



MEMORANDUM No. 64

January 6, 2007

To: Karla Teasley & Susan Camp / Louisville Water Company

From: Bob Hurd, Ph.D. / Hurd & Associates, Inc. *BH*

RE: Summary and Analysis of Q4-2006 CSI Results

This memo summarizes key findings and trends from the Q4-2006 CSI survey results. Please refer to Tables 1 to 6 (e-mailed to you on 12-28-06 and attached) and Figures 64.1 to 64.5 (also attached – please note that the “6” refers to the year and the “4” refers to the quarter). As always, please feel free to call or e-mail me with any questions at (703) 619-0090 or “roberthurd2@yahoo.com.”

A. Overview – The Big Picture in Q4-2006

- ***The Total CSI rose back up 12 points from 831 in Q3-2006 up to 843 in Q4-2006.*** This follows a drop of 26 points in Q3-2006 after reaching an all-time high of 857 in Q2-2006. These fluctuations resulted in a year-long average of 844 in 2006 compared to the full year average of 847 in 2005. For more detailed information, see Section B and Figure 64.1.
- ***In contrast, the Service CSI dropped 35 points down to 785 in Q4-2006 after reaching an all-time high of 820 in Q3-2006.*** These fluctuations resulted in a full-year average of 800 in 2006, compared with 801 for the Service CSI in the full year of 2005. For more, see Section C and Figure 64.2.
- ***The rise in the Total CSI reflects a similar rise in Residential Non-Service (+13 points) and an even bigger rise in the Commercial Non-Service (+36 points) segment.*** Residential Service dropped 33 points and Commercial Service dropped 51 points in Q4-2006. See Section D, Table 5 and Figure 64.4.
- ***Although all five CSI factors rose in Q4-2006 after dropping in Q3-2006, most of the change in the Total CSI can be traced to changes in Water Quality, Customer Service and Price / Value.*** These three factors showed the biggest changes from quarter to quarter and/ or are weighted most heavily in the total CSI formula. See Section E, Table 6 and Figure 64.5.

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B. Total CSI Drops in Q4-2006

The Total CSI rose back up 12 points from 831 in Q3-2006 up to 843 in Q4-2006. This follows a drop of 26 points in Q3-2006 after reaching an all-time high of 857 in Q2-2006. The latest quarterly score of 843 brings the full-year average to 844 this year – about the same as last year's year-long average of 847 in 2005.

The Q4-2006 Total CSI score is accurate within +/- 14 points on the 0-1000 scale – the margin of error for a sample of this size at the 95 percent confidence level.

Figure 64.1 shows the TOTAL CSI Scores and the 95% Confidence Interval (i.e. the margin of error) and how they have changed over time -- with results for each quarter since Q1-1999. *Figures 64.3* and *64.3B* compare these trends in the Service Total CSI by Half-Year (two consecutive quarters), and then by Year since 1999. Also, *Table 5* reports all of the CSI scores for: the TOTAL CSI, Service Total CSI, each of four customer segments, and Residential Total (service plus non-service), and Commercial Total (service plus non) by quarter since Q1-2002.

Results and Trends Since 1999

- Back in Q1-1999, the Total CSI was 827 and rose briefly to 841 in Q2-1999 -- before dropping dramatically to an all-time low of 781 in Q3-1999 when customers experienced problems with taste and odor (see Figure 64.1).
- The Total CSI recovered slowly, but steadily, over the next two years -- stumbling only once briefly in Q3-2000 due to some initial customer confusion over billing changes. Recovery was finally complete when the Total CSI reached 843 in Q2-2001.
- The Total CSI remained fairly steady in the mid-840s for most of 2001 and 2002 -- dropping briefly down to 838 in Q1-2002 before returning to 847 in Q2-2002 and 846 in Q3-2002, and then dropping 21 points down to 825 in Q4-2002 when some customers briefly encountered problems with water quality again.
- The Total CSI recovered quickly -- rising to an all-time high of 853 in Q1-2003, followed by mixed results since. First, the Total CSI dropped back down to the mid-830s in Q2-2003 and Q3-2003, only to recover again -- rising 18 points to reach an all-time high of 855 in Q4-2003.
- Then the Total CSI dropped a total of 18 points over the next two quarters (10 points and then another 8 points), bringing it back down to 837 in Q2-2004. The Total CSI rebounded back to 845 in Q3-2004, before dropping 16 points to 829 in Q4-2004.
- Last year, the Total CSI rose back up to 851 and 856 in Q1 and Q2-2005-- exceeding previous all-time highs (853 and 855) reached in 2003. But then it dropped 14 points down to 842 in Q3 and another 3 points to 839 in Q4-2005 -- making for a year-long average of 847 in 2005.
- The Total CSI followed a similar pattern in 2006 -- rising 6 points up to 845 in Q1-2006, and then another 12 point rise bringing it up to an all time high of 857 in Q2-2006 -- followed by a 26-point drop down to 831 in Q3-2006 before gaining back 12 points in Q4-2006 (and returning to the initial level in Q1). This made for a full-year average of 844 in 2006 compared to 847 in 2005.

C. Service CSI Stays at an All-Time High in Q4-2006

In contrast, the Service CSI dropped 35 points down to 785 in Q4-2006 after reaching an all-time high of 820 in Q3-2006. This made for a full-year average of 800 in 2006, compared with 801 for the Service CSI in the full year of 2005.

The Q4-2006 Service CSI score is accurate within +/- 27 points on the 0-1000 scale, the margin of error for samples of this size at the 95 percent confidence level.

Table 5 and Figure 64.2 show the Service Total CSI and the 95% Confidence Interval (i.e. the margin of error) and how these have changed over time -- with results for each quarter since Q1-2002 (see Table 5) and since Q1-1999 (see Figure 64.2). Once again, these results are also compared with the Total CSI by half-year (two consecutive quarters) periods in Figure 64.3 and by Year in Figure 64.3B.

