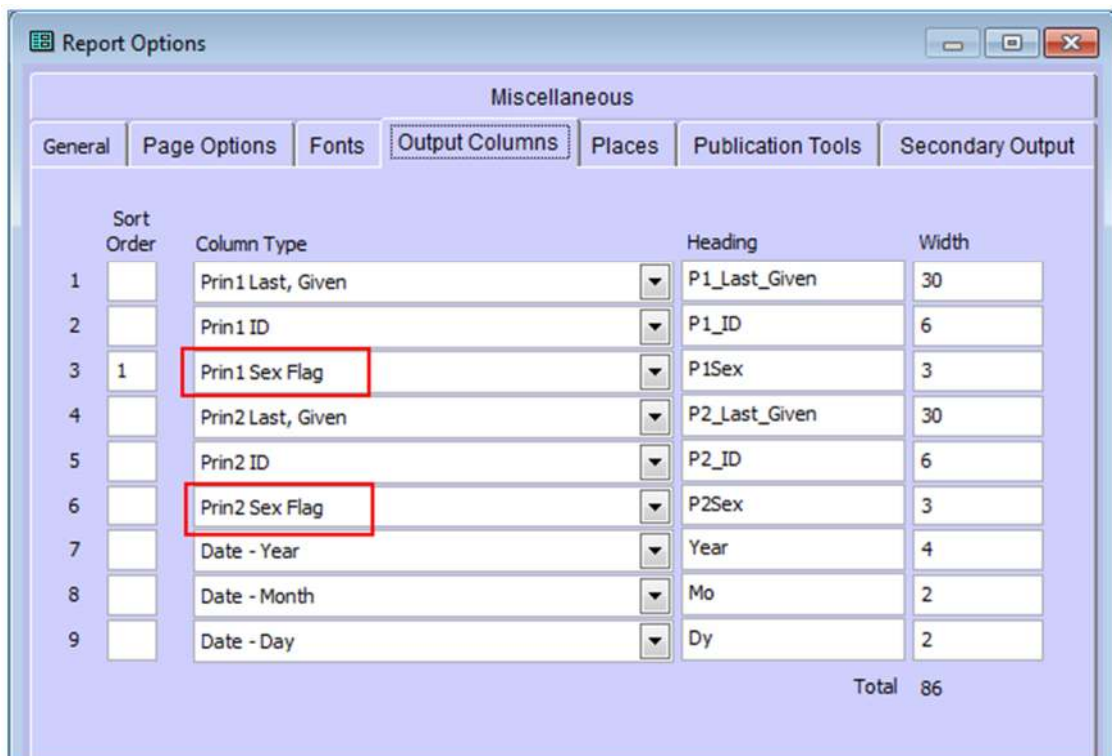
Save Filter As marriage tag exists

For Example: Events happened in 1845

Filter

(	* Field	Subfield	Operator	Value	)	Connect
	Tag Type Group is		Marriage			AND
	Principal1...	Primary Marker is	On			AND
	Principal2...	Primary Marker is	On			END

Because there may be several marriage group events for one couple, e.g., marriage license or marriage banns, as well as the marriage itself, this filter will test all of them, eliminating all but a couple's primary marriage event. This filter can be modified to limit the output by date range, focus group, or other limiter.



This report output requires the names of the husband and wife and their ID numbers. A secondary objective of this report is to identify, if possible, children born before their parents married, so the date of marriage must be included. As in the first report, the TMG date is split into its parts, so the combined columns can be sorted, compared, added and subtracted in Excel. In this report type, the year, month, and day elements in are output as *text*. The text output must be [converted](#) to number format.

The list of people births report is output with the father's column preceding the mother's column, and the Parent ID number appears as "MaleID FemaleID". The Marriage ID number must also appear in "MaleID FemaleID" format. If in your data entry protocol you always enter the groom as Principal 1 and the bride as Principal 2, you can omit the two sex flag columns. I am not consistent in this, so I need to go through the extra step of identifying the gender of Prin1 and Prin2, and then making sure males are placed in the Prin1 column and females in the Prin2 column.

Comparing the Two Reports

Procedure: For convenience, copy the two worksheets to one workbook, naming each sheet. The comparison equations assume the names "list_of_births" and "list_of_marriages".

