## Master-Project Timeline

## Concept Phase

Deliverable 1: 3 February 2022

Create Proposal for Master Project (Proposal Master project #3)
Create gitrepo and Issuetracker structure for collaborative work
Create and submit timeline for master project (Define Timetable #7)
Obtain access to the necessary SOEP survey data
Define first draft of datasets and variables that will be used for the project (Variable and dataset selection concept #1)
Create Script to create first draft of usable individual dataset for the project: Load, merge, data wrangling with selected variables
Define statistical indicators which should be part of the aggregated tables (Define statistical Indicators #10)
☐ mean, median, n (for line plot, boxplot and heatmap)
☐ percentages (for line plot and stacked bar plot)
☐ upper_meanci, lower_meanci (for line plot and heatmap)
upper_medianci, lower_medianci (Create median confidence intervals #2) (for line plot and heatmap)
☐ upper_percentci, lower_percentci (for line plot and stacked bar plot)
<ul><li>percentiles 10, percentiles 25, percentiles 75, percentiles 90, percentiles 99 (for boxplot)</li></ul>
☐ min, max (boxplot)
☐ (correlation coefficients)
☐ (regression coefficients)

#### **Table Creation Phase**

Deliverable 2: 3 March 2022

User analysis (Who would need platform?) (Define user group for the app #11)
☐ What topics should be prioritized
Final Variable selection concept (variables to analyse and variables for grouping)
(Variable and dataset selection concept #1)
variables need to be added in Prep.do and in Metadata
Define amount of datasets (individual level and household level) we need to create
(Variable and dataset selection concept #1)
Data Quality Checks for Data Preparation (Data Quality Checks for Data Preparation
#12)
☐ Check quality of dataset merges
☐ Identify and resolve missing data
☐ Review summary statistics and visualizations for potential data quality issues
☐ More data wrangling if necessary
☐ Define variablenames, labels and valuelabels as Metadata
Create aggregated table functions to transform input dataset to aggregated csv
tables (Create a functions R script for table creation #13)
Create first aggregated datatables (Create first aggregated datatables #14)

# Interactive Graphic Creation Phase

Deliverable 3: 31 March 2022

☐ Aggregated table quality checks for aggregated table functions #15
☐ functions create always same results
<ul> <li>mean, median, percentages always in the confidence interval range</li> </ul>
☐ define minimum cell grouping (n=30)
☐ Generation of interactive graphics #4
heatmaps on federal state level for numerical variables
<ul> <li>stackedbarplot for categorical variables</li> </ul>
<ul> <li>line plot for categorical variables and numerical variables</li> </ul>
□ boxplots for numerical variables
☐ (regression) or corelation plots
☐ Create graphical functions that use the aggregated datatables to create the different
interactive graphictypes with selectable grouping options (Create a functions R script
for graphic creation #16)
☐ Create first graphic output #17

#### Shiny Interface Phase

☐ download of csv tables

Deliverable 4: 28 April 2022 ☐ Graphic Quality check #18 colorblindness ☐ same colorstyle for all graphics ☐ understandable and standardized ☐ First technical design of the Shiny interface that processes the aggregated data and graphical functions #19 define selectable buttons (inputs for user) user selection und functions should create interactive graphic on shiny App ☐ First technical design of the Shiny interface that processes the aggregated data and graphical functions #19 ☐ create layout ☐ create topicbased navigation create help texts ☐ (Create downloadable user output #21) ☐ rmarkdown for reports

# Testing and Wrtiting Project Report Phase

Deliverable 5: 2 June 2022

☐ Shiny App Quality check #22
efficiency check. How long does it take to load a graphic?
☐ Make App usable on shiny server #23
☐ usable URL for users
data protection regulations to put aggregated data on server?
☐ Finalize Metadata/Documentation #24
☐ Draft of Written Project report #25
☐ Motivation
Description of the data source
☐ Content of the dashboard
☐ Covered Topics
□ Covered Indicators
☐ Functionality
<ul> <li>Description of the technical workflow</li> </ul>
Preparation and selection of raw micro data
<ul> <li>Processing of raw data into aggregated tables and graphs</li> </ul>
<ul> <li>Development of the interactive shiny interface</li> </ul>
□ Data protection policy
□ Problems and challenges
☐ Summary