Results and Trends Since 1999

- Back in 1999, the Service CSI had reached 781 in Q1-1999 and 760 in Q2-1999. But when taste and odor problems arose later that summer, all types of customers were affected (serviced and non-serviced) -- and the Service Total CSI dropped to an all-time low of 732 in Q3-1999 and Q4-1999 (see Figure 61.2). It is worth noting, however, that this drop was due to customer experiences with water quality, and not with customer service.
- After that, the Service CSI recovered fairly steadily -- with gains in 4 of 6 quarters beginning in Q1-2000. By Q2-2001, the Service Total CSI reached a new high of 794. But the upward trend stopped there in Q2-2001. The Service Total CSI lost 18 points over the next three quarters, dropping down to 774 in Q1-2002.
- After fluctuating between the mid-770s and the mid-780s for the next 6 quarters, the SERVICE Total CSI rose 21 points to reach a new high of 798 in Q1-2003. That broke what appeared to be a slow, slightly downward trend since 2001.
- That new high was maintained throughout 2003 and early 2004, with the Service CSI remaining in the low-800s -- until it dropped 13 points down to 792 in Q2-2004. It rebounded back up to an all-time high of 806 in Q3-2004, but then dropped 25 points down to 781 in Q4-2004.
- Last year, the Service CSI recovered again, gaining back 21 points to reach 802 in Q1, dropping only 1 point to stay steady at 801 in Q2, then rising another 5 points in Q3 to reach 806 (once again matching that previous all-time high), before dropping 11 points down to 795 in Q4-2005. This made for a year-long average of 801 in 2005.
- The year 2006 began with a drop in the Service CSI down to 779, followed by gains of 38 and 3 points, respectively, bringing it up to all-time highs of 817 and 820. But then the Service CSI dropped 35 points down to 785 -- just above the Q1 level -- making for a year-long average of 800 in 2006 -- about the same as the year-long average scores reached in previous years: 800 in 2003, 796 in 2004 and 801 in 2005.

Please note: The SERVICE Total CSI is a separate calculation based on the CSI Segment scores for Residential Service (87%) and Commercial Service (13%) accounts, with each segment weighted proportionally. In turn, each of the CSI Segment scores is a weighted average based on the five CSI Factor scores for that segment, as shown in Tables 1 through 4.

Figure 64.3 provides some additional perspective by comparing the long-term trends for both the TOTAL CSI and the SERVICE Total CSI by Half-Year (combining two consecutive quarters for a more accurate estimate of satisfaction). It shows that:

- The Service CSI dropped a little less than the Total CSI in the 2nd Half of 1999, and both recovered slowly over the next two years. Both were both fully recovered in the 2nd Half of 2001 when each reached an all-time high – with half-year averages of 784 for the Service CSI, and 845 for the Total CSI.
- Both indexes dropped some over the next year, down to half-year averages of 776 for the Service CSI and 836 for the Total CSI in the 2nd Half of 2002.
- Then the two indexes took somewhat different routes -- with the Total CSI recovering back to 844 in the 1st Half of 2003 and the Service CSI rising to new half-year highs of 799 and 801 in the 1st and 2nd Halves of 2003.
- The Total CSI dropped off a little in 2004, dipping back down to 837 by the end of that year. The Service CSI stayed at the same level in 2004, with scores of 799 and 794 in the 1st and 2nd Halves of 2004.
- Last year, the Service CSI maintained its previous high level, reaching half-year scores of 802 and 801 (the average of 806 and 795 in Q3 and Q4). During that same time, the Total CSI reached all-time highs of 854 in the 1st Half of 2005 – before dropping back down to 841 in the 2nd Half of 2005.
- Now, the Service CSI dropped slightly down 798 in the 1st Half of 2006 before rising back up to 803 in the 2nd Half of 2006. And the Total CSI climbed back to 851 on the 0-1,000 scale before dropping back down to 837 in the 2nd Half.

Figure 64.3B shows these same changes in the TOTAL CSI and the SERVICE Total CSI by the Full Year. This shows:

- The Total CSI depressed in the low 800s in 1999 and 2000 due to the problems with taste and odor from the summer of 1999, followed by a steep rise in perceptions and satisfaction in the years since then – with scores in the 839-840 range in three of the next four years and another small improvement with scores in the mid to high 840s in three of the last four years (2003, 2005 and 2006).
- A more gradual improvement in the Service CSI with scores in the low 750s in 1999 and 2000, followed by rises up to the 777-780 range in 2001 and 2002, and now scores in the low 800s in three of the last four years (2003, 2005 and 2006).
- ***Each of these patterns shows significant improvement from 1999 to 2003, and LWC has maintained that high level of customer satisfaction since then and through 2006.***

D. Changes in CSI Segment Scores

To better understand trends in the TOTAL CSI and the SERVICE Total CSI, this section examines the individual CSI scores for each of the four Customer Segments that are combined to calculate the Total CSI – Residential Non-service (RN), Residential Service (RS), Commercial Non-service (CN), and Commercial Service (CS).

Table 5 shows the average CSI scores and the 95% confidence interval for each of the four customer segments by quarter since Q1-2002. The long-term trends can be seen more clearly in *Figure 64.4*, which shows the Year-Long Averages in the Total CSI scores for each segment and how they have changed each year since 1999, along with the year-long average scores for 2006.

Current Results and Long-Term Trends

- ***Residential Non-Service (RN) rose 13 points from 831 in Q3-2006 up to 844 in Q4-2006.***
Table 5 shows that the RN-CSI has mostly fluctuated between the 820s and 850s since 2001. The Q2-2006 score of 857 matches the previous all-time high of 858 reached in Q1 and Q4 of 2003 and Q2-2005. But then the score for the following quarter (831 in Q3-2006) was closer to some of the lowest scores in the past four years – 826 in Q4-2002; 834 in Q2-2003; and 827 in Q4-2004. The current Q4-2006 score returns the RN-CSI to 844 – about where it started at the beginning of the year.

Figure 64.4 shows the year-long averages rose from high 800s in 1999 and 2000 up to the 840s from 2001 through 2003, dropping slightly to 839 in 2004 before rising back up to an average of 848 in 2005. The ups and downs this year in the RN-CSI cancelled out, so there was little change in the year-long average – down slightly to 845 on the 0-1,000 scale in 2006.

- ***Residential Service (RS) dropped 33 points from 823 in Q3-2006 down to 790 in Q4-2006.***
Table 5 shows that the RS-CSI has stayed in the high 790s and 800s for the past two years, reaching all-time highs of 812 in Q3-2004 and 814 in Q3-2005 – before dropping in late 2005 and early 2006. Then it rebounded again up to all-time highs in Q2-2006 and Q3-2006 before settling back down to 790 in Q4-2006.

Figure 64.4 shows that the Year-Long Average for the RS-CSI has mostly climbed over time. Starting in the mid-740s in 1999 and 2000, it rose to 783 in 2001 before dropping down a little to 775 in 2002. Then the RS-CSI stayed fairly stable at this new high level – with average scores of 801 in 2003, 800 in 2004, 805 in 2005 and now a year long average of 802 in 2006.

- ***Commercial Non-Service (CN) rose 36 points from 833 in Q3-2006 up to 869 in Q4-2006.***
Table 5 shows that the CN-CSI had stayed fairly steady in the 840s, 850s and 860s since 2001, and then reached all-time highs of 889 and 881 in Q3 and Q4-2004 before dropping back down to the 860s and low 870s in 2005. Then the scores rose back up to 882 in the first two quarters of 2006, before dropping down to 833 and now recovering partially to 869 in Q4-2006. This brings year-long average back to 867 – comparable with the previous two years.

Figure 64.4 shows steady upward progress in these year-long averages – 828 in 2000; 848 and 847 in 2001 and 2002; 859 in 2003; and 872 in 2004 – before dropping somewhat down to 865 in 2005 and 867 in 2006. While lower than 2004, these scores are considerably higher than the years prior to that.

