

### **Overview**

This document provides instructions for using the InterGen program to perform model-based analyses that investigate how different factors in the model influence racial inequality.

These exercises can help the user gain a better understanding of how the “static” outcome of inter-group inequality is linked to stratification processes. However, since the InterGen simulation model is simple compared to the full complexity of stratification in the “real world”, these model-based analyses should be viewed only as preliminary explorations; not definitive “tests”. The results the InterGen program generates are definitive only in the narrow context of the simulation model and may or may not apply in the “real world”.

### **Step 1: Review the Basic Features of the InterGen Simulation Model**

First consider the variables and processes governing the InterGen model. Many aspects of the model are “constant”; that is, they are the same at all times. They include the following:

1. the population consists of only two racial groups and is 80% white and 20% black.
2. time is marked by “generations”; a new generation is born every 22.5 years.
3. each generation passes through a 4-stage life cycle: (a) birth and education, (b) early career and childbearing, (c) late career, and (d) retirement.
4. each generation attains education and socioeconomic status according to attainment rules specified by the user.
5. educational attainments are shaped by parent’s education and parent’s SES.
6. socio-economic attainments are shaped by education and parent’s SES.
7. time is divided into two periods, each period lasts ten generations.

Other aspects of the model are “variable”. Their role in the simulation can vary depending on the settings the user chooses. These include the following:

8. discrimination in education can exist and vary by period.
9. discrimination in socio-economic status can exist and vary by period.
10. the strength of the effects of parental resources on education can vary by period.
11. the strength of the effects of education and parental SES on socio-economic status can vary by time period.

### **Step 2: Specify a Hypothesis**

Specify a hypothesis to investigate. For example, consider the following.

H1: Inter-group inequality created by discrimination in Period 1 will disappear within 1 generation in Period 2 *if* discrimination is eliminated.

H2: Inter-group inequality created by discrimination in Period 1 will decline in Period 2 *if* the role that parental resources plays in educational attainment is reduced.

### **Step 3: Specify Appropriate Settings for Period 1**

Implement settings for Period 1 that define a stratification system that is consistent with the hypothesis *before* the experimental intervention is introduced. In the case of H2, the Period 1 settings could be specified as follows:

1. set Disc-Educ to 35%.
2. set Disc-SES to 35%.
3. set R2-Educ to 50%.
4. set R2-SES to 50%.

### **Step 4: Specify Appropriate Settings for Period 2**

Carry all of the Period 1 settings forward to Period 2. Then implement changes that in Period 2 that introduce the experimental intervention or treatment outlined in the hypothesis. In the case of H2, the Period 2 settings could be specified as follows:

5. set all Period 2 settings equal to Period 1 settings
6. change R2-Educ to 25% (i.e., reduce the role that parental resources plays in educational attainment)

### **Step 5: Record the Results**

Use the project score sheet form (available at the InterGen page of the VLAB-RESI website) to record the results of the experiment.

### **Step 6: Evaluate the Effect of the Experimental Intervention**

Evaluate the effect of the treatment by comparing the group status levels and inequality outcomes that obtained in Period 1 to those that obtained in Period 2. Answer the following questions.

- a. What pattern of group status and inter-group inequality emerged in Period 1?
- b. Did this pattern change in Period 2 when the experimental intervention was introduced? If so, by how much? If so, how rapidly did the change take place?
- c. What is your conclusion regarding the hypothesis (is it supported or not)?

### **Step 7: Discuss the Implications of Your Analysis**

Discuss whether you think the results you obtained are relevant for understanding racial stratification and inequality in the “real world”? Offer your judgment and explain why you reached that conclusion. For example, if you think the model results are “instructive”, explain why. Alternatively, if you think the model results are not very instructive, explain why.