

A18.3 (CD-ROM TOPIC) USING SPSS FOR CONTROL CHARTS

Using SPSS for the p Chart

To illustrate how to construct a p chart, open the **HOTEL1.SAV** file. Select **Graphs** → **Control**.

1. In the Control Charts dialog box (see Figure A18.6), select the **p, np** button and the **Cases are subgroups** option button. Click the **Define** button.
2. In the p , np : Cases Are Subgroups dialog box (see Figure A18.7), enter **Rooms Not Ready** in the Number Nonconforming: edit box and **day** in the Subgroups Labeled by: edit box. Under Sample Size, select the **Constant**: option button, and enter **200** in the edit box. Click the **OK** button.

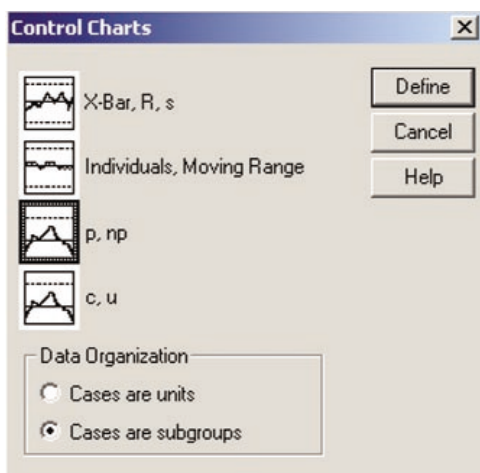


FIGURE A18.6 SPSS Control Charts Dialog Box

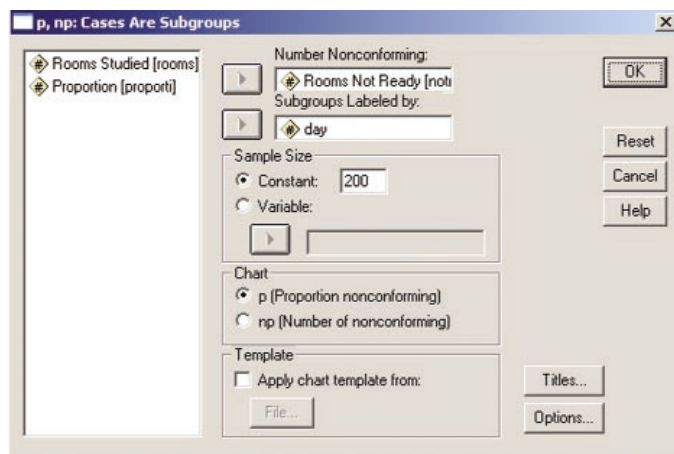


FIGURE A18.7 SPSS p , np : Cases Are Subgroups Dialog Box

Figure A18.8 is the p chart for the proportion of rooms not ready.

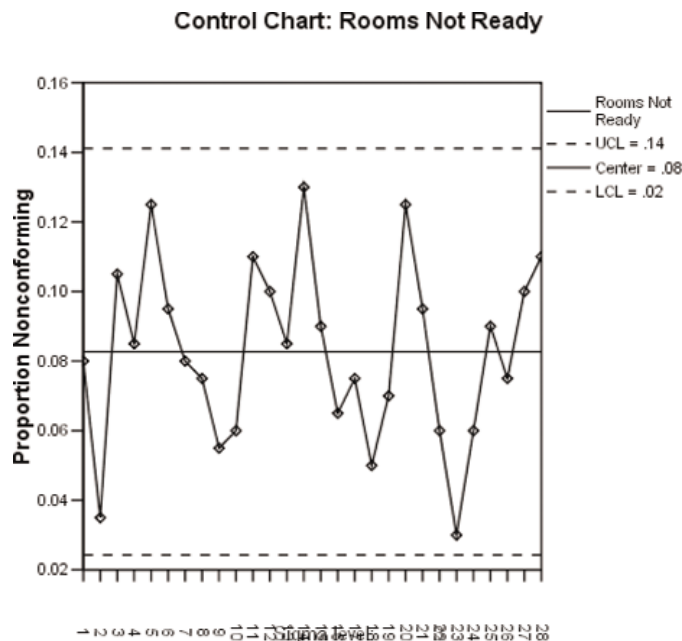


FIGURE A18.8 SPSS p Chart for the Proportion of Rooms Not Ready

Using SPSS for c Charts

To illustrate how to construct a c chart, open the **COMPLAINTS.SAV** file. Select **Graphs** → **Control**.