- **Commercial Service (CS) dropped 51 points from 803 in Q3-2006 down to 752 in Q4-2006.** Table 5 shows that the CS-CSI was fairly steady in 2002 and 2003 with quarterly scores fluctuating between the 780s, 790s and 800s – before dropping a total of 95 points over four quarters in 2004. Much of that loss was regained in a single quarter in Q1-2005, but was followed by drops totaling 46 points during the next two quarters in 2005. This was erased by gains of 18, 17 and 27 points in the previous three quarters, before dropping 10 points down to 803 in Q3-2006 and another 51 points down to 752 in Q4-2006.

Figure 64.4 shows that the year-long average score of 789 for 2006 is considerably higher than the 773 and 774 of the past two years and closer to the earlier scores of 794 in 2002 and 798 in 2003.

E. Changes in CSI Factor Scores

To better understand changes in the Total CSI, this section shows how CSI Factor Scores for each of the five factors that make up the CSI have changed over time – based on the total weighted sample and for each of the four customer segments.

The five CSI Factors use a scale from 0 to 1000 to measure customer perceptions and satisfaction with: (1) Water Quality and Safety; (2) Customer Service; (3) Information; (4) Reliability of Water Service/Supply; and (5) Price/Value. Each factor is calculated separately for each of the four different customer segments, and then combined to create a total CSI score for each segment.

For analysis purposes, the five CSI factors are also combined across the *total weighted sample* of all LWC customers. This way, the total results for each factor reflect the actual proportions of the four Customer Segments (RN, RS, CN and CS) in the total CSI formula and in the total population of all customers.

By multiplying the weights for each of the factors within each segment by the actual proportion of each segment in the total population, we calculate the relative impact that each factor has on the Total CSI (averaged across the four customer segments): Water Quality (34.3%), Price/Value (27.1%), Customer Service (17.2%), Reliability (16.1%), and Information (5.2%).

The factor scores for each segment are shown in Tables 1 through 4. The factor scores for the total weighted sample of all customers are shown in Table 6 (by quarter) and Figure 64.5 (by year). A breakdown of current trends (changes in the past quarter) is provided below, followed by a review of changes in the Year-Long Averages for each of the CSI Factors since 1999.

Recent Changes in CSI Factor Scores

Each of the five CSI factors rose in Q2-2006, with two of the more heavily weighted factors posting some of the largest gains (Water Quality +12 points x 34.3%; Customer Service +20 points x 17.2%). Information also posted large gains but is weighted the least; and Price /Value is weighted heavily but showed the smallest increase (along with Reliability), as shown on the following page.

<u>CSI Factor</u>	<u>Q1-06 to Q2-06 = Net Change</u>	<u>% Weight and Impact</u>
Water Quality	879 to 891 = + 12 points	34.3% = + 4.2 points
Customer Service	845 to 865 = + 20 points	17.2% = + 3.5 points
Information	791 to 806 = + 15 points	5.2% = + 0.8 points
Reliability	888 to 903 = + 5 points	16.1% = + 0.8 points
Price/Value	<u>794 to 797 = + 3 points</u>	<u>27.1% = + 0.8 points</u>
Total CSI	845 to 857 = +12 points	100% = + 10.0 points *

Each of these factors then dropped in Q3-2006, with two of the more heavily weighted factors (Water Quality and Price / Value) posting 20-plus point drops and Customer Service dropping 41 points.

After applying the relative weights for each of these factors in the Total CSI formula, these three factors each accounted for 26% to 29% of the total drop in the CSI during Q3-2006. The other two factors (Information and Reliability) also dropped about 20 points or so, but are weighted less heavily in the Total CSI formula.

<u>CSI Factor</u>	<u>Q2-06 to Q3-06 = Net Change</u>	<u>% Weight and Impact</u>
Water Quality	891 to 869 = - 22 points	34.3% = - 7.6 points
Customer Service	865 to 824 = - 41 points	17.2% = - 7.1 points
Information	806 to 782 = - 24 points	5.2% = - 1.2 points
Reliability	903 to 882 = - 21 points	16.1% = - 3.4 points
Price/Value	<u>797 to 772 = - 25 points</u>	<u>27.1% = - 6.8 points</u>
Total CSI	857 to 831 = - 26 points	100% = - 26.1 points *

** Differences dues to rounding at the factor and subgroup levels.*

Each of these factors then rose back up in Q4-2006, with two of the most heavily weighted factors posting the largest gains – Customer Service (17.2% overall) was up 25 points and Price/Value (27.1% overall) was up 12 points.

After applying the relative weights for each of these factors in the Total CSI formula, these two factors each accounted for 26% and 34% (60% when combined) of the total rise in the CSI during Q4-2006. Smaller increases in the Water Quality factor (up 8 points and weighted most heavily at 34.3%) accounted for another 22% of the total rise in the CSI, as shown in the table on the following page.

<u>CSI Factor</u>	<u>Q3-06 to Q4-06 = Net Change</u>	<u>% Weight and Impact</u>
Water Quality	869 to 877 = + 8 points	34.3% = + 2.74 points
Customer Service	824 to 849 = + 25 points	17.2% = + 4.30 points
Information	782 to 800 = +18 points	5.2% = + 0.94 points
Reliability	882 to 890 = + 8 points	16.1% = + 1.29 points
Price/Value	<u>772 to 784 = +12 points</u>	<u>27.1% = + 3.25 points</u>
Total CSI	831 to 843 = + 12 points	100% = + 12.5 points *

* Differences dues to rounding at the factor and subgroup levels.

Long-Term Trends in CSI Factor Scores

Figure 63.5 shows the Year-Long Average scores for each of the five CSI Factors that make up the Total CSI, how they have changed over time, and how these year-long averages compare to the current results for the full year of 2006.

- The *Water Quality* factor dropped significantly (from the 840s down to the 760s) when customers experienced problems with taste and odor in the summer of 1999, for a year-long average of 806. It rose slowly (up to 815) in 2000, and then quite steeply (up to 856) in 2001 where it continued to climb each year, finally reaching a year-long average of 870 in 2004.

Water Quality rose up to an average of 879 in 2005, and has now stayed the same at 879 for the full year average in 2006.

- The *Reliability* factor also dropped significantly in the summer of 1999 (from the 880s down to the 840s) for a year-long average of 864 in 1999. It also rose slowly (up to 867) in 2000, and did not fully recover to its previous high levels until 2001. Since then it has remained in the 880s, rising to 890 in 2003 before dropping back to 884 in 2004.

Reliability rose up to an average of 894 in 2005, and has stayed about the same at 891 – the year-long average for 2006.

