Marriage as an Indicator for Social Progress

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Outline

- Main goal/ Objectives
- Hypotheses
- Characteristics of study
- Methodology
- Results
- Degree of Accuracy
- What if...?
- Conclusion

- We will go through our **main goal** of the project and explain how we *define* this goal through **objectives** and *correlating indicators*

- Before we began the mapping process, as a group we *discussed each indicator we chose to relate to marriage* and decided what we *expected to see* in our resulting maps.

- We will explain in more *detail* the **characteristics of our study**

- We will go through the *step-by-step process* of how we mapped our data to *visually analyze the results of our hypotheses*

- Explain each of the *4 maps in detail* and *reveal the answers to our research questions*!

- Not every map or dataset is perfect, so we will *justify* some of the *areas* where our data or maps may be *lacking*

- Along with the degree of accuracy, we recognize that choosing a younger generation age group leads to certain *biases*; so we will discuss what may have happened if we chose an *older age group*

- Wrap everything up with a *comprehensive* **conclusion** of our results!

Main Goal / Objectives

- Analyze if the practice of marriage worldwide indicates social progress on a global scale

  - **Social Progress**: capacity of a society to meet the basic human needs of its citizens, establish the building blocks that allow citizens and communities to enhance and sustain the quality of their lives, and create the conditions for all individuals to reach their full potential (Deloitte)

  - Defined by life expectancy, incarceration rate, women in parliament, and poverty

The health and well-being of women worldwide is a popular topic that is a good indicator of social progress because their lifestyle (as defined by our indicators) will be passed on to their children and the overall population. There is a great amount of funding for research and projects to educate women in areas of the world where the general health of women is low which often leads to a decline in social progress. If we learn more about the trends of marriage for women on a global scale through ArcGIS technology, we can know where to focus research and education in personal health of women to lead to more socially progressive societies worldwide.

This main research question is the basis of what we hoped our maps would help us understand.

Hypotheses

- Percentage of women married in relation to:

    - **Life expectancy**: ⬆% of women (age 20-24) married indicates ⬇life expectancy

    - **Incarceration rates**: ⬆% of women (age 20-24) married indicates ⬇incarceration rates

    - **Women in parliament:** ⬆% of women (age 20-24) married indicates ⬇% of women in parliament

    - **Poverty:** ⬆% of women (age 20-24) married ⬆% of people in poverty

Characteristics of the study

- Chose age group 20-24 because it is most likely relatable to students

- Comparing data of entire populations to the specific age group

- Correlate the four different indicators to our marriage data set.

- Use data to understand if marriage is an indicator of social progress worldwide

- Relate our results to our original hypotheses

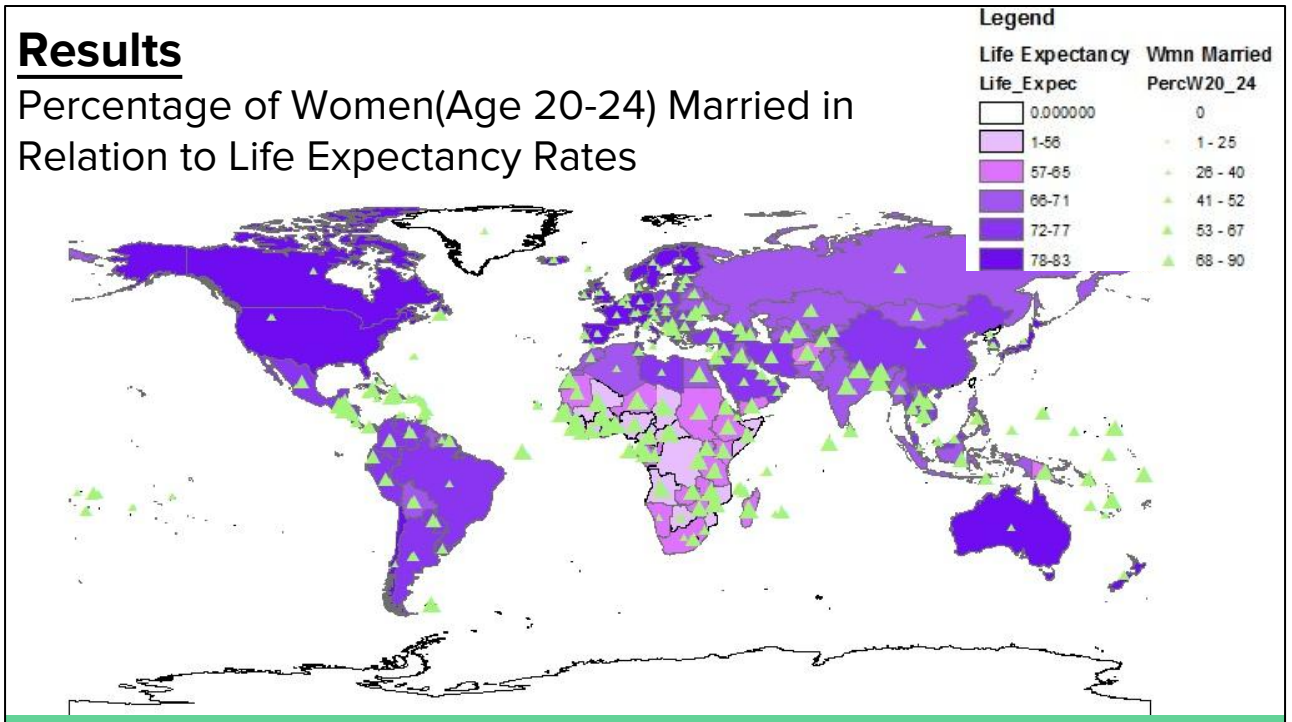 - Understand what we estimated correctly

