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SDDOT Organizational Health Assessment 2002

**Study SD2002-06
Final Report**

**Prepared by
Business Research Bureau
University of South Dakota
Vermillion, SD**

May 2003

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EXECUTIVE SUMMARY

ORGANIZATION HEALTH

An organization's health, broadly defined, is its ability to accomplish its mission now and in the future. It is defined by properties that directly influence the behavior of employees, such as:

- communication
- understanding of policies
- staff competency
- work force stability
- management skills
- staff morale
- work environment
- awareness of mission
- cooperation
- work force demographics
- training and professional development

The South Dakota Department of Transportation (SDDOT) commissioned the University of South Dakota's Business Research Bureau (BRB) to conduct the third assessment of its organizational health based on its employees' attitudes and perceptions. The Department asked the BRB to:

- measure the Department of Transportation's employees' perceptions and level of satisfaction regarding organizational health. Analysis was performed Department wide, by central office division and geographical region (location), and by general position classification;
- identify the Department of Transportation's organizational strengths and weaknesses;
- evaluate progress in making desired changes in the Department's organizational culture, through comparison of the current assessment with the baseline measurements of the first assessment;
- refine a survey instrument that can be used to periodically assess the Department's organizational health.

This report summarizes the Department of Transportation's organizational health and identifies issues the Department must evaluate as it decides how to fulfill its mission to its employees and to the people of the State of South Dakota.

BASLINE (1998) ORGANIZATIONAL HEALTH ASSESSMENT

A baseline SDDOT organizational health assessment was completed by the BRB in 1998¹. In the baseline assessment, the survey was categorized into three areas: domain questions, national comparison questions, and overall satisfaction. The questions in the domain areas were categorized for analysis and weighted average responses were developed for each domain. The National Comparison questions were used to provide a baseline against the average responses from the *Inc. Magazine's* 15 fastest growing organizations. The overall satisfaction measurement was used to assess the overall satisfaction of the employee at the point in time that they completed the survey.

¹ SDDOT Organizational Health Assessment, Study SD1998-01 Final Report, South Dakota Department of Transportation Office of Research, Pierre, SD, June 1998.

ORGANIZATIONAL HEALTH ASSESSMENT 2000

The Business Research Bureau conducted the Department's second organizational health assessment in 2000². Using a slightly revised survey instrument, the study again explored domain questions, national comparison questions, and overall satisfaction. The study showed that, in the two-year period between 1998 and 2000, employees of the Department perceived clear improvements in most, but not all, aspects of organizational health. Improvements were attributed to actions that had been taken in response to the 1998 assessment.

ORGANIZATIONAL HEALTH ASSESSMENT 2002

FOCUS GROUPS

The BRB conducted eleven focus group sessions with three groups—one session with the executive team, five sessions with supervisors, and five sessions with non-supervisors—around the state. The purposes of the focus groups were to identify perception differences between groups, to provide insights needed to prepare the survey instrument, and to provide insight into areas where employees' perception may be dependent on variables such as supervisory status.

The focus group participants confirmed that the Management Team did indeed take actions in the last two years as a result of the 2000 Organizational Health Assessment (OHA). The actions identified as most important were different for each group, with only communications and wages identified in the top five for all three groups.

The focus group participants also identified several priority issues for the upcoming year including communication, wages, retention of employees, maintaining the transportation system, efficiency, more staff, and pleasing the public.

The focus group participants identified issues that included:

- Morale
- Staff Meetings
- Access to Training
- Recognition/Encouragement
- Vehicles
- Job Classifications and Titles
- Communication
- Safety
- Performance Standards
- Pay and Pay Raises
- Orientation Program

SURVEY

Using the information gained from the focus group sessions, the 2000 survey was modified by adding the new issues identified and revising questions making it easier to understand. The 2000 study was replicated in 2002. As was done previously, each survey instrument was numbered to allow the demographic analysis of the data. The BRB printed and mailed a survey to every SDDOT employee's home address with a postage-paid return envelope. A reminder and a second survey were mailed to all employees who had not responded to the first survey mailing.

² SDDOT Organizational Health Assessment 2000, Study SD2000-07 Final Report, South Dakota Department of Transportation Office of Research, Pierre, SD, October 2000.

At the time of the 2002 survey, there were 961 people working for the SDDOT. Of the 961 employees, 677 of them responded to the survey, yielding a 70.4 percent response rate. While a response rate of seventy percent is very good for a written survey, it is below the 83.5 percent response rate for the 1998 survey and the 78.5 percent response rate for the 2000 effort.

In 2002, two demographic variables in the analysis were determined not to be representative of the population: employee pay status³ and job group classification⁴. The distribution of employees who responded within these classifications was statistically different from that which existed in the population. A possible product of employees not responding to the survey is termed non-response bias. A bias in the findings exists when those that did participate do not reflect the views of those that did not. The existence and the extent of non-response bias on the measures are not known. As a result, the findings that relate to employee wage status and job group classification should be read recognizing this limitation.

Table 1: Response Rate by Employee Group

		Response Rate		Total
		Response	No Response	
Clerical	Count	40	13	53
	Group Percentage	75.5%	24.5%	100.0%
Drafting	Count	15	9	24
	Group Percentage	62.5%	37.5%	100.0%
Engineering	Count	185	53	238
	Group Percentage	77.7%	22.3%	100.0%
Equipment	Count	37	15	52
	Group Percentage	71.2%	28.8%	100.0%
Executive	Count	10	1	11
	Group Percentage	90.9%	9.1%	100.0%
Maintenance	Count	258	137	395
	Group Percentage	65.3%	34.7%	100.0%
Specialist/Analyst	Count	50	8	58
	Group Percentage	86.2%	13.8%	100.0%
Technician	Count	66	37	103
	Group Percentage	64.1%	35.9%	100.0%
Financial/Info Services/Legal	Count	16	11	27
	Group Percentage	59.3%	40.7%	100.0%
Total	Count	677	284	961
	Group Percentage	70.4%	29.6%	100.0%

In 1998, there were 874 SDDOT employees on the date the survey was mailed. During the two-year period between the 1998 and 2000 surveys, there were 145 people that left the SDDOT for voluntary and involuntary reasons. That made the turnover rate just over eight percent per year (8.3 percent). There were 195 new hires during this timeframe for a total of 924 employees on the date the data was gathered for the second analysis, which was a 5.7 percent net increase in employee numbers.

In 2000, there were 924 SDDOT employees on the date the survey was mailed. It was calculated that 128 people had left the SDDOT for voluntary and involuntary reasons period between the 2000 and 2002 surveys. That made the turnover rate less than seven percent per year (6.9 percent). Further it was estimated that there were 165 new hires during this timeframe for a total of 961

³ The pay status classifications are salaried and hourly.

⁴ The job group classifications are clerical, drafting, engineering, equipment, executive, maintenance, specialist/analyst, technician, financial information, and services/legal.

employees in 2002 on the date the mailings were made for the third analysis, which is a 4.0 percent net increase in employee numbers from 2000.

The average and median ages both increased in the past two years and are near what they were in 1998. The average age for SDDOT employees was 43.68, 43.01 and 43.35 years in 1998, 2000 and 2002, respectively. The median ages followed a similar pattern. The median age was 44.50 in 1998, 43.00 in 2000 and 44.50 in 2002.

The agency had fewer years of experience per employee. SDDOT employees in 1998, 2000 and 2002 averaged 15.48, 13.90 and 13.93 years of service to SDDOT. The median measures for the same years were 12.79, 12.17 and 12.75 years. The medians in 2002 and 1998 were very close while the means showed a larger difference, suggesting that there were currently not as many employees with advanced tenure.

DOMAIN ANALYSIS

The domain questions were divided into 20 areas or domains, each containing statements designed to measure the related perceptions and attitudes. Respondents indicated their agreement or disagreement with the statement based on one of four potential responses: “Strongly Disagree”, “Inclined to Disagree”, “Inclined to Agree” and “Strongly Agree.”

Statements in this study were scored for reporting purposes in one of two ways. Statements phrased in a context that suggests a desirable outcome were given scores of one for each Strongly Disagree, two for each Inclined to Disagree, three for each Inclined to Agree, and four for each Strongly Agree.⁵ (I.e. The jobs in the SDDOT are clearly defined and logically structured.)

Statements with phrasing suggesting an undesirable outcome (i.e., “In the SDDOT, it is sometimes unclear who has the formal authority to make a decision”) were scored by the survey participant in a manner consistent with the positive context statements as described in the preceding paragraph; however, the code values were then reversed for reporting purposes. To Strongly Disagree with this statement “it is sometimes unclear” is interpreted for reporting purposes as Strongly Agreeing with the opposite meaning “it is always clear.”

Assigning one to the most negative response and four to the most positive response allowed a mean to be calculated for each domain. The mean was then used to determine if the domain was one of strength, operational, or concern. Table 2 provides the mean for each domain in 1998, 2000, and 2002. The changes from the base year and 2000 to the current period are also provided.

Strength Range—A mean score of 3.35 to 4.00 for the domain analysis is considered to be in the strength range. This indicates the behaviors and perceptions of the employees, with regard to the issue being measured, are considered to be very consistent and strong and not to be causing any concern or dysfunctional behavior at this point in time.

Operational Range—A mean score of 2.95 to 3.34 for the domain mean is considered to be in the operational range. This is considered to be a good score. A score in this range indicates the behaviors and perceptions of employees are consistent, and they are viewed as being quite positive. However, they are not as strong, nor as prevalent, as the behaviors identified in the strength range.

⁵ Note that the 1998 scores presented in this report are different than the 1998 report. In order to provide comparability to the 2000 data, the 1998 domain means were recalculated using the same numeric coding as the 2000 data.

Table 2: Domain Means

Domain	Year			Change		
	2002	2000	1998	2000-2002	1998-2002	1998-2000
Identity	2.655	2.418	2.277	0.237	0.378	0.141
Work Schedule	2.583	2.393	2.157	0.190	0.426	0.236
Morale	2.644	2.468	2.649	0.176	(0.005)	(0.181)
Purpose	2.753	2.580	2.493	0.173	0.261	0.088
Safety and Efficiency	2.724	2.556	2.259	0.168	0.465	0.297
Climate	2.575	2.436	2.393	0.139	0.182	0.043
Reward	2.156	2.020	1.881	0.136	0.275	0.139
Performance Measurement	2.413	2.290	2.364	0.122	0.048	(0.074)
Communication	2.770	2.654	2.442	0.116	0.328	0.212
Structure	2.569	2.456	2.309	0.114	0.260	0.146
Culture	2.464	2.353	2.264	0.111	0.199	0.088
Support	2.493	2.405	2.255	0.088	0.238	0.150
Problem Solving	2.447	2.361	2.362	0.087	0.086	(0.001)
Risk	2.433	2.363	2.343	0.070	0.090	0.020
Teamwork	2.795	2.736	2.668	0.060	0.128	0.068
Responsibility	2.390	2.334	2.307	0.056	0.083	0.027
Conflict	2.438	2.384	2.310	0.054	0.128	0.073
Performance Appraisals	2.645	2.599	2.557	0.045	0.088	0.042
Training	2.857	2.829	2.722	0.028	0.135	0.107
Standards	2.548	2.550	2.424	(0.002)	0.123	0.126

Concern Range—A mean score of 2.94 and below for the domain mean is considered to be a concern. That is, the behaviors and perceptions are causing some concern or problem among employees or management. They may not have reached the point of causing dysfunctional behaviors, but the potential is there and possibly needs to be addressed.

The **theoretical mean** is 2.50. This is also referred to as the theoretical midpoint or the point of indifference. The point of indifference indicates a balance between positive and negative responses.

There were no organization-wide domains in the strength or operational ranges in 2000 and 2002. Strong positive growth was seen in eleven of the twenty domains (net change greater than 0.10); some growth is seen in seven domains (growth between 0.05 and 0.10); little growth is evident in the remaining two domains (net change less than 0.05). There were no domains where the mean score decreased between 2000 and 2002.

DIFFERENCES IN AVERAGE DOMAIN RESPONSES

The demographic variables are useful when reviewing the domain scores in that they further explain which groups think things are better and which think things are worse. Before exploring specific domains, the change in the average of all twenty domain scores is presented as a summary of the overall change from 2000 to 2002.

Performance by region showed the respondents in the Pierre Central office (0.13) had the greatest growth in its mean score followed by the Pierre (0.12) and Mitchell (0.11) regions. The Aberdeen (0.07) and Rapid City (0.07) regions had the least improvement performance this period but improvement was scored nonetheless.

Respondents in the E position class had a substantial change (0.22) in the average domain response from 2000 to 2002 followed by lesser progress in the Q (0.13), T (0.10) and N (0.10) position classes.

Salaried respondents (0.12) had a slightly larger average increase in domain scores from 2000 to 2002 than did the employees paid hourly (0.10) that participated in the survey.

The respondents in the specialist/analyst (0.22), clerical (0.21), financial/ information services / legal (0.20), maintenance (0.14), engineering (0.11), executive (0.08), equipment (0.02), and drafting (0.00) job classifications had increases in their average domain mean score between 2000 and 2002. The technician (-0.02) classification showed a decrease over the two-year period.

OVERALL JOB SATISFACTION

The percent reporting some level of satisfaction, either satisfied or extremely satisfied, was 68.48 percent in 2002, up measurably from the 55.85 percent measure in 2000 and more than twenty percentage points higher than the 1998 score of 47.83 percent. A recent sampling of the American work force noted that approximately 86 percent of employees were either completely satisfied or somewhat satisfied with their work.⁶

The overall mean job satisfaction increased from 2.75 in the 2000 Organizational Health Assessment (OHA) to 2.96 in 2002. The score in the benchmark year of 1998 was 2.64. While these changes were relatively modest, the changes were in the desired direction and do represent improvement.

The Rapid City Region (3.08), Pierre Central Office (3.05) and Pierre Region (2.98) had the strongest overall job satisfaction scores. All three locations had means in the operational range. The Mitchell (2.83) and Aberdeen (2.77) regions had the lowest overall job satisfaction scores and fell within the concern range.

The E (3.65) and Q (3.48) position classes were in the strength range of 3.35 to 4.00. T was in the operational range (2.95 to 3.34) at 3.10 followed by the N class at 2.86 in the concern range.

SPECIAL ANALYSIS OF OVERALL JOB SATISFACTION

Suggested follow-up questions from employees regarding overall job satisfaction included:

- “Are the results better because those who left were disgruntled?”
- “Are the results better because we hired new people with better attitudes?”
- “Are those that are still here happier?”

The first question asked whether those people that have left the Department had significantly worse opinions of overall job satisfaction than did those that remained with the SDDOT through 2002. A first comparison, contrasting the overall 1998 job satisfaction measure from those that left was not significantly different ($p=.080$)⁷ in that year from those that remained with the Department through

⁶ Source: Gallup Poll Releases, <http://www.gallup.com/poll/pr990903.asp>, accessed on 6/28/2000. The poll had a margin of error of plus or minus four percentage points and was a sample of full-time and part-time employed Americans.

⁷ A p-value is the probability of rejecting the null hypothesis when in fact it is true. For a decision rule of 95% confidence, the maximum p-value that would result in the rejection of the null hypothesis is $p=.050$. The null hypothesis is that the measures are the same. The smaller the p-value below $p=.050$, the stronger the evidence that there is a statistically significant difference between the measures being compared.

2002. A second comparison contrasted the overall 2000 job satisfaction assessments of those that left with those that have remained with the Department through 2002. The difference in satisfaction between those that stayed and those that left was significantly different ($p=.002$).

That means that the evidence was split on the first question. The 1998 “job leavers” did not differ significantly from those that remained with the Department. But the same cannot be said of the employees that left their job from 2000 to 2002. The attitude toward overall job satisfaction of those that left ($M=2.63$) was on average statistically different from those that stayed ($M=2.80$).

With respect to question number two, the assertion that the results were better because SDDOT has hired new people has some basis in fact. The job satisfaction mean for new employees in 2002 was $M=3.09$ and was higher (0.15) than the 2002 mean ($M=2.94$) for the employees who responded to both surveys. New people, on average, typically have higher satisfaction scores than those continuing their careers and a higher proportion of younger people will bring up the average score. These results do account for some percentage of the increase in overall job satisfaction assessments but they do not account for all of it.

The answer to question three is yes. Analysis of the data showed that for SDDOT respondents that worked in both 2000 and 2002, the overall job satisfaction 2002 measure of $M=2.94$ was higher than that the same people scored in 2000 ($M=2.80$). People that stayed became happier.

NATIONAL COMPARISON STATEMENTS

The SDDOT technical panel agreed to include a series of national comparison statements in the survey instrument. The 2002 study replicated 1998 and 2000 studies. The statements are again included. The statements were developed by the Gallup Organization and were used with its permission.⁸ The national comparison statements or questions developed by the Gallup Organization are known as the Q12. These questions were distilled from hundreds of questions that researchers thought might contribute to employee engagement. Paraphrased, numerous focus groups and employee interviews identified 12 expectations that, when satisfied, form the foundation of strong feelings of engagement. Gallup has established a strong link between higher survey scores indicating greater engagement and worker performance.

Gallup writes: “In recent years this tool has been used by more than 87,000 divisions or work units within corporations, and approximately 1.5 million employees have participated. ***For companies that were able to provide data across units, comparisons of engagement scores reveal that those with high Q12 scores have also experienced lower turnover, higher sales growth, better productivity, better customer loyalty or other manifestations of superior performance*** (emphasis added). Dozens of managers and employees from four companies that have adopted and gotten results from Q12—International Paper, Swissôtel, B&Q (a U.K. retailer of do-it-yourself and gardening supplies) and Best Buy, the electronics retail chain—have offered insights and observations for this story. The number of employees involved in the Q12 interventions detailed here was large, more than 20,000 at B&Q alone.”⁹

Much of Gallup’s printed information on Q12 performance relates the use of the tool with higher sales growth and profitability. While these concepts do not directly apply to governmental organizations like the SDDOT, the concepts underlying these outcomes do apply. Private sector

⁸ Permission granted by the Gallup Organization’s Roarke Stratton by telephone on February 25 and 26, 1998.

⁹ Feedback for Real, <http://gmj.gallup.com>, The Gallup Management Journal, March 15, 2001

organizations accomplish their outcome goals of increased sales and greater profitability by increasing their efficiency and productivity. Engaged employees contribute to that end. Likewise, public sector organizations like the SDDOT can through greater worker engagement accomplish their goal of providing the taxpayers a better value for their tax dollars through increased efficiency and productivity while improving worker morale and making the SDDOT a better place to work. All stakeholders from the taxpayer to top management in the SDDOT down through the organizational structure have their personal situation improved by increased worker engagement.

SDDOT RESPONSES TO NATIONAL COMPARISON STATEMENTS

Table 3 shows the percent of respondents indicating “yes” to each statement in 1998, 2000 and 2002. The percentage points change (percent)¹⁰ from the base year 1998 to 2002 and from 2000 to 2002 are presented. The response ranges for these statements were also evaluated against the Gallup defined decision rules that determine the ranges of Strength (84 percent or more “yes”), Operational (74 to 83 percent “yes”), and Concern (less than 74 percent “yes”).

Table 3: National Comparison Statements

National Comparison Statement	Percent Responding “Yes”			Percentage Point Change	
	2002	2000	1998	2002-2000	2002-1998
At work, I have the opportunity to do what I do best everyday.	70.23	60.47	56.35	9.76	13.88
My supervisor or someone at work seems to care about me as a person.	80.12	77.47	76.18	2.65	3.94
I know what is expected of me at work.	91.77	87.40	86.19	4.37	5.58
In the last seven days, I have received recognition or praise for good work.	34.00	30.39	24.17	3.61	9.83
At the SDDOT, my opinions seem to count.	53.04	45.05	43.83	7.99	9.21
There is someone at work who encourages my development.	48.98	48.96	43.81	0.02	5.17
In the last six months, someone at work has talked to me about my progress.	46.19	47.16	63.43	-0.97	-17.24
This past year, I have had opportunities at work to learn and grow.	78.98	72.82	68.88	6.16	10.1
My associates (fellow employees) are committed to doing quality work.	81.58	76.19	76.75	5.39	4.83
The mission of the SDDOT makes me feel my job is important.	73.08	60.98	55.74	12.1	17.34
I have the materials and equipment to do my work right.	77.27	71.53	66.30	5.74	10.97
I have a best friend at work.	35.74	38.01	41.59	-2.27	-5.85
Strength Range					
Operating Range					
Concern Range					

SDDOT responses in five of the twelve areas were in the operational or strength ranges. That was an increase in the operational range of two areas over the findings in the 2000 study. There continues to be some concern with the relatively low level of response for Statement Question 4 “In the last 7 days I have received recognition or praise for good work.” Some progress had been made in that domain with an increase this period of 3.61 percentage points. Response levels decreased again between 2000 and 2002 (-0.97 percent) for Statement 7 “In the last six months, someone at work has talked to me about my progress”. Decreases in this area in the 2000 study were down sharply from 1998 and were attributed to a change to annual performance appraisals.

¹⁰ Percent change is used throughout the study in the common context and also to represent the words “Percentage Points Change”.

Efforts to remedy issues that employees have in this area do not appear to be improving perceptions.

The Gallup School of Management likens the building of a successful organization to that of mountain climbing.¹¹ There are four levels on the way to the top of the mountain. There is the Base Camp, Camp 1, Camp 2 and Camp 3 with Camp 3 representing the summit. The Base Camp level answers the question “What do I get from working on this job?” The employees get to “know what is expected of them at work” and they get to “have the materials and equipment to do their work right.” The SDDOT scored in the strength range on “I know what is expected of me at work” and the operational range on “I have the materials and equipment to do my work right.” The outcome from achieving the Base Camp level of performance in employee opinion is a lower employee turnover expectation. The observed turnover rate dropped from 8.3 percent per year between 1998 and 2000 to 6.9 percent per year between 2000 and 2002. That expectation is satisfied.

The next level up the mountain is Camp 1, which answers the question “What do I give to the job?” The questions among the Q12 that identified with Camp 1 are the statements relating to “Opportunity to do what I do best”, “Recognition and praise”, “Someone cares about me”, and “Someone encourages my development.” The SDDOT was scored by employees as being “operational” on the statement, “My supervisor or someone at work seems to care about me as a person”. The other three questions scored in the “concern” area. There has been good progress on the employee perceiving they have had the “Opportunity to do what I do best”. The lowest SDDOT scoring on the Q12 has consistently been on the statement, “In the last seven days, I have received recognition or praise for good work.” This is true even though there was improvement between 1998 and 2000 and improvement continued between 2000 and 2002. No progress had been made on the statement “There is someone at work who encourages my development.” This measure is the same in 2002 as it was in 2000.

Table 4: Gallup Mountain Climbing Measures for Camp 1 Statements

Statements	2002	2000	1998
At work, I have the opportunity to do what I do best every day.	70.23	60.47	56.35
In the past seven days, I have received recognition or praise for good work.	34.00	30.39	24.17
My supervisor or someone at work seems to care about me as a person.	80.12	77.47	76.18
There is someone a work who encourages my development.	48.98	48.96	43.81

Two of the four questions that define Camp 1 as the organization climbs the mountain have progressed and will be given less attention in the recommendations. The two are “Opportunity to do what I do best” and “Someone cares about me as a person.” The first still falls short of the classification of “operational” but significant gains have been made. With regard to the latter statement, it is assumed that these higher scores are a function of good people with solid Midwestern values knowing how people treat each other in this culture.

The focuses of the recommendations are on the other two questions. The first relates to rewards “In the past seven days, I have received recognition or praise for good work.” The consistently low scores on this question are thought to be a combination of the culture and a lack of skill development. The culture asks why I should tell a person they are doing “good work” if they are doing no more than what they are being paid to do.

¹¹ First Break All The Rules, What The World’s Greatest Managers Do Differently, Marcus Buckingham & Curt Coffman, Simon & Shuster, p266

The second focus of the recommendations relates to “Someone at work encourages my development.” The lack of management skills in the supervision of people appears cultural in that the SDDOT is a very good technical organization with a solid technical skill educational background that does not include people skill development. The people skills among the employees and more specifically the supervisors and executives need work. This is an important operational issue if progress toward achieving Camp 1 is to be made with any expectation for expediency. Added to this concern is the issue of management succession. Twenty-five percent of the employees in the SDDOT will qualify for retirement in the next five years. Mentoring the future leaders of the organization may not be sufficient given the potential for change in the ranks and the issues that have been discussed. Seventy-one percent of working adults surveyed by the Gallup Organization for Inc. Magazine in 1998 indicated that “Someone at work encourages my development.” Seventy-one percent of the working people in the general population responded yes to that question, while less than fifty percent of SDDOT employees said yes to the same question.

Camp 1 is highly correlated with profitability in private sector business operations. It is assumed that strength on the four questions results in higher profitability because of greater productivity. A more satisfied employee is a more engaged employee, resulting in greater productivity by means of greater efficiency. The recommendations of this study will suggest actions to assist in advancing the Department toward Camp 1 achievement.

CONCLUSIONS

Since 1998, the SDDOT has been engaged in a concerted and continuous effort to improve the subjective nature of the quality of its organizational environment by examining the organizational climate variables. The climate of the organization can be measured and can be described in numerical form, and once measured, organization climate can be managed in proactive, deliberate ways to improve performance.

The findings of the 2002 Organization Health Assessment (OHA) indicated that leadership practices, formal organization relationships, and efforts at goal achievement were improving at the South Dakota Department of Transportation. The discussions with employees in focus groups prior to and following the survey clearly supported that finding. Employees have noted that there has been continuous improvement in the operation and attitudes in the organization and they were more satisfied with their jobs than they were in either 1998 or 2000.

Much of the improvement within the organization can be traced to actions taken by management within the Department in response to items identified by employees during the 1998 and 2000 OHA and departmental quarterly meetings. Gains reflecting the organization’s focus on attitudes and goals were demonstrated in nearly every domain and the national comparison questions. The pervasive nature of the improvement was reflected in gains scored by almost all employee groups.

What has SDDOT done right? The organization has shown an increased respect for its employees. Management is more sensitive to employee concerns and issues demonstrated by their listening to employees and developing programs to address issues brought forward. Departmental management appears to be willing to talk about most issues as evidenced by the transcript of the questions and answers from the employee meetings. There is a general perception that management has reduced the incidence of arbitrary and capricious management practices. In the spirit of continuous improvement, we have seven recommendations to maintain momentum and increase the organization’s ability to respond to future challenges.

RECOMMENDATIONS

Continuous improvement requires that the Department continue the improved practices initiated in the last four years and make refinements in policy and actions where potential gains in employee satisfaction and associated gains in productivity and efficiency are thought to lie.

The goal of the next two years should be to maintain the Base Camp and progress to Camp 1 in the organization's mountain climb.¹² Maintaining the Base Camp requires that the supervisors continue to ask themselves the questions that encompass that level of performance: "Do my employees know what is expected of them?" and "Do my employees have the material and equipment they need to do the job right?"

If employees do not have the material and equipment that they think they need, do they see how the material and equipment allocation by the Department relates to the organizational outcomes? Supervisors should, on a quarterly basis, review the work unit's responsibilities to the Department and its role in the completion of the mission with their employees.

With maintenance of the Base Camp in mind, attention moves toward Camp 1. Four statements comprise Camp 1. The respondents scored the Department as being operational on one statement, improving substantively on another and doing little more than maintaining on the other two. The SDDOT was scored by employees as being "operational" on the statement "My supervisor or someone at work seems to care about me as a person."

RECOMMENDATION 1: WORK ENVIRONMENT

The first series of BRB recommendations relate to the Gallup Organization's Base Camp and Camp 1 statements.

- The BRB recommends the Department and each supervisor continue to provide a caring environment for their workgroup.

The level of agreement on the statement, "At work, I have the opportunity to do what I do best every day" is where substantial improvement has been made moving from 56.4 percent in 1998 to 70.2 percent in 2002. The Department has not yet reached the minimum operational range of 74 percent on this measure, but good progress has been made.

- The BRB recommends that supervisors identify what each employee does best in fulfilling the workgroup's mission and tell them, "This is what you do best..." This will help establish a culture that values employee's talents and contribution to the workgroup, the Department, and the mission. Supervisors should identify what prevents employees from doing what they do best and seek remedy.

The BRB suggests the SDDOT give more attention to actions affecting the statements, "In the past seven days, I have received recognition and praise for good work," and "There is someone at work that encourages my development." We need to continue giving attention to the statements previously discussed, but need more attention on these issues to initiate movement on these measures.

