

Many DBAs conduct a study where they bounce the *init.ora* *optimizer_mode* and then run the application for a day in each mode and collect statistics. From these overall comparisons, shown in Figure 11-3, the proper default *optimizer_mode* becomes readily apparent.

In the preceding example, the overall database performance was faster using *first_rows*, and that was set as the default. After setting the default, individual SQL statements were tuned using the rule hint.

Now let's review some miscellaneous SQL tuning techniques.

Miscellaneous Tuning Techniques

Before we go into detail on the process of tuning, let's look at several important ways to tune individual SQL statements. These topics include:

- Tuning with hints
- Tuning subqueries
- The problem of literal SQL statements
- Tuning with temporary tables
- General rules for writing efficient SQL

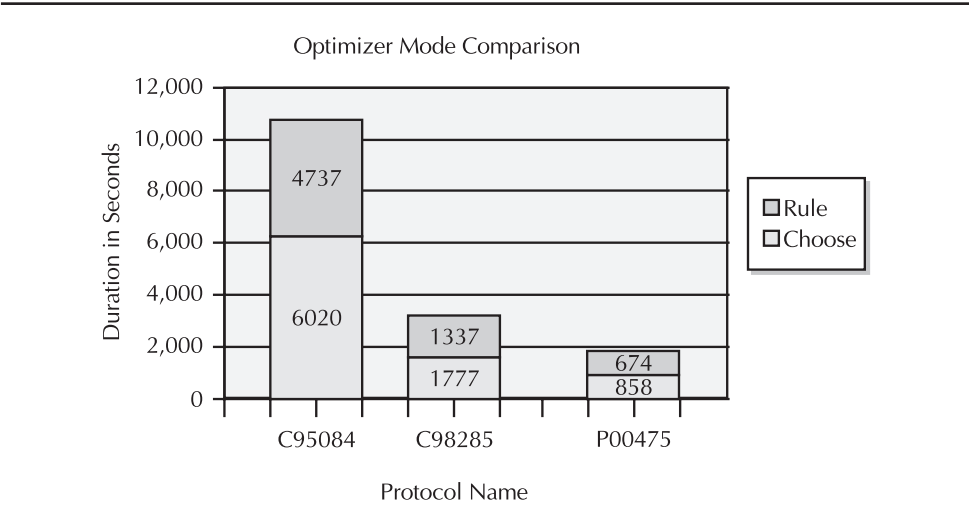


FIGURE 11-3. A comparison of response times for cost-based and rule-based optimization in Oracle 8.0.5