- The *Price/Value* factor dropped significantly in 1999 (from the 800s to the 770s) for a year-long average of 787. It was also the slowest to recover, dropping even further in 2000 to all-time lows (and a year-long average of 767) due to confusion over billing changes. It finally rebounded (back to 807) in 2001, before beginning another decline – dropping to 798 and 802 in 2002 and 2003, and then down to 779 in 2004.

Price/Value recovered partially in 2005, rising back up to an average of 786 for the year. Now it has stayed about the same at 787 – the year-long average for 2006.

- *Customer Service* also dropped in the summer of 1999, but not at much as other factors (from the 820s to the 800s), for a year-long average of 816 in 1999. It also recovered more quickly - reaching new highs (in the 840s) by early 2001. The year-long averages also showed improvement from 816 again in 2000 up to 838 in 2001. Since then it has continued to rise slowly, up to the 840s in 2002 and 2003 and now up to 851 in 2004.

Customer Service rose to an average of 856 in 2005, but has dropped somewhat down to 846 – the year-long average for 2006.

- The *Information* factor stayed fairly steady (in the high 760s) during the water quality problems in late 1999, and then began to rise steeply from early 2000 through late 2001 (up nearly 50 points to the 810s). This was also reflected in rising year-long averages – from 769 in 1999 up to 776 in 2000, and then up to 807 and 809 in 2001 and 2002. This factor rose even higher to 820 in 2003, before dropping back down to 809 in 2004.

Information rose back to an average of 822 in 2005, but has now dropped down to 795 – the year-long average for 2006.

Please note: the Total CSI is a *weighted average* of the five CSI Factors, with each factor weighed according to its importance or impact on overall satisfaction among each of the four customer segments. The year-long scores were calculated using the total weighted sample and averaging the factor scores for each factor across the four quarters within each year. This increases the sample size for analysis purposes, reducing the margin of error and allowing us to be more confident in the results.

F. Methodology for Calculating the CSI

The TOTAL CSI is an index (ranging from 0 to 1000) based on the CSI scores for four different customer segments -- with each segment proportionally: Residential Non-Service (86.3%), Residential Service (4.7%), Commercial Non-Service (8.3%), and Commercial Service (0.7%).

The CSI score for each segment is an weighted average of the CSI Factor scores for that segment - with each of the five factors weighted differently, depending on its perceived importance and impact on overall satisfaction among customers in that particular segment.

The five CSI Factors use a scale from 0 to 1000 to measure customer perceptions and satisfaction with: (1) Water Quality and Safety; (2) Customer Service; (3) Information; (4) Reliability of Water Service/Supply; and (5) Price/Value.

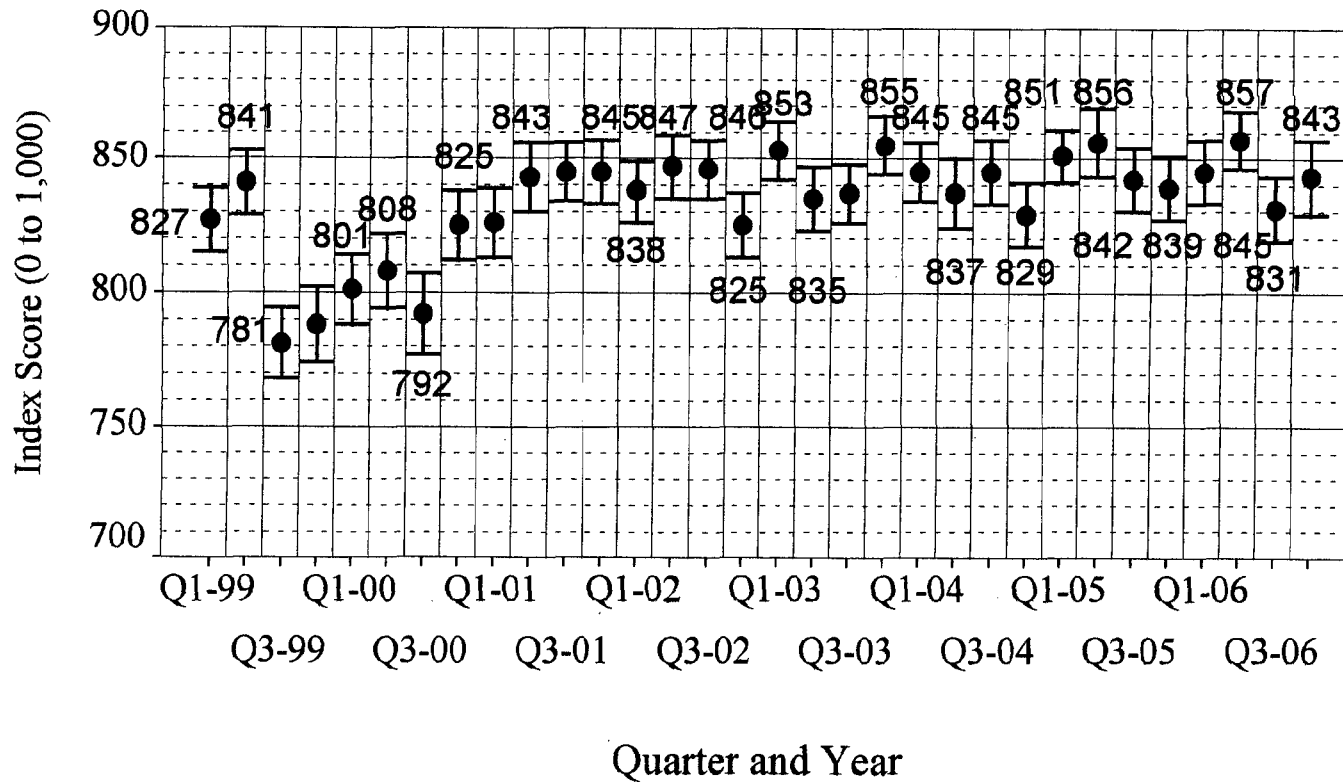
Each factor is calculated separately for each of the customer segments, and then combined to create a CSI score for each customer segment. The CSI Segment scores are then averaged to create the Total CSI, after weighting each of the four segments to reflect its true proportion in the total population of all LWC customers – RN (86.3%), RS (4.7%), CN (8.3%) and CS (0.7%).

The SERVICE Total CSI is a separate calculation based on the CSI scores for the two customer segments that include only serviced accounts -- Residential Service and Commercial Service accounts (weighted proportionally at 87% and 13% respectively).

Detailed information on the CSI and the CSI Factor scores by quarter for each of the four individual customer segments (RN, RS, CN and CS) and for the Total Weighted Sample of All Customers is provided in Tables 1 through 6.