- The BRB recommends that supervisors regularly provide specific performance feedback to individual employees and the work team. Supervisors should ensure that employee

¹² See page 9 of this report for explanation of organizational health Mountain Climbing, Base Camp and Base Camp 1 concepts.

feedback is close in time to the behavior that produced the good result, and is specific in terms of the behavior that led to the desired performance. Supervisors should attempt to give three or four supportive comments for each negative comment made to a worker or workgroup. The idea is that more productivity results from praising employees for what they do well than from only mentioning what they do poorly. Praise is better at producing productivity than is criticism or punishment. Note that criticism is constructive and not punishment if it specifies a desired behavior by informing the employee what needs to be accomplished and is not made personal.

- The BRB recommends the Department provide training and coaching on the skill sets necessary to provide positive performance feedback to the employees.

The issue in this last recommendation, from the employee's perspective, requires further development of relational or people skills in the supervisory ranks. The same issue from the perspective of the supervisors leads to recommendations on the second statement "There is someone at work that encourages my development."

- The BRB recommends supervisors identify developmental opportunities for each employee that helps them get better at what they do best. This might include training or project assignments.
- The BRB recommends supervisors ask each employee what the employee needs to grow and develop.
- The BRB recommends the Department identify individuals by means of nomination for developmental experiences and training to facilitate a productive succession as people retire. Nominations for consideration should come from both individuals and supervisors.
- The BRB recommends the Department continue assisting people with career planning.

RECOMMENDATION 2: EMPLOYEE CONCERNS

Second, it cannot be overstated that the SDDOT must be sensitive to employee concerns and issues showing increased respect for them and their ideas. Respect for one another is the lynch pin upon which the other recommendations build. The vision is one of having a job that each person does well, having the equipment that one needs to do that job, and having the respect of supervisors and coworkers in how one does their job. It is from this foundation or Base Camp that the engagement of employees in their work and greater productivity is achieved.

- The BRB recommends the continuation of the Organizational Health Survey. Continuation is recommended because people and organizations do better at what is measured. The literature notes that sporting events would not have the same intensity or garner as much interest without scores being kept. A second reason to continue the OHA is that the employees are provided a venue where their voices are heard and either reward the organization on its achievements or point out concerns that need to be addressed.
- The BRB recommends the Department continue the semi-annual listening sessions between top management and other personnel. This is "bottom up" communication between the workers and the management. Continue as well the publication of employee questions and management responses to those concerns.

- The BRB recommends the Department create a web site enumerating policy changes and support for the changes to insure the flow of information from top management to other personnel. This provides a direct channel of “top down” communication between the management and the workers.
- The BRB recommends utilizing the web site to implement an electronic suggestion box to provide input to management on a continuous basis. This would be the modernization of the index card approach currently used. The index card system should be continued recognizing that not all employees are adept at computer mediated communication.
- The BRB recommends efforts be made to include supervisors in sharing the departmental vision and including supervisors in goal setting. One action to implement this recommendation is to include workers as a constituency, a group served by the agency.

These suggestions are consistent with the Organizational Health component of the South Dakota Department of Transportation Strategic Plan 2003.¹³

RECOMMENDATION 3: LONG-TERM STRATEGY

Third, we recommend that the SDDOT management think longer term—to move its strategic planning process out to five years with a vision looking to ten years. This will be a challenge to top management because of the effort required and the likelihood they will not see the vision completed during their tenure. But, just as today’s management is responding to issues dependent on routines and practices developed years ago, the actions of today’s management will affect the organization’s younger long-term employees in years to come. The motivation to act now to challenges anticipated five or ten years from now is not the easy road but the choice to act now will greatly enhance the organization’s ability to respond to future challenges.

- The BRB recommends the SDDOT lengthen its time horizon from a couple of years to between five and ten years in its planning and strategic goal setting.

We are not recommending that the SDDOT engage in a “self visioning” exercise that results in unachievable goals like experienced in neighboring states. Instead we are recommending that the word “mobility” in the Department’s mission statement be explored from the perspective of what mobility means to the customers using this service. Then the Department can explore how external influences and factors such as the economic, sociologic and technological trends will affect the need for mobility in the state. The state’s sociologists and economists are discussing the changing demographics and centers of business within the state. In this sense, the term “strategic” in strategic planning refers to those factors that have the ability to affect plans and transfer significant costs to the organization or even threaten its funding base and operations.

We think that the SDDOT has been very adept at planning the accomplishment of specific goals, usually short-term in nature, and allocating resources to achieve those goals. What has been missing is a sense of future environmental influences on the SDDOT. This is not unusual. Peter Drucker when receiving his lifetime achievement award from the Academy of Management in 1998 said, “The biggest lie of management is that we account for the external environment.” What Drucker means is that many businesses fail by failing to plan for events outside their control. In effect, Drucker asserts that strategic planning is planning for the future consequences of present

¹³ South Dakota Department of Transportation Strategic Plan 2003, South Dakota Department of Transportation Office of Research, Pierre, SD, January 2003.

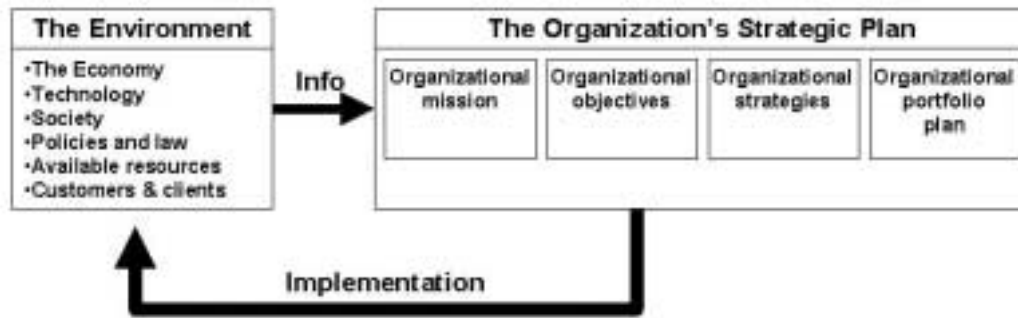


Figure 1: The Strategic Process

decisions made by you or by others. The SDDOT must continue to systematically analyze its environments and plan for future external influences.

- The BRB recommends utilizing an external facilitator to insure that environmental factors such as those presented in Figure 1 are considered. This approach ensures that participants will also consider what the organization “might” do within its environment to improve the transportation system rather than continuing with what the organization “can” do based upon the organization’s past experiences.
- The BRB recommends that supervisors be involved in the strategic planning process to strengthen their perception that they are a part of the management team. Involving supervisors facilitates changing their perception from “us” and “them” to “we” the management.

Our recommendation is that the SDDOT systematically assess the environments in which the agency operates, review the statutory mission and the operating mission, and the strategic goals listed in the Strategic Plan 2003 for congruency with this assessed environment. We recommend that the discussion needs to be facilitated by someone outside the agency, who can identify “group think” and other phenomena that involve the group making decisions on bases other than the facts presented.

RECOMMENDATION 4: PERFORMANCE MEASUREMENT

Fourth, we recommend that the SDDOT invigorate its performance measurement initiative. The agency must develop more outcome, performance, and productivity measures to speed progress. The purpose of developing these measures is not to provide a “rope to hang us with” as noted by an employee in the 1998 OHA, but to provide valuable measures by which to judge performance. Measurement is the hallmark of continuous improvement. One need only think of the analogy of going to watch a football game. There will be lots of great passing, blocking, running, and tackling as a result of the game being played. But the game will generate little interest for anyone if we do not keep score. Most of us need to see the scorecard in order to improve. A score provides a metric against which we can judge our performance. Measured improvement in performance is a positive outcome for supervisors and employees to discuss during annual reviews.

- The BRB recommends, in preparation for future reviews, that each worker with their supervisor develop three challenging and achievable goals that both agree will benefit the worker's development and the SDDOT as an organization.
- The BRB recommends that training be provided to supervisors to improve their appraisal and goal setting skills.
- The BRB recommends that independent coaches with appraisal and goal setting skills be assigned to assist the supervisors develop employees and link individual behaviors to organizational outcomes.

The BRB is not recommending the SDDOT appoint a department-wide review of the goals set or their achievement in response to the above recommendations. The objective in the short term is to build trust between supervisors and employees as a mechanism for adding value to the organization. The long-term objective is for the employees to identify strategic performance measures that will link individual accomplishment to unit activity to mission accomplishment.

The BRB recommends the continued development of the activity-based costing system. Activity-based costing answers the question, "If SDDOT engages in an activity, what does it actually cost the organization to provide that product or service?" Strategic performance measures, on the other hand, identify which activities lead to the accomplishment of the mission. The recommendation is to ask a preliminary question, "Should the SDDOT engage in the activity?" The order of these questions should be reversed. The first question should be whether or not the activity contributes to mission accomplishment and the follow-up question is how much does it cost?

RECOMMENDATION 5: MANAGEMENT DEVELOPMENT

Fifth, we recommend initiating an ongoing supervisory and management development program. The importance of developing the people skills of the SDDOT's well-trained technical staff was identified as an important objective. The training and development program should be tailored to ongoing key variables identified as capable of impacting the climate in a positive way. In particular a major focus should center on skill in communications, policy interpretation and implementation, trust, and desired outcomes of training. We recommend all supervisors attend supervisory training, and that training be available to individuals who wish to be considered for promotion and upward mobility in the organization. Current supervisors need to attend supervisory training to maintain the momentum of continuous improvement. We still hear of supervisors that use poor technique and questionable judgment in motivating and encouraging subordinates.

Immediacy is an issue in this regard. We analyzed the potential for turnover in SDDOT and have found that within five years, nearly 25 percent of the workgroup members of the agency will be eligible for retirement under South Dakota Retirement System rules. The SDDOT needs supervisors with sound management skills to familiarize new employees with desired behaviors and attitudes as well as indoctrinate the SDDOT culture and values into the new employee.

- The BRB recommends that the SDDOT employ supervisory training in addition to the tradition of mentored experiences. Retirements will require the cultivation of talents by means of training for two reasons. The first is the loss of mentors to retirements. The second is the opportunity to employ contemporary supervisory practices.
- The BRB recommends the Department identify individuals with supervisory potential for training and development into supervisors.

- The BRB recommends the SDDOT project skill sets needed five to ten years into the future because of looming retirements.
- The BRB recommends formalizing the orientation of new employees so they learn desirable values and work behaviors.

RECOMMENDATION 6: SURVEY RESPONSE RATE

Sixth, we recommend that the SDDOT work to improve the response rate of future surveys. While the response rate reported in the literature for most organizations is about 70 percent, the SDDOT rate in 2002, the concern is the drop off in response between 1998 and 2002 and the need to reverse the trend minimizing the potential for non-response bias. It is important that employees understand that efforts to improve the Department are not solely the result of better “top down” management. An engaged workforce requires that the executives, the supervisors, and the frontline workers share a vision of the organization’s future that will improve performance and the satisfaction that each employee takes in his or her contribution. The appearance of being a “top down” managed organization will be diminished with engagement and respect for the information that comes from the “bottom up.” Participation in the survey is as essential to an organization as the vote is to a healthy democracy.

- The BRB recommends the implementation of a “Survey Day” to increase the participation in the survey and stress the importance of employee contributions. While “Survey Day” suggests that the selection of a single day for the entire organization is preferred, flexibility is recommended within a specific period of time to better fit the schedules of different offices. A “Survey Week” may be a better designation.

The SDDOT has made substantive gains in its organizational health since 1998 as is measured in the quantitative findings of the written survey and confirmed by discussions in post survey focus groups and workshops. The need for continuous improvement is recognized by the Department and efforts to proceed on that path are becoming part of the culture.

RECOMMENDATION 7: SURVEY LENGTH

Seventh, we recommend shortening the OHA survey. The Business Research Bureau has worked at reducing the number of questions by removing redundant questions, and subjecting each question to “reliability assessment” to determine its necessity. The objective was to determine whether any questions or a specific question could be removed and still obtain a “healthy” reliability coefficient for the domain. The BRB also performed a factor analysis of the questions to see if we should restore questions that contribute substantially to the overall domain measure. If the number of questions could be reduced, it would be more convenient for SDDOT staff to respond to the Organizational Health Assessment. With an increased response rate we can say with confidence that the views reported represent the views of all employees of the SDDOT improvement.

PROBLEM DESCRIPTION

Conduct an organizational assessment to measure the organizational health of the South Dakota Department of Transportation (SDDOT). The results of this assessment will facilitate the Department's ability to focus attention on areas of possible improvement and serve as an input to the strategic planning process. This assessment will provide a means for progress measurement against the benchmarks established during the 1998 and 2000 SDDOT Organizational Health Assessments. The effectiveness of organizational changes that have taken place in response to the 1998 and 2000 outcomes can be measured through the use of this follow-up assessment. In addition, the organizational assessment data will allow for the comparison of individual departments to the entire system as well as interdepartmental comparison based on demographic variables (e.g. geographic, position classifications, etc.).

In many organizations, the measurement of climate presents an opportunity for employees to identify their understanding of organizational policies and procedures, as well as their satisfaction with their work setting. In determining the viability of organizational changes, one must first determine whether employees know what is newly expected, and then determine the overall effect of the changes.

Organizational health and climate surveys can be used as a baseline for determining human resources outcomes such as absenteeism, turnover and job satisfaction. Upon thoughtful analysis and reflection of organizational health and climate findings, management should be able to determine whether certain climates within the organization correlate with significant demographic variables (i.e., office, geographic locations, position classifications, etc.). Further, research and analysis attempted to determine whether distinct climates were more highly correlated to performance measures (as defined by the SDDOT "Performance Measurement Initiative") than other climates. If research of this nature can determine positive correlations, the organization can vary management activities to improve performance and reduce human resource and operational costs.

Much of the research reviewed examines which aspects of the organization to measure (improving climate measures). There is a study that reviews predictors of climate (e.g., gender effects on climate, etc.)¹⁴, and one that examines the relationship between organizational climate, customer perceptions of service, and financial outcomes.¹⁵ More recent research explores the link of specific measures of organizational climate to identified organizational strategies.¹⁶

Methods to assess organizational psychological health include everyday observations, one-on-one conversations, reviews of concerns raised at staff meetings, and surveys. These surveys give a wide-angle perspective on the unit's readiness to perform. By gathering input from all employees at a similar point in time and in a confidential manner, employees can reveal to management ways to

¹⁴ Bing, M. N., Burroughs, S. M., and Helford, M. C. (1999) Gender as a Moderator of the Relationship between Psychological Climate Perceptions and Employee Dedication: A Look at Organizational Commitment and Turnover Intentions. Presented at the 59th Annual Meeting of the Academy of Management, Chicago, IL.

¹⁵ Buckingham, M. and Coffman, C. (1999) *First Break All the Rules: What the World's Greatest Managers Do Differently*, Simon & Shuster (ISBN: 0-684-85286-1).

¹⁶ Rucci, A.J., Kim, S.P., Quinn, R.T. (1998) The employee-customer-profit chain at Sears. *Harvard Business Review* 76, 82-97.

improve the health of the organization. But this involves confidential measurement, interpretation by managers, and development of action plans.

OBJECTIVES

An organization's health, broadly defined, is its ability to accomplish its mission now and in the future. The objective of this study was to review and analyze the organizational health of the South Dakota Department of Transportation (SSDOT) using a set of measurable properties that not only reflect employee perceptions and levels of satisfaction but also measure on a biannual basis the organization's performance gains and losses in its pursuit of continuous improvement. Organizational health, in short, is a metaphorical term referring to the employee's perception of whether the conditions of the workplace are healthy or unhealthy. The idea is to identify issues within the organization that may be impeding productivity, creativity, efficiency, and the exercise of authority in carrying out the mission of the organization.

The organizational health survey is a vehicle that provides employees an opportunity to freely voice their feelings regarding the progress in their office's and the overall Department's development. The sponsoring of an Organizational Health Study reflects the respect an organization has for the opinions of its employees, management and non-management alike. The gathering of information from the employees by an independent organization such as the BRB assures the employees that their voice will be heard through participation in the survey.

Recognizing that large organizations don't speak with a single voice, the findings for the whole organization were disaggregated using demographic variables. The separation of information using demographic variables clarified the message from employees in different circumstances. Six hundred seventy-seven responses are divided into smaller groups based on characteristics that included work location, employment tenure, employee age, gender, job, and salary classification. This effort provided assurance that smaller group concerns were not lost in the reporting of responses for the full organization.

Focus groups were conducted with management, supervisors and non-supervisors prior to and after the written survey. The focus groups before the quantitative survey were conducted for two reasons. The first was to determine if new issues had surfaced since the 2000 effort that needed to be explored and included in the written questionnaire. The second was to determine if the survey questionnaire as it was written in 2000 was adequate or was in need of refinement.

The second set of focus groups followed the written survey and the presentation of findings from the written survey. This post written survey discussion with the employees allowed participants an opportunity to clarify the meaning and context of the findings. The context of comments is often important to the understanding of a statement. These discussions allow for greater exploration where perspective is lacking or there are subtle distinctions that need to be made to insure clarity in the meaning of the statements. For the researcher, this is an opportunity to confirm or dispel the conclusions drawn from the written survey.

The written survey is the quantitative portion of the Organizational Health Study. A letter was enclosed with the questionnaire that explained how to complete the questionnaire, the purpose of the survey, that responses would be held in strictest confidence, how the responses would be held in strict confidence, and how the results would be tabulated. This is not a sample but rather a census of opinion. The survey questionnaire was mailed to every employee of the SDDOT to be completed and returned to the BRB in a self-addressed envelope. There is no sampling error in this methodology. Any error in the assessment of employee opinion is attributable to nonparticipation or non-response and not sampling error.

The cumulative findings of the qualitative focus groups, the quantitative written population survey followed by the post survey focus groups provided a picture of the organizational health of the South Dakota Department of Transportation. The focus groups' discovery and findings are summarized in the report. The quantitative findings are discussed in greater detail identifying the changes and trends that have taken place within the SDDOT since 1998 and 2000. Areas of weakness and strength were identified for the organization and more specifically for the different demographic groupings.

Conclusions drawn from the focus groups and the written survey were then summarized with specific recommendations for action to improve the SDDOT's organizational health. Organizational health, in short, is a metaphorical term referring to the employee's perception of whether the conditions of the workplace are healthy or unhealthy. The idea is to identify issues within the organization that may be impeding productivity, creativity, efficiency, and the exercise of authority in carrying out the mission of the organization. The prescriptions for change were presented as recommended interventions. These recommended interventions or changes were selected with the Gallup Q12 and Domain Analysis in mind.

It is our opinion that the SDDOT has successfully built a foundation or "base camp" upon which continued improvement can be built to increase the satisfaction with the organization and its productivity with the expected progress. The Gallup Q12 and the base camp concepts are explained in the chapter titled "Findings—National Standard Comparison Statements."

The chapter titled "Findings—Domain Analysis" addresses 20 subgroups or domains of interest which include domains titled Structure, Responsibility, Identity, Reward, Risk, Communication, Working Climate, Support, Morale, Standards, Training, Conflict, Culture, Teamwork, Safety & Efficiency, Performance Appraisals, Problem Solving Initiative, Performance Measurement Initiative, Work Schedule and Purpose. The progress being made by the organization in each of these performance areas was measured, charted and analyzed relative to past performance. The Domain Analysis added the dimension of perspective relative to highly successful businesses and their scores on these factors.

TASKS PERFORMED

The SDDOT Technical Panel and BRB representatives met in February of 2002 for the purpose of defining the scope of the project and agreeing upon a timeline for the project's completion. Revisions to the timeline were required and agreed upon because of personnel availability at the SDDOT and BRB and project leadership turnover at the BRB. This section presents the flow of work that was accomplished to complete this study of the SDDOT's Organizational Health.

The 2002 study is a replicate of similar efforts performed in 1998 and 2000. The purpose of replicating those earlier studies was to provide measures that would identify those areas where improvement can be identified and monitored to determine if progress appears continuous. Differences in the methods employed and the questionnaires used were the result of the BRB meeting with the Technical Panel for the purpose of refining the process to make it less intrusive on employees or to improve the quality of data collected.

Information was gathered from the employees using common qualitative and quantitative methods. Focus groups (the qualitative measures) were conducted before and after the distribution and gathering of the written questionnaires (the quantitative measures). Those focus groups prior to the written questionnaires finalization and distribution were held with randomly selected supervisory personnel and non-supervisory personnel and were conducted to gain insight on organizational issues and perceived changes that have occurred since the previous assessments. The written Department-wide survey was conducted to quantitatively identify issues and concerns about organizational health and changes in such measures since 1998 and 2000. The comparative analyses of the results with those obtained in the Department's earlier organizational health assessments were used in this analysis to identify changes, trends and outcomes. After the written results were presented there were a series of workshops and post survey focus groups conducted for the purpose of relaying the quantitative findings and qualitatively evaluate the findings.

The tasks necessary to complete the study and the timeline describing their performance are described in the Gantt chart that follows.

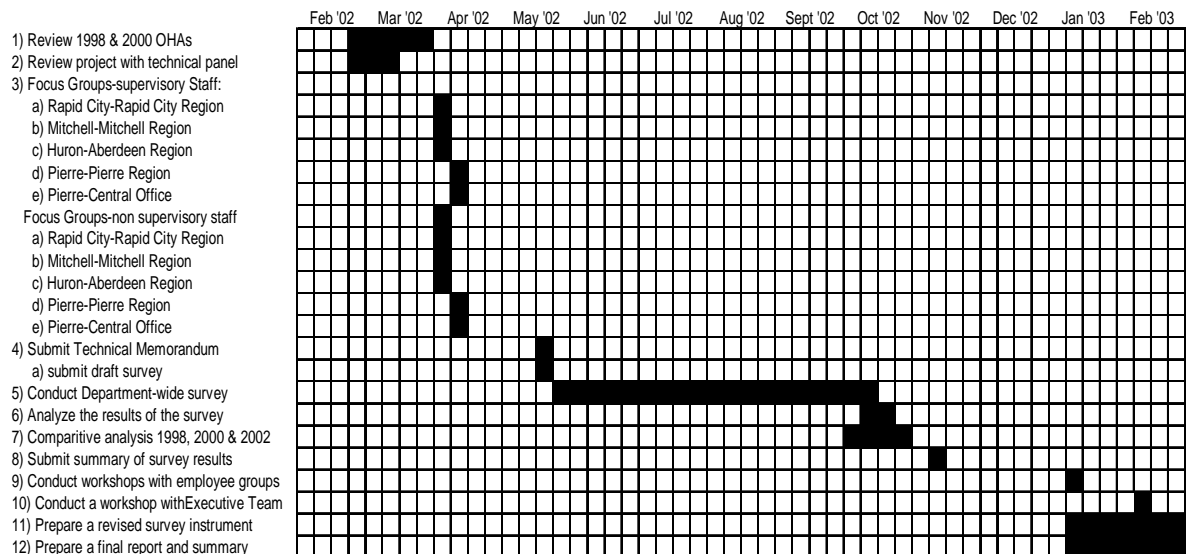


Figure 2: Performance Tasks and Completion Timeline

FINDINGS—FOCUS GROUPS BEFORE AND AFTER QUANTITATIVE SURVEY

FOCUS GROUPS—BEFORE QUANTITATIVE SURVEY

Eleven (11) focus groups with Department employees at the supervisory, non-supervisory, and executive levels were conducted to identify key issues that should be quantitatively assessed through the Department-wide survey. The focus groups were conducted according to established standards of social science inquiry. Members were notified through e-mail sent by their supervisors that they were to come to the “neutral” site and participate in a focus group on organizational assessment. At the “neutral” sites, members were briefed on the purpose of the focus groups, advised of the desire by both the BRB researchers and the SDDOT management team for frank and open input, and assured of the confidentiality of the process.

The following focus groups were held with randomly selected (as appropriate) participants from the ranks of supervisors, non-supervisors, and executive staff:

- Executive Management Team—Pierre on April 24, 2002.
- Supervisory staff participated in five (5) focus groups (four with regional supervisory staff and one with central office supervisory staff). The regional-level focus groups were held in Rapid City on April 1, 2002, Mitchell on April 2, 2002, Huron on April 4, 2002, and Pierre on April 16, 2002. The central office supervisory focus group was held in Pierre on April 15, 2002.
- Non-supervisory staff participated in five (5) focus groups (four with regional non-supervisory staff and one with central office non-supervisory staff). The regional-level focus groups were held in Rapid City on April 1, 2002, Mitchell on April 2, 2002, Huron on April 4, 2002, and Pierre on April 16, 2002. The central office non-supervisory focus group was held in Pierre on April 15, 2002.

Each of these eleven focus groups was conducted in two (2) hour sessions in groups that ranged from 10 to 15 peers (attendance from among those requested to attend was very high at each location). With the exception of the Executive Management Team focus group, the location for each meeting was “neutral” to allow participants to feel comfortable in the environment. Notes of the activities and comments received during the focus groups were used to revise the questionnaire around any new issues and concerns.

The purpose of the focus groups was to identify issues and concerns about organizational health that should be quantitatively assessed through a Department-wide survey. This information was being utilized to:

- Identify gaps between groups to assist in identification of areas of survey emphasis.
- Provide insight and additional information needed to prepare for the quantifiable survey.
- Provide insight into topics when perceptions and levels of satisfaction are conditional on some variable, e.g. position level.

SELECTION METHOD FOR FOCUS GROUP PARTICIPANTS

Participants for the focus groups were selected based on a random number being assigned to each employee included within each respective group (e.g., supervisory or non-supervisory within a region). Employees were then selected based on the lowest numbers for the group of interest and notified of their inclusion within the group of interest. The notification requested them to participate if at all possible and to advise if they could not so that they could be replaced in the group as necessary. Additional persons were selected and asked to participate by Central Office staff in order to ensure adequate and appropriate representation from all areas and classifications.

PROCESS FOR FOCUS GROUP SESSIONS

EXECUTIVE TEAM FOCUS GROUP

The Executive Team focus group session concentrated on three areas. These areas were used to provide an overall management perspective to help in the interpretation of the results of the supervisory and non-supervisory focus groups. These areas included finding out what actions the team felt they had taken in response to the 1998 study, what the team perceived as the top priorities for the SDDOT in the coming year, and what issues did they perceive to be important for the current study.

Each member of the Executive Team was asked to provide three responses in writing for the following two questions:

- In your opinion, what were the three (3) most important specific actions the Department of Transportation has taken to address the organizational issues raised in the previous Organizational Health Assessment?
- In your opinion, what are the Department of Transportation's top three (3) priorities for the next year (as an overall organization)?

SUPERVISORY AND NON-SUPERVISORY FOCUS GROUPS

The following process was used for the ten supervisory and non-supervisory focus group sessions:

- Each session began with an agreement between the participants and facilitators that the information and comments made in the room would be used to provide input to the questionnaire and the final report. However, the agreement also said that whoever made the comments or provided information would remain confidential.
- The focus group members were asked to list the three most vexing problems they face in their work on a weekly basis.

The first hour was utilized collecting information from the participants relative to the identified issues based on a ranking of the issues from the responses provided by the participants. Included in this process was their clarification and definition of the issues and a request for evidence that such issues or problems do in fact exist within the Department. Concurrently, attention was given to and discussions were held relative to the perceived progress on the major problems identified in the 2000 OHA study. The second hour concentrated on sorting symptoms from problems to develop useful insights and define new areas of interest for inclusion in the 2002 Department-wide survey.

FOCUS GROUP FINDINGS—BEFORE QUANTITATIVE SURVEY

COMMON FINDINGS

Each focus session was initiated with participants identifying themselves, their job, its responsibilities, and their work location. Each participant was then asked to identify, and write on paper provided, the three main issues or problems they had to deal with each week. This initial exercise was completed by both the supervisor and non-supervisor focus groups. As would be expected, there was some differentiation in the issues due to perceptions at the different organization levels. However, there was consensus between the supervisor and non-supervisor focus groups with respect to the following issues:

Communication: Communication, both organizational and interpersonal, was perceived to be an area where more needs to be done. Both the quantity and quality of information were felt to need improvement. Participants noted that it had improved over the past two years but much more still needs to be done.

Training: The perception is that better quality of training is necessary with maintenance personnel. Many felt the training was not consistent as to quality and *osmosis* was often the expectation. For supervisors, there was the feeling that training in supervisory management was necessary. Although the Department does provide some courses from the Bureau of Personnel, the engineers who had upward mobility in the Department as a goal did not view such courses as having a great deal of validity for them as the courses were said to be generic in nature.

Trust: Trust here has a rather peculiar meaning and did not mean a lack of reliance on character but more of a lack of confidence in individuals above or below them. Symptomatic of this were concerns over variations in policy interpretation and changes in priorities as to work completion.