Methodology

- Chose 4 indicators to relate to marriage

- Converted marriage data from an Excel file to a Shapefile.

  - Excel -> dbf file, chose ages 20-24 from file, organized attribute table, joined to Shapefile

- Input pre-prepared data for each indicator and created individual maps

- Created composite indexes for comparability
  - Right click layer -> select a graduated color option

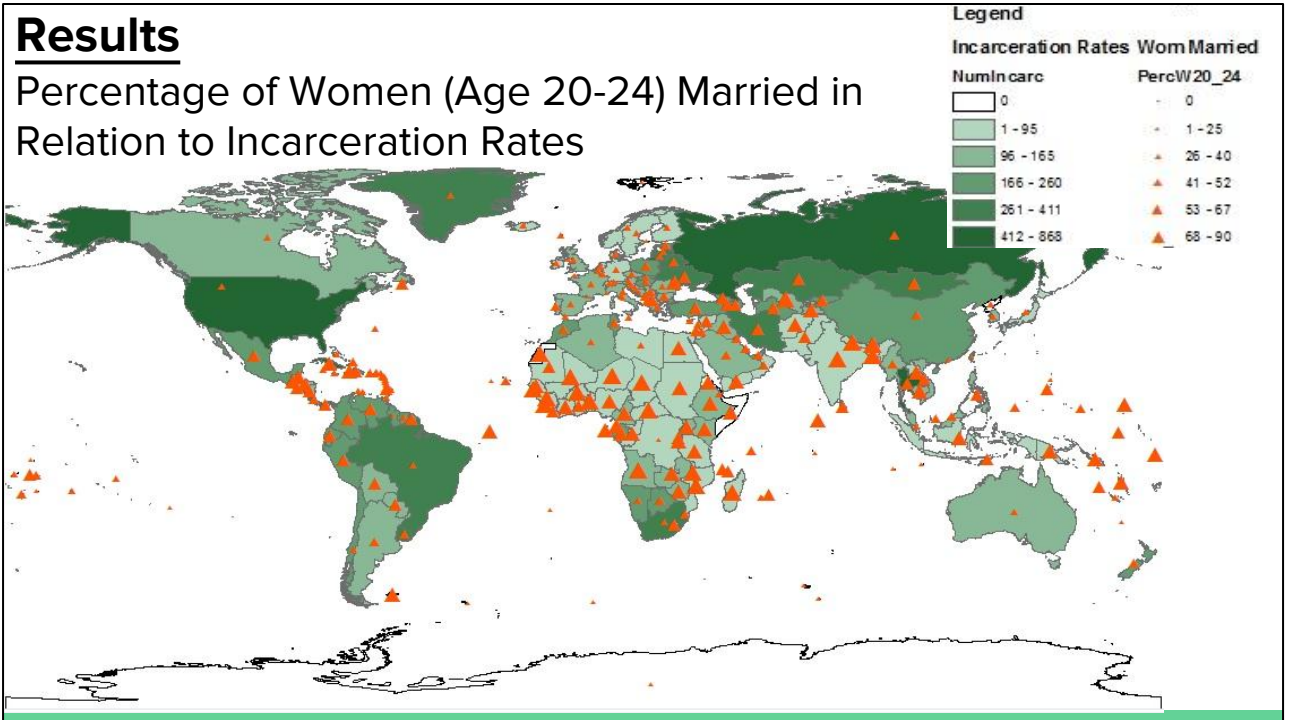- Chose to separate the data into six classes for comparability
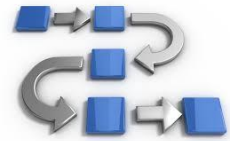
Results