Figure 64.1: Total CSI Scores by Quarter

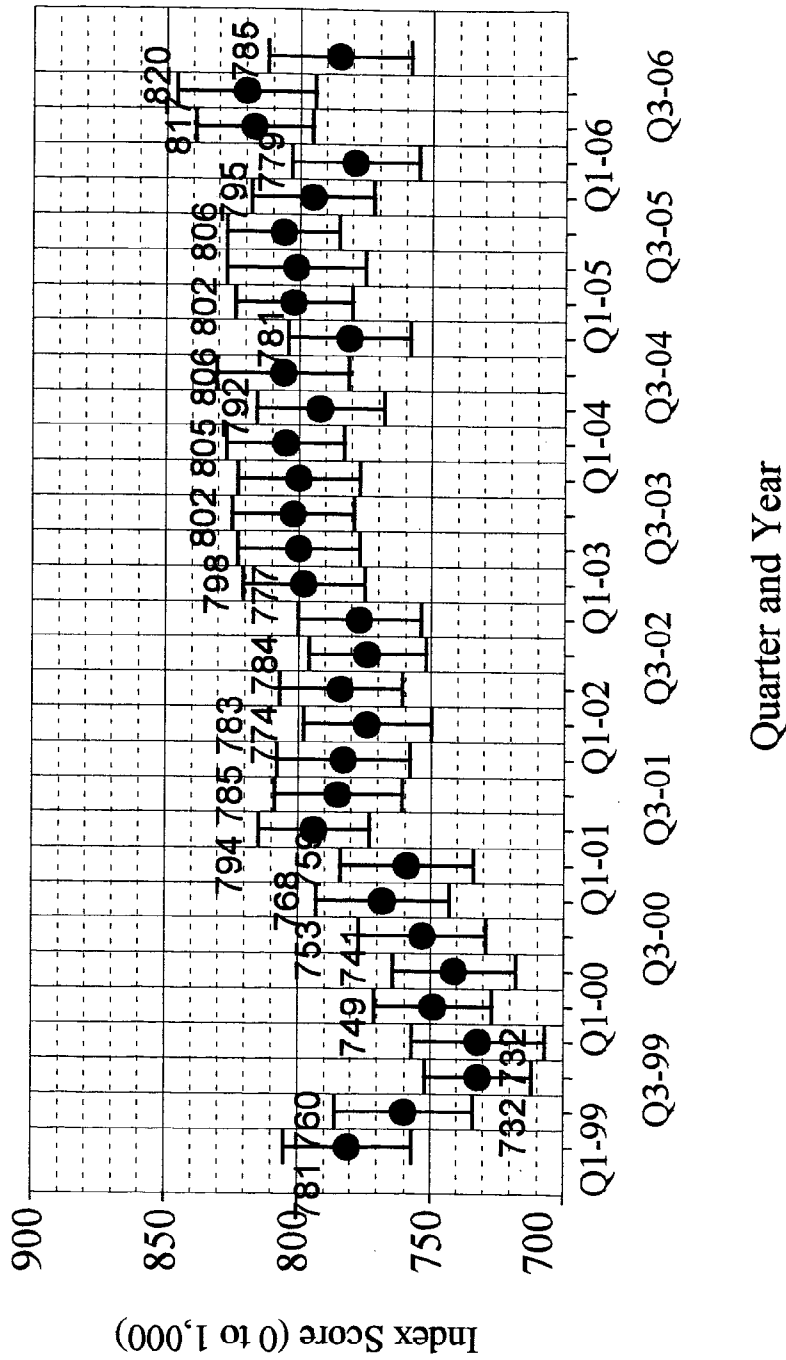
Total CSI Scores and the 95% Confidence Interval, 1999 to Present



Hurd & Associates, Inc./ CSI Results for LWC- Confidential & Proprietary

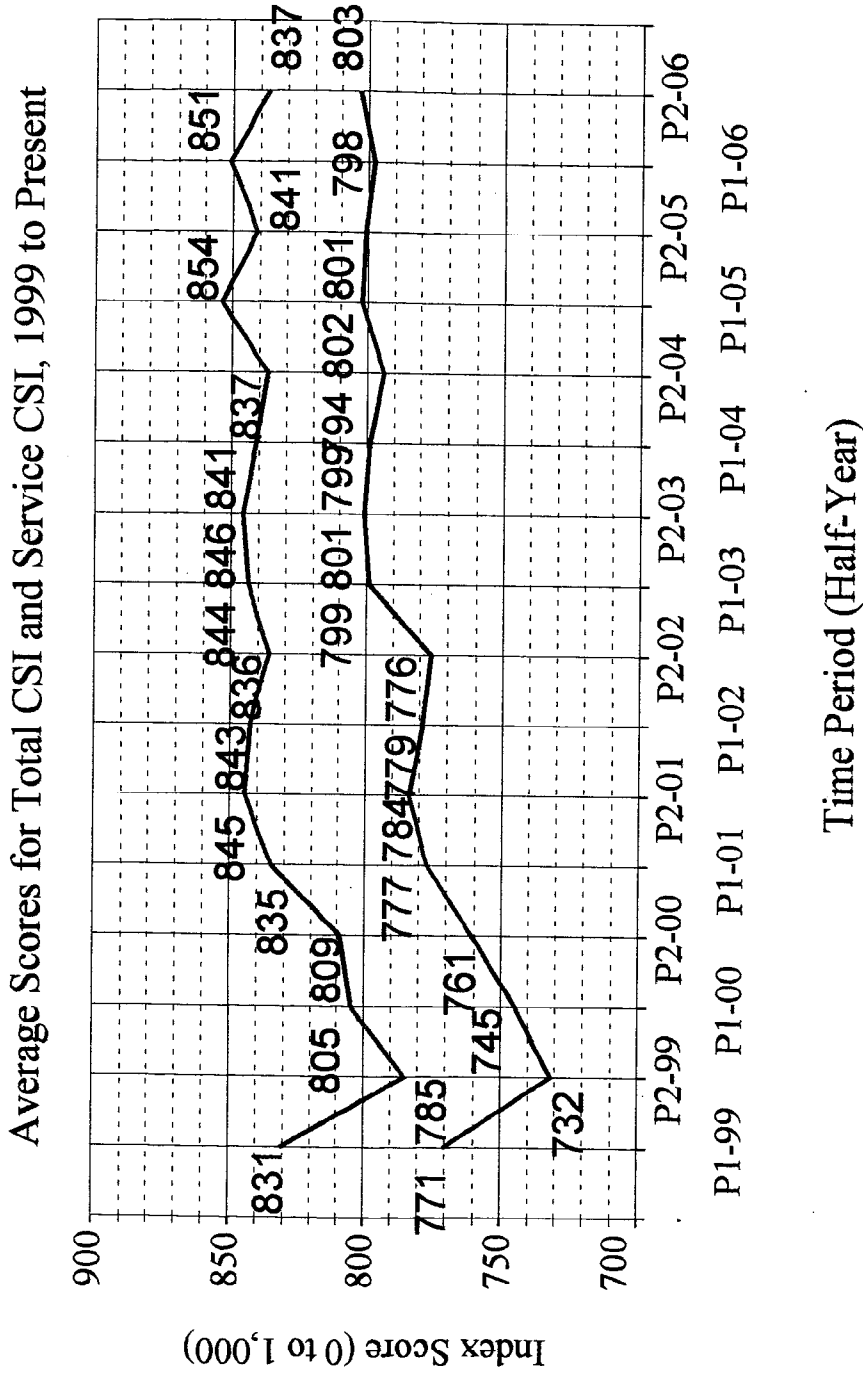
Figure 64.2: Service CSI Total by Quarter