Uniformity of Policy and Procedure: The organization has an active grapevine that gets information around quickly and for the most part quite accurately. Variations and discrepancies between Regions and even within Regions are quickly discovered.

NON-SUPERVISORY FOCUS GROUPS

Several issues were lofted most often by the non-supervisory focus group representatives including:

Wage levels: In particular, equipment operators and office secretaries made this an issue.

Overtime/Flextime: This issue has a life all its own and will continue to do so. Flextime in the central office is the human resources construct of flexible schedules, determined by the convenience of the employee, with a supervisor's approval. Flextime in the field offices was a "winter" concept to refer to the flexible scheduling of an employee's work, for the convenience of the Department. More recently, flexible scheduling has been used in the field offices to refer to the ten hour, four-day workweek for maintenance crews, but remains for the convenience of the Department for those on the construction side of the operation. They work when contractors work. It is an issue, but yet when confronted with a question of adapting to it, most had found a way to do so.

Safety Program: The disciplining part of the new safety policy had attracted much speculation and anticipated repercussions. Regrettably, the purpose of safety policy itself had been eclipsed by the complaints and anxiety

Teamwork: Where work scheduling is dependent upon coordinating and planning, there was concern as to how greater teamwork might be accomplished.

Attitude and Morale: This issue varied from Region to Region and appeared to be linked directly to the management style of the immediate supervisor.

Recognition: There was a general perception that recognition for work well done was lacking on the part of supervisors and the Department. Several supervisors were named as notable exceptions and were lauded for being a good supervisor.

SUPERVISORY FOCUS GROUPS

The following items were most often identified by supervisors as being of concern to them:

Advancement: As a group these people were younger, were bright, and had aspirations to advance in the organization. They perceived a lack of an organization development plan by which they and the organization might advance and develop together.

Management Training: The need for management education tailored to engineers in the Department was often noted. Engineers and technical persons have found themselves ill-prepared for dealing with management and supervisory problems.

Lack of lead time on projects: This group felt a lack of sufficient lead time on projects often led to less than quality work.

Working Conditions: This issue was focused on office areas and space. Maintenance people took less-than-desirable working conditions as a given! New equipment has had a positive effect on maintenance personnel.

Funding: Funding of projects or lack thereof was lofted as a source of frustration within the group.

In several of the focus groups there was time to pose the question of what are the good things about your jobs. The standard response centered on good people to work with, sense of accomplishment, and job security.

After reviewing the 1998 and 2000 reports and comparing them to the current focus groups, there was not much new with respect to problems. What was new was that both supervisor and non-supervisor groups perceived that efforts were being made to change things and that improvements have taken place. Both groups were desirous of continuing the changes into the future.

FOCUS GROUPS—AFTER QUANTITATIVE SURVEY

Two (2) focus groups with Department employees were conducted after the quantitative study to further explore findings from the Department-wide survey. The focus groups were conducted according to established standards of social science inquiry. Members were notified through e-mail sent by their supervisors that they were to come to the “neutral” site and participate in a focus group on organizational assessment. At the “neutral” sites, members were briefed on the purpose of

the focus groups, advised of the desire by both the BRB researchers and the SDDOT management team for frank and open input.

Each of these focus groups was conducted in two (2) hour sessions in groups that ranged from 10 to 15 peers (attendance from among those requested to attend was very high at each location). The location for each meeting was “neutral” to allow participants to feel comfortable in the environment. Both meetings were held in Pierre on January 23, 2003. Notes of the activities and comments received during the focus groups were used to further explore findings, issues and concerns identified in the quantitative survey.

SELECTION METHOD FOR FOCUS GROUP PARTICIPANTS

Participants for the after quantitative survey focus groups were selected employing a systematic sampling methodology with a random start. The full listing of SDDOT employees was sorted by job group. A number between one and ten was selected as a starting point and then every thirty-second name was selected. Selected employees were then notified of their inclusion within the group of interest. The notification requested them to participate if at all possible. A sufficient number of employees were recruited for each focus group (16) to allow for people having scheduling conflicts. More than ten people attended each of the two sessions.

FOCUS GROUP FINDINGS—AFTER QUANTITATIVE SURVEY

After introductions, the focus group participants were presented the Gallup’s twelve statements otherwise referred to as National Comparison statements. They were asked to individually prioritize the questions they felt were the most important issues for the SDDOT to address. Balloting was done with participants affixing paper dots next to the issues they thought to be the most important. Each participant had three dots ranging in value from three points to one point and they could place them one each next to three statements or vote for a statement more than one time if they so chose. The statements selected as being the most important are presented in Table 5.

Table 5: National Comparison Statements Selected as Most Important to SDDOT

Group One	Group Two
I know what is expected of me at work.	My associates (fellow employees) are committed to doing quality work
At work, I have the opportunity to do what I do best everyday.	I have the materials and equipment to do my work right.
My associates (fellow employees) are committed to doing quality work	This past year, I have had the opportunity to work and grow.
I have the materials and equipment to do my work right.	At the SDDOT, my opinions seem to count.

GROUP 1 COMMENTS

The number one issue with this group was, “I know what is expected of me at work.” The participants were then asked by the facilitator for ideas and actions which the Department can do to resolve the problem. The responses were as follows:

- 1) Expectations need to be written down, especially at the time of _____
- 2) On Department decisions: when decisions are made, how will it affect them?
- 3) What is the correct way to do things? Tell them before the work is begun.
- 4) What outcomes are expected when work is completed?

- 5) “Why” does work have to be done a certain way?
- 6) Supervisors do things differently; can’t procedures be standardized?

The number two issue was, “At work, I have the opportunity to do what I do best every day.” This issue generated some cross-conflict responses. The facilitator prompted the group, “How can I influence my supervisor in the organization to let me do what I do best?” The responses were:

- 1) Several complained that people were at times stuck in a job where the supervisor did not rotate them.
- 2) Several complained that workers didn’t always want to move.
- 3) Supervisors were concerned about getting a job done well so they were reluctant to move employees.
- 4) It was stated that it was not uncommon for people to be punished for working hard and doing a good job. The supervisor did not want to move them to a different job.
- 5) Supervisors are often not sensitive to the needs of workers.
- 6) There re not enough meetings of work groups to listen and talk and make certain all opinions are heard.
- 7) Suggestion that the survey be done on DOT time at work on the same day at the same time in order to get everyone to fill out the survey.
- 8) Problem-solving sessions should include at least three organization levels.
- 9) Observation: Organization supervisors don’t listen to or hear a problem unless 15 or 20 people raise the issue.

The third issue was, “My associates are committed to doing quality work.” The facilitator asked the group what was important about this issue. Discussion followed on a working definition of quality. What is it? How do you identify quality?

- 1) Quality was defined as felling good about oneself so that good work will come from that mental (mind) set.
- 2) A second thought was offered that quality work on the job is also defined by recognition from the traveling public.
- 3) Individuals voiced their feelings that many in the Department are as committed to maintaining quality work of fellow employees as are the supervisors.

The fourth issue was, “I have the materials and equipment to do my work right.” The facilitator asked, what are the ways the Department can provide this? Responses were as follows:

- 1) What is management doing to acquire new equipment?
- 2) Training on new equipment is very important.
- 3) Cross-training is often done with employees.
- 4) Management has done a good job on getting new equipment over the past 10 years.
- 5) There is a much greater cooperation now between districts to help one another, share equipment, and train workers than in the past.

Following a short break, the facilitator presented a general question to the group: “What do you think the DOT can do to improve things?” The responses to the question were as follows: (Note these are listed but not prioritized.

- 1) Take the concerns of employees and workers seriously.
- 2) Have more group meetings to address problems and issues.
- 3) Concerns and issues seem to get lost in “middle management.” The perception is that “middle management” accounts for many problems. There is a lack of trust.
- 4) Engineers need training in people skills. Their skills in dealing with people are not adequate.
- 5) Need to create a mechanism or to train middle managers to listen and hear the issues and problems at the work level.
- 6) It is hard to get information from supervisors so one has had to use the grapevine.

With the issues above discussed, there was a consensus among the group that, “things are getting better and they found this encouraging.”

GROUP 2 COMMENTS

The number one issue with this group was, “My associates (fellow employees) are committed to doing quality work.” The participants were then asked by the facilitator to explain the concept of quality and what it means. The responses were as follows:

- 1) Doing things right and well to show the public it is quality.
- 2) Quality work reduces maintenance costs and down time.
- 3) Make certain there is a good visibility on the road.
- 4) Personal pride was a faculty.
- 5) Quality work stands the test of time.
- 6) Frustrating to have to do work over.
- 7) To encourage others to do work well to be a good example.
- 8) Supervisors need to teach and show others how to do quality work.
- 9) Deadlines do interfere with quality work at times.
- 10) Turnover hurts quality and it takes time to train someone.
- 11) Several felt that the bottom line was dollars and if that money is not available you can't deliver quality work.

The number two issue was, “I have the materials and equipment to do my work right.” There was general agreement that things were getting better in the area of equipment. The facilitator encouraged the group to expand their thoughts on the issue. The responses were:

- 1) Several lamented that they did not have more input on how to do the work as well as the use of the equipment.
- 2) Some contractors have better equipment then we have.
- 3) The organization dos not always make good use of the expertise in the organization.
- 4) Employees are more involved now on purchase of equipment than in the past, but they are still not listened to enough.
- 5) We are doing better and need to continue.

The third issue for this group was, “This past year, I have had the opportunity to work and grow.” It was understood that learning new things is important both for personal growth and pay increases. It was also known that the way to get people to learn and grow is to let them try different things. Comments made were:

- 1) Supervisors must be willing to permit people to go to training and try other work areas.
- 2) Computer training and work would help all.
- 3) Supervisors need to be better teachers and instructors. Information on equipment operation not always readily available.
- 4) Supervisors do not always let us know what the work expectations are.
- 5) Equipment manuals made readily available would help.
- 6) Supervisors need to be better communicators.

The fourth issue was, “At the SDDOT, my opinions seem to count.” The facilitator prompted the group with the question, “Is the DOT open and honest with employees?” The responses were:

- 1) Take some time for group meetings but involve everyone.
- 2) Supervisors and middle management need to be a part of lower level discussions.
- 3) There is a lack of trust between levels.
- 4) People are afraid to teach others to protect their jobs. Some are afraid of losing their job.
- 5) Lower end of pay scale people most afraid of losing their jobs.
- 6) Losing benefits is a big issue and to lose your job takes this security away.
- 7) Health and injury is not a major worry for employees.
- 8) Relocation is an issue or problem for most people to contemplate.
- 9) Employees feel vulnerable with their supervisor.
- 10) A lack of trust comes from the lack of consistency in the way supervisors in different districts interpret policies and rules.
- 11) The rules should be the same in all districts.
- 12) Pay is also a trust issue in that not everyone treated the same—some feel everyone should be.
- 13) There is a problem with trust of the administration with DOT at this point in time.

- 14) Pointed to cell phones as necessary but they cannot get them.
- 15) We also need more radios. They said we would get them but did not follow through.
- 16) The perception is that we are getting only part of the issue or story. Some information is being withheld by people above us.
- 17) There appears to be more open and honest communication but it has a ways to go.
- 18) Group wants to receive information face-to-face as well as by some other media such as a written communication.
- 19) One expressed the feeling that the study was not completely anonymous.

The facilitator asked the question, “If we improved trust and communication would people work harder?” The answer was a cautious no, but it would be a more pleasant place to work.

FINDINGS—SDDOT DEMOGRAPHICS

The South Dakota Department of Transportation (SDDOT) was successful in filling a larger percentage of its authorized positions from 2000 to 2002 resulting in employment growth. In 2000, there were 924 full-time employees (a 5.7% increase from 1998), while in 2002 there were 961 full-time employees. The 961 employees refer to actual filled positions in the SDDOT rather than the number of positions that are authorized for the SDDOT. The net increase in SDDOT staff was 37 persons, representing a 4.0 percent increase in filled positions over 2000.

AGE

The average age of the agency was higher in 2002 rebounding from the decrease in the previous period. The other measure of central tendency, the median age for the agency, returned to the level recorded in 1998. In 2000, the average and median age in the organization was forty-three years (43.01 years). The average age of a SDDOT employee increased by a year and four months between 2000 and 2002 while the median age increased by a year and one-half.

The agency has more years of experience per employee in 2002 than in 2000 but falls short of the 1998 measure. The average SDDOT employee in 1998 had nearly fifteen and one half years of SDDOT service (15.48 years) with the median years of service being nearly thirteen years. Both measures dipped in 2000, with the average decreasing to just under fourteen years of service and the median service time declining to twelve years, two months. The 2002 measures show the average regaining three-quarters of a year and the median climbing to a three period high.

Table 6: SDDOT Mean and Median Age and Years of Service

	Age			Years of Service		
	2002	2000	1998	2002	2000	1998
Mean	44.35	43.01	43.68	14.64	13.91	15.48
Median	44.50	43.00	44.50	13.00	12.17	12.79

LOCATION

From 2000 to 2002, the Aberdeen region increased in employment by six people (an increase of 3.9 percent) from 154 to 160 staff members. In the Mitchell region, personnel increased by 12 persons (7.0 percent) from 171 to 183. The Pierre region increased in size by nine (6.3 percent) from 144 to 153 staff. In the Rapid City region, employment increased in by 3 positions (2.1 percent) from 146 to 149. Staff in the Central Office increased by 7 people (2.3 percent) from 309 to 316. Overall, the number of employees has increased by 37 or 4.0 percent.

Table 7: Number of Employees by Location

Region	2002		2000		1998	
	Number	Percent	Number	Percent	Number	Percent
Aberdeen Region	160	16.65%	154	16.67%	144	16.48%
Mitchell Region	183	19.04%	171	18.51%	160	18.31%
Pierre Region	153	15.92%	144	15.58%	142	16.25%
Rapid City Region	149	15.50%	146	15.80%	147	16.82%
Pierre Central Office	316	32.88%	309	33.44%	281	32.15%
Total	961	100.00%	924	100.00%	874	100.00%

PAY STATUS—SALARIED/HOURLY

For 2002, salaried employees constitute roughly the same percentage of the total employee population as they did in 2000 or 1998. The number of salaried employees increased by three persons (3.53 percent), while the number of hourly employees increased by thirty-four individuals (4.05 percent) from 2000 to 2002.

Table 8: Number of SDDOT Salaried and Hourly Employees

Pay Status	2002		2000		1998	
	Number	Percent	Number	Percent	Number	Percent
Salaried	88	9.16%	85	9.20%	81	9.27%
Hourly	873	90.84%	839	90.80%	793	90.73%
Total	961	100.00%	924	100.00%	874	100.00%

EMPLOYEE CLASSIFICATIONS

The percentage of employees by classification is fairly stable. There are small changes from period to period but the proportions in 2002 do not differ substantially from what they were in 1998. The only decrease in the number employed in a classification was the loss of one position in the “Q” classification between 2000 and 2002.

Table 9: Number of SDDOT Salaried and Hourly Employees

Pay Status	2002		2000		1998	
	Number	Percent	Number	Percent	Number	Percent
Exempt “E”	20	2.1%	17	1.8%	17	1.9%
Classified “N”	696	72.4%	669	72.4%	631	72.2%
Technical Exempt “Q”	30	3.1%	31	3.4%	27	3.1%
Technical “T”	215	22.4%	207	22.4%	199	22.7%
Total	961	100.00%	924	100.00%	874	100.00%

JOB GROUPS

In 1998, we reported our organizational health analysis in terms of groups of jobs, among other variables. The same job groups utilized in the 1998 study were used in the 2000 and the 2002 Organizational Health Assessments (OHA). The SDDOT Office of Research staff, in order to provide comparability of jobs, reviewed job titles for the 2000 analysis and those are incorporated here for consistency. Our overall goal was to cluster jobs into similar functions or duties so that it is possible to determine the effect, if any, attributable to the nature of the work on employee attitudes.

Table 10: Employee Job Groups and Classifications

Job Group	Positions	Job Group	Positions
Clerical	Admin Assistant I	Equipment	Equipment Shop Foreman
	Exempt Clerk		Equipment Services Worker
	Office Supervisor		Equipment Mechanic
	Secretary		Equipment Technologist
	Senior Secretary		Fabrication Technologist
	Senior Claims Clerk		Partsroom Assistant
	Staff Assistant		Partsroom Technologist
	Statistical Assistant		Accountant
Drafting	Auto Mapping Specialist	Financial Information Services Legal	Accountant Assistant
	Cartographer		Accounting Manager
	Chief Cartographer		Administrative Assistant II
	Draftsman		Budget Analyst
Executive	Administrator		Business Manager
	Department Secretary		Internal Auditor
	Director		Management Analyst
	Exempt Administrator		Program Manager
Engineering	Assistant Administrator		Senior Internal Auditor
	Environmental Senior Scientist		Senior Accountant
	Geology Specialist		Program/Analyst
	Technology Administrator		Senior Program/Analyst
	Trans Engineer Specialist		Litigation Supervisor
	Transportation Engineer Supervisor		Senior Trial Attorney
	Transportation Engineer	Specialist/Analyst	Aviation Services Manager
	Transportation Lead Project Engineer		Building Maintenance Supervisor
	Transportation Project Engineer		Equipment Management Specialist
	Transportation Region Engineer Specialist		Exempt Professional
Maintenance	Highway Maintenance Supervisor		Information Specialist
	Highway Maintenance Worker		Library Law Compliance Officer
	Lead Highway Maintenance Worker		Press Operator
	Medium Equipment Operator		Press/Bindery Operator
	Region Maintenance Coordinator		Property Management Specialist
	Senior Highway Maintenance Worker		Record Management Specialist
Technician	Civil Rights Program Administrator		Row Specialist
	Civil Rights Program Specialist		Right Of Way Supervisor
	Civil Engineering Technician		Right Of Way Technician
	Exempt Technician		Senior Right Of Way Specialist
	Journeyman Transportation Technician		Senior Statistician
	Land Designer		Statistical Program Manager
	Senior Transportation Technician		Transportation Analyst
	Traffic Data Technician		Transportation Specialist I
	Transportation Technician		Transportation Specialist II

The employees classified as clerical decreased by six between 1998 and 2000 and declined from fifty-nine to fifty-three in 2002 (-10.17 percent). Drafting employees increased by six between

1998 and 2000 but that trend reversed in 2002 with a loss of three employees, dropping that total from twenty-seven to twenty-four in 2002 (-11.11 percent).

Table 11: Number of SDDOT Employees by Job Group

Job Group	2002		2000		1998	
	Number	Percent	Number	Percent	Number	Percent
Clerical	53	5.52%	59	6.39%	65	7.44%
Drafting	24	2.50%	27	2.92%	21	2.40%
Engineering	238	24.77%	231	25.00%	222	25.40%
Equipment	52	5.41%	50	5.41%	43	4.92%
Executives	11	1.14%	9	0.97%	8	0.92%
Maintenance	315	32.78%	298	32.25%	293	33.52%
Specialist/Analyst	60	6.24%	48	5.19%	50	5.72%
Technician	178	18.52%	173	18.72%	153	17.51%
Financial/Information Services/Legal	30	3.12%	29	3.14%	19	2.17%
Total	961	100.00%	924	100.00%	874	100.00%

Employees in engineering classifications increased by seven (3.03 percent) from 231 in 2000 to 238 in 2002. Staff members in the equipment job groups increased by two (4.00 percent) from 50 in 2000 to 52 in 2002. Employees in the maintenance job classification increased by 17 (5.70 percent) rising from 298 in 2000 to 315 in 2002. Employment in the specialist/analyst job group increased by twelve persons (25.00 percent), which is up from 48 in 2000 to 60 in 2002. Employees in the technician job groups increased by five (2.89 percent) moving from 173 in 2000 to 178 in 2002. For the Financial/Information Services and Legal job group, employment increased by one person (3.45 percent), rising from 29 in 2000 to 30 in 2002.

GENDER

The number of female employees increased by 9 persons (7.14 percent). During the same time, the number of male employees also evidenced an increase, but this addition of 28 people representing a gain of 3.51 percent is smaller than the percentage gain than that reported for female employees.

Table 12: Number of SDDOT Employees by Gender

Gender	2002		2000		1998	
	Number	Percent	Number	Percent	Number	Percent
Female	135	14.05%	126	13.64%	108	12.36%
Male	826	85.95%	798	86.36%	766	87.64%
Total	961	100.00%	924	100.00%	874	100.00%

AGE OF EMPLOYEES

The number of employees aged 20 through 36 decreased by 17 persons (-6.42 percent) from 265 to 248 returning this age group to the staffing level of 1998. The age group 37 through 45 increased by 22 staff members (8.87 percent) from 248 to 270 staff members. Employees in the 46 through 52 age group decreased by 7 positions (-3.08 percent) from 227 in 2000 to 220 in 2002. Finally, the 53 through 65 age group increased by 36 (19.57 percent) from 184 employees to 220. Three people are over 65 years of age. If the top age category is stretched to 67 years of age, 53 through 67, the

increase for the group is 39 people (21.20 percent). Either measure more than reclaims the 1998 to 2000 loss.

The decrease in average age of a SDDOT employee between 1998 and 2000, from forty-three years, eight months (43.67 years) to just over 43 years (43.01 years), reversed in the 2002 measure. The average age of an SDDOT employee increased to forty-four years and four months (44.35). The median age in 1998, 2000 and 2002 was forty-four years, six months (44.50 years), in 2000 the median age was forty-three years (43.00 years) and the current measure is 44.50 or forty-four years six months.

In 1998 and in 2000, the youngest employee was 20 years old. In 1998, the oldest employee was 66, and in 2000, the oldest employee was 65. Records show the youngest in 2002 was also 20 but nearing 21 while the oldest was 67.

Table 13: Number of SDDOT Employees by Age Group

Age Quartiles	2002		2000		1998	
	Number	Percent	Number	Percent	Number	Percent
20 through 36	248	25.81%	265	28.68%	249	28.49%
37 through 45	270	28.10%	248	26.84%	220	25.17%
46 through 52	220	22.89%	227	24.57%	199	22.77%
53 through 67*	223	23.20%	184	19.91%	206	23.57%
Total	961	100.00%	924	100.00%	874	100.00%

*Three employees were 66 or 67.

SDDOT TENURE

New employees (defined as those having zero to two years of experience) have decreased from 158 people to 73 representing a decrease of nearly fifty-four percent (-53.80 percent). Employees with two through four years of experience increased by 118 persons (119.19 percent) reflecting the progress of new hires shown in the 2000 analysis. Employees with six to ten years of experience declined from 127 to 85 for a decrease of 42 (-33.07 percent). The employees with the most seniority (over ten years) continued to increase (46 people) rising from 540 to 586 (8.52 percent).

Table 14: Number of SDDOT Employees by Years of Service to SDDOT

Years of Service to SDDOT	2002		2000		1998	
	Number	Percent	Number	Percent	Number	Percent
New Employees (0 to 2 Years)	73	7.60%	158	17.10%	59	6.75%
2 through 6 Years Tenure	217	22.58%	99	10.71%	118	13.50%
6 through 10 Years Tenure	85	8.84%	127	13.74%	159	18.19%
Over 10 Years Tenure	586	60.98%	540	58.44%	538	61.56%
Total	961	100.00%	924	100.00%	874	100.00%

For 2002, the youngest age quartile, 20 to 36 years, had the lowest number of years of experience at six (5.99 years). This represented an increase in experience from 2000 where this age category had an average of nearly five years and nine months service (5.72 years). These employees averaged nearly 31 years of age (30.91 years) with a median age of thirty-one years and eight months (31.67 years). Both the average and median age increased as well, up from an average of 30 and median of 31 years.

The age grouping 37 through 45 had an average age of 41.42 years with nearly 12 years (11.96 years) of SDDOT service. Median age was 41.25 years and the median years of service was nearly twelve (11.92 years). This represented a five-month increase in average age from 2000 and showed an increase in the employee's average years of service (11.60 to 11.96 years).

Findings for the age quartile 46 through 52 years of age in 2002 indicated an average age nearing forty-nine years eight months (49.628 years) which appears higher than that for either 2000 or 1998. The average years of service was slightly more than eighteen years (18.20 years) and was up from the 2000 measure (18.06 years). The median years of service measured seventeen years seven months down significantly from 2000 where nineteen years and eight months (19.67 years) was reported.

Employees in the age category 53 through 67 years of age have an average age of 57 years and seven months, which is up a little from 1998 and 2000. The average years of service was just over twenty-four years (24.07 years) with a median nearing twenty-five years and eight months (25.63 years). The average years of service in 2000 was twenty-three years, eight months (23.68 years), with the median at twenty-four years two months (24.29 years). The 2002 measures fell between those for 2000 and those recorded in 1998. The average years of service for 1998 was over twenty-five years (25.11 years). The median number of service years in 1998 was twenty-eight years, four months (28.33 years).

Table 15: Average Age and Tenure of SDDOT Employees

Job Group	2002	
	Average Age	Average Years of Service
Clerical	48.84	18.70
Drafting	40.86	9.13
Engineering	40.74	15.13
Equipment	45.88	12.90
Executives	48.92	23.30
Maintenance	45.11	13.47
Specialist/Analyst	49.16	17.30
Technician	43.71	14.90
Financial/Information Services/Legal	46.81	17.33

JOB WORTH (SALARY MIDPOINT)

The employee's salary status with respect to their established job worth as demonstrated by midpoint salary was analyzed. To determine placement among the categories, the SD Bureau of Personnel's data item "compensation ratio" was used. Individuals were classified as being below midpoint (compensation ratio less than 1.0), at midpoint (compensation ratio equal to 1.0), or above midpoint (compensation ratio greater than 1.0). Most SDDOT employees used the term "midpoint" rather than the term "job worth." The percentage of employees below the midpoint has been relatively stable over the four year period with a low of 41.56% of the employees in 2000 and 43.31% in 2002. The people determined to be "at midpoint" where the wage matches the worth of the job declined from 1998 to 2000 and it declined again in 2002.

The number above the midpoint increased over the four-year period. In 1998, there were 269 employees above the midpoint, increasing to 345 in 2000 and 430 in 2002. The increase in the number above the midpoint in 2002 exceeded the new hire increase of 37 between 2000 and 2002.

Job worth valuing of a job suggested that once a person was at or above midpoint, there was little opportunity for a salary increase. However, the number above midpoint had increased and this inflation was largely attributable to existing employees and not new hires. Of the 88 employees with two years or less tenure, only 2 were paid above the midpoint in 2002.

Table 16: Number of SDDOT Employees by Salary Status with Respect to Job Worth

Salary Status with Respect to Job Worth or Midpoint	2002		2000		1998	
	Number	Percent	Number	Percent	Number	Percent
Below Midpoint	414	43.31%	384	41.56%	370	42.33%
At Midpoint*	112	11.72%	195	21.10%	235	26.89%
Above Midpoint	430	44.98%	345	37.34%	269	30.78%
Total	*956	100.00%	924	100.00%	874	100.00%

*In 2002 five positions did not have defined midpoints.

There were 414 people (43.31 percent) with salaries below the salary midpoint, 112 precisely at salary midpoint (11.72 percent) and 430 people above salary midpoint (44.98 percent) in 2002. In 2000, there were 384 (41.56 percent) who are below the midpoint, 195 (21.10 percent) who were at the salary midpoint, and 345 (37.34 percent) who were above the salary midpoint. There was no statistically significant difference in terms of the distribution of these individuals within regions in the SDDOT relative to midpoint or job worth in 2000, nor were there differences in 2002.

There was a statistical difference in terms of the distribution of individuals across employee type (Fair Labor Standards Act salaried and hourly) for job worth in 1998 as a greater proportion of salaried employees were above midpoint than were hourly employees. While that was not true in 2000, it was true again in 2002. A greater proportion of salaried workers were above midpoint in 2002 than were hourly employees. The difference is statistically significant.

In 1998, there were distinct differences in terms of an employee's job group with respect to their ranking relative to job worth. Those job groups that exceeded the agency average midpoint percentage (30.78 percent) included clerical (33.8 percent); drafting (38.1 percent); engineering (39.6 percent); executives (62.5 percent); specialist/analyst (48.0 percent); and financial/information services/legal (47.4 percent). Equipment (30.2 percent), maintenance (22.9 percent) and technicians (21.6 percent) were below the agency average.

In 2000, there were again significant differences in terms of the percentage of job groups above the midpoint. Equipment (45.8 percent), maintenance (58.3 percent), and specialist/analyst (39.6 percent) employees were the only job groups that were above the agency average (37.3 percent) of the percentage of individuals above the midpoint. All others were below the agency average of individuals above midpoint. Clerical (27.15 percent), drafting (22.2 percent), engineering, (30.3 percent), executives (zero), technicians (16.8 percent) and financial/information services/legal (27.65) were all below the agency average of individuals above the midpoint.