1. Create the Parent and Marriage ID numbers. Column J ("list_of_births") calculates the Parent ID number, and Column H ("list_of_marriages") calculates the Marriage ID number. The respective formulas are:
 - =CONCATENATE(D2," ",F2)
 - =CONCATENATE(B2," ",D2)

2. The MATCH formula can be used to scan the ParentID# column and compare it to the MarriageID# column, looking for a match. The result is entered in the PMarried? column (Columnn K).

- =IF(ISERROR(MATCH(J2, list_of_marriages!H:H,FALSE)),"No marriage","")

For every value in Column J (ParentID#), this formula searches Column H (MarriageID#) in the “list_of_marriages” worksheet. If there is no match, the text “No marriage” is entered. If there is a match, the cell is left blank. (There is a corresponding formula in the “list_of_marriages” worksheet that searches for a match between its Marriage ID number (Column H) and the Parent ID number (Column J) in the “list_of_births” worksheet. If a match is found, the text “Has children” is entered. This is just a perk, not necessary for the original problem.)

Identifying Children Born before Their Parents Married

To identify children born before their parents married, it’s necessary to compare the birth and marriage dates. Although Excel can sort the TMG three-column date output, it cannot compare the two dates in this form. It is easy to use an Excel formula to create a “sort date”. These forms sort correctly and can be compared to see which is larger (came after) and which is smaller (came before). This “sort date” form cannot be used to calculate age, however. If you want to include age calculations in a final report, convert the three date columns to a “[total days](#)” column.

1. Create birth and marriage sort dates. Column L (“list_of_births”) calculates the birth sort date and Column J (“list_of_marriages”) calculates the marriage sort date. The respective formulas are:

- =SUM((G2*10000),(H2*100),I2)
- =SUM((E2*10000),(F2*100),G2)

2. Each parent couple’s marriage sort date must be identified and brought into the “list_of_births” worksheet. The formula that does this (VLOOKUP) is another Excel formula genealogists will find useful. It is this formula that is used most often when creating a composite Excel report.

- =IFERROR(VLOOKUP(J2,list_of_marriages!H:J,3,FALSE),0)

For every value in Column J (the ParentID#), Excel examines the data in Columns H (MarriageID#) through J in the “list_of_marriages” worksheet. If there is a match, Excel writes the corresponding Column J (SortDate) value in the cell. If there is no match, Excel enters 0 in that cell. (Note: the IFERROR part of this equation can be omitted, but the default entry for the no match error is #N/A, which is rather ugly.)

3. The final column “PRE” (Column N) simply compares the two sort date values. If the birth sort date (Column L) comes before the marriage sort date (Column M), the formula tells Excel to enter “PRE”. If the marriage sort date precedes the birth sort date, the cell is left blank.

- =IF(L2<M2,"PRE","")

Report Utility

The original problem: I want a list of people in my database whose parents don’t have a marriage tag entry. (1) I want to use that list as a search list to find marriages for these people; or, if no direct evidence of a marriage can be found, to examine the evidence and enter a marriage with a say date and possible location, if enough indirect and circumstantial evidence can be found to do so. (2) It would also be interesting to see those illegitimate births in my database. (3) In addition, is there any way to uncover a couple who was unmarried at

the time one child was born, but later married in time for the births of subsequent children? The final report presented in the “list_of_births” worksheet can accomplish all this.

It is helpful to sort the list of births in a manner that allows quick comparisons of families. Because the mother is known in most illegitimate births, sort first on the MotherID. This groups all a mother’s children together. Within that grouping, sort by FatherID. Finally, sort by the date of birth, i.e., Year-Month-Day. Essentially, this lists the births in this worksheet as family groups.

