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**Course:** MTH 243

### **Project Proposal**

#### **What average are you interested in estimating?**

I am interested in estimating my average heart rate.

#### **Why are you interested in this average?**

I am interested in understanding if I have a healthy resting heart rate.

#### **What data do you intend to collect to estimate this average?**

I will be gathering resting heart rate data measured in beats per minute.

#### **How do you intend to collect this data?**

Every evening, I will use a heart rate monitor to measure my heart rate three times each evening. By the time I turn in my Week 3 Project Update, I should have 21 days (63 data points) worth of data recorded.

#### **Are there any risks involved with collecting this data?**

No, collecting this data is perfectly safe. The heart rate monitor will take the measurement for me, and I will be at home when I take these measurements.

#### **What reference average will you compare your personal average to?**

I will compare my average to the average heart rate of 65.5 beats per minute obtained from a sample of 92,457 adults. Note that I will be treating this value as if it is a population parameter.

#### **What is the source of the reference average you chose?**

Article Source: [Inter- and intraindividual variability in daily resting heart rate and its associations with age, sex, sleep, BMI, and time of year: Retrospective, longitudinal cohort study of 92,457 adults](https://doi.org/10.1371/journal.pone.0227709)

Quer G, Gouda P, Galarnyk M, Topol EJ, Steinhubl SR (2020) Inter- and intraindividual variability in daily resting heart rate and its associations with age, sex, sleep, BMI, and time of year: Retrospective, longitudinal cohort study of 92,457 adults. PLOS ONE 15(2): e0227709.

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