In 2002, two job groups exceeded the agency average percentage of employees paid above the midpoint. Technician (66.99 percent) and Engineering (56.72 percent) groups were the only groups that exceeded the agency average percentage (44.98 percent) of people above the midpoint. All others are below the agency average of individuals above midpoint. Clerical (24.53 percent), drafting (25.00 percent), equipment (30.77 percent), executives (33.33 percent), maintenance

(41.27 percent), specialists (32.73 percent) and financial/information services/legal (25.93 percent) were all below the agency average of individuals above the midpoint.

As would be expected, older employees were more likely to be above the salary midpoint in 2000 and were again in 2002. Likewise, the more years of SDDOT service, the more likely an individual is to be above the salary midpoint. However, the two job groups identified in the preceding paragraph having more people above the midpoint are neither the oldest nor do they have the longest average service.

In 1998, females were more likely to be above midpoint (31.48 percent) than were males (30.68 percent). In 2000, males were more likely to be above midpoint (39.35 percent) than were females (24.60 percent). Again in 2002, the percentage of males at or above the midpoint (47.87%) was higher than it was for females (27.07%). The difference is statistically significant.

FINDINGS—RESPONSE RATES

RESPONDENTS

This research study examined the population of full-time employees of the South Dakota Department of Transportation (SDDOT). A population survey included all members of the group under investigation. The alternative research model involved a random sampling from the population of Department employees and the development of inferences from those responses in order to suggest that the responses from the sample reflect the perceptions of the entire group of SDDOT employees.

RESPONSE RATES FOR THE ORGANIZATIONAL HEALTH ASSESSMENTS

The population for the 2002 SDDOT Organizational Health Assessment (OHA) study included all persons employed by SDDOT on the date the survey instrument was initially mailed. In all, 961 persons were identified for the population, with 677 of these individuals providing responses to the survey, representing a response rate of seventy and one-half percent (70.45 percent).

The population for the 2000 and 1998 SDDOT Organizational Health Assessments (OHA) had response rates of seventy-eight and one-half percent (78.46 percent) and eighty three point five percent (83.54 percent); respectively. The response rate has declined with each of the research efforts.

DEMOGRAPHICS OF RESPONDENTS VERSUS NON-RESPONDENTS

How well a sample represents the population of interest is a concern in all surveys. The SDDOT organizational health surveys are meant to be a full census of employee opinions. Each and every employee is given the chance to participate and if all did so a full enumeration census would be the result and there would be no unknowns. Any statistical discussion would be moot because everyone and their opinions are represented.

A response rate of 70.45 percent is respectable but it does introduce what is termed non-response bias. We do not (and cannot) know for sure whether the people that did respond represent the thinking of those that chose not to participate. There are subtle and not so subtle patterns in the data. It is known that those that didn't respond are more likely hourly paid employees. The difference in participation is statistically significant. Among the job groups there are significant differences as well. Executives are far more likely to respond than many of the other job classifications.

While one will see that younger people appear under-represented in the survey and those with the least tenure appear under-represented in the study as well, the differences among the respondent classifications are not statistically significant.

A statistical examination and practical evaluation of seven demographic variables including Pay Status, Gender, Location, Job Group, Age, Years of Service, and Position Class show only two statistically significant differences in the patterns of responses: employee status and job group classifications.

The respectable response rate of 70.45 percent, taken in combination with statistical differences limited to two demographic areas supports a conclusion that the study is fairly representative of the population of interest, the South Dakota Department of Transportation. However, it is recommended that the under and over-representation of groups within the demographic descriptions be noted and considered in any discussions.

PAY STATUS

In 2002, the response rate from hourly employees decreased ten percentage points from the previous study. Whether or not an employee responded is statistically different relative to employee status ($p=.000$) in 2002. By contrast, the difference was not significantly different in 2000. There were four more salaried employees in 2002 than there were in 2000 but the percentage of the total number of salaried employees at SDDOT remained the same (9.20%).

Table 17: Response Rate by Pay Status and Year

YEAR			RESPONSE		Total
			No Response	Responded	
1998	Salaried	Count	6	75	81
		% within TYPE	7.4%	92.6%	100.0%
	Hourly	Count	138	655	793
		% within TYPE	17.4%	82.6%	100.0%
	Total	Count	144	730	874
		% within TYPE	16.5%	83.5%	100.0%
2000	Salaried	Count	12	73	85
		% within TYPE	14.1%	85.9%	100.0%
	Hourly	Count	187	652	839
		% within TYPE	22.3%	77.7%	100.0%
	Total	Count	199	725	924
		% within TYPE	21.5%	78.5%	100.0%
2002	Salaried	Count	9	79	88
		% within TYPE	10.2%	89.8%	100.0%
	Hourly	Count	275	598	873
		% within TYPE	31.5%	68.5%	100.0%
	Total	Count	284	677	961
		% within TYPE	29.6%	70.4%	100.0%

GENDER

The SDDOT is predominately a male organization but the proportion of females has increased from 13.64 to 14.05 percent in the past two years. Female employment has increased nine employees from 2000 to 2002. Whether or not a SDDOT employee responded is not statistically different with respect to gender ($p=.822$) in the 2002 OHA.

Table 18: Response Rate by Gender and Year

YEAR			RESPONSE		Total
			No Response	Responded	
1998	Male	Count	128	638	766
		% within GENDER	16.7%	83.3%	100.0%
	Female	Count	16	92	108
		% within GENDER	14.8%	85.2%	100.0%
	Total	Count	144	730	874
		% within GENDER	16.5%	83.5%	100.0%
2000	Male	Count	168	630	798
		% within GENDER	21.1%	78.9%	100.0%
	Female	Count	31	95	126
		% within GENDER	24.6%	75.4%	100.0%
	Total	Count	199	725	924
		% within GENDER	21.5%	78.5%	100.0%
2002	Male	Count	243	583	826
		% within GENDER	29.4%	70.6%	100.0%
	Female	Count	41	94	135
		% within GENDER	30.4%	69.6%	100.0%
	Total	Count	284	677	961
		% within GENDER	29.6%	70.4%	100.0%

LOCATION

SDDOT added 37 employees since 2000. The Department indicated that the 37 were existing positions that had previously gone unfilled. There were 6 new employees added in the Aberdeen Region for a total of 160. Mitchell Region added 12 for a total of 183 while the Pierre Region added 9 for a total of 153. Rapid City Region gained 3 employees for a total of 149 and the Pierre Central Office added 7 for a total of 316. The Central Office employs 32.88 percent of the total SDDOT employees down from 33.44 percent in 2000. Whether or not a SDDOT employee responded was not statistically different with respect to their employment location ($p=.352$) for the most recent survey.

Table 19: Response Rate by Location and Year

YEAR			RESPONSE		Total
			No Response	Responded	
1998	Aberdeen Region	Count	30	114	144
		% within REGION	20.8%	79.2%	100.0%
	Mitchell Region	Count	24	136	160
		% within REGION	15.0%	85.0%	100.0%
	Pierre Region	Count	23	119	142
		% within REGION	16.2%	83.8%	100.0%
	Rapid City Region	Count	28	119	147
		% within REGION	19.0%	81.0%	100.0%
	Pierre Central Office	Count	39	242	281
		% within REGION	13.9%	86.1%	100.0%
	Total	Count	144	730	874
		% within REGION	16.5%	83.5%	100.0%
2000	Aberdeen Region	Count	23	131	154
		% within REGION	14.9%	85.1%	100.0%
	Mitchell Region	Count	35	136	171
		% within REGION	20.5%	79.5%	100.0%
	Pierre Region	Count	35	109	144
		% within REGION	24.3%	75.7%	100.0%
	Rapid City Region	Count	37	109	146
		% within REGION	25.3%	74.7%	100.0%
	Pierre Central Office	Count	69	240	309
		% within REGION	22.3%	77.7%	100.0%
	Total	Count	199	725	924
		% within REGION	21.5%	78.5%	100.0%
2002	Aberdeen Region	Count	47	113	160
		% within REGION	29.4%	70.6%	100.0%
	Mitchell Region	Count	61	122	183
		% within REGION	33.3%	66.7%	100.0%
	Pierre Region	Count	44	109	153
		% within REGION	28.8%	71.2%	100.0%
	Rapid City Region	Count	50	99	149
		% within REGION	33.6%	66.4%	100.0%
	Pierre Central Office	Count	82	234	316
		% within REGION	25.9%	74.1%	100.0%
	Total	Count	284	677	961
		% within REGION	29.6%	70.4%	100.0%

JOB GROUP

Job Group segmentation differentiates employees by the type of work that is performed. Separating the employees in this manner was an effort to explore different types of employees to determine if there are differences in survey participation. There are summary groups that included more than one work type. This clumping was done to protect the anonymity of the respondents.

Clerical employees decreased by six from 1998 to 2000 (65 to 59) and an additional 6 this year (53). Drafting employees decreased this period by 3 from 27 to 24 while engineering employees increased by seven from 231 to 238. Equipment employees increased by four from 48 to 52. Executives increased by 2 now totaling 11 and maintenance employees increased by 15 from 300 to 315. Specialist/Analyst employee numbers increased by 10 from 48 to 58. The number of technician employees increased from 173 to 178 while financial/Information Services/Legal employees increased by 1 from 29 to 30. Whether or not a SDDOT employee responded is significantly different with respect to job group ($p=.000$) in 2002.

Table 20: Response Rate by Job Group and Year

YEAR			RESPONSE		Total	
			No Response	Responded		
1998	Clerical	Count	14	51	65	
		% within JOBCODE	21.5%	78.5%	100.0%	
	Drafting	Count	4	17	21	
		% within JOBCODE	19.0%	81.0%	100.0%	
	Engineering	Count	20	202	222	
		% within JOBCODE	9.0%	91.0%	100.0%	
	Equipment	Count	14	29	43	
		% within JOBCODE	32.6%	67.4%	100.0%	
	Executive	Count	1	7	8	
		% within JOBCODE	12.5%	87.5%	100.0%	
	Maintenance	Count	52	241	293	
% within JOBCODE		17.7%	82.3%	100.0%		
2000	Clerical	Count	4	46	50	
		% within JOBCODE	8.0%	92.0%	100.0%	
	Technician	Count	35	118	153	
		% within JOBCODE	22.9%	77.1%	100.0%	
	Financial, Info Services & Legal	Count	0	19	19	
		% within JOBCODE	.0%	100.0%	100.0%	
	Total	Count	144	730	874	
		% within JOBCODE	16.5%	83.5%	100.0%	
	2002	Clerical	Count	15	44	59
			% within JOBCODE	25.4%	74.6%	100.0%
		Drafting	Count	7	20	27
% within JOBCODE			25.9%	74.1%	100.0%	
Engineering		Count	37	194	231	
		% within JOBCODE	16.0%	84.0%	100.0%	
Equipment		Count	9	39	48	
		% within JOBCODE	18.8%	81.3%	100.0%	
Executive		Count	1	8	9	
		% within JOBCODE	11.1%	88.9%	100.0%	
Maintenance		Count	69	231	300	
	% within JOBCODE	23.0%	77.0%	100.0%		
2000	Clerical	Count	11	37	48	
		% within JOBCODE	22.9%	77.1%	100.0%	
	Technician	Count	44	129	173	
		% within JOBCODE	25.4%	74.6%	100.0%	
	Financial, Info Services & Legal	Count	6	23	29	
		% within JOBCODE	20.7%	79.3%	100.0%	
	Total	Count	199	725	924	
		% within JOBCODE	21.5%	78.5%	100.0%	
	2002	Clerical	Count	13	40	53
			% within JOBCODE	24.5%	75.5%	100.0%
		Drafting	Count	9	15	24
% within JOBCODE			37.5%	62.5%	100.0%	
Engineering		Count	53	183	236	
		% within JOBCODE	22.5%	77.5%	100.0%	
Equipment		Count	15	37	52	
		% within JOBCODE	28.8%	71.2%	100.0%	
Executive		Count	1	10	11	
		% within JOBCODE	9.1%	90.9%	100.0%	
Maintenance		Count	95	220	315	
	% within JOBCODE	30.2%	69.8%	100.0%		
2002	Clerical	Count	9	51	60	
		% within JOBCODE	15.0%	85.0%	100.0%	
	Technician	Count	76	101	177	
		% within JOBCODE	42.9%	57.1%	100.0%	
	Financial, Info Services & Legal	Count	12	18	30	
		% within JOBCODE	40.0%	60.0%	100.0%	
	Total	Count	283	675	958	
		% within JOBCODE	29.5%	70.5%	100.0%	

AGE GROUP

Age quartiles were formed for the respondents based on age groups of 20 to 36, 37 to 45, 46 to 52, and 53 to 65. For the 2000 OHA, whether or not the SDDOT employee responded is not statistically different given their age quartile ($p=.058$).

Table 21: Response Rate by Age Group and Year

YEAR			RESPONSE		Total
			No Response	Responded	
1998	20 through 36	Count	37	212	249
		% within AGE	14.9%	85.1%	100.0%
	37 through 45	Count	41	179	220
		% within AGE	18.6%	81.4%	100.0%
	46 through 52	Count	24	175	199
		% within AGE	12.1%	87.9%	100.0%
	53 through 67	Count	42	164	206
		% within AGE	20.4%	79.6%	100.0%
	Total	Count	144	730	874
		% within AGE	16.5%	83.5%	100.0%
2000	20 through 36	Count	62	203	265
		% within AGE	23.4%	76.6%	100.0%
	37 through 45	Count	53	195	248
		% within AGE	21.4%	78.6%	100.0%
	46 through 52	Count	41	186	227
		% within AGE	18.1%	81.9%	100.0%
	53 through 67	Count	43	141	184
		% within AGE	23.4%	76.6%	100.0%
	Total	Count	199	725	924
		% within AGE	21.5%	78.5%	100.0%
2002	20 through 36	Count	90	158	248
		% within AGE	36.3%	63.7%	100.0%
	37 through 45	Count	76	194	270
		% within AGE	28.1%	71.9%	100.0%
	46 through 52	Count	58	162	220
		% within AGE	26.4%	73.6%	100.0%
	53 through 67	Count	60	163	223
		% within AGE	26.9%	73.1%	100.0%
	Total	Count	284	677	961
		% within AGE	29.6%	70.4%	100.0%

SDDOT TENURE

Response to the study questions by SDDOT employees when categorized by years of service was not statistically different in 2002 ($p=.061$). The employees in the 0-2 (64.4%) and 2-6 (64.5%) years tenure groups had the lowest response rates and were down substantially from that reported for the 2000 study (71.72 percent of the total). It can be concluded, given these findings, that the newer employees, those with under six (6) years of service to SDDOT, were slightly under-represented in the 2000 survey and further under-represented in the current survey.

Employees with over 10 years of service were the only group to respond at a substantially higher rate (73.4 percent) than the average (70.4 percent). The group with 6-10 years tenure responded at a rate just above (0.2 of a percentage point) the average. If the response rates of new hires 0-2 years are compared to those employees with longer tenure, there is a notable difference but the proportions are not a statistically significant different ($p=.238$).

Table 22: Response Rate by Tenure and Year

YEAR			RESPONSE		Total
			No Response	Responded	
1998	New Employees (0 - 2 Years)	Count	7	52	59
		% within SERVICE	11.9%	88.1%	100.0%
	2 - 6 Years Tenure	Count	17	101	118
		% within SERVICE	14.4%	85.6%	100.0%
	6 - 10 Years Tenure	Count	26	133	159
		% within SERVICE	16.4%	83.6%	100.0%
	Over 10 Years Tenure	Count	94	444	538
		% within SERVICE	17.5%	82.5%	100.0%
2000	New Employees (0 - 2 Years)	Count	43	115	158
		% within SERVICE	27.2%	72.8%	100.0%
	2 - 6 Years Tenure	Count	28	71	99
		% within SERVICE	28.3%	71.7%	100.0%
	6 - 10 Years Tenure	Count	23	104	127
		% within SERVICE	18.1%	81.9%	100.0%
	Over 10 Years Tenure	Count	105	435	540
		% within SERVICE	19.4%	80.6%	100.0%
2002	New Employees (0 - 2 Years)	Count	26	47	73
		% within SERVICE	35.6%	64.4%	100.0%
	2 - 6 Years Tenure	Count	77	140	217
		% within SERVICE	35.5%	64.5%	100.0%
	6 - 10 Years Tenure	Count	25	60	85
		% within SERVICE	29.4%	70.6%	100.0%
	Over 10 Years Tenure	Count	156	430	586
		% within SERVICE	26.6%	73.4%	100.0%
2002	New Hire	Count	26	47	73
		% within NEWSERV	35.6%	64.4%	100.0%
	Longer Tenure	Count	137	678	815
		% within NEWSERV	16.8%	83.2%	100.0%
	Total	Count	144	730	874
		% within NEWSERV	16.5%	83.5%	100.0%
	New Hire	Count	43	115	158
		% within NEWSERV	27.2%	72.8%	100.0%
2000	Longer Tenure	Count	156	610	766
		% within NEWSERV	20.4%	79.6%	100.0%
	Total	Count	199	725	924
		% within NEWSERV	21.5%	78.5%	100.0%
2002	New Hire	Count	26	47	73
		% within NEWSERV	35.6%	64.4%	100.0%
	Longer Tenure	Count	258	630	888
		% within NEWSERV	29.1%	70.9%	100.0%
	Total	Count	284	677	961
		% within NEWSERV	29.6%	70.4%	100.0%

Table 23: Response Rate by New Hire and Year

YEAR			RESPONSE		Total
			No Response	Responded	
1998	New Hire	Count	7	52	59
		% within NEWSERV	11.9%	88.1%	100.0%
	Longer Tenure	Count	137	678	815
		% within NEWSERV	16.8%	83.2%	100.0%
	Total	Count	144	730	874
		% within NEWSERV	16.5%	83.5%	100.0%
2000	New Hire	Count	43	115	158
		% within NEWSERV	27.2%	72.8%	100.0%
	Longer Tenure	Count	156	610	766
		% within NEWSERV	20.4%	79.6%	100.0%
	Total	Count	199	725	924
		% within NEWSERV	21.5%	78.5%	100.0%
2002	New Hire	Count	26	47	73
		% within NEWSERV	35.6%	64.4%	100.0%
	Longer Tenure	Count	258	630	888
		% within NEWSERV	29.1%	70.9%	100.0%
	Total	Count	284	677	961
		% within NEWSERV	29.6%	70.4%	100.0%

JOB WORTH

Midpoint status for those who did and did not respond to the Organizational Health Assessment is not statistically different. In nominal terms, those “at or below” the midpoint responded at a lower rate than the agency average (70.5%) but not by a statistically significant or substantial measure.

Table 24: Response Rate by Job Worth and Year

YEAR			RESPONSE		Total
			No Response	Responded	
2002	Below the Midpoint	Count	130	284	414
		% within Midpoint Category	31.4%	68.6%	100.0%
	At the Midpoint	Count	32	80	112
		% within Midpoint Category	28.6%	71.4%	100.0%
	Above the Midpoint	Count	120	310	430
		% within Midpoint Category	27.9%	72.1%	100.0%
	Total	Count	282	674	956
		% within Midpoint Category	29.5%	70.5%	100.0%

FINDINGS—DOMAIN ANALYSIS

The South Dakota Department of Transportation (SDDOT) Organizational Health Assessment (OHA) survey instrument is divided into 20 subgroups or domains of interest. These domains are titled Structure, Responsibility, Identity, Reward, Risk, Communication, Working Climate, Support, Morale, Standards, Training, Conflict, Culture, Teamwork, Safety & Efficiency, Performance Appraisals, Problem Solving Initiative, Performance Measurement Initiative, Work Schedule and Purpose. A discussion of the theoretical background for many of these domains can be found in the 1998 SDDOT Organizational Health Assessment report.¹⁷

Organizational health, in short, is a metaphorical term referring to the employee's perception of whether the conditions of the workplace are healthy or unhealthy. The idea is to identify issues within the organization that may be impeding productivity, creativity, efficiency, and the exercise of authority in carrying out the mission of the organization. The organizational science literature provides evidence that when employees feel positive about their work climate, managers can be confident that they are motivated and satisfied with their jobs—and more productive. Management must understand that a well-placed effort can improve climate and maintain it at high levels. However, inattention can also result in more problems. Although organizational health is to some extent affected by factors such as the marketplace and the general economy, in the end, it primarily reflects a supervisor's practices toward his or her employees. Research in a wide variety of industries and in both the private and public sectors of the economy have shown that the more positive the climate, the more significant and cost-effective the quantitative output of the work group.

Items used for analysis should be related to issues that have been found to assist the organization in the pursuit of its mission. This can be accomplished by direct observation, speaking with staff, and conducting surveys of the organization's members. The focus groups discussed earlier involve the qualitative research dealing with speaking with staff. The SDDOT has undergone tremendous expense to allow project staff to speak with staff, and to allow staff to speak their minds in an open and safe environment. However, most of the Organizational Health Assessment involves survey research, and it is to that, which we now turn.

Several of the survey domains are standard assessment items developed to measure organizational climate including Structure, Responsibility, Identity, Reward, Risk, Climate, Communication, Support, Morale¹⁸, Standards, Conflict and Culture. Several of the other survey domains were developed specifically to measure attitudes of SDDOT workers in response to the findings/desires for the 1998, 2000 and 2002 Organizational Health Assessments based on focus groups held with SDDOT staff. These special domains include Training, Performance Appraisals, Problem Solving, Performance Measures, Safety and Efficiency, and Work Schedule. In addition, several additional questions were added to the 2002 survey that will be discussed independent of the domain analysis. The next section discusses a series of special issues (whether those who left were malcontents, etc.). Our measure of job satisfaction is discussed in the section on overall job satisfaction, and a

¹⁷ *SDDOT Organizational Health Assessment, Study SD98-01, Final Report*, Sept. 1998.

¹⁸ We found that what we call morale (items dealing with the level of recognition, feelings that one's work is valued by others, and the extent to which management understands and appreciates employee's work related concerns) does not mean the same as what many within the agency call morale. What agency members call morale we would call "job satisfaction." This is important because the average response for the morale domain experienced a substantial decrease in response levels while nearly every other domain (save one) experienced increases in response levels.

series of national comparison questions are discussed in the section on national standards comparison statements.

DOMAINS

Each domain consists of a series of statements designed to address different but related perceptions and attitudes related to productivity, efficiency, creativity, and the exercise of authority. Statements are worded in both positive and negative (reverse-coded) contexts. Such wording represents a standard practice in survey research. It permits the measurement of reliability of the questions based on the answers provided by all respondents. Positively worded items are meant to capture the respondent's perception of the basis for the domain. Note that we are reporting the domain means, not specific items. Individual items are meant to capture perspectives on a variety of dimensions, which when summed, represent the domain of interest. We calculate a reliability statistic that determines if the statements in the domain are similar. If we find responses to a given item statement that differ greatly from the responses to the remainder of the items, we are confident that the item statement is measuring something other than what the remainder of the item statements in the domain are measuring.

In preparing an analysis for this type of survey instrument, statements that are negatively worded must be reverse coded to provide a consistent measure of the domain being measured. Without reverse coding, the mean for the domain would have little meaning. For example, if the average response for the positively worded statement is Strongly Agree, we assigned that response a four. If the average response for the negatively worded statement is a Strongly Disagree, we assigned that response a one, the mean of the two is 2.50 which clearly does not represent the real outcome for the domain with both responses being at the positive end of their respective scale. By reverse coding the negatively worded statement (assigning the one to be a four), the domain mean for the two statements is 4.0, a highly positive outcome and true representation of the respondent's perception regarding the subject matter of the domain.

It should also be noted that direct comparisons between 1998 and 2000 or 2002 cannot be made using the format of the 1998 reports because a different scale was used. For comparison purposes, the 1998 data were recoded and are presented in this report as needed in a format that is consistent with the coding of the 2000 and 2002 data.

In the figures that follow, we provide graphical representations of the domain means. We are not providing specific answers to each question (although one can review answers to specific questions in the Appendix A) because these are complex issues and the questions are measuring multiple issues. So we combine these questions into domains. These domains have been shown to be reliable in that they measure the same thing. We have performed Chronbach's alpha measures on each domain and found that the SDDOT Organizational Health measures are better than the original scales predict (see Litwin & Stringer, 1968; p. 207).

When viewing these figures, one (1.00) is considered to be the most negatively associated outcome and four (4.00) the most positive outcome for each respective statement or domain. We developed these numerical scales as a weighted average of the responses.

The domain mean can be evaluated against three ranges—Strength, Operational and Concern. These ranges are defined as follows:

Strength—A mean score of 3.35 to 4.00 for the domain analysis is considered to be in the strength range. This indicates the behaviors and perceptions of the employees, with regard to the issue being measured, are considered to be very consistent and strong and not to be causing any concern or dysfunctional behavior at this point in time.

Operational—A mean score of 2.95 to 3.34 for the domain mean is considered to be in the operational range. This is considered to be a good score. A score in this range indicates the behaviors and perceptions of employees as consistent, and they are viewed as being quite positive. However, they are not as strong, nor as prevalent, as the behaviors identified in the strength range.

Concern—A mean score of 2.94 and below for the domain mean is considered to be a concern. That is, the behaviors and perceptions are causing some concern or problem among employees and/or management. They may not have reached the point of causing dysfunctional behaviors, but the potential is there and possibly needs to be addressed.

The **theoretical mean** is 2.50. This is also referred to as the theoretical midpoint or the point of indifference. The point of indifference is that point where the combined weighted value of all respondents that agreed with the statement is equal to the combined weighted value of all respondents that disagreed with the statement. Weights are one for each Strongly Disagree, two for each Inclined to Disagree, three for each Inclined to Agree, and four for each Strongly Agree.¹⁹

A **change** in the domain mean is the measure of interest. A change in the domain mean of 0.10 (e.g., a change from 2.50 to 2.60) is representative of approximately 67 respondents or 10 percent changing their response in 2002 to a more positive response (e.g., Strongly Agree in 2002 up from Inclined to Agree in 2000). A change in the mean (positive or negative) of 0.10 or greater is considered to be a substantive change.

We employed several demographic variables to further identify respondents and to provide a basis for developing recommendations. The following variables were used in analyzing the data:

- Location (Aberdeen, Mitchell, Pierre, Rapid City and Central Office),
- Position Classification (E, Q, T, and N),
- Salaried Status (Hourly and Salaried),
- Job Group (Clerical, Drafting, Engineering, Equipment, Executives, Maintenance, Specialist/Analyst, Technician, and Financial/Information Services/Legal),
- Years of SDDOT Service (0-2, 2-6, 6-10, and over 10 years),
- Gender (Male or Female),
- Age (20-36, 37-45, 46-52, 53-65),
- Race (Caucasian and Non-Caucasian), and

¹⁹ Note that these scores are different than the 1998 report. In order to provide comparability, we recoded each variable from 1998 to include in this analysis. Why did we recode the 1998 data? Simply put, from presenting the data and our findings in 1998, it makes intuitive sense that higher scores represent a positive relationship with the measured construct. For example, we normally think of higher scores as being better. We preserved each individuals' response to each question (see the appendix). However, to combine the questions that have been used to capture perceptions about the organization and its policies and procedures, we needed to have all items headed in the same direction.

- Job Worth (below, at or above “midpoint”).

In the paragraphs that follow, we discuss the domain means that are significant with respect to interdependence with each of these demographic variables.

AGGREGATE FINDINGS

Table 24 provides the means for each of the domains for the three administrations of the OHA survey and the change between the assessments. It shows the change between the 2002 and 2000, the 2002 and 1998 and the 2000 and 1998 administrations of the study.

Table 25: Domain Means

Domain	Year			Change		
	2002	2000	1998	2000-2002	1998-2002	1998-2000
Identity	2.655	2.418	2.277	0.237	0.378	0.141
Work Schedule	2.583	2.393	2.157	0.190	0.426	0.236
Morale	2.644	2.468	2.649	0.176	(0.005)	(0.181)
Purpose	2.753	2.580	2.493	0.173	0.261	0.088
Safety and Efficiency	2.724	2.556	2.259	0.168	0.465	0.297
Climate	2.575	2.436	2.393	0.139	0.182	0.043
Reward	2.156	2.020	1.881	0.136	0.275	0.139
Performance Measurement	2.413	2.290	2.364	0.122	0.048	(0.074)
Communication	2.770	2.654	2.442	0.116	0.328	0.212
Structure	2.569	2.456	2.309	0.114	0.260	0.146
Culture	2.464	2.353	2.264	0.111	0.199	0.088
Support	2.493	2.405	2.255	0.088	0.238	0.150
Problem Solving	2.447	2.361	2.362	0.087	0.086	(0.001)
Risk	2.433	2.363	2.343	0.070	0.090	0.020
Teamwork	2.795	2.736	2.668	0.060	0.128	0.068
Responsibility	2.390	2.334	2.307	0.056	0.083	0.027
Conflict	2.438	2.384	2.310	0.054	0.128	0.073
Performance Appraisals	2.645	2.599	2.557	0.045	0.088	0.042
Training	2.857	2.829	2.722	0.028	0.135	0.107
Standards	2.548	2.550	2.424	(0.002)	0.123	0.126

When we look at the domains, two stories are apparent, as they were with the previous studies. The first story is that 2002 continues the trend of 2000 with things getting better and the second story is that while things have gotten better there is still plenty of room for improvement.