1. In the Control Charts dialog box, select the **c, u** button and the **Cases are units** option button. Click the **Define** button.
2. In the c , u : Cases Are Units dialog box (see Figure A18.9), enter **Complaints** in the Characteristic: edit box and **Days** in the Subgroups Defined by: edit box. Select the **c (Number of nonconformities)** Chart option button. Click the **OK** button.

Figure A18.10 is the SPSS c chart for the number of complaints.

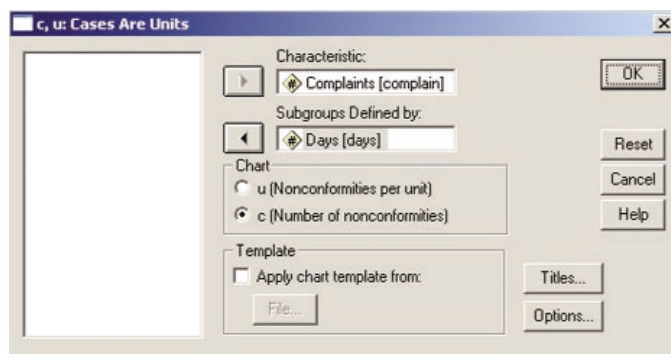


FIGURE A18.9 SPSS c , u : Cases Are Units Dialog Box

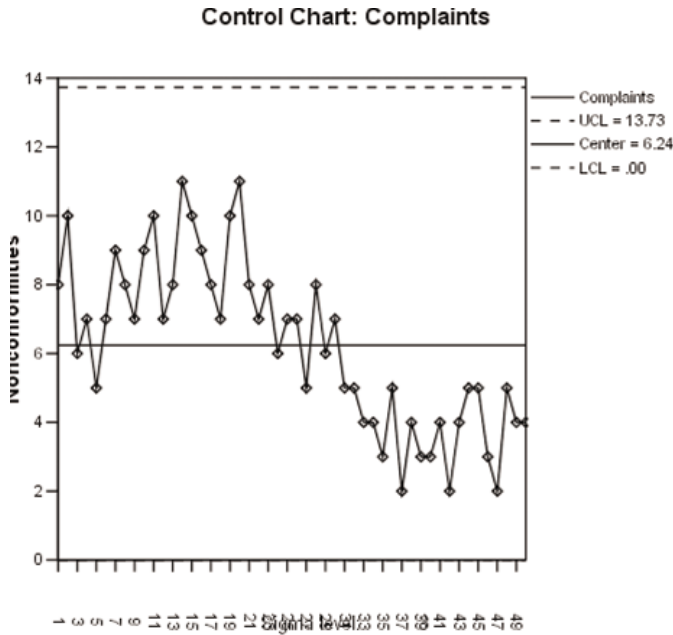


FIGURE A18.10 SPSS c Chart for the Number of Complaints

Using SPSS for R and \bar{X} Charts

To illustrate how to construct R and \bar{X} charts, open the HOTEL2.SAV file. Select **Graphs** → **Control**.

1. In the Control Charts dialog box, select the **X-bar, R, s** button and the **Cases are units** option button. Click the **Define** button.
2. In the X-bar, R, s: Cases Are Units dialog box (see Figure A18.11), enter **Luggage Delivery Time** in the Process Measurement: edit box and **Day** in the Subgroups Defined by: edit box. Select the **X-Bar and range** option button. Click the **Options** button.