Percentage of Women(Age 20-24) Married in Relation to Life Expectancy Rates

Legend

Life Expectancy	Wmn Married
Life_Expec	PercW20_24
0.000000	0
1-56	1 - 25
57-65	26 - 40
66-71	41 - 52
72-77	53 - 67
78-83	68 - 90

The purple color gradient represents life expectancy rates with life expectancy increasing as the purple shade grows darker. From this we can assume that the darker purple countries represent the more developed countries and the lighter purple represents less developed countries. The triangles represent the percentage of women married from the ages 20-24. The smaller triangles represent the smaller percentages, the larger the triangle gets the higher the percentages. Both data are split into six classes. You can see a strong correlation between life expectancy and percentage of women married from ages 20-24. The countries with higher life expectancy have a lower percentage of marriage while the countries with lower life expectancy have higher percentage of marriage. Looking at Africa you can see a majority of the country has lower life expectancy as well as higher percentage of marriage. You can also see the difference in Eastern and Western Europe, with Eastern Europe Appearing to be less developed than the west. After analyzing this map it appears that the percentage of women married in this age group can indicate whether or not a country is developed or developing.

Results

Percentage of Women (Age 20-24) Married in Relation to Incarceration Rates

Legend

Incarceration Rates Wom Married

NumIncarc — PercW20_24

| NumIncarc	PercW20_24
0	0
1 - 95	1 - 25
96 - 165	26 - 40
166 - 260	41 - 52
261 - 411	53 - 67
412 - 868	68 - 90

The green color gradient represents incarceration rates with incarceration rates increasing as the green color grows darker. The triangles again represent the percentage of women married from ages 20-24. Initially it is hard to see a trend between the two but if you focus in on regions you begin to see a correlation between the two. Looking at South America for example. You can see the countries with smaller incarceration rates have higher percentages of marriage. Brazil,having the largest number of incarceration rates in South America has the smallest percentage of marriage. Then looking at Africa you can see a similar trend as that in South America. Now looking at Europe,however, you see the opposite trend. You see that Eastern Europe has larger incarceration rates as well as larger percentages of marriage while Western Europe has lower percentages of incarceration rates and marriage.

Results

Percentage of Women (Age 20-24) Married in Relation to Percentage of Women in Parliament
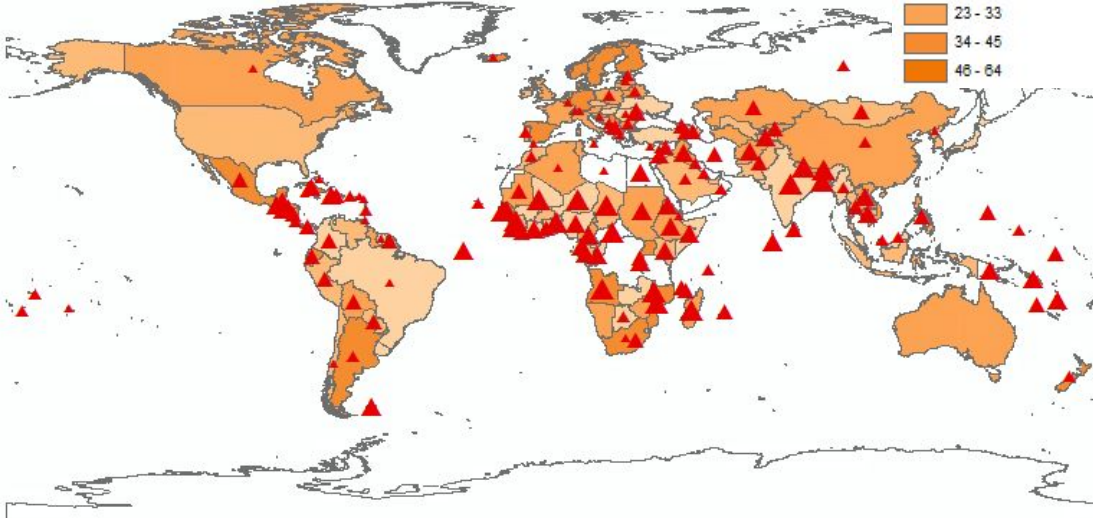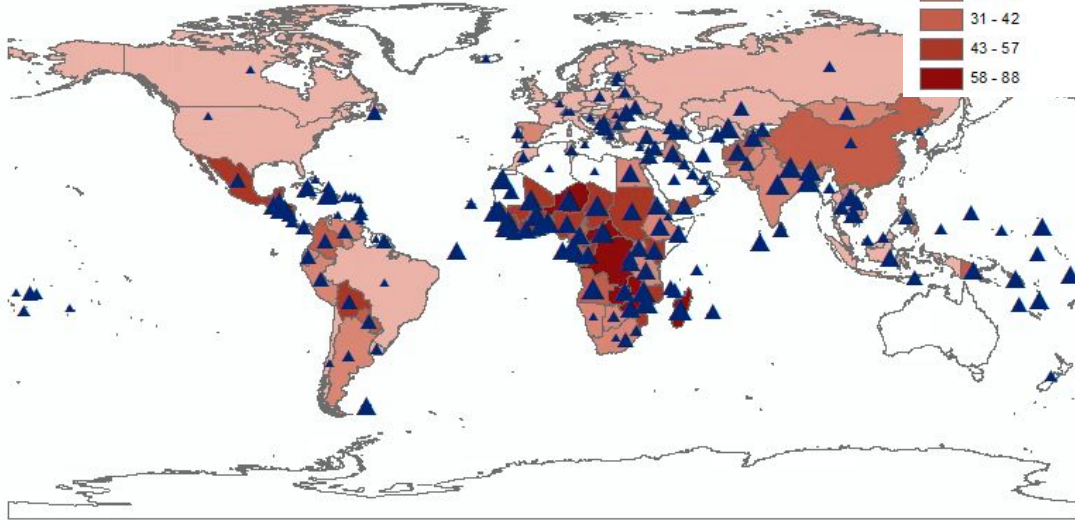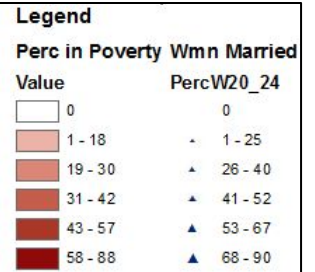
Results