Service Total CSI and the 95% Confidence Interval, 1999 to Present



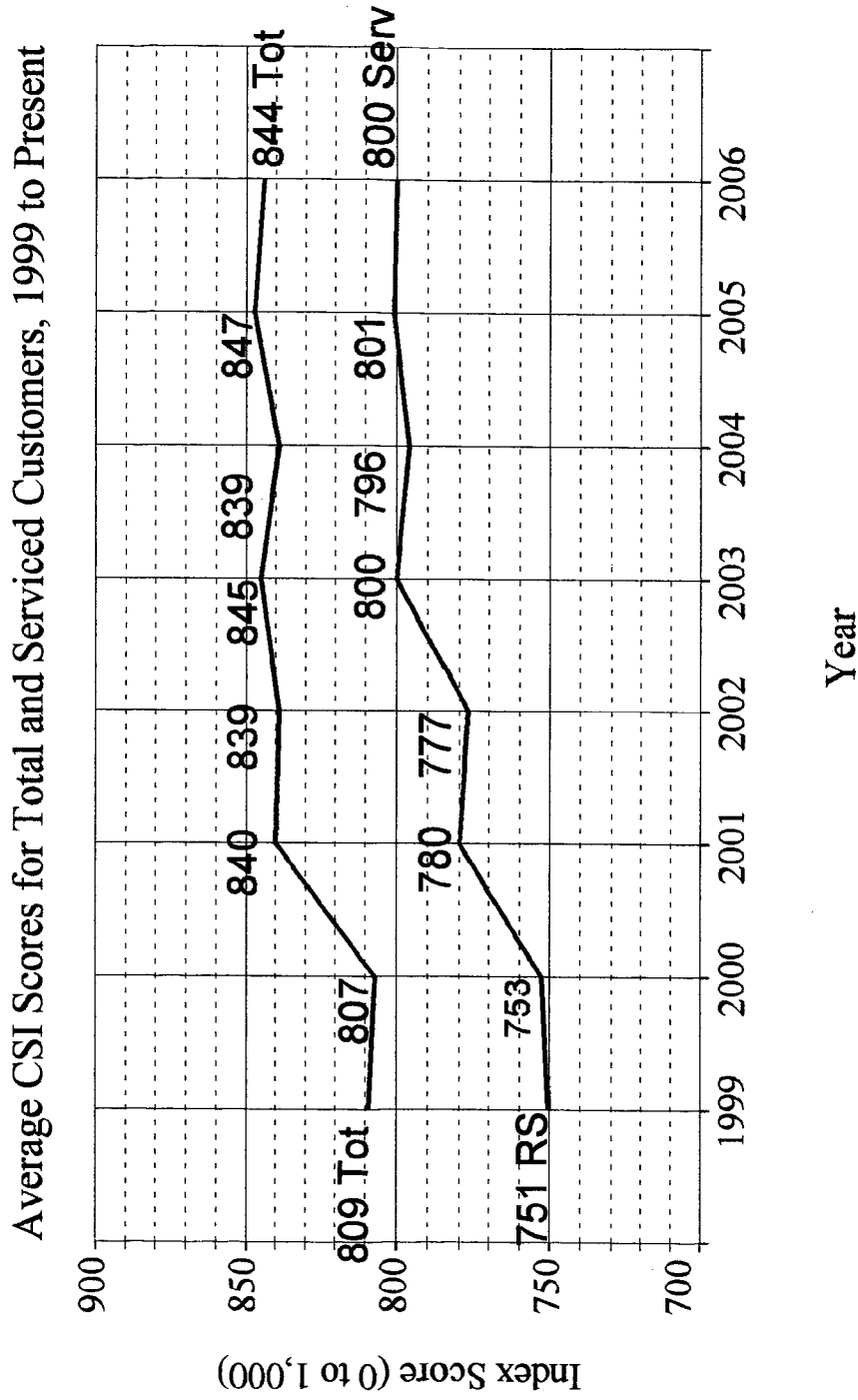
Hurd & Associates, Inc./ CSI Results for LWC- Confidential & Proprietary

Figure 64.3: Total CSI vs. Service CSI by Half-Year



Hurd & Associates, Inc./ CSI Results for LWC- Confidential & Proprietary

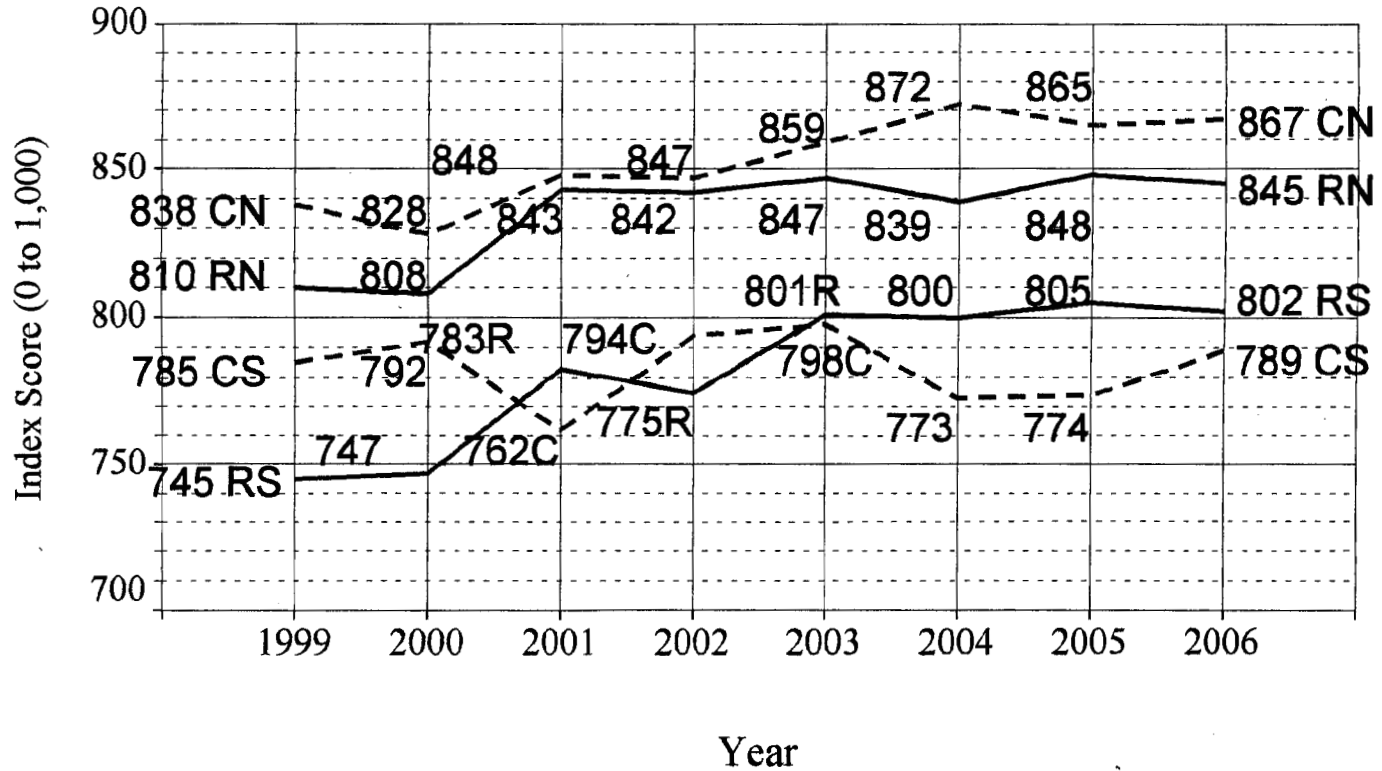
Figure 64.3B: Total CSI and Service CSI Scores Over Tim