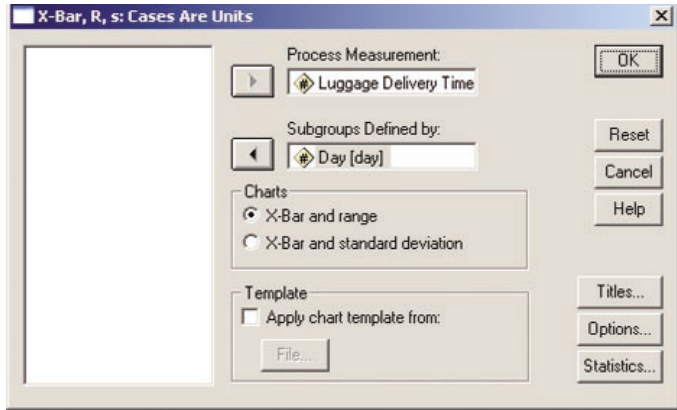


FIGURE A18.11 SPSS X-bar, R, s: Cases Are Units Dialog Box

3. In the X-bar, R, s: Options dialog box (see Figure A18.12), enter **3** in the Number of Sigmas: edit box and the subgroup size of **5** in the Minimum subgroup size: edit box. Click the **Continue** button. Click the **OK** button.

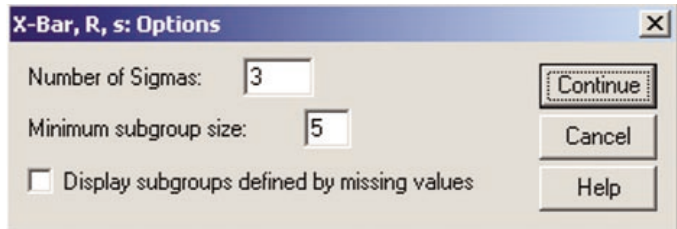


FIGURE A18.12 SPSS X-bar, R, s: Cases Are Units: Options Dialog Box

Figure A18.13 illustrates SPSS \bar{X} and R charts for the luggage delivery times.

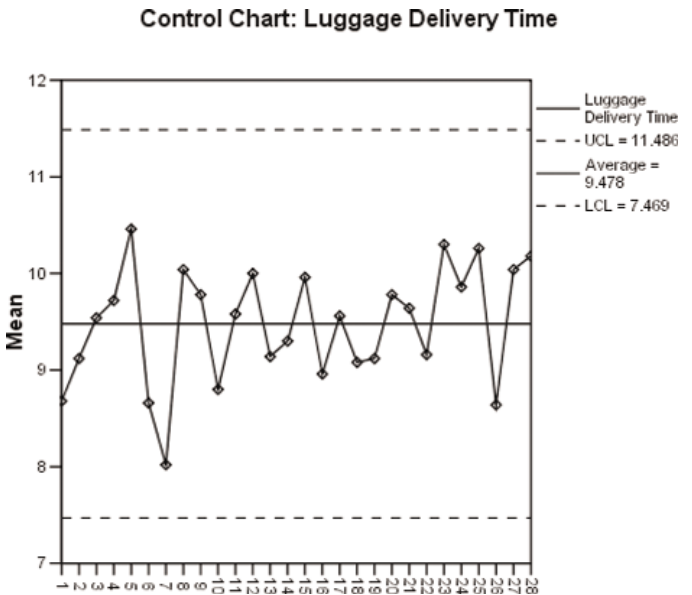
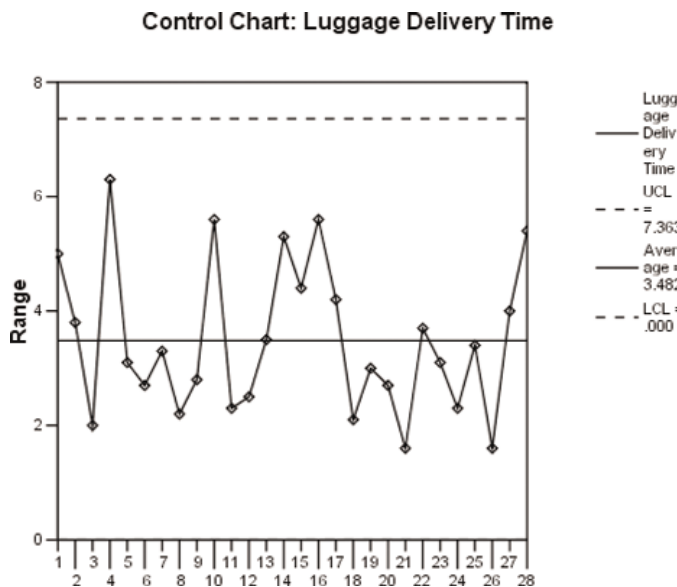


FIGURE A18.13 SPSS \bar{X} and R Charts for the Luggage Delivery Times