Percentage of Women (Age 20-24) Married in Relation to Percentage of People in Poverty

Degree of Accuracy

- Selected ages 20-24
- Only looked at data for women
- Limitations of our analysis
  - other indicators are not separated by age
- Limited geospatial data, technical error
  - leads us to have general answers to real world questions and issues
- Data for indicators
  - varies from years 2001-2011

- Converted geospatial marriage dataset available to us was separated by age
- Why did we choose this group? most relatable age group

- Original Shapefile data for marriage was not separated by gender
- manually separated

- we recognized this before the project was completed
- as we experienced

What If...

- We chose an older generation as our selected age group?

- Different hypotheses?

- Future research
  - Directed towards different age groups

Percentage of US women ever married, by birth cohort and age
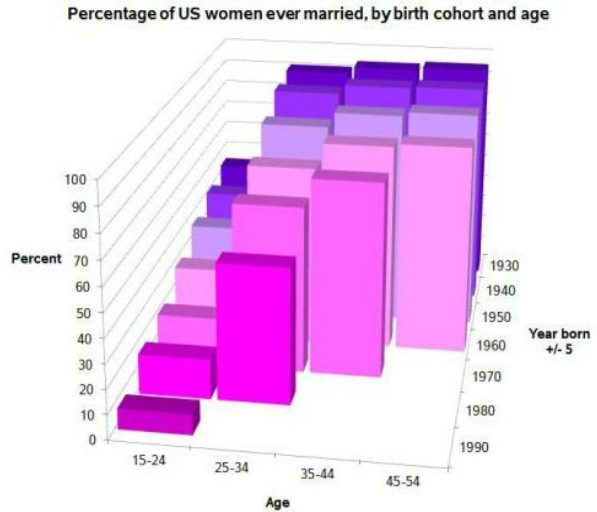
(WordPress.com)

Although this graph displays a small portion of the world (the United States) it indicates higher percentages of this age group of women who are married. This graph would lead us to believe that worldwide this same trend would occur although we must keep in mind cultural practices.

hypotheses would have been different and possibly our conclusion as well

- with higher percentages of marriage- higher life expectancy (same)
- with higher percentages of marriage- lower incarceration rates (same) BUT the older generations may be more prone to incarceration
- with higher percentages of marriage- higher percentage of women in parliament (different)
- with higher percentages of marriage- lower percentages of women below the poverty line (different)

Conclusion

The higher percentage of Marriage for women in the age group of 20-24 indicates a less developed country economically, socially, and politically.

- ○ **Life expectancy**: ⬆% of women (age 20-24) married indicates ⬇ life expectancy ✓

- ○ **Incarceration rates**: ⬆% of women (age 20-24) married indicates ⬇incarceration rates ✗ No conclusion can be determined

- ○ **Women in parliament:** ⬆ % of women (age 20-24) married indicates ⬇% of women in parliament ✓

- ○ **Poverty:** ⬆% of women (age 20-24) married indicates ⬆% of people in poverty ✓

References

Cohen, P. (2013, June 12). Marriage is declining globally: Can you say that? Retrieved December 7, 2015, from https://familyinequality.wordpress.com/2013/06/12/marriage-is-declining/

https://www2.deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/gx-cr-social-progress-index-executive-summary-2015.pdf