Hurd & Associates, Inc./ CSI Results for LWC- Confidential & Proprietary

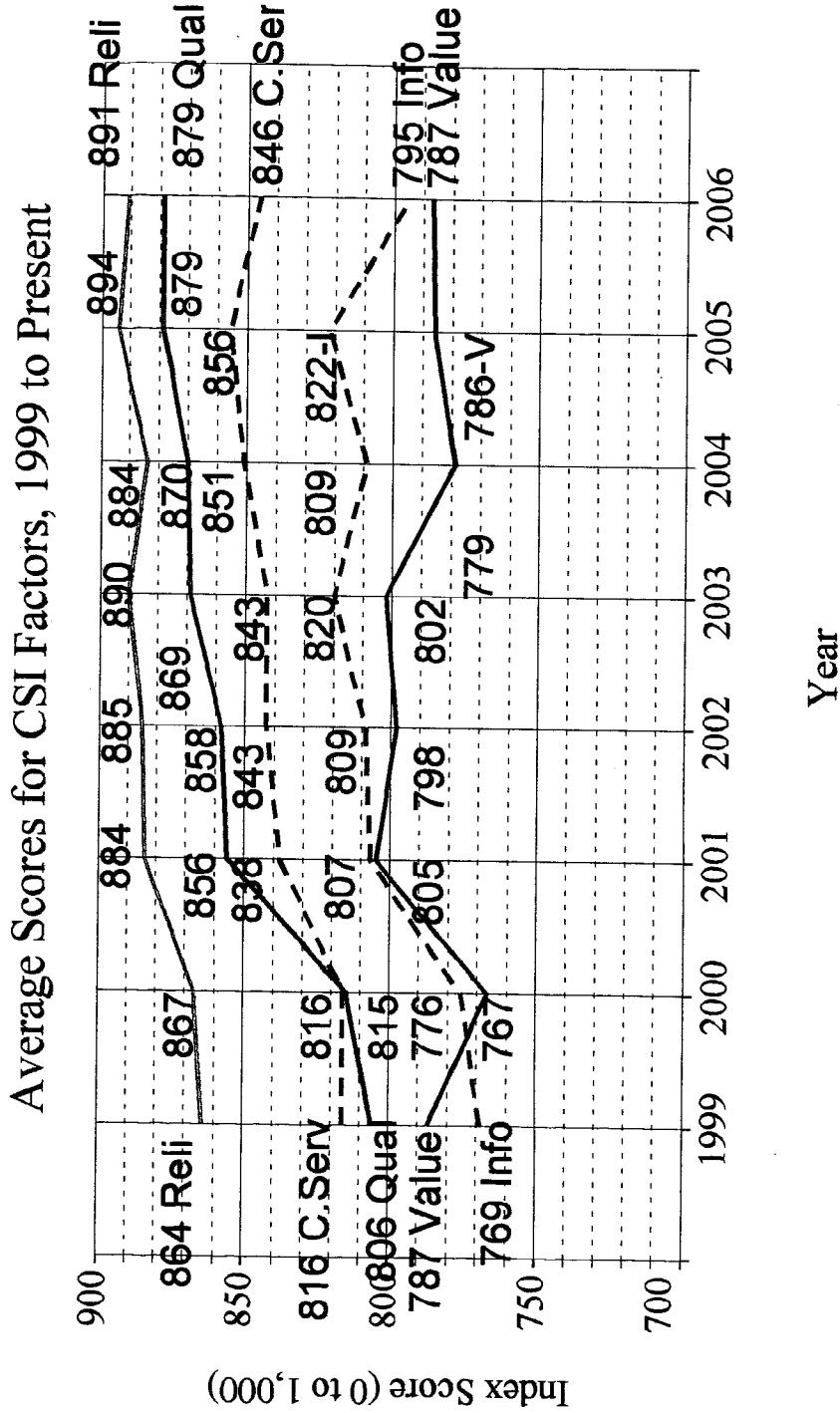
Figure 64.4: CSI Segment Scores Over Time

Average CSI Scores by Customer Segment, 1999 to Present



Hurd & Associates, Inc./ CSI Results for LWC- Confidential & Proprietary

Figure 64.5: CSI Factor Scores Over Time



Hurd & Associates, Inc./ CSI Results for LWC- Confidential & Proprietary

**Table 1 -- CSI and Factor Scores by Quarter for
RESIDENTIAL NON-SERVICE**

Residential Non-Service (86.3% of all customers)																					
FACTOR	Weight	2002				2003				2004				2005				2006			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Water Quality	0.35	864	866	876	832	874	859	868	882	865	869	892	858	886	880	880	875	879	892	871	879
Customer Service	0.15	845	859	859	838	865	818	848	856	876	852	857	838	880	880	854	839	851	868	828	855
Information	0.05	795	830	822	803	832	810	818	823	811	796	812	816	833	843	823	797	791	802	778	801
Reliability	0.15	873	903	890	886	898	881	885	901	886	885	883	880	900	903	895	887	887	905	885	890
Price / Value	0.30	800	809	797	788	818	793	773	815	796	777	765	760	783	800	770	780	793	797	770	781
Index Score for Segment RN-CSI	1.00	840	852	849	826	858	834	837	858	846	838	843	827	854	858	842	839	846	857	831	844
														+/- 16	+/- 20	+/- 19	+/- 21	+/- 17	+/- 17	+/- 17	+/- 21

