Group members: Akila Forde, Dharini Ramaswamy, Idalina Sachango, Nivedita Vatsa

1. **Please provide one paragraph description of the goals of your project. You can list the same description from the previous deliverable or provide new details about aspects that have changed since Week 4.**

Our team is interested in exploring inequity in the Chicago school system. Our goal is to develop an index at the school-level that measures a student's level of opportunity. We will then compare our constructed index with college enrollment rates to validate our results. It will consider factors such as school environment, economic hardship, crime, housing security, access to nutrition, access to the internet, and school budget allocation. We hope that education institutions can utilize our index and analysis to effectively allocate resources and support students' learning needs. This index is inspired by the Child Opportunity Index 2.0 project. We intend to follow a similar methodology, but this time, the data (and corresponding weights) will be Chicago-specific.

2. **For each source of data that you expect to use, please list the source of data, who will be responsible for collecting data from that source, and a date by which you expect the work of gathering the data from that source to be complete.**
    - [API] Urban Institute Education Data Explorer: Geographic information, demographics, school type, enrollment, measures of education quality, information about disciplinary history
    - Chicago Public Schools:[1] Attendance rates and budget allocation
    - EPA: Environmental factors (air pollution data)
    - Federal Communications Commission: Broadband access per 1,000 households
    - [API] US Census: Poverty rate, employment rate, income, government assistance
    - Expected completion date: March 3

3. **Please give a brief sketch of the work that needs to be done to complete your project (other than data collection), include a description of which team member(s) will be responsible for completing this work and the expected timeline for completion**
    - Create map of schools showing tentative index - Dharini/Idalina (Complete by March 4)
    - Create Django/Dash interface (using placeholder values) - Akila (Complete by March 9)
    - Normalize variables (i.e. indicators used in the index) - Nivedita (Complete by March 4)
    - Aggregate and merge data into a single database (SQL, csv, or pandas dataframe) - Dharini and Nivedita (Complete by March 6)
    - Construct index - Nivedita (Complete by March 8)
    - Address bugs and functionality of map - Full team (Complete March 15)

4. **Include any additional information you wish to provide about your project.**

    N/A

[1] We have sourced only a limited number of variables from Chicago Public Schools. The reason for this is that our data pulled from the Urban Institute captures most variables reported by Chicago Public Schools.

5. **If you need additional feedback from me then please make sure to include that in your report.**
    - We have no experience with Django (or web development) and were wondering if it was realistic for us to create an interactive map and scale our learning curve in the next two weeks. Are there alternative tools that would be suitable for our task (e.g. Python Dash)?
    - Our current distribution of work is such that 1-2 team members will focus on the statistical component of our work (i.e., index-building) and 1-2 members will focus on building our interactive map. All four of us will be involved in programming some features of this map, but some team members will do less computer programming and more data analysis. Does this raise any concerns?
    - Is it acceptable to use R for data wrangling, or would you encourage us to use Python (pandas) instead?
    - The most recent year for which data are consistently available is 2017. Does this raise any concerns?