There were neither domain scores in the strength category nor were there domains in the operational category. Table 24 was sorted based on the change between 2000 and 2002. When viewing the table it should be noted that only six of the domains have not shown a significant increase since 1998. Less growth was evident in six domains (net change less than 0.1) and a decline was found for only one domain area from 1998 to 2002.

Responses are fairly constant over each domain. For example, the respondents in the Central Office and the Rapid City Region tend to have the highest scores across all domains.

Respondents in the E (Exempt) position class had more positive responses than did all others, followed by the Q position class, the T position class, and the N position class. E and Q position

class domain means were higher than were the T class domain means on nearly all domains, and higher than the N position class mean scores on all domains.

Salaried respondents averaged higher scores than did hourly workers. Salaried workers were more likely to have larger gains from 2000 to 2002.

The results from the job groups depended on the issue and the domain. However, the executives had higher domain means than all other job groups.

New employees were more likely to have higher responses than were existing employees. Those with two through four years of service were the group with the next-highest response level. The third highest response level was for those with over ten years of SDDOT service, followed by those with six through ten years of SDDOT service.

Males and females had essentially similar responses, though females generally tended to have slightly higher responses.

Younger respondents more often had higher level of positive responses than did older respondents.

The respondents whose salary is “at or below” midpoint had the most favorable responses. The respondents whose salary was above midpoint had lower domain means.

SAFETY AND EFFICIENCY DOMAIN

The Safety and Efficiency Domain captures issues relative to safety and efficiency in the workplace. This domain is used to quantify the perception of the extent to which efficiency, and efforts to increase efficiency, have increased productivity. The safety and efficiency domain was developed in 1998 to measure concerns Department employees had about safety and the effects on safety of becoming more efficient.

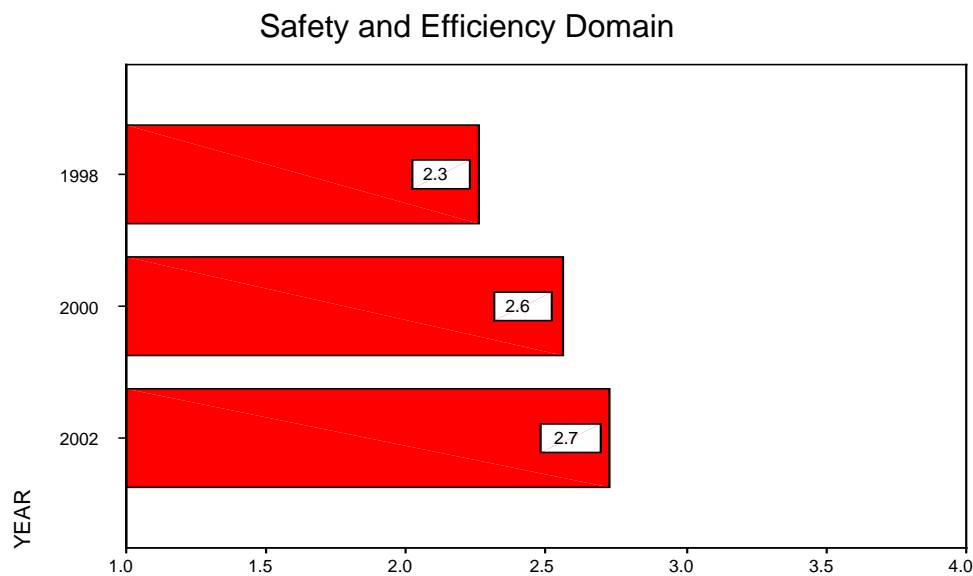


Figure 3: Work Schedule Domain

2000 $p = .000$
2002 $p = .000$

The domain continues to improve increasing from 2.56 to 2.72. This domain had the largest increase among all domains between 1998 and 2000 with an increase of 0.30 in the mean. The average response of all employees in 2002 was greater than the theoretical midpoint score of 2.50 which indicates that employee opinion on the Department's performance in this domain was favorable.

Average responses in the Rapid City Region ($M=2.80$) and the Central Office ($M=2.79$) are higher than those from the Pierre ($M=2.73$), Mitchell ($M=2.67$) and the Aberdeen Region ($M=2.58$). Each witnessed an increase in domain mean scores from 1998 to 2000 and each scored an increase from 2000 to 2002.

Respondents in the E and Q position classifications have consistently higher domain means than do T and N position classification respondents. In 2002, E ($M=3.25$) and Q ($M=2.91$) were higher than the T ($M=2.78$) and N ($M=2.68$) position classifications. It would appear that these groups see safety and efficiency very differently, as evidenced by the increases in the year over year scores. The four year difference from the 1998 to 2002 assessments by respondents was largest for the E position classification (0.66) followed by Q (0.60), T (0.51) and N (0.44). Q scored the largest improvement between 1998 and 2000 but was overtaken by the E improvement in 2002. The fluctuation in scores for these classifications is attributed to their relatively small number and the relatively large influence each respondent has on the average.

Salaried respondents have higher domain means (M=2.88) than do hourly respondents (M=2.70) in 2002. The increase between 2000 and 2002 was larger for salaried respondents (0.19) than for hourly respondents (0.16). The same was true from 1998 to 2000. During that period, the increases were higher for salaried respondents (0.37) compared to hourly respondents (0.29).

The average executive assessment (M=3.33) of the safety and efficiency domain continues to be higher than that for all other job groups. Drafting employee respondents (M=2.82) scored the next highest mean while equipment employee respondents (M=2.40) scored the low and only mean below the point of indifference (2.5).

Interestingly, while drafting wasn't considered a dangerous job it was the only group with a lower mean (-0.01) this reporting period compared to 2000. The mean for technicians improved (0.05) but significantly lagged the other groups in their assessment of improvement in this domain. The gains for the other groups included: engineering, executive, clerical, maintenance, specialist/analyst, and financial/information services/legal respondents. They had small gains from 2000 to 2002 (0.17, 0.19, 0.20, 0.22, 0.23, and 0.24 respectively).

We saw a significant difference (0.26) between new hires (M=2.79) and all other (existing) employees (M=2.53) in 2000. The new hire mean increased (M=2.85) in 2002, as did the mean for existing employees (M=2.71). The relative changes in these measures resulted in a narrowing of the gap (0.26 to 0.14) between the measures. Overall, the mean here decreased by small amounts with increases in time on the job.

There were no substantial differences in the means between male and female respondents for this domain. It is noteworthy that the means for both genders increased. The age of the employees is similar to the discussion of the years of service. The grouping that includes the youngest respondents have a higher domain mean.

There were 284 respondents whose salary is reported as being below the midpoint in 2002. The responses from the below midpoint group were the most favorable (M=2.79). The respondents opinion at the midpoint was 0.11 higher (M=2.76) than those respondents whose salary was above midpoint (M=2.65). All three measures were higher in 2002 than they were in 2000.

Table 26: Safety & Efficiency Domain 1998-2002

Variable	Category	Score		
		2002	2000	1998
Location	All SDDOT	2.7236	2.5560	2.2589
	Aberdeen Region	2.5778	2.4415	2.1080
	Mitchell Region	2.6717	2.4631	2.2035
	Pierre Region	2.7286	2.5214	2.2428
	Rapid City Region	2.7969	2.7049	2.3433
	Central Office	2.7887	2.6187	2.3268
Job Group	Clerical	2.7830	2.5836	2.2258
	Drafting	2.8220	2.8338	2.4751
	Engineering	2.7925	2.6204	2.2560
	Equipment	2.4046	2.3520	2.2296
	Executives	3.3264	3.1364	2.6571
	Maintenance	2.6859	2.4640	2.1500
	Specialist/Analyst	2.7706	2.5430	2.4155
	Technician	2.6605	2.6113	2.3666
	Financial/Information Services/Legal	2.7404	2.4999	2.4127
Class Code	N	2.6800	2.5180	2.2446
	T	2.7760	2.5953	2.2645
	Q	2.9067	2.8322	2.3117
	E	3.2485	2.9481	2.5879
Pay Basis	Salaried	2.8831	2.6963	2.3263
	Hourly	2.7022	2.5403	2.2512
Midpoint Status	Below Midpoint	2.7870	2.6732	2.2782
	At Midpoint	2.7580	2.5518	2.3068
	Above Midpoint	2.6525	2.4313	2.1767
Tenure	0-2 years	2.8503	2.7667	2.4619
	2-6 years	2.7767	2.5958	2.3498
	6-10 years	2.6990	2.4960	2.2451
	>10 years	2.6839	2.5085	2.2185
Age	20-36	2.7944	2.6334	2.3304
	37-45	2.7426	2.5769	2.2223
	46-52	2.6720	2.4707	2.2035
	53-67	2.6820	2.5273	2.2662
Gender	Female	2.7401	2.5696	2.3135
	Male	2.7211	2.5540	2.2510

WORK SCHEDULE DOMAIN

The Work Schedule Domain refers to items related to scheduled hours and days of work. The work schedule domain was developed in 1998 to measure work and work scheduling issues affecting productivity, creativity, efficiency, and the exercise of authority in carrying out the mission of the organization.

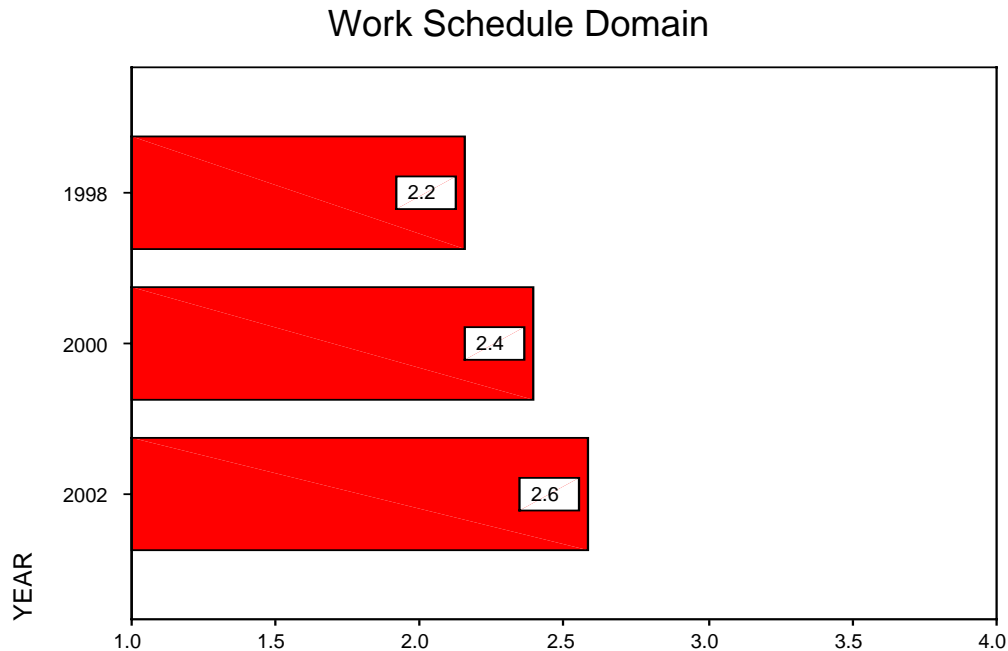


Figure 4: Work Schedule Domain

2000 p=.000
2002 p=.000

There was an increase in this domain moving the average measure above the midpoint ($M=2.5$) and on the favorable side of opinion for the first time. The 2002 increase over preceding years showed that gains are possible, but the measure still fell short of the 2.95 minimum for the distinction of being in the operational range. There is still room for growth.

The Central Office had a higher domain mean ($M=2.80$) than do the regions (ranging from 2.46 to 2.48). While it was the highest, the Central Office increase (0.13) was not as high as that for the other regions with the exception of the Rapid City region (0.13). That region tied the Central Office. All others experienced stronger growth: Mitchell (0.35), Aberdeen (0.18) or Pierre (0.18). The Mitchell Region (0.35) was the strongest performer in 2002.

In the 2002 survey, E and Q position classifications have higher domain means than the T and N position classifications. The “E” executive group score ($M=3.05$) was slightly higher than that for the second place “Q” group ($M=2.89$).

Salaried and hourly respondents have a significant difference between them. Salaried domain means in 2000 were about 0.20 higher than are hourly paid individuals. That gap increased to 0.28 in the 2002 administration of the study.

The domain mean for executives (M=3.04) was higher than for all other job groups. At the extremes there were the high scores for the executives and drafting (M=2.97) domain respondents and the relative low responses from the equipment (M=2.49) and maintenance (M=2.38) respondents. The maintenance mean increased the most (0.36) followed by the specialist and analyst domain (0.26). Financial/information services/legal domain mean increased (0.14), as did equipment (0.11) and clerical (0.04) means. Executive and technician domain means declined (-0.08) and (-0.01), respectively.

New employees had higher domain means (2.79) than did other employees (2.56). The mean measure held fairly steady between 2 and 10 years with those having between 2 and 6 years tenure (2.624) scoring second highest, followed by those with between 6 and 10 years of tenure (2.619), and those with over ten years of SDDOT service trailing at (2.53). Nonetheless, all measures were above the point of indifference.

Female respondents (M=2.72) had higher domain means than male respondents (M=2.56), although males evidenced higher increases between 2000 and 2002 (0.21) than did females (0.04). That increase builds on a similar gain from 1998 to 2000 where the male domain mean increased (0.24) more than the female domain mean (0.17).

The younger the employee, the more favorable was the response in this domain. That finding appeared consistent with the shorter the tenure the more favorable was the expected response. The 20 to 36, 37 to 45, 46 to 52 and 52 and over scored 2.70, 2.60, 2.51 and 2.51, respectively. The assessments by people 46 and over were very close and appear to average nearly the same value.

The two hundred eighty-four below midpoint survey respondents (M=2.65) and the eighty at midpoint respondents (M=2.55) gave more favorable responses to the domain questions than the above midpoint survey participants. The respondents whose salary was above midpoint had the lowest domain mean score (M=2.52).

Table 27: Work Schedule Domain 1998-2002

Variable	Category	Average		
		2002	2000	1998
Location	All SDDOT	2.5828	2.3929	2.1572
	Aberdeen Region	2.4612	2.2846	1.8322
	Mitchell Region	2.4601	2.1125	2.0292
	Pierre Region	2.4881	2.3083	2.1143
	Rapid City Region	2.4763	2.3493	2.0317
	Central Office	2.7988	2.6681	2.4638
Job Group	Clerical	2.7357	2.7006	2.5065
	Drafting	2.9694	2.8500	2.5392
	Engineering	2.7851	2.5878	2.2886
	Equipment	2.4874	2.3767	2.3036
	Executives	3.0411	3.1214	3.0476
	Maintenance	2.3755	2.0205	1.7746
	Specialist/Analyst	2.7402	2.4804	2.5447
	Technician	2.4665	2.4786	2.1997
Class Code	Financial/Information Services/Legal	2.7697	2.6297	2.5702
	N	2.4891	2.2982	2.0774
	T	2.7693	2.6088	2.3000
	Q	2.8952	2.4890	2.3333
Pay Status	E	3.0524	3.0286	2.8444
	Salaried	2.8296	2.5749	2.3738
Midpoint Status	Hourly	2.5498	2.3725	2.1324
	Below Midpoint	2.6549	2.5136	2.2133
	At Midpoint	2.5490	2.4793	2.1272
Tenure	Above Midpoint	2.5187	2.2106	2.1565
	0-2 years	2.7903	2.666	2.4372
	2-6 years	2.6244	2.4728	2.2376
	6-10 years	2.6192	2.3693	2.1506
Age	>10 years	2.5260	2.3138	2.1080
	20-36	2.6992	2.5358	2.2324
	37-45	2.6027	2.3618	2.0760
	46-52	2.5121	2.3042	2.0895
Gender	53-67	2.5141	2.3468	2.2213
	Female	2.7287	2.6889	2.5207
	Male	2.5598	2.3482	2.1047

COMMUNICATION DOMAIN

The Communication Domain represents the system of communicating directives from top management to line workers and from the line workers to top management. This measure is used to capture employee perceptions of the effectiveness of current communication systems.

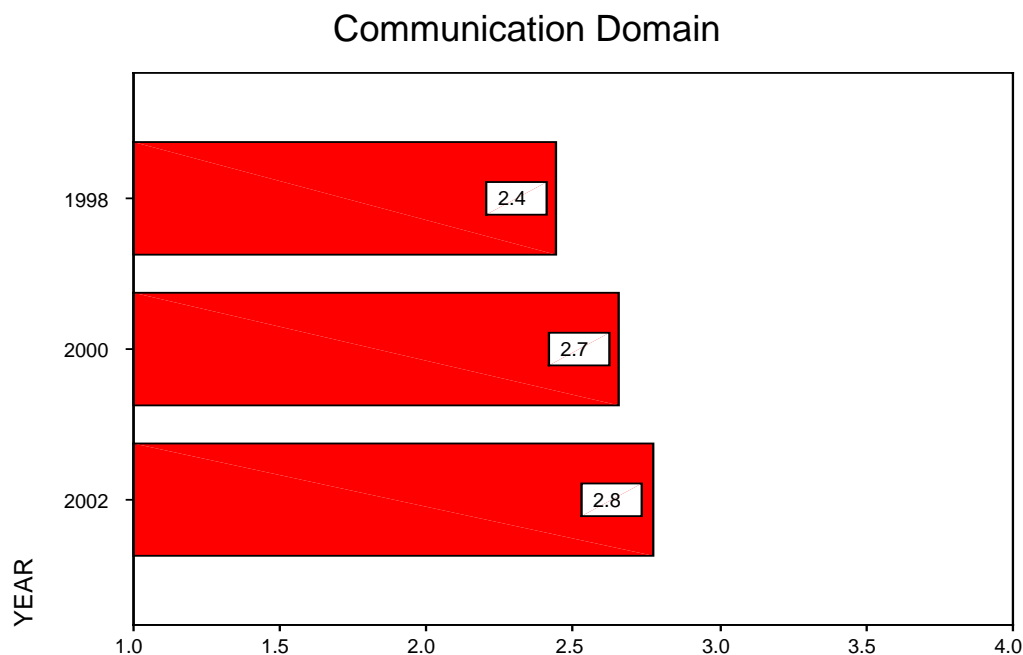


Figure 5: Communication Domain

2000 p=.000
2002 p=.000

The overall increase in this domain was significant (0.21) in 2000 and continued to make significant improvement in 2002 (2.77). While the overall mean remained in the concern range (2.77), it was above the theoretical midpoint indicating that on average the employee opinion of the Department's performance in this domain was favorable.

Responses in the Rapid City Region (M=2.90) and the Central Office (M=2.85) are higher than are the Pierre (M=2.75), Mitchell (M=2.70), and Aberdeen (M=2.58) Regions. All but the Aberdeen Region (0.03) showed increases of between 0.12 and 0.14 between 2000 to 2002.

The Exempt position classifications have higher domain mean scores and higher levels of improvement than did other position classifications. Further, note the differences between the E (M=3.74), Q (M=3.30), and T (M=2.87) position classifications and the level of response for the N (M=2.68) position classification. Communication was moving up in the mean ratings albeit slowly. Two of the four measures exceeded the 2.95 minimum for entry into the operational range with a third nearing that measure.

There is a notable difference (0.48) between the domain mean for salaried respondents and the hourly employees that participated in the survey. Similar observations were made in 2000 (0.38) and in 1998 (0.30). The findings show a widening gap developing between the two groups.

Executives have higher domain mean scores (M=3.78) than did all other job groups. It is important to note the high scores for engineering (M=2.93), financial/information services/legal (M=2.89), drafting (M=2.86), and clerical (M=2.85). It is important to recognize the low domain mean scores for the others: equipment M=2.51, maintenance M=2.67, specialist/analyst M=2.77, and technician M=2.63. While some groups of workers are of the opinion that they are receiving fairly good communication, others are not of that mindset.

There was a small difference in the average response (0.13) of new hires compared to existing employees. Years of service appeared to add little to the discussion. The general pattern was of new employees scoring higher than other employees, followed by employees with between 2 and 6 years tenure scoring second highest, followed by the longer tenure of 6 and 10 years, and finally, those with over ten years of SDDOT service.

There was very little difference in the average responses of males and females.

The younger the employee, the more favorable was the response with the exception that those between 53 and 65 gave slightly higher scores than those between 46 and 52. Those between 53 and 65 were very close (0.03) to the scores of the 20-36 age category. The assessment of communication was relatively uniform with respect to age.

The respondents at the midpoint provided the most favorable response (M=2.85) by a small margin over those whose wage is below the midpoint (M=2.83). The respondents whose salary was above midpoint had the lowest mean assessment of the communication domain (M=2.69).

Table 28: Communication Domain 1998-2002

Variable	Category	Average Score		
		2002	2000	1998
Location	All SDDOT	2.7697	2.6536	2.4415
	Aberdeen Region	2.5806	2.5544	2.2047
	Mitchell Region	2.6992	2.5660	2.4309
	Pierre Region	2.7524	2.6276	2.5064
	Rapid City Region	2.9017	2.7859	2.5979
	Central Office	2.8498	2.7085	2.4500
Job Group	Clerical	2.8460	2.6037	2.2833
	Drafting	2.8556	2.7977	2.6029
	Engineering	2.9278	2.7739	2.5037
	Equipment	2.5104	2.5431	2.3362
	Executives	3.7750	3.5521	3.5000
	Maintenance	2.6653	2.5567	2.3734
	Specialist/Analyst	2.7681	2.5878	2.3207
	Technician	2.6294	2.6181	2.4816
	Financial/Information Services/Legal	2.8873	2.7585	2.7237
Class Code	N	2.6770	2.5866	2.3943
	T	2.8740	2.7349	2.4655
	Q	3.3043	3.0577	2.8700
	E	3.7389	3.3512	3.0333
Pay Status	Salaried	3.1951	2.9992	2.7067
	Hourly	2.7128	2.6148	2.4110
Midpoint Status	Below Midpoint	2.8251	2.7670	2.4136
	At Midpoint	2.8487	2.6546	2.5281
	Above Midpoint	2.6885	2.5309	2.3496
Tenure	0-2 years	2.8808	2.7540	2.6352
	2-6 years	2.7523	2.6651	2.5800
	6-10 years	2.8037	2.6811	2.3976
	>10 years	2.7530	2.6192	2.4001
Age	20-36	2.8022	2.7360	2.5656
	37-45	2.7973	2.6198	2.3542
	46-52	2.7021	2.5747	2.3726
	53-67	2.7726	2.6860	2.4494
Gender	Female	2.7984	2.6502	2.3782
	Male	2.7651	2.6542	2.4506

SUPPORT DOMAIN

The Support Domain captures the respondent's perception of the helpfulness of the supervisors and other employees in the group. A fully supportive climate would be one with favorable, cooperative attitudes throughout the organization with mutual trust and confidence.

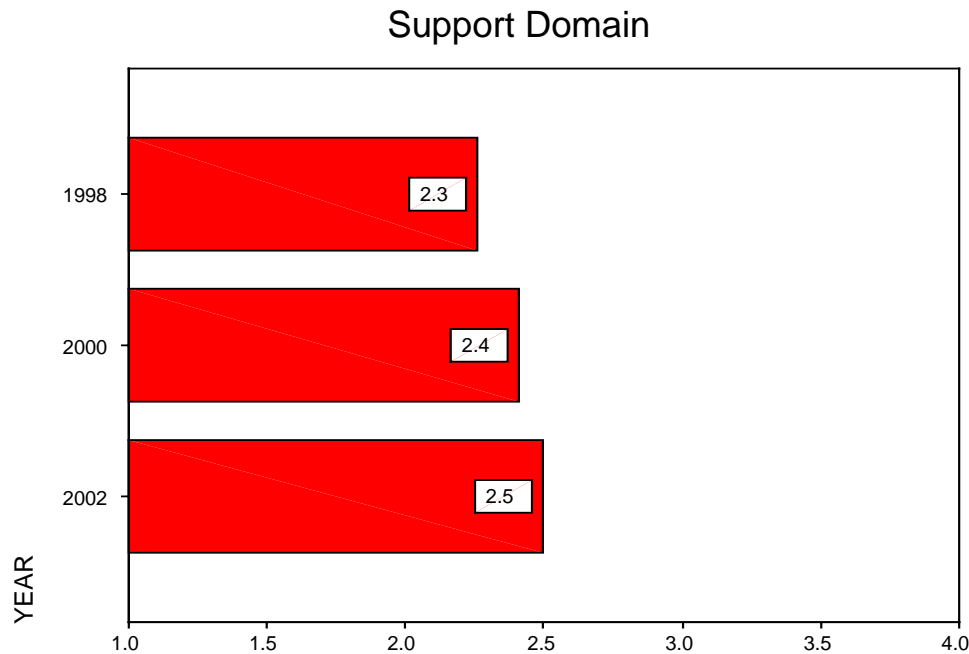


Figure 6: Support Domain

2000 $p = .000^{20}$
2002 $p = .000$

The support domain evidenced a significant increase (0.09). The average level of affirmative responses ($M=2.49$)²¹ is clearly nearing the theoretical midpoint. On average this group was close to indifferent about the help being provided as workplace support.

The Central Office ($M=2.62$) had a higher domain mean than did the Rapid City ($M=2.51$), Pierre ($M=2.48$), Mitchell ($M=2.39$) and Aberdeen ($M=2.35$) Regions.

The E ($M=3.18$), Q ($M=2.83$), and T ($M=2.57$) position classifications have higher domain means than did the respondents in the N ($M=2.43$) position classifications. The E, Q, T, and M means had increases of 0.44, 0.17, 0.08 and 0.07, respectively. The exempt employees clearly perceived progress made in this domain while the other employee classifications made smaller gains.

²⁰ In the discussion, “p” indicates whether or not the differences being measured were statistically significance. A “p” $\leq .050$ is said to be statistically significant. In reviewing Figure 1, we found for 2000 that “p” is equal to .000 ($p=.000$) meaning that the difference between the 1998 and 2000 estimates was statistically significant. Likewise for 2002, the finding of $p=.000$ indicates that the difference between 2000 and 20002 was statistically significant. “M” represents the mean.

²¹ The letter “M” represents the word mean or average.

The difference between the domain mean for salaried (M=2.72) and hourly employees (M=2.46) is 0.25. Although small, the difference is greater than the 2000 measure of 0.15.

The executive, specialist/analyst, clerical, and the financial, info services and legal group scored the best improvements in the domain means at 0.31, 0.26, 0.26 and 0.22, respectively. The equipment (-0.03) and technician (-0.02) job groups experienced small losses during the 2000 and 2002 study interval.

There was a difference (0.31) between new hires (M=2.77) and existing (M=2.46) employees. Years of service added little to the discussion even though the general pattern held that new employees scored higher than did other employees. Employees with between 2 and 6 years tenure scored second highest and those with between 6 and 10 years of tenure scored about the same. Those with over ten years of SDDOT service scored lowest of the four groups.

The female (0.21) assessment of the support domain increased at three times the rate as males (0.07). The female mean domain value is (M=2.62) or 0.15 more than the mean for the males (M=2.47).

In this domain, the younger the employee, the more likely it was there would be a favorable response (M=2.58). The 53 to 67 year old employee (M=2.51) and the 37 to 45 age group (M=2.49) fell in the middle with the lowest mean score assessed by the 46 to 52 age group (M=2.39).

The respondents whose salary was below midpoint had the most favorable responses (M=2.59). The respondents whose salary was at midpoint were slightly lower (M=2.54), and those respondents whose salary was above midpoint had the lowest domain means (M=2.39).

