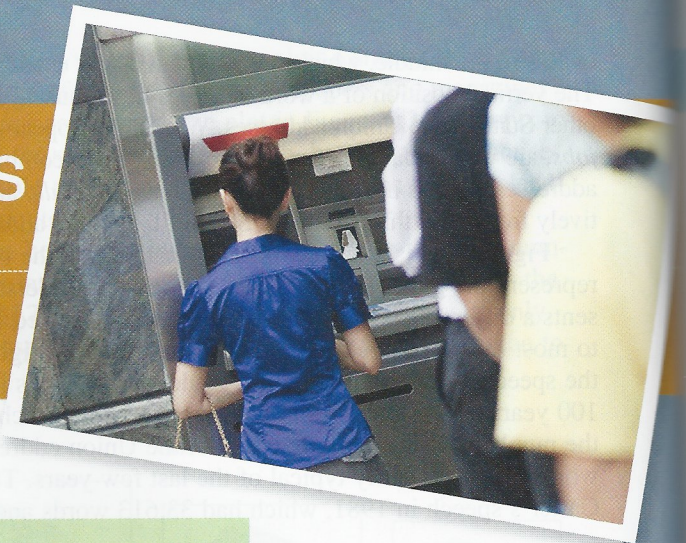# EXPLORING STATISTICS
CLASS ACTIVITY

Personal Distance

How much personal distance do people require when they're using an automatic teller machine?

GOALS	MATERIALS
In this activity, you will learn to make graphs of sample distributions in order to answer questions about data in comparing two groups of students.	Meter stick (or tape measure).

ACTIVITY

Work in groups of three students. Each group must have a meter stick. The first person stands (preferably in front of a wall) and imagines that she or he is at an ATM getting cash. The second student stands behind the first. The first student tells the second student how far back he or she must stand for the first student to be just barely comfortable, saying, for example, "Move back a little, now move forward just a tiny bit," and so on. When that distance is set, the third student measures the distance between the heel of the first person's right shoe to the toe of the second person's right shoe. That will be called the "personal distance."

For each student in your group, record the gender and personal distance. Your instructor will help you pool your data with the rest of the class.

Note: Be respectful of other people's personal space. Do not make physical contact with other students during this activity.

BEFORE THE ACTIVITY

1. Do you think men and women will have different personal distances? Will the larger distances be specified by the men or the women?

2. Which group will have distances that are more spread out?

3. What will be the shape of the distributions?

AFTER THE ACTIVITY

Do men and women have different personal distances? Create appropriate graphics to compare personal distances of men and women to answer this question. Then describe these differences.