Table 2 -- CSI and Factor Scores by Quarter for

RESIDENTIAL SERVICE

Residential Service (4.7% of all customers)																						
FACTOR	Weight	2002				2003				2004				2005				2006				
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Water Quality	0.15	819	834	838	845	857	854	833	847	850	845	852	844	874	858	878	862	857	871	883	844	
Customer Service	0.40	726	739	718	721	758	765	761	778	777	760	782	754	751	777	777	757	738	790	779	753	
Information	0.10	722	739	768	751	766	778	783	751	783	736	781	784	809	764	786	782	728	801	820	748	
Reliability	0.20	865	855	846	846	863	865	867	862	861	857	882	847	876	883	872	870	857	877	884	863	
Price / Value	0.15	757	769	754	761	792	784	801	755	767	770	778	764	764	742	794	766	731	771	802	766	
Index Score for Segment RS-CSI	1.00	772	781	772	774	799	803	801	799	804	791	812	791	802	804	814	799	778	818	823	790	
														+/-26	+/-28	+/-23	+/-26	+/-28	+/-26	+/-30	+/-30	+/-30

LWC CSI Tables -- Confidential & Proprietary

Hurd & Associates, Inc.

**Table 3 -- CSI and Factor Scores by Quarter for
COMMERCIAL NON-SERVICE**

Commercial Non-Service (8.3% of all customers)																					
FACTOR	Weight	2002				2003				2004				2005				2006			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Water Quality	0.40	853	838	856	842	845	852	865	869	852	861	898	876	874	869	872	873	889	886	840	869
Customer Service	0.25	855	824	835	819	830	865	831	859	854	837	864	875	835	864	832	844	855	880	817	854
Information	0.05	827	778	830	806	811	849	848	838	822	826	839	845	810	839	843	809	827	855	800	824
Reliability	0.25	877	865	880	875	865	903	881	880	886	897	919	907	883	895	889	891	917	897	856	901
Price / Value	0.05	809	812	840	804	802	856	842	815	793	821	848	863	809	830	840	822	840	818	779	828
Index Score for Segment CN-CSI	1.00	856	837	855	841	843	868	859	865	856	860	889	881	860	871	863	864	882	882	833	869
														+/- 23	+/- 25	+/- 29	+/- 26	+/- 26	+/- 25	+/- 34	+/- 30

**Table 4 -- CSI and Factor Scores by Quarter for
COMMERCIAL SERVICE**

Commercial Service (0.7% of all customers)																					
FACTOR	Weight	2002				2003				2004				2005				2006			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Water Quality	0.10	842	870	828	825	803	833	855	845	834	838	823	806	881	819	813	850	868	864	851	857
Customer Service	0.40	753	773	754	783	768	734	795	768	786	763	753	648	747	736	721	713	729	774	769	663
Information	0.05	767	774	760	778	787	759	793	807	790	763	757	725	826	773	736	771	773	777	796	754
Reliability	0.25	837	880	824	842	832	862	860	856	860	863	810	786	866	855	813	848	866	871	881	849
Price / Value	0.20	770	755	782	768	784	772	754	793	789	763	725	710	762	749	707	740	760	803	752	753
Index Score for Segment CS-CSI	1.00	787	806	785	798	792	785	809	804	810	796	769	715	797	779	751	769	786	813	803	752
														+/- 42	+/- 65	+/- 52	+/- 52	+/- 47	+/- 43	+/- 48	+/- 70

**Table 5 -- CSI Scores by Quarter for
ALL CUSTOMER SEGMENTS**

SEGMENT	Weight	2002				2003				2004				2005				2006											
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4								
Residential Non-Service	0.863	840	852	849	826	858	834	837	858	846	838	843	827	854	858	842	839	846	857	831	844	+/- 16	+/- 20	+/- 20	+/- 21	+/- 17	+/- 17	+/- 17	+/- 21
Residential Service	0.047	772	781	772	774	799	803	801	799	804	791	812	791	802	804	814	799	778	818	823	790	+/- 26	+/- 28	+/- 23	+/- 26	+/- 28	+/- 26	+/- 30	+/- 30
Residential TOTAL	0.910	836	848	845	823	855	832	835	855	844	835	842	825	851	855	841	837	842	855	831	841	+/- 12	+/- 15	+/- 14	+/- 15	+/- 14	+/- 14	+/- 14	+/- 16
Commercial Non-Service	0.083	856	837	855	841	843	868	859	865	856	860	889	881	860	871	863	864	882	882	833	869	+/- 23	+/- 25	+/- 29	+/- 26	+/- 26	+/- 25	+/- 34	+/- 30
Commercial Service	0.007	787	806	785	798	792	785	809	804	810	796	769	715	797	779	751	769	786	813	803	752	+/- 42	+/- 65	+/- 52	+/- 52	+/- 47	+/- 43	+/- 48	+/- 70
Commercial TOTAL	0.090	851	835	849	838	839	862	855	860	853	855	880	868	855	864	854	857	874	877	831	860	+/- 19	+/- 23	+/- 24	+/- 21	+/- 21	+/- 19	+/- 26	+/- 26
TOTAL CSI	1.000	838	847	846	825	853	835	837	855	845	837	845	829	851	856	842	839	845	857	831	843	+/- 10	+/- 13	+/- 12	+/- 12	+/- 12	+/- 11	+/- 12	+/- 14
SERVICE CSI Total	0.054	774	784	774	777	798	800	802	800	805	792	806	781	802	801	806	795	779	817	820	785	+/- 22	+/- 26	+/- 21	+/- 23	+/- 24	+/- 22	+/- 26	+/- 27

**Table 6 -- CSI and Factor Scores by Quarter for
TOTAL WEIGHTED SAMPLE OF ALL CUSTOMERS**

Total Weighted Sample (100% -- All Four CSI Segments Weighted Proportionally)																					
FACTOR	Weight*	2002				2003				2004				2005				2006			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Water Quality	0.343	861	862	873	833	870	858	866	879	863	867	890	859	884	878	879	874	879	891	869	877
Customer Service	0.172	840	850	850	830	857	819	842	852	869	846	853	836	869	873	847	835	845	865	824	849
Information	0.052	794	821	820	800	826	812	819	821	811	796	812	816	830	838	822	797	791	806	782	800
Reliability	0.161	873	897	887	883	893	882	884	897	884	885	886	880	897	901	893	886	888	903	882	890
Price / Value	0.271	798	807	798	788	816	798	780	812	795	781	772	768	784	800	776	783	794	797	772	784
Total CSI TOTAL	1.00	838	847	846	825	853	835	837	855	845	837	845	829	851	856	842	839	845	857	831	843

* The weights for each of the five factors are calculated as a weighted average – the weight applied to that factor averaged across the four segments when those segments are weighted proportionally based on the Total CSI formula (86.3% residential non-service; 4.7% residential service; 8.3% commercial non-service; 0.7% commercial service)