Table 29: Support Domain 1998-2002

Variable	Category	Score		
		2002	2000	1998
Location	All SDDOT	2.4926	2.4051	2.2547
	Aberdeen Region	2.3542	2.3155	2.1699
	Mitchell Region	2.3887	2.3326	2.2648
	Pierre Region	2.4763	2.3747	2.1874
	Rapid City Region	2.5094	2.4920	2.3097
	Central Office	2.6153	2.4691	2.2947
Job Group	Clerical	2.7469	2.4889	2.1582
	Drafting	2.6800	2.6350	2.6176
	Engineering	2.6035	2.5081	2.3403
	Equipment	2.3597	2.3850	2.1897
	Executives	3.2625	2.9531	3.0952
	Maintenance	2.3537	2.2693	2.1386
	Specialist/Analyst	2.5635	2.3021	2.2660
	Technician	2.4187	2.4423	2.2853
Class Code	Financial/Information Services/Legal	2.5551	2.3315	2.3158
	N	2.4275	2.3525	2.2056
	T	2.5717	2.4965	2.3098
	Q	2.8261	2.6587	2.5933
Pay Status	E	3.1750	2.7321	2.6889
	Salaried	2.7168	2.5377	2.5133
Midpoint Status	Hourly	2.4626	2.3902	2.2250
	Below Midpoint	2.5872	2.5179	2.2721
	At Midpoint	2.5351	2.4186	2.3073
Tenure	Above Midpoint	2.3884	2.2749	2.1698
	0-2 years	2.7669	2.6353	2.4890
	2-6 years	2.5321	2.4526	2.3551
	6-10 years	2.5368	2.3544	2.2533
Age	>10 years	2.4242	2.3491	2.2042
	20-36	2.5823	2.4871	2.3479
	37-45	2.4923	2.3517	2.1870
	46-52	2.3935	2.3381	2.1675
Gender	53-67	2.5053	2.4487	2.3008
	Female	2.6246	2.4130	2.3094
	Male	2.4716	2.4039	2.2468

STRUCTURE DOMAIN

The Structure Domain refers to the feelings that employees have about the constraints in their work organization (for example, rules, procedures, etc.). This measure is used to capture perceptions toward understanding policies, work environment, and management skills.

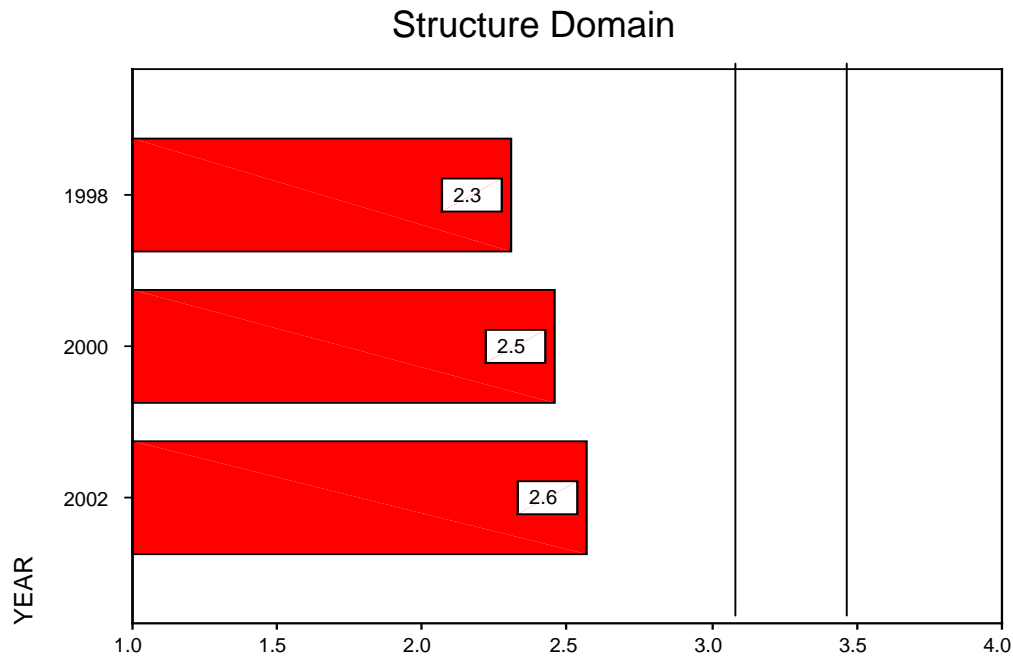


Figure 7: Structure Domain

2000 $p=.000$
2002 $p=.000$

The structure domain has a significant increase (0.11) and the overall mean passes over the theoretical midpoint ($M=2.57$), indicating that by average measurement of the responses the survey participants favored agreement with the statements defining in the domain.

Fairly clear patterns in the demographic data are developing within the descriptions of mean scores for the domains. Younger employees typically scored the domains higher than older employees. It is therefore not unexpected that higher scores were also associated with shorter tenure with the organization. The executive measures were higher than the other job categories. The salaried workers assessed the domain more favorably than the hourly workers. Female mean scores were higher. And, below or at the midpoint in salary positions had higher mean scores than the assessment by the people earning above the midpoint. The descriptions of the domains that follow are abbreviated recognizing these repeating patterns.

The usual pattern repeats with the Central Office and the Rapid City Region having higher domain mean scores than the other regions.

The E and Q position classifications (M=3.26 & M=2.97) have higher domain means scores than the T and N position classifications (M=2.69 & 2.49). The E position classifications rebounded from a substantial decrease (-0.11) between 1998 and 2000 with growth in the mean score this period (0.43). While other position classifications had fair to large increases (0.08 to 0.17), the clear lines of authority as viewed from the E positions may be an indication of a higher level of support.

The pattern of the salaried workers assessment (M=2.90) being higher than the hourly employees (M=2.53) continued in this domain.

There is little to say about the differences among the job groups, except that the executives have higher mean scores than all other job groups. With the exception of equipment, maintenance and technician job categories, all others scored the Department's performance above the midpoint for this domain.

There is a difference (0.21) between new hires (M=2.76) and existing employees (M=2.55). Employees with between 2 and 6 years tenure scored second highest (M=2.56), followed by those with over ten years of SDDOT service (M=2.55) and finally, those with between 6 and 10 years of tenure (M=2.50).

The female assessment (M=2.68) was higher than the male (M=2.55) assessment of the domain.

The younger the employee, the more favorable was the response, with the exception that those between 53 and 65 gave higher scores than those between 46 and 52. However, those between 53 and 65 scored the domain very closely (0.05) to the scores of the 20-36 age category.

The respondents whose salary was below or at the midpoint were equal. Both had average scores that were more favorable on this domain than that of respondents whose salary was above midpoint.

Table 30: Structure Domain 1998-2002

Variable	Category	Average		
		2002	2000	1998
Location	All SDDOT	2.5695	2.4555	2.3092
	Aberdeen Region	2.4351	2.3288	2.2287
	Mitchell Region	2.4642	2.3514	2.2306
	Pierre Region	2.4731	2.4255	2.1825
	Rapid City Region	2.6298	2.5508	2.3381
	Central Office	2.7089	2.5537	2.4393
Job Group	Clerical	2.7380	2.4568	2.2673
	Drafting	2.6667	2.7250	2.5980
	Engineering	2.7272	2.5599	2.4437
	Equipment	2.3111	2.3130	2.2270
	Executives	3.2833	2.9792	3.0857
	Maintenance	2.4341	2.3326	2.1324
	Specialist/Analyst	2.6000	2.3649	2.4220
	Technician	2.4990	2.5026	2.3263
Class Code	Financial/Information Services/Legal	2.7500	2.5181	2.4298
	N	2.4862	2.4014	2.2394
	T	2.6923	2.5268	2.4059
	Q	2.9710	2.8526	2.6600
Pay Status	E	3.2556	2.8214	2.9289
	Salaried	2.8966	2.7135	2.6080
Midpoint Status	Hourly	2.5258	2.4266	2.2750
	Below Midpoint	2.6307	2.5580	2.3551
	At Midpoint	2.6306	2.4512	2.3174
Tenure	Above Midpoint	2.4944	2.3473	2.2633
	0-2 years	2.7552	2.6140	2.5151
	2-6 years	2.5647	2.4549	2.3993
	6-10 years	2.5021	2.4087	2.554
Age	>10 years	2.5468	2.4253	2.2802
	20-36	2.6197	2.5115	2.3803
	37-45	2.5701	2.4468	2.2094
	46-52	2.5012	2.3962	2.2376
Gender	53-67	2.5885	2.4648	2.4030
	Female	2.6754	2.4756	2.3656
	Male	2.5524	2.4525	2.3011

IDENTITY DOMAIN

The Identity Domain represents the feeling of belonging to an organization and the feeling that one is a valuable member of that organization. This measure was used to capture employee perceptions toward the mission, and to the organization. Identity is important in that it is closely associated with Human Resource outcomes of absenteeism and turnover. The higher the identity of the respondent to the organization, the less likely the employee is to be absent from work and less likely to turn over, all else being equal. Identity is a major influence that can more than offset positive job satisfaction in that an employee can be very satisfied, but still leave to take another job. Commitment to the organization often reduces the likelihood of turnover.

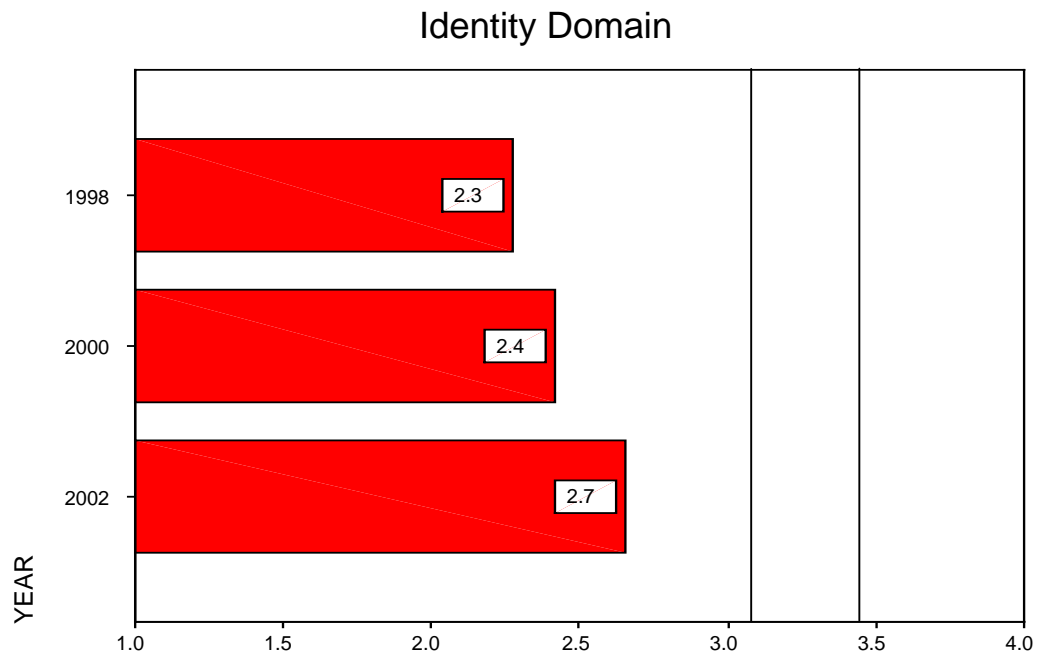


Figure 8: Identity Domain

2000 $p = .000$
2002 $p = .000$

The Identity Domain had a significant increase (0.24) and the overall mean rose above the theoretical midpoint ($M=2.67$) for the first time. This provided an indication that the respondents on average were in more agreement with the statements making up the domain than in disagreement.

Table 30 shows that the Rapid City Region and the Central Office had higher domain means than the other Regions.²²

²² Fairly clear patterns in the demographic data are developing within the descriptions of mean scores for the domains. Younger most often scores higher as does short tenure. The executive measures are higher than the other job categories. The salaried workers assess the domain more favorably than the hourly workers. Female mean scores are higher. And, below or at the midpoint in salary positions most often result in a higher mean scoring than that assessed by the people earning above the midpoint. The descriptions of the domains

Concurrently, the E and Q position classifications had higher domain mean scores than did T and N position classifications. The E, and Q position classifications had substantial increases of 0.52 and 0.31 points in their mean values.

The pattern of the salaried workers assessment (M=3.09) being higher than the hourly employees (M=2.60) continued in this domain.

The pattern that the executives had the highest domain mean score repeated (3.56). Financial/information services/legal (M=2.94), drafting (M=2.82), engineering (M=2.84), clerical (M=2.83) and specialist/analyst (M=2.80) are at a middle level and those remaining equipment (M=2.45), technician (M=2.48) and maintenance (M=2.48) had lower scores.

There was a difference (0.24) between new hires and existing employees. New employees scored higher (2.87) than did other employees. Employees with over ten years of SDDOT service scored second highest, followed by those with between 6 and 10 years of tenure and finally those between 2 and 6 years tenure. There was some flip-flop in these rankings from the previous year in all but the secured “Youngest” position. That happened because the rankings by the other age groups were very nearly equal.

The female assessment (M=2.75) was higher than the male (M=2.64) assessment of the domain. Both measures scored above the midpoint.

It was typical throughout the discussion of domain scores, that the younger employees as a group scored domains more favorably than older workers but this domain was an exception. All age grouping scores were very nearly the same with the 37 to 45 age group (M=2.70) scoring higher than the younger group, 20 to 36, by 0.03.

The respondents whose salary was at the midpoint had the most favorable opinion followed by those whose salary was below the midpoint. Those respondents whose salary was above midpoint scored the domain above the midpoint (M = 2.57).

Table 31: Identity Domain 1998-2002

Variable	Category	Average		
		2002	2000	1998
Location	All SDDOT	2.6550	2.4180	2.2769
	Aberdeen Region	2.4263	2.2295	2.1418
	Mitchell Region	2.5043	2.3249	2.2456
	Pierre Region	2.6239	2.3976	2.2821
	Rapid City Region	2.7488	2.5483	2.2956
	Central Office	2.8194	2.5233	2.3467
Job Group	Clerical	2.2872	2.3750	2.1667
	Drafting	2.8222	2.6900	2.5000
	Engineering	2.8366	2.5909	2.3744
	Equipment	2.4537	2.3252	2.2517
	Executives	3.5633	3.2292	3.2143
	Maintenance	2.4812	2.2240	2.0989
	Specialist/Analyst	2.7987	2.4049	2.4071
	Technician	2.4781	2.4516	2.3525
	Financial/Information Services/Legal	2.9375	2.4464	2.4912
Class Code	N	2.5551	2.3337	2.2204
	T	2.7853	2.5473	2.3414
	Q	3.1957	2.8846	2.6400
	E	3.5644	3.0476	2.8111
Pay Status	Salaried	3.0945	2.8311	2.5484
	Hourly	2.5963	2.3717	2.2459
Midpoint Status	Below Midpoint	2.7200	2.5392	2.3112
	At Midpoint	2.7323	2.4574	2.2916
	Above Midpoint	2.5663	2.2633	2.2299
Tenure	0-2 years	2.8652	2.5921	2.5189
	2-6 years	2.6058	2.3869	2.3092
	6-10 years	2.6271	2.3654	2.1780
	>10 years	2.6411	2.3900	2.2701
Age	20-36	2.6736	2.5067	2.3129
	37-45	2.7022	2.4027	2.1831
	46-52	2.6006	2.3409	2.2389
	53-67	2.6344	2.4125	2.3738
Gender	Female	2.7542	2.4116	2.3480
	Male	2.6392	2.4190	2.2668

REWARD DOMAIN

The Reward Domain refers to the perceived system of recognizing and rewarding employees for good efforts. There are two issues—the issue of recognizing good performance and the issue of rewarding good performance.

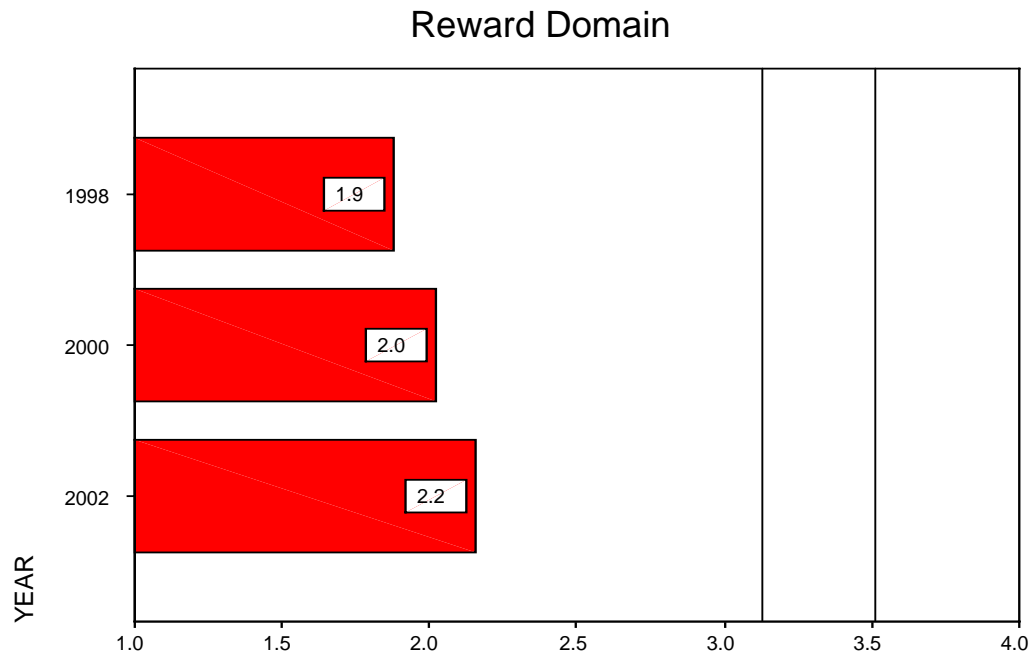


Figure 9: Reward Domain

2000 p=.000
2002 p=.000

The Reward Domain had the lowest overall domain score (M=2.02) in 2000 and continued with that distinction in 2002. The gains in the second and most recent measure were significantly different from the measures of the preceding period.

Overall, only one mean score was above the theoretical midpoint (executives). The overall mean was below the theoretical midpoint, indicating that the respondents on average were of the opinion that the Department did a less than favorable job on activities that comprise this domain.

The location pattern repeated in the Rapid City Region (M=2.23), Central Office (M=2.28) and Pierre Region (M=2.13), having higher domain scores than the other regions. Pierre being a part of the high scoring group was an exception special to this domain. Mitchell (M=2.02) and Aberdeen (M=2.01) trailed the leader's mean scores.

E and Q position classifications had higher domain means than did the T and N position classifications.

Overall, there was little to say about the differences among the job groups, except that the executives (M=2.80) had higher mean scores than all other job groups.

There was a difference (0.28) between new hires and existing employees. New employees scored higher than did other employees, with that employees while 6 and 10 years tenure scored second highest, followed by those with over ten years of SDDOT service and finally, those with between 2 and 6 years of tenure. The scores were very close and flip-flops in the rankings from period to period can be expected.

The female assessment (M=2.23) was higher than the male (M=2.14) assessment of the domain. Both measures fell well short of the theoretical midpoint.

Again, younger employee groups typically held the most favorable opinion but this domain was another exception. All age grouping scores were very nearly the same with the 53 to 66 age group (M=2.20) scoring higher than the younger group, 20 to 36, by 0.28.

The respondents whose salary was below or at the midpoint had more favorable opinions than those respondents whose salary was above midpoint.

Table 32: Reward Domain 1998-2002

Variable	Category	Average		
		2002	2000	1998
Location	All SDDOT	2.1562	2.0201	1.8808
	Aberdeen Region	2.0146	1.8788	1.7903
	Mitchell Region	2.0157	1.8981	1.8138
	Pierre Region	2.1345	2.0757	1.8912
	Rapid City Region	2.2283	2.1478	1.9126
	Central Office	2.2775	2.0826	1.9399
Job Group	Clerical	2.2485	1.8967	1.8312
	Drafting	2.1722	2.2833	1.9926
	Engineering	2.2960	2.1674	1.9707
	Equipment	1.9907	1.9412	1.9076
	Executives	2.8000	2.6528	2.5179
	Maintenance	2.0326	1.8652	1.7319
	Specialist/Analyst	2.3018	1.8896	1.9539
	Technician	2.0358	2.1099	1.9222
Class Code	Financial/Information Services/Legal	2.2939	1.9414	2.1159
	N	2.0789	1.9483	1.8286
	T	2.2553	2.1248	1.9434
	Q	2.5803	2.4359	2.1936
Pay Status	E	2.8667	2.5714	2.3718
	Salaried	2.4938	2.3560	2.1622
Midpoint Status	Hourly	2.1110	1.9823	1.8485
	Below Midpoint	2.2130	2.1400	1.9143
	At Midpoint	2.2176	2.0236	1.9053
Tenure	Above Midpoint	2.0785	1.8892	1.8198
	0-2 years	2.4067	2.2235	2.1042
	2-6 years	2.1040	2.0312	1.8725
	6-10 years	2.2338	1.9672	1.8283
Age	>10 years	2.2136	1.9785	1.8716
	20-36	2.1745	2.0880	1.8901
	37-45	2.1661	2.0034	1.8344
	46-52	2.0820	1.8934	1.8090
Gender	53-67	2.2020	2.1103	1.9954
	Female	2.2332	1.9847	1.9744
	Male	2.1439	2.2054	1.8673

STANDARDS DOMAIN

The Standards Domain refers to the setting and establishing of performance goals and the resultant influence on pride. The Standards Domain measures the quality of work that employees feel is expected of them on a day-to-day basis.

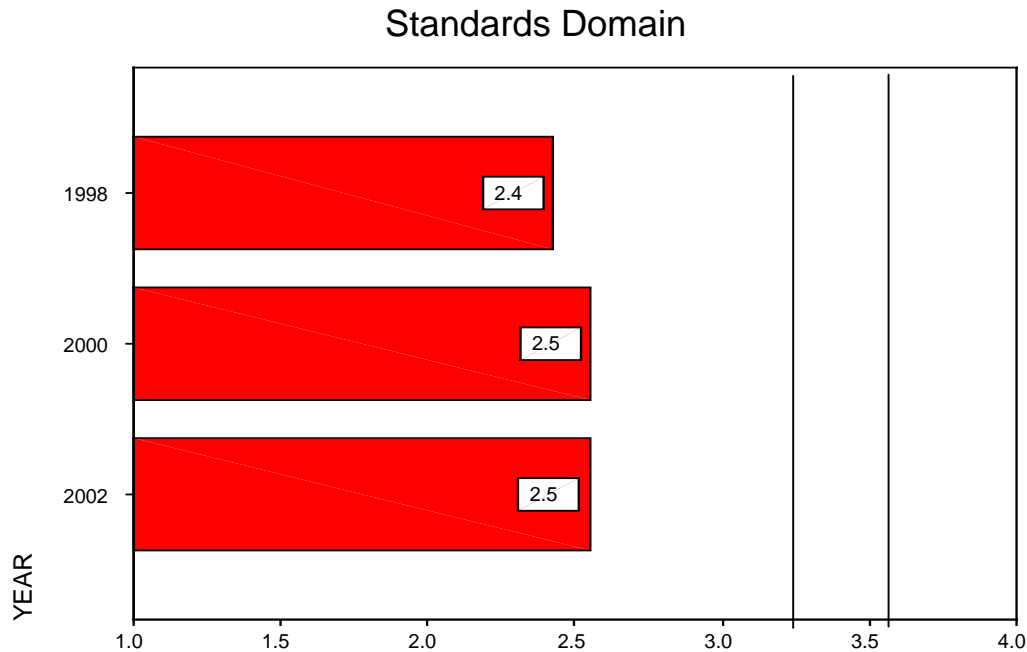


Figure 10: Standards Domain

2000 $p = .000$
2002 $p = .910$

The Standards Domain had a significant increase (0.12) in 2000 but the 2002 score was not significantly different from that value. The overall mean was above the theoretical midpoint in the latest two study periods. That result indicated that on average those participating in the survey favored the Department's performance on the statements defining this domain.

Location of the respondents does matter if only a little. Rapid City ($M=2.62$), Mitchell ($M=2.56$) and Pierre ($M=2.55$) all had higher average scores than that of the Central Office ($M=2.54$). All but Aberdeen ($M=2.49$) had a mean score on the Standards Domain above the midpoint in the range of possible scores.

The means for the position classifications E ($M=2.89$), Q ($M=2.68$), and T ($M=2.52$) decreased in value between 2000 and 2002 by -0.03, -0.24, and -0.05. Only the job classification N ($M=2.54$) increased (0.02) and the increase was meager. Standards are perceived to be slipping if only slightly.

The pattern of the salaried workers assessment (M=2.64) being higher than the hourly employees (M=2.54) was consistent in this domain.

Differences among the job groups manifested themselves in three ways. First, the executives' relatively high mean score (M=2.90) was considerably lower than the 2000 measure (3.07). The clerical mean score was the second highest (M=2.61). The drafting, engineering, specialist/analyst, and financial/information services/legal are at a middle level and the others (equipment, maintenance, and technicians) had scores in the range of 2.44 through 2.56.

There was no difference (0.05) between new hires and existing employees. New employees scored higher than did other employees, while employees between 2 and 6 years tenure scored second highest, followed by those with over ten years of SDDOT service and finally, those with between 6 and 10 years of tenure.

The female assessment (M=2.55) was higher than the male (M=2.54) assessment of the domain. These assessments were in near perfect agreement. Both measures exceeded the theoretical midpoint.

The age of the employee made little difference in the assessment of this domain.

The survey participants whose salary was below the midpoint scored the Department's performance the highest (M=2.59) on this domain. Those at the midpoint had an average score slightly lower (M=2.57), and those respondents whose salary was above midpoint had the lowest domain means (M=2.50). These measures were very nearly equal to those found in the 2000 study.

Table 33: Standards Domain 1998-2002

Variable	Category	Average		
		2002	2000	1998
Location	All SDDOT	2.5478	2.5500	2.4244
	Aberdeen Region	2.4874	2.4461	2.3448
	Mitchell Region	2.5571	2.4900	2.3736
	Pierre Region	2.5503	2.5117	2.3938
	Rapid City Region	2.6163	2.5945	2.4560
	Central Office	2.5417	2.6367	2.4900
Job Group	Clerical	2.6074	2.6138	2.4648
	Drafting	2.5381	2.6552	2.6583
	Engineering	2.5429	2.6113	2.4771
	Equipment	2.5007	2.4238	2.4458
	Executives	2.9000	3.0714	2.6735
	Maintenance	2.5633	2.4735	2.3188
	Specialist/Analyst	2.5519	2.6145	2.5066
	Technician	2.4420	2.5288	2.4164
	Financial/Information Services/Legal	2.5205	2.6273	2.6040
Class Code	N	2.5389	2.5141	2.3952
	T	2.5229	2.5701	2.4488
	Q	2.6812	2.9203	2.7086
	E	2.8857	2.9184	2.6444
Pay Status	Salaried	2.6422	2.7886	2.5956
	Hourly	2.5352	2.5230	2.4048
Midpoint Status	Below Midpoint	2.5857	2.5979	2.4398
	At Midpoint	2.5705	2.5696	2.4247
	Above Midpoint	2.5040	2.4863	2.4141
Tenure	0-2 years	2.6180	2.5768	2.4927
	2-6 years	2.5740	2.5309	2.4683
	6-10 years	2.5028	2.5264	2.4111
	>10 years	2.5309	2.5518	2.4103
Age	20-36	2.5394	2.5452	2.4423
	37-45	2.5744	2.5648	2.3725
	46-52	2.5188	2.5521	2.4227
	53-67	2.5541	2.5332	2.4596
Gender	Female	2.5609	2.6247	2.5269
	Male	2.5457	2.5386	2.4098

TRAINING DOMAIN

The Training Domain represents the level, availability, and quality of work-related developmental experiences. This measure was developed in 1998 in response to training concerns affecting productivity, creativity, efficiency, and the exercise of authority in carrying out the mission of the organization.

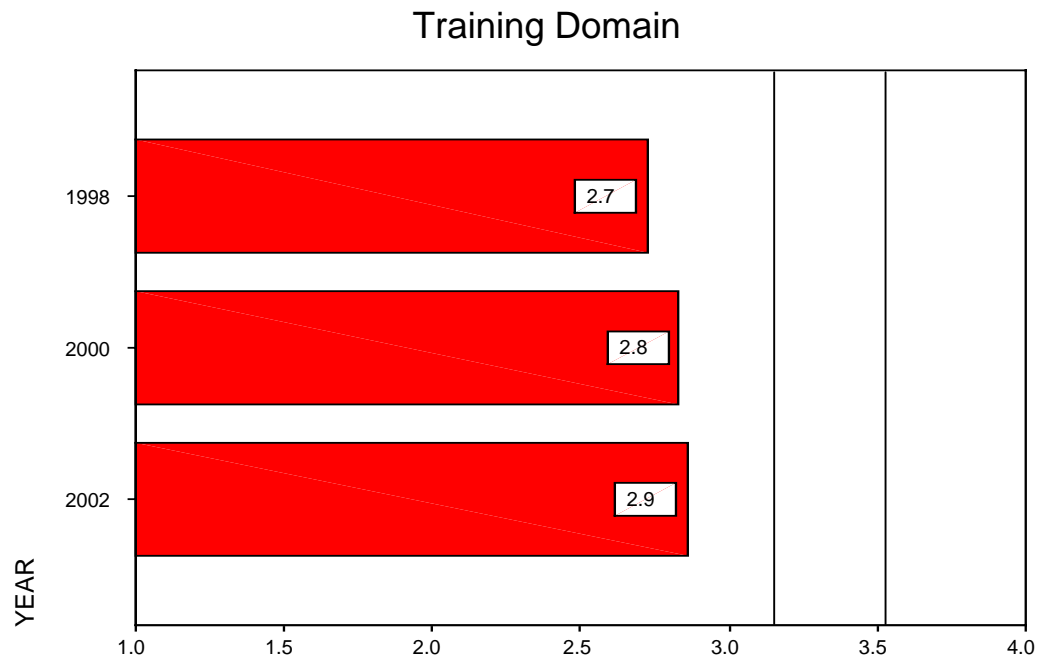


Figure 11: Training Domain

2000 $p = .000$
2002 $p = .233$

Training was the highest domain mean score and increased from 2.83 in 2000 to 2.86 in the 2002 assessment. While there was a small gain the difference was not statistically significant. The overall mean was above the theoretical midpoint. The 2002 measure is approaching the 2.95 minimum score qualifying a domain as being in the operational range.

The leaders in the Training Domain are Rapid City ($M=2.95$) and the Mitchell ($M=2.90$) region. The mean scores on the domain for the remaining regions included the Central Office ($M=2.87$), Aberdeen ($M=2.77$) and Pierre ($M=2.79$). All were well above the midpoint.

The pattern of the salaried workers assessment ($M=2.95$) being higher than the hourly employees ($M=2.85$) was consistent in this domain. The operational range had a lower bound of 2.95 and is within rounding error of having been achieved for the salaried worker.

The means for the position classifications E ($M=3.00$), Q ($M=2.99$), and T ($M=2.96$) were all within the operational range. Only the job classification N ($M=2.81$) falls within the range designated as a concern area.

There is little to add to the general pattern among the job groups. The executives continued to have a high domain mean (M=3.01). The clerical (M=3.03) assessment was also high. The drafting (M=2.94), engineering (M=2.96), and financial/information services/legal (M=2.90) respondents were at a middle level and the others, equipment (M=2.75), maintenance (M=2.77), technician (M=2.84), and specialist/analyst (M=2.80) had the lower scores.

There was a difference between new hires (M=2.99) and existing employees (M=2.84). The general pattern that newer respondents score higher or that more experienced respondents score lower held true.

Females (M=2.94) had a higher domain mean score than did males (M=2.84).

The younger employee fairly consistently provided the most favorable response on domains and did in this one as well (M=2.96). The lowest scores were from the employees whose age was between 46 and 52 (M=2.76).

The respondents whose salary was at the midpoint had the most favorable opinion (M=2.92) on this domain. The respondents whose salary was below the midpoint assessed the domain higher (M=2.91) than those respondents whose salary was above midpoint (M=2.79).

Table 34: Training Domain 1998-2002

Variable	Category	Average		
		2002	2000	1998
Location	All SDDOT	2.8573	2.8290	2.7220
	Aberdeen Region	2.7686	2.8178	2.6652
	Mitchell Region	2.9030	2.7857	2.8156
	Pierre Region	2.7870	2.7920	2.6509
	Rapid City Region	2.9458	2.9163	2.7139
	Central Office	2.8721	2.8366	2.7355
Job Group	Clerical	3.0272	2.8992	2.7602
	Drafting	2.9400	2.8300	2.6181
	Engineering	2.9636	2.9156	2.8052
	Equipment	2.7507	2.6919	2.3525
	Executives	3.0411	3.2375	3.2698
	Maintenance	2.7694	2.7370	2.6056
	Specialist/Analyst	2.8032	2.7498	2.7781
	Technician	2.8396	2.8932	2.8211
Class Code	Financial/Information Services/Legal	2.9042	2.7512	2.9006
	N	2.8108	2.7873	2.6717
	T	2.9603	2.9141	2.8130
	Q	2.9870	2.9731	2.8600
Pay Status	E	3.007	3.0429	3.0889
	Salaried	2.9466	2.9420	2.8402
Midpoint Status	Hourly	2.8453	2.8163	2.7084
	Below Midpoint	2.9135	2.8859	2.7661
	At Midpoint	2.9233	2.8757	2.7344
Tenure	Above Midpoint	2.7855	2.7395	2.6701
	0-2 years	2.9870	2.9365	2.9017
	2-6 years	2.9204	2.8051	2.7280
	6-10 years	2.9039	2.8750	2.7221
Age	>10 years	2.8048	2.7937	2.6992
	20-36	2.9561	2.9009	2.7816
	37-45	2.8584	2.8167	2.6750
	46-52	2.7623	2.7705	2.6663
Gender	53-67	2.8547	2.8193	2.7556
	Female	2.9382	2.8732	2.7962
	Male	2.8444	2.8223	2.7114

CULTURE DOMAIN

The Culture Domain represents the relationship between sanctions and behavior. This Domain measures perceptions toward communication, work environment, and cooperation.

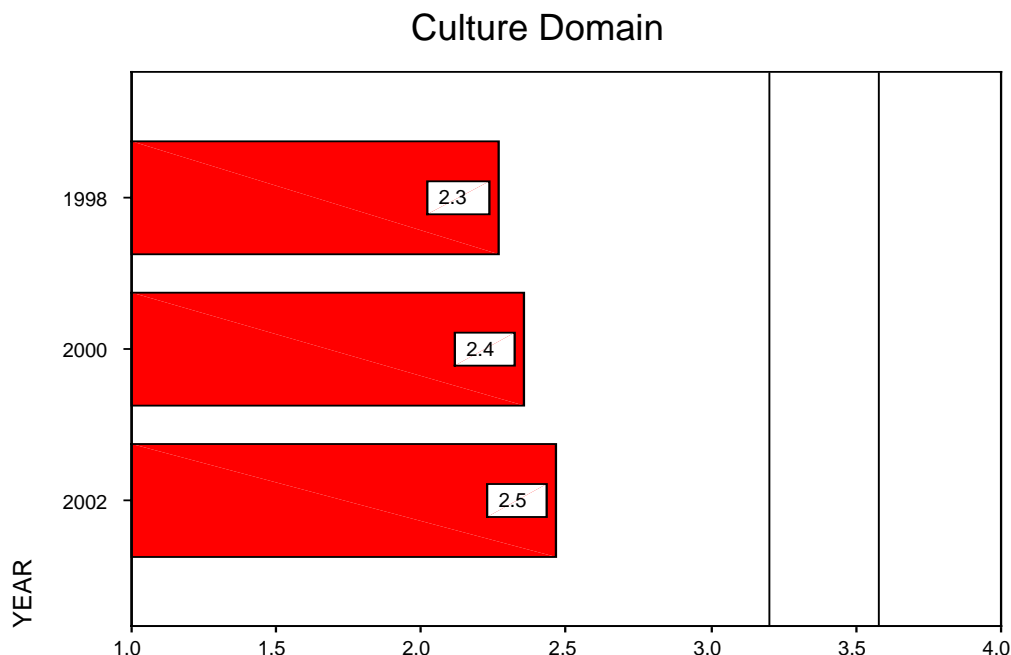


Figure 12: Culture Domain

2000 p=.001
2002 p=.000

The Culture Domain had a low domain score (2.46) but did have a small increase from 2000 to 2002 (0.11). The overall domain mean (M=2.46) was below the theoretical midpoint indicating that on average respondents did not agree with the statements in the domain.

The leader in the domain was the Central Office (M=2.64) followed by Rapid City (M=2.49) and the Pierre (M=2.45) region. The mean scores on the Standards Domain for the remaining regions included Mitchell (M=2.33) and Aberdeen (M=2.24). All but the Central Office fell short of the midpoint.

E and Q position classifications continued to have higher domain means than the T and N position classifications. The difference between the lowest measure, that for the N job grouping (M=2.35), and the highest measure (M=3.23), which was the exempt employee group, is sizeable.

The higher assessment from salaried workers (M=2.92) than from the hourly employees (M=2.40) was consistent in this domain.

Executives again had the high level of mean scores (M=3.34) for the domain. Midlevel scores were received from clerical, drafting, engineering, specialist/analyst, and financial, legal and info services groups (M=2.52 through M=2.69). Technician (M=2.34) and equipment (M=2.19) employee assessments of the culture provided the lowest scorings.

There was a difference (0.21) between the assessment scores of new hires (M=2.65) and existing employees (M=2.44). New employees (M=2.65) scored higher than any other age grouping of employees. The average assessments by the other tenure groups ranged in score from M=2.41 to M=2.49.

Females (M=2.56) had a higher domain mean score than did males (M=2.45).

The youngest employees provided the most favorable average response (M=2.51) when assessing the culture domain. The 37 through 45 age group rating (M=2.49) was nearly as high followed by those between 53 and 67 (M=2.47) and the 46 to 52 group (M=2.37).

The average response for those whose salary was below midpoint had the most favorable (M=2.51) opinion. The respondents whose salary was at midpoint were slightly lower (M=2.49), and those respondents whose salary was above midpoint had the lowest domain means (M=2.41).

Table 35: Culture Domain 1998-2002

Variable	Category	Average Score		
		2002	2000	1998
Location	All SDDOT	2.4637	2.3529	2.2644
	Aberdeen Region	2.2381	2.1824	2.1190
	Mitchell Region	2.3326	2.2789	2.2333
	Pierre Region	2.4506	2.3659	2.2699
	Rapid City Region	2.4901	2.4224	2.2821
	Central Office	2.6365	2.4501	2.3393
Job Group	Clerical	2.5933	2.3785	2.1858
	Drafting	2.5726	2.6000	2.5809
	Engineering	2.6983	2.5419	2.3947
	Equipment	2.1881	2.2289	2.1952
	Executives	3.3375	3.1719	3.0893
	Maintenance	2.2792	2.1947	2.1027
	Specialist/Analyst	2.5244	2.2718	2.2748
	Technician	2.3443	2.3131	2.2809
Class Code	Financial/Information Services/Legal	2.6250	2.3587	2.5288
	N	2.3460	2.2632	2.1961
	T	2.6471	2.5030	2.3627
	Q	3.0567	2.7885	2.6333
Pay Status	E	3.2333	2.9821	2.7833
	Salaried	2.9200	2.7546	2.5654
Midpoint Status	Hourly	2.4021	2.3079	2.2300
	Below Midpoint	2.5103	2.4586	2.2871
	At Midpoint	2.4921	2.3995	2.2824
Tenure	Above Midpoint	2.4066	2.2107	2.2244
	0-2 years	2.6549	2.4456	2.4387
	2-6 years	2.4092	2.3768	2.3389
	6-10 years	2.4855	2.3551	2.2042
Age	>10 years	2.4493	2.3242	2.2446
	20-36	2.5142	2.4133	2.3429
	37-45	2.4936	2.3201	2.1752
	46-52	2.3725	2.2779	2.1811
Gender	53-67	2.4707	2.4098	2.3493
	Female	2.5578	2.3392	2.2858
	Male	2.4487	2.3550	2.2614

PURPOSE DOMAIN

The Purpose Domain refers to items related to the purpose and mission of the SDDOT. This measure is used to capture perceptions of mission, management's organization around that mission, and the individual's support of that mission. Purpose is closely related to identity in that individuals associating themselves with the organization's purpose are more likely to remain with the organization, all else being equal.

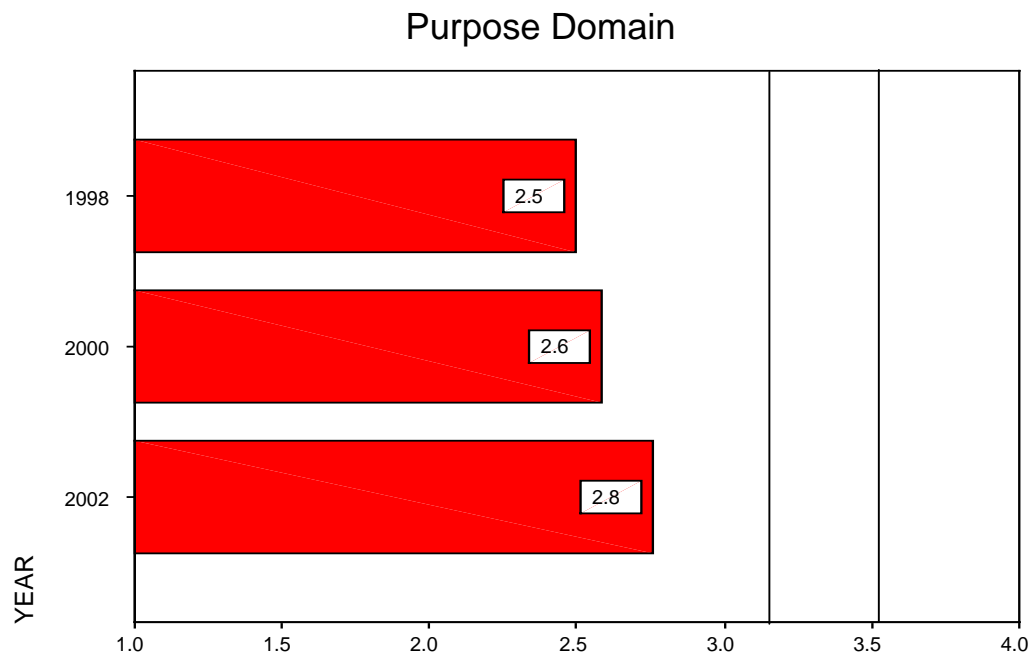


Figure 13: Purpose Domain

2000 $p=.001$
2002 $p=.000$

The Purpose Domain had a domain mean above the theoretical midpoint (2.75) and has made significant increases in each of the two replicate efforts following the establishment of a baseline. The overall mean on this domain was above the theoretical midpoint.

The Central Office, Rapid City, Pierre, Mitchell and Aberdeen regions had domain means that begin at $M=2.84$ and trickle down in small increments to $M=2.63$.

E ($M=3.37$) and Q ($M=3.16$) position classifications continued to have higher domain means than the T ($M=2.82$) and N ($M=2.69$) position classifications.

The pattern of the salaried workers assessment ($M=3.03$) being higher than the hourly employees ($M=2.72$) was consistent in this domain.

There was a difference (0.15) between new hires and existing employees. The new employees scored highest in this domain ($M=2.89$).

Females ($M=2.82$) had a higher domain mean score than did males ($M=2.74$).

The 37 to 45 age group gave the highest assessment (M=2.82) to the purpose domain followed by the 53 to 67 (M=2.76), and then the younger employee age grouping (M=2.73).

The respondents having a salary at midpoint gave the highest assessment to the Purpose Domain (M=2.88). Those whose salary was above midpoint on average rated the domain the lowest (M=2.67).

Table 36: Purpose Domain 1998-2002

Variable	Category	Average Score		
		2002	2000	1998
Location	All SDDOT	2.7535	2.5801	2.4926
	Aberdeen Region	2.6286	2.4734	2.3631
	Mitchell Region	2.6867	2.5089	2.4763
	Pierre Region	2.7386	2.5373	2.4050
	Rapid City Region	2.7891	2.6951	2.5170
	Central Office	2.8415	2.6460	2.5927
Job Group	Clerical	2.8865	2.5240	2.4294
	Drafting	2.6909	2.6985	2.7219
	Engineering	2.8666	2.6843	2.5644
	Equipment	2.5505	2.5242	2.5063
	Executives	3.3636	3.3295	3.4286
	Maintenance	2.6698	2.4570	2.3232
	Specialist/Analyst	2.8386	2.5845	2.6768
	Technician	2.6291	2.6231	2.5477
	Financial/Information Services/Legal	2.8401	2.5283	2.6590
Class Code	N	2.6897	2.5237	2.4423
	T	2.8247	2.6558	2.5435
	Q	3.1581	2.8881	2.7891
	E	3.3697	3.1494	3.0848
Pay Status	Salaried	3.0290	2.8230	2.7261
	Hourly	2.7165	2.5528	2.4658
Midpoint Status	Below Midpoint	2.8055	2.6698	2.5614
	At Midpoint	2.8762	2.5952	2.4812
	Above Midpoint	2.6663	2.4742	2.4510
Tenure	0-2 years	2.8865	2.6827	2.6789
	2-6 years	2.7238	2.5713	2.5248
	6-10 years	2.7342	2.5332	2.4380
	>10 years	2.7442	2.5659	2.4794
Age	20-36	2.7284	2.6192	2.5332
	37-45	2.8161	2.5742	2.3981
	46-52	2.6977	2.5215	2.4492
	53-67	2.7596	2.6091	2.5896
Gender	Female	2.8233	2.5452	2.5322
	Male	2.7424	2.5854	2.4868

CONFLICT DOMAIN

The Conflict Domain measures employee's perception of the SDDOT's methods of handling and resolving disputes in the workplace. Conflict, if handled well, can create positive working environments. If handled poorly, conflict reduces communication and cooperation.

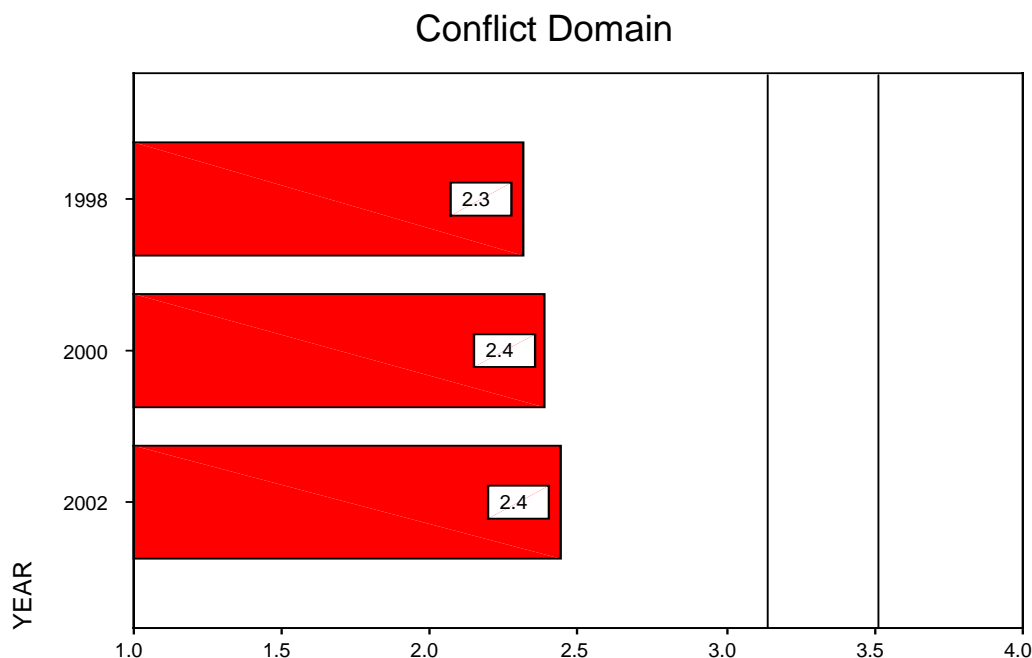


Figure 14: Conflict Domain

2000 $p = .001$
2002 $p = .025$

The Conflict Domain had a domain mean below the theoretical midpoint (2.44) while evidencing an acceptable increase from the baseline data (0.05). The overall mean was below the theoretical midpoint, indicating that more respondents disagreed with the statements than agreed with the statements in the domain.

The Central Office had the highest score in the Conflict Domain. The Rapid City and Pierre regions scored toward the middle of the range. The mean scores for the Mitchell and Aberdeen regions clustered at the bottom of the range (2.32 to 2.34).

E and Q position classifications continued to have higher domain means than the T and N position classifications.

Executives scored the highest mean assessment ($M=3.03$) for the domain although it was down from the 2000 study (-0.05). The equipment group ($M=2.20$) scored lower (-0.09) as well. Midlevel average mean scores were received from clerical, drafting, and engineering ($M=2.52$ through $M=2.55$).

The pattern of higher assessment from salaried workers (M=2.66) than from the hourly employees (M=2.41) was consistent in this domain. Hourly workers increased their mean score 0.06 while the salaried worker's assessment declined by 0.03.

There was a difference (0.14) between new hires and existing employees.

Females (M=2.51) had a higher domain mean than Males (M=2.43).

The younger the employee (20 to 36), the more favorable was the assessment response (M=2.47). The lowest score by a small amount was the 46 to 52 age group (M=2.40).

The employees at midpoint had the most favorable responses (M=2.51). The respondents whose salary was below midpoint scored the domain lower (M=2.47), and those respondents whose salary was above midpoint had the lowest domain mean (M=2.38).

Table 37: Conflict Domain 1998-2002

Variable	Category	Average Score		
		2002	2000	1998
Location	All SDDOT	2.4382	2.3837	2.3105
	Aberdeen Region	2.3207	2.2955	2.2620
	Mitchell Region	2.3350	2.3791	2.3070
	Pierre Region	2.4616	2.3812	2.3225
	Rapid City Region	2.4582	2.4185	2.2890
	Central Office	2.5309	2.4200	2.3403
Job Group	Clerical	2.5529	2.3395	2.1218
	Drafting	2.5233	2.4725	2.4725
	Engineering	2.5451	2.5154	2.3683
	Equipment	2.2000	2.2866	2.3103
	Executives	3.0250	3.0750	2.6667
	Maintenance	2.3536	2.2811	2.2576
	Specialist/Analyst	2.4270	2.3014	2.3312
	Technician	2.4451	2.3965	2.3186
Class Code	Financial/Information Services/Legal	2.3781	2.2957	2.4772
	N	2.3778	2.3180	2.2784
	T	2.5205	2.4834	2.3619
	Q	2.7174	2.7462	2.4427
Pay Status	E	2.9900	2.8857	2.5600
	Salaried	2.6589	2.6856	2.4545
Midpoint Status	Hourly	2.4083	2.3497	2.2942
	Below Midpoint	2.4710	2.4530	2.3259
	At Midpoint	2.5128	2.4204	2.3309
Tenure	Above Midpoint	2.3827	2.2873	2.2719
	0-2 years	2.5597	2.4895	2.3431
	2-6 years	2.3845	2.4102	2.3787
	6-10 years	2.4708	2.3659	2.2917
Age	>10 years	2.4344	2.3559	2.2965
	20-36	2.4734	2.4372	2.3830
	37-45	2.4400	2.3705	2.2538
	46-52	2.3954	2.3149	2.2623
Gender	53-67	2.4450	2.4152	2.3298
	Female	2.5116	2.3160	2.2293
Gender	Male	2.4268	2.3939	2.3219

TEAMWORK DOMAIN

The Teamwork Domain represents the evaluation of support of one's workgroup and the quality of relationships within that workgroup. The teamwork domain measures an individual's assessment of their team, the quality of team performance, and relationships between team members.

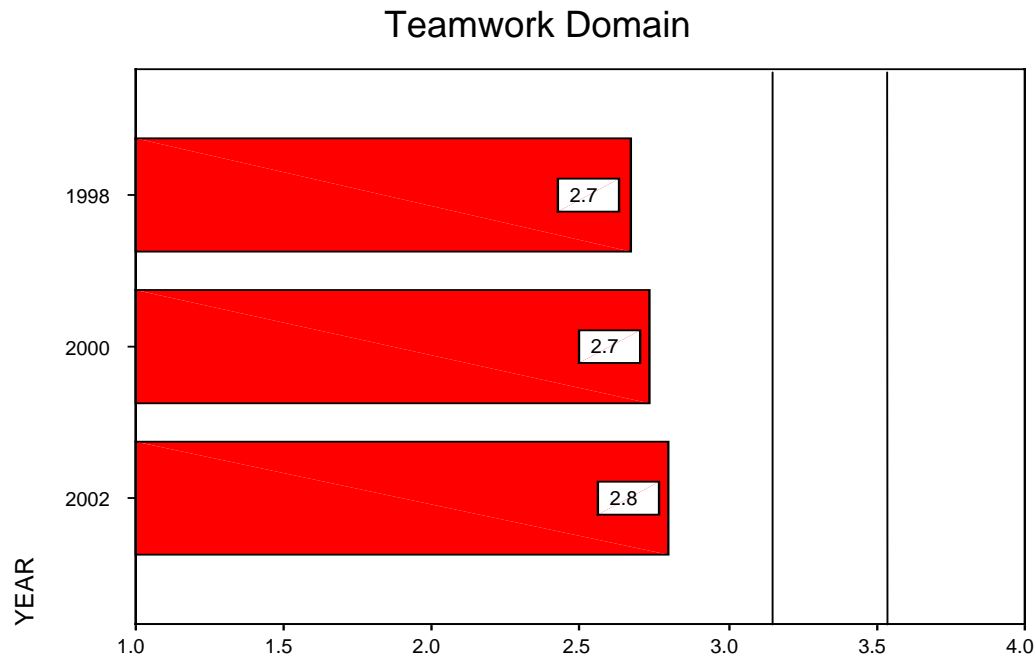


Figure 15: Teamwork Domain

2000 $p = .009$
2002 $p = .022$

The Teamwork Domain had a domain mean above the theoretical midpoint increasing from the 2000 value of $M=2.74$ to the 2002 value of $M=2.80$ which was an acceptable increase (0.07).

The Central Office ($M=2.91$) and the Rapid City Region ($M=2.80$) continued to have higher domain means. The Pierre, Mitchell and Aberdeen regions followed, scoring $M=2.77$, $M=2.75$ and $M=2.64$, respectively.

E ($M=3.39$), Q ($M=3.30$), and T ($M=2.94$) position classifications had substantially higher domain means than the N ($M=2.70$) position classification.

The domain assessment was higher from salaried workers ($M=3.14$) than from the hourly employees ($M=2.75$). This was a common outcome across the domains.

Executives had a relatively high level of mean scores ($M=3.40$). The drafting ($M=2.89$) and engineering ($M=2.99$) respondents scored the domain at a relatively high level. Equipment ($M=2.63$) and maintenance ($M=2.65$) scores were the lowest scorings for this domain. It is important to note the magnitude of difference between the top and the bottom (0.77).

The 2002 difference (0.17) between new hires and existing employees was smaller than it was in 2000 (0.26). The general pattern held that respondents with less tenure scored higher than did respondents with more tenure.

Females (M=2.81) had a higher mean value in their assessment of the domain than Males (M=2.79).

The younger employees (20 to 36) gave the most favorable assessment response (M=2.84). The lowest score by a small amount was the 46 to 52 age group (M=2.72). The largest increase from 2000 to 2002 was in the 37 to 45 age group (0.13) with the smallest gain in the 20 to 36 age group (0.01).

The respondents whose salary was at midpoint and those below midpoint had the most favorable responses (M=2.83 and 2.82). Those respondents whose salary was above midpoint had the lowest domain mean (M=2.75).

Table 38: Teamwork Domain 1998-2002

Variable	Category	Score		
		2002	2000	1998
Location	All SDDOT	2.7953	2.7356	2.6678
	Aberdeen Region	2.6405	2.5826	2.5175
	Mitchell Region	2.7457	2.6907	2.6049
	Pierre Region	2.7657	2.6886	2.6647
	Rapid City Region	2.7971	2.7826	2.7042
	Central Office	2.9104	2.8442	2.7578
Job Group	Clerical	2.8719	2.7568	2.6127
	Drafting	2.8911	2.9250	2.9314
	Engineering	2.9888	2.9308	2.7706
	Equipment	2.6333	2.6050	2.5966
	Executives	3.4000	3.5417	3.3095
	Maintenance	2.6488	2.5706	2.5420
	Specialist/Analyst	2.8060	2.6991	2.7270
	Technician	2.7128	2.7122	2.6845
Class Code	Financial/Information Services/Legal	2.9271	2.6522	2.7018
	N	2.7007	2.6408	2.6113
	T	2.9443	2.9190	2.7707
	Q	3.3000	3.0513	2.8000
Pay Status	E	3.3889	3.3333	3.1222
	Salaried	3.1401	3.0002	2.8444
Midpoint Status	Hourly	2.7492	2.7057	2.6476
	Below Midpoint	2.8207	2.8408	2.6867
	At Midpoint	2.8270	2.7447	2.6494
Tenure	Above Midpoint	2.7573	2.6170	2.6804
	0-2 years	2.9486	2.8684	2.7767
	2-6 years	2.7728	2.7808	2.7409
	6-10 years	2.8243	2.7170	2.6598
Age	>10 years	2.7740	2.6975	2.6405
	20-36	2.8402	2.8263	2.7508
	37-45	2.8256	2.6940	2.6089
	46-52	2.7241	2.6948	2.5785
Gender	53-67	2.7865	2.7158	2.7201
	Female	2.8098	2.7284	2.6919
	Male	2.7930	2.7367	2.6644

CLIMATE DOMAIN

The Climate Domain addresses the general good fellowship that prevails in the work group atmosphere; the emphasis on being well-liked (relative to performance); prevalence of friendly and informal social groups. This domain measures friendliness of relationships between co-workers, supervisors and subordinates, and the level of trust in the organization.