1. Do you want to see a list of all the children in the database for whom there is no marriage record for his or her parents? Filter Column L (Pmarried?) for the value “No marriage”.
 - The first group in the list will be those children with MotherID=0, i.e., the mother is unknown. If you don’t wish to worry about these, filter Column F (MotherID) to *exclude* the 0 value. Now, this list includes only those children whose mother is known, but for whose parents no marriage tag exists.
 - Suppose you want to get rid of the group of children with FatherID=0, i.e., those whose father is unknown. Filter Column D (FatherID) to *exclude* the 0 value. Now, the list includes only those children with known parents, but for whose parents no marriage tag exists. This group is the one most likely to include those couples who were actually married, but for whom no direct evidence of that marriage has been found. This makes a good starting point for an evidence review project.
2. Searching for probable illegitimate births is not foolproof. First, filter Column K (Pmarried?) for the value “No marriage”.
 - In most illegitimate births, the mother is known, but the father is not. Filter Column F (MotherID) to exclude the 0 value. Now, filter Column D (FatherID) to include only the 0 value. Now, you have a list of all children whose parent(s) were unmarried, whose mother is known, and whose father is unknown.
 - Some birth records or other legal documents identify the father in an illegitimate birth. The final filter in section (1), the list of children with known parents, but for whose parents no marriage tag exists, will eventually uncover those.
 - There are records that identify a father in an illegitimate birth, but do not identify the child or its mother. To identify those records in the database, filter Column D (FatherID) to exclude the 0 value, and filter Column F (MotherID) to include only the 0 value. Now, you have a list of all children whose parent(s) were unmarried, whose father is known, and whose mother is unknown. Most of these will be children whose parents were probably married, but whose mother has not been identified. I do have one known record, though, identifying the father in an illegitimate birth, but not identifying the child or its mother.
3. Finally, I want a list of those children who were born *before* their parents subsequently married each other.
 - Clear any filters from the worksheets. Column N (PRE) is set to show these children. If a marriage exists between a child’s parents, this column tests whether or not that child’s date of birth precedes the parents’ date of marriage. Filter this column to *include only* the PRE value. This list may include any of these children.
 - Stepchildren and adopted children whose biological parent was not marked as primary.
 - Couples with conflicting marriage dates for whom the current primary marriage date comes after the birth of one or more children.
 - Children whose date of birth had been estimated before evidence for their parents’ marriage was found – a group that needs re-evaluating.
 - Those couples for whom the evidence of marriage gives a qualified date of marriage, e.g., “before 13 October 1810,” that postdates known birthdates for the children.

- Couples with children whose birthdates are unknown. Filter Column L (SortDate) to *exclude* the 0 value to eliminate these, if desired.
- Finally, those children who really were born before their parents married. ☺

Addenda

The Equations – “list_of_births”

- Column J (ParentID#) =CONCATENATE(D2," ",F2)
- Column K (PMarried?) =IF(ISERROR(MATCH(K2, list_of_marriages!I:I,FALSE))), "No marriage", "")
- Column L (SortDate) =SUM((G2*10000),(H2*100),I2)
- Column M (MDateForm) =IFERROR(VLOOKUP(K2,list_of_marriages!I:K,3,FALSE),0)
- Column N (PRE) =IF(M2<N2,"PRE", "")

The Equations – “list_of_marriages”

- Column H (MarriageID#) =CONCATENATE(B2," ",D2)
- Column I (Children?) =IF(ISERROR(MATCH(I2, list_of_births!K:K,FALSE))), "", "Has children")
- Column J (SortDate) =SUM((E2*10000),(F2*100),G2)

Additional Notes

‡ To convert numbers stored as text to numbers recognized as such by Excel, select all the “text numbers” (indicated by little triangles in the corner), beginning with the top left (the one with the error alert next to it) and ending with the bottom right. Then, select “Convert to number” in the drop-down error menu.

§ If you only need to sort dates in your report, outputting TMG dates in three-column YYYY MM DD format is all you need. If you need to compare two dates, creating a “sort date” in YYYYMMDD will do the job. If you want to include age calculations from pre-1900 dates in your report, you will need to do some creative finagling.

- Excel’s function, DATEDIF, calculates age from two dates *if* those dates are post-1899 dates. This function *does* work in GoogleSheets for all dates. (Google the term for discussions of syntax.)
- Consider downloading John Walkenbach’s “[Extended Date Functions](#)” and adding them to your Excel program as add-ins. These extended date functions are only recognized by Excel, however. If you use another spreadsheet program, this option may not work.
- If you’re good at macros, you may be able to create your own functions to solve this problem.

I use a “kluge” method to calculate ages. This method (1) assumes a day zero; (2) calculates the total days between day zero and any date; (3) calculates the difference in total days between two dates; and (4) returns the age in years, months, and days using the DATEDIF function. This method is not 100% accurate and may have an error of 1-2 days. It does not take into account the calendar change. It’s a close approximation only, but it does work in most spreadsheet programs. Formulae (using the “list_of_births” worksheet):

- Total days: =SUM((G2*365.25),(H2*30.4375),I2)
- Difference in days between Date1 and Date2: =SUM(M2)-(L2)
- Age on Date2: =DATEDIF(0,P2,"y")&" y's "&DATEDIF(0,P2,"ym")&" m's "&DATEDIF(0,P2,"md")&" d's"