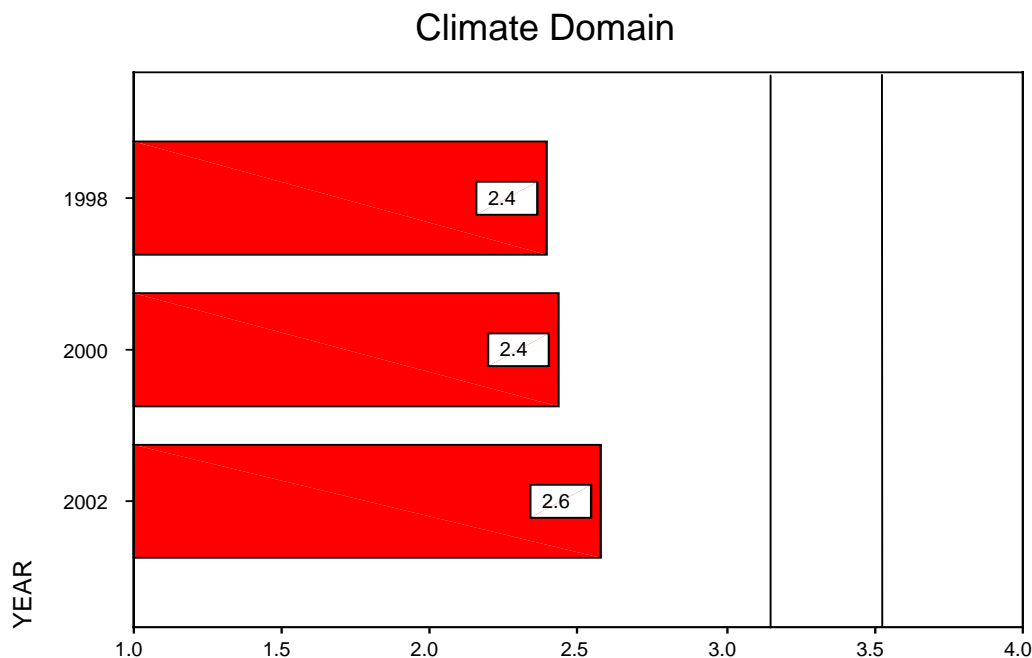


Figure 16: Climate Domain

2000 $p = .001$
2002 $p = .000$

The Climate Domain moved above the theoretical midpoint 2002 ($M=2.57$), indicating that for the first time during the four years of study on average response reflected a favorable opinion on statements pertaining to this domain. The increase (0.14) was statistically significant.

The pattern of the salaried workers assessment ($M=2.91$) being higher than the hourly employees ($M=2.53$) continued in the Climate Domain.

The Central Office ($M=2.73$), Rapid City ($M=2.60$) and Pierre ($M=2.59$) Regions and domain means were higher than the Mitchell ($M=2.43$) and Aberdeen ($M=2.38$) Regions.

The E and Q position classifications had higher domain means than the T and N position classifications. The difference between the mean scores of the E and N position classifications was substantial (0.85).

Executives had a mean score of 3.37. Engineering ($M=2.75$), clerical ($M=2.73$), drafting ($M=2.66$), specialist/analyst ($M=2.66$), and the financial, info services and legal grouping ($M=2.67$) had scores that were above the theoretical midpoint. The equipment, technician and maintenance groups had mean scores between 2.40 and 2.48.

New hires scores (M=2.82) were higher (0.27) than the scoring from existing employees (M=2.55).

Females (M=2.69) had a slightly higher domain mean than did Males (M=2.56).

The younger employees gave the most favorable average response (M=2.67) toward the Climate Domain. The 46 to 52 age group gave the domain the lowest mean rating (M=2.48). The 37 to 45 age group (M=2.59) and the older employee group (M=2.56) fell between with nearly equal means.

The respondents whose salary was below midpoint had the most favorable responses (M=2.67). The respondents whose salary was at midpoint rate the domain a little lower (M=2.63), and those respondents whose salary was above midpoint have the lowest domain mean (M=2.47).

Table 39: Climate Domain 1998-2002

Variable	Category			
		2002	2000	1998
Location	All SDDOT	2.5747	2.4357	2.3925
	Aberdeen Region	2.3783	2.2594	2.2471
	Mitchell Region	2.4349	2.3455	2.3916
	Pierre Region	2.5888	2.4716	2.3364
	Rapid City Region	2.5972	2.5019	2.4389
	Central Office	2.7270	2.5359	2.4661
Job Group	Clerical	2.7318	2.4697	2.3284
	Drafting	2.6571	2.7083	2.7255
	Engineering	2.7509	2.6219	2.5421
	Equipment	2.4015	2.3455	2.3103
	Executives	3.3714	2.9821	2.9048
	Maintenance	2.4131	2.2488	2.2310
	Specialist/Analyst	2.6610	2.2754	2.3103
	Technician	2.4814	2.4730	2.4319
	Financial/Information Services/Legal	2.6732	2.4348	2.6123
Class Code	N	2.4813	2.3498	2.3187
	T	2.7124	2.5885	2.5276
	Q	3.0207	2.8462	2.6733
	E	3.3333	2.9286	2.7978
Pay Status	Salaried	2.9078	2.7476	2.6084
	Hourly	2.5300	2.4006	2.3678
Midpoint Status	Below Midpoint	2.6682	2.5837	2.4200
	At Midpoint	2.6274	2.4553	2.4192
	Above Midpoint	2.4655	2.2643	2.3349
Tenure	0-2 years	2.8168	2.6635	2.5755
	2-6 years	2.6222	2.4993	2.5393
	6-10 years	2.6310	2.4178	2.3948
	>10 years	2.5074	2.3703	2.3366
Age	20-36	2.6691	2.5430	2.5307
	37-45	2.5882	2.4188	2.3611
	46-52	2.4846	2.3541	2.2630
	53-67	2.5560	2.4123	2.3858
Gender	Female	2.6898	2.4672	2.4339
	Male	2.5563	2.4309	2.3865

PERFORMANCE APPRAISALS DOMAIN

The Performance Appraisals Domain refers to perceptions of the formal performance appraisal process. The performance appraisal domain was developed in 1998 to measure performance and appraisal issues affecting productivity, creativity, efficiency, and the exercise of authority in carrying out the mission of the organization.

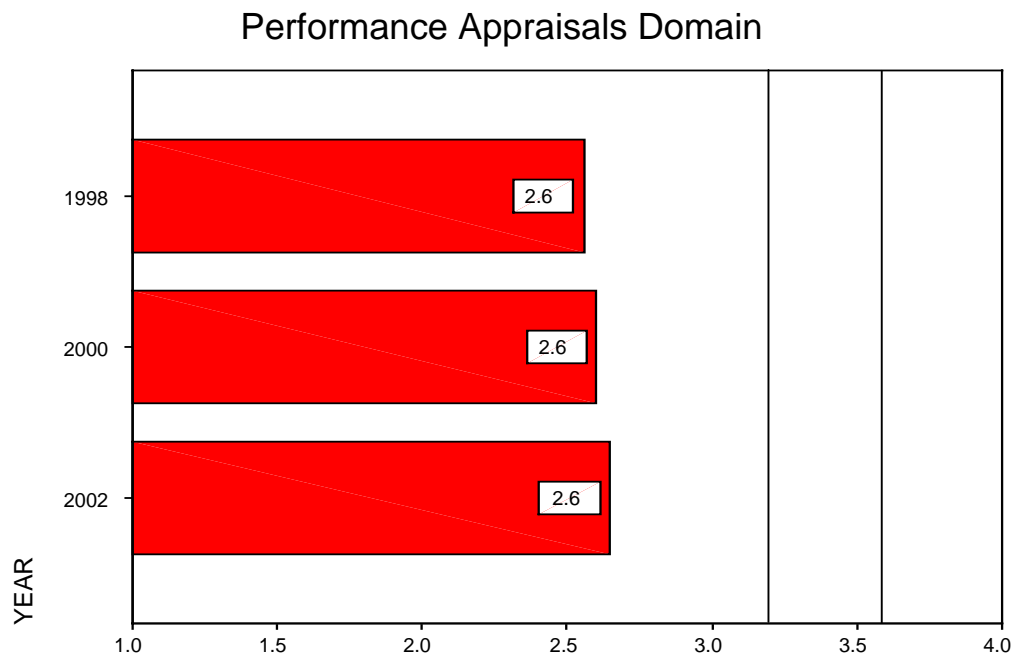


Figure 17: Performance Appraisals Domain

2000 $p=.153$
2002 $p=.120$

There were no significant differences between the mean score for 1998 and 2000 nor was the difference for this domain between 2000 and 2002 significant. Although there was an increase from 1998 to 2000 (0.04) and an increase from 2000 to 2002 (0.04), it is possible that these increases were due to chance. The overall mean is above the theoretical midpoint. On average, there was a favorable opinion of the area of performance appraisals.

While the differences between the years for the domain are not statistically significant, there were some differences in the response levels according to the demographic characteristics. The Rapid City Region was a standout ($M=2.75$). The Central Office and Pierre regions had higher domain means than did the Mitchell, and Aberdeen Regions.

The E ($M=3.07$), Q ($M=2.69$), and T ($M=2.73$) had higher domain means than the N ($M=2.60$) position classes.

The pattern of the salaried workers assessment (M=2.79) being higher than the hourly employees (M=2.62) continued in this domain.

Executives had a relatively low mean score (3.06), but this was clearly higher than all other employee groups. Clerical was higher than the drafting, engineering, and equipment respondents, but all are above the agency average (2.60). Specialist analyst and financial/information services/ legal had substantial decreases from 1998 to 2000 (-0.14 and -0.11, respectively). The lowest level of responses were those from maintenance, specialist/analyst technician and financial/information services/ legal job groups.

There was a difference (0.33) in the domain assessment means of new hires (M=2.94) and existing employees (M=2.61).

The new employees, those with less than 2 years service, had the highest mean score (M=2.94) for this domain. As years of service increase, the performance appraisal assessment score decreases to a low of M=2.57 from those with ten years or more tenure.

Males (M=2.63) score about eleven points lower than females (M=2.74). While the mean scores changed since the last assessment, the difference between the mean scores of the males and the females did not.

The younger employee (M=2.76) and the older employee (M=2.66) provide more favorable responses to the questions addressing this domain. The age 46 to 52 grouping gave the lowest assessment (M=2.52) of the domain with the 37 to 45 year age grouping (M=2.64) falling between.

The responses of those whose salary was below midpoint were the most favorable (M=2.75). The responses of those whose salary was at midpoint were lower (M=2.69), and those respondents whose salary was above midpoint had the lowest domain means (M=2.54).

Table 40: Performance Appraisals Domain 1998-2002

Variable	Category	Average		
		2002		1998
Location	All SDDOT	2.6446	2.5992	2.5569
	Aberdeen Region	2.5476	2.5325	2.4732
	Mitchell Region	2.5575	2.5108	2.4535
	Pierre Region	2.6397	2.5720	2.5250
	Rapid City Region	2.7501	2.7245	2.6250
	Central Office	2.6939	2.6401	2.6354
Job Group	Clerical	2.8529	2.7193	2.4780
	Drafting	2.6952	2.8131	2.8039
	Engineering	2.7293	2.6915	2.6865
	Equipment	2.6098	2.6893	2.4435
	Executives	3.0571	3.2500	3.2619
	Maintenance	2.5651	2.4680	2.4426
	Specialist/Analyst	2.6526	2.4921	2.6227
	Technician	2.5221	2.5822	2.5016
Class Code	Financial/Information Services/Legal	2.6857	2.5839	2.6895
	N	2.5972	2.5534	2.4960
	T	2.7348	2.7057	2.6665
	Q	2.6905	2.6176	2.8400
Pay Status	E	3.0730	2.9184	2.8133
	Salaried	2.7913	2.6818	2.8227
Midpoint Status	Hourly	2.6248	2.5899	2.5263
	Below Midpoint	2.7461	2.7608	2.5248
	At Midpoint	2.6862	2.5834	2.5997
	Above Midpoint	2.5370	2.4351	2.5282
Tenure	0-2 years	2.9375	2.8751	2.7457
	2-6 years	2.6929	2.6504	2.6244
	6-10 years	2.6924	2.5831	2.5343
	>10 years	2.5699	2.5217	2.5269
Age	20-36	2.7582	2.7234	2.6759
	37-45	2.6363	2.5447	2.4806
	46-52	2.5248	2.5067	2.4826
	53-67	2.6649	2.6173	2.5669
Gender	Female	2.7394	2.6938	2.6703
	Male	2.6295	2.5850	2.5407

RESPONSIBILITY DOMAIN

The Responsibility Domain represents the accountability and control exercised within the organization. This measure is used to capture employee's perceptions about having the proper decision making power in their jobs and the degree to which they feel they are held accountable.

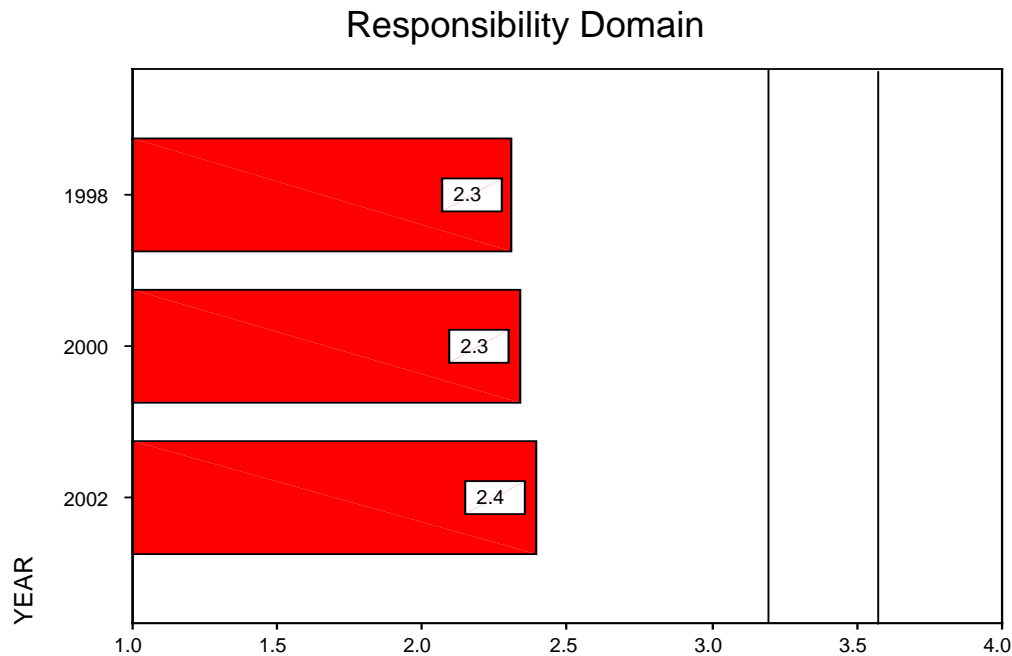


Figure 18: Responsibility Domain

2000 $p=.219$
2002 $p=.013$

The mean score ($M=2.39$) for the Responsibility Domain increased 0.06 from the 2000 measure ($M=2.33$). The assessment remained below the theoretical midpoint of 2.5, indicating that on average the respondents disagreed with the statements in the domain. Further, the difference between the mean score for 2000 and 2002 was statistically significant.

The differences among the Central Office and the Regions were not large. The distribution of the mean began with the Central Office ($M=2.49$) and ended with the Aberdeen Region ($M=2.24$).

The E, Q, T, and N position classifications had a slowly decreasing distribution of mean assessment measures. The E or exempt grouping had the highest mean ($M=2.84$), followed by the Q group ($M=2.55$), then the T grouping ($M=2.41$) and finally the N grouping of employees ($M=2.36$).

The salaried workers' assessment of the domain ($M=2.54$) was higher than that of the hourly employees ($M=2.37$).

The executives 2002 mean scoring of the domain (M=2.85) was low relative to the 2000 score (M=2.92) and both are lower than the typical score for executives throughout the domain analysis. As one would expect from a domain with an overall score of M=2.39, the other job groups were low as well from a low of 2.24 (equipment) to 2.59 (drafting).

There was little difference (0.17) between the opinions of new hires and those of existing employees. As the years of service increased, the responsibility score decreased, increased slightly, and then fell back again with the responses of those with over ten years of service (M=2.36).

Females (M=2.48) scored higher than males (M=2.38) in their assessment of the domain.

The respondents in the 37 to 45 age group scored (M=2.43) the domain the most favorably edging out the younger employees for the top position (M=2.41). Similarly, there was little difference between the 46 to 52 (M=2.36) and 52 and over (M=2.35) age groups.

The respondents whose salary was at midpoint assessed the domain (M=2.47) higher than the respondents whose salary was below midpoint (M=2.42) and higher than those whose salary was above midpoint (M=2.32).

Table 41: Responsibility Domain 1998-2002

Variable	Category	Score		
			2000	1998
Location	All SDDOT	2.3900	2.3340	2.3066
	Aberdeen Region	2.2354	2.2542	2.2193
	Mitchell Region	2.3481	2.3558	2.3373
	Pierre Region	2.3469	2.2517	2.2934
	Rapid City Region	2.4364	2.3538	2.3206
	Central Office	2.4880	2.3942	2.3301
Job Group	Clerical	2.5500	2.3500	2.3686
	Drafting	2.5867	2.5550	2.5196
	Engineering	2.4307	2.3855	2.2929
	Equipment	2.2361	2.2724	2.3184
	Executives	2.8467	2.9167	2.6429
	Maintenance	2.3372	2.2373	2.2522
	Specialist/Analyst	2.4363	2.2414	2.3014
	Technician	2.3151	2.4057	2.3523
Class Code	Financial/Information Services/Legal	2.4222	2.3000	2.3728
	N	2.3596	2.3009	2.3047
	T	2.4136	2.3659	2.2845
	Q	2.5507	2.5513	2.3533
Pay Status	E	2.8422	2.7500	2.5611
	Salaried	2.5418	2.4840	2.3167
Midpoint Status	Hourly	2.3697	2.3171	2.3055
	Below Midpoint	2.4240	2.4088	2.3240
	At Midpoint	2.4747	2.3247	2.3130
Tenure	Above Midpoint	2.3337	2.2589	2.2844
	0-2 years	2.5446	2.4106	2.4390
	2-6 years	2.3828	2.4009	2.3416
	6-10 years	2.4354	2.2904	2.2851
Age	>10 years	2.3609	2.3136	2.2893
	20-36	2.4078	2.3906	2.3385
	37-45	2.4336	2.3050	2.2341
	46-52	2.3625	2.2857	2.3010
Gender	53-67	2.3466	2.3557	2.3510
	Female	2.4755	2.3059	2.3547
	Male	2.3763	2.3382	2.2997

RISK DOMAIN

The Risk Domain refers to acceptable levels of risk taking in decision making. The Domain measures the perception that employees have about taking calculated risks that may lead to new, less costly, or more efficient work processes.

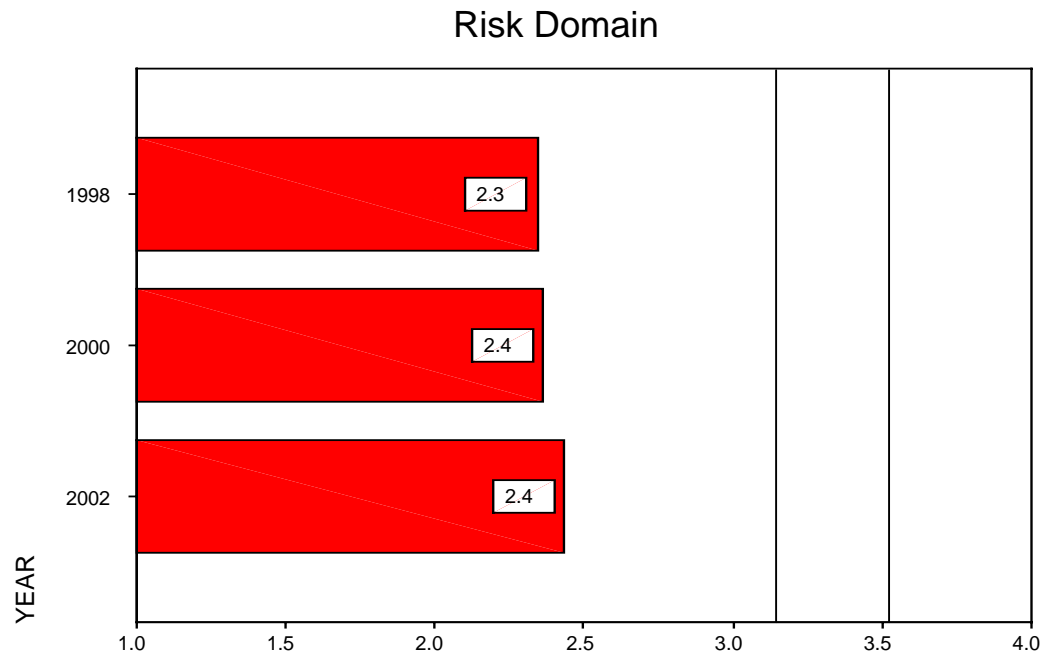


Figure 19: Risk Domain

2000 $p = .416$
2002 $p = .007$

The mean score for the Risk Domain ($M=2.43$) was below the theoretical midpoint, indicating that the respondents on average disagreed with the statements. The 0.07 point difference between the 2000 and 2002 measure was statistically significant.

The salaried workers assessment of the domain ($M=2.64$) was higher than that of the hourly employees ($M=2.40$).

The Central Office ($M=2.51$) and the Rapid City Region ($M=2.51$) were somewhat higher than the Pierre ($M=2.41$), Mitchell ($M=2.39$) and Aberdeen (2.28) regions.

The distribution of means by position classification was rather broad. The E classification stood somewhat alone exceeding the mean measure for Q by 0.22 points. Likewise the Q position classification's mean for the domain exceeded that of the T position by 0.24 points. The spread between the T and N position classifications was not as great (0.07).

Executives had relatively low mean scores ($M=2.93$), but scored significantly higher than all other job groups, with only financial/information services/legal ($M=2.61$) and drafting ($M=2.50$) at or above the theoretical midpoint. The remaining groups (clerical, engineering, equipment, maintenance, specialist/analyst, and technician respondents) were all below the theoretical midpoint.

There was a no difference (0.02) between new hires and existing employees. With the exception of the 6 to 10 year employees (M=2.51), no other tenure group scored above the midpoint. Nor, did any score below M=2.42. The distribution was a tight one.

Males (M=2.43) have slightly lower domain means than do females (M=2.48).

Respondents 37 through 45 years of age had the highest risk domain score (M=2.50), slightly higher than the scores for the other respondents among the 20 through 36 (M=2.40), 46 through 52 (M=2.40) and 53 through 67 (M=2.42) age groupings.

The respondents whose salary was at midpoint had the most favorable responses (M=2.50). The respondents whose salary was below midpoint were lower (M=2.45), and those respondents whose salary was above midpoint had the lowest domain means (M=2.40).

Table 42: Risk Domain 1998-2002

Variable	Category			
		2002	2000	
Location	All SDDOT	2.4327	2.3628	2.3426
	Aberdeen Region	2.2805	2.2410	2.2729
	Mitchell Region	2.3868	2.2891	2.3295
	Pierre Region	2.4128	2.3704	2.2610
	Rapid City Region	2.5085	2.4251	2.3953
	Central Office	2.5088	2.4395	2.3957
Job Group	Clerical	2.4357	2.4524	2.2625
	Drafting	2.5000	2.5098	2.4510
	Engineering	2.4918	2.4497	2.3990
	Equipment	2.3009	2.2724	2.2550
	Executives	2.9250	2.7917	2.7143
	Maintenance	2.3876	2.2482	2.2665
	Specialist/Analyst	2.4617	2.3243	2.4709
	Technician	2.3532	2.3740	2.5308
	Financial/Information Services/Legal	2.6146	2.5152	2.4193
Class Code	N	2.3937	2.3148	2.3122
	T	2.4627	2.4176	2.3551
	Q	2.6757	2.7051	2.6867
	E	2.9167	2.7857	2.6356
Pay Status	Salaried	2.6435	2.5845	2.5484
	Hourly	2.4043	2.3375	2.3187
Midpoint Status	Below Midpoint	2.4461	2.4120	2.4000
	At Midpoint	2.4957	2.3690	2.3582
	Above Midpoint	2.3993	2.3066	2.2736
Tenure	0-2 years	2.4469	2.4242	2.4308
	2-6 years	2.4319	2.3099	2.3510
	6-10 years	2.5052	2.3137	2.3173
	>10 years	2.4217	2.3674	2.3377
Age	20-36	2.4045	2.3358	2.3750
	37-45	2.4974	2.4000	2.3241
	46-52	2.3980	2.3562	2.3239
	53-67	2.4172	2.3577	2.3403
Gender	Female	2.4775	2.4176	2.3644
	Male	2.4258	2.3548	2.3395

PROBLEM SOLVING INITIATIVE DOMAIN

The Problem Solving Initiative Domain refers to items noted in focus groups about the benefits of the problem solving initiative. The Problem Solving Initiative Domain was developed in 1998 to measure issues surrounding the problem solving initiative affecting productivity, creativity, efficiency, and the exercise of authority in carrying out the mission of the organization.

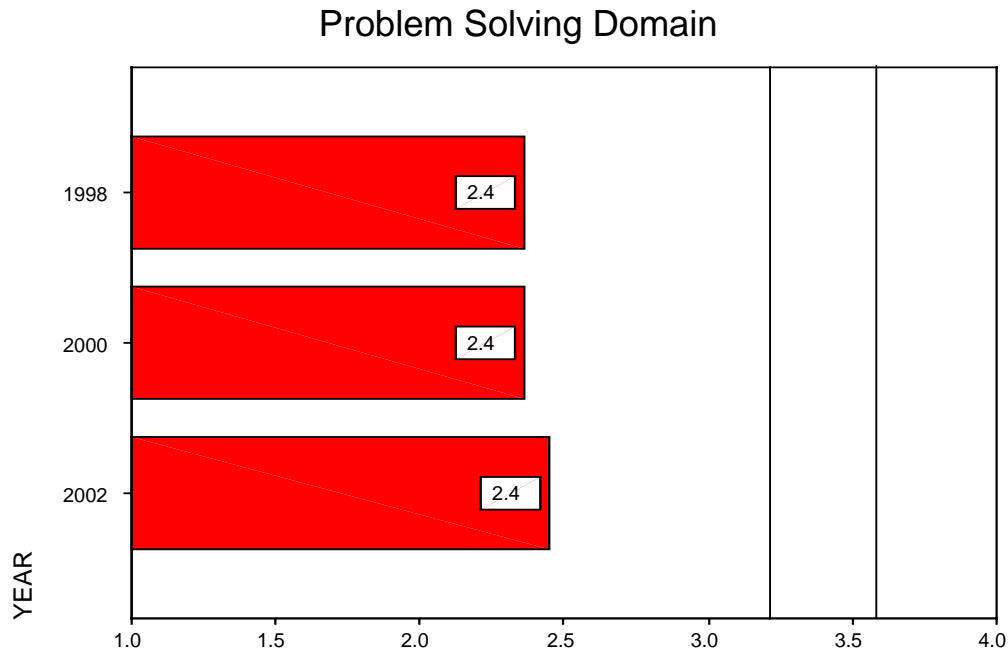


Figure 20: Problem Solving Domain

2000 $p = .966$
2002 $p = .009$

The mean score for the Problem Solving Initiative Domain (2.45) was below the theoretical midpoint, indicating that on average respondents did not agree with the statements pertaining to this domain. There was improvement since 2000 and the difference is statistically significant.

The difference in mean assessment values for the domain between the salaried ($M=2.74$) and hourly ($M=2.41$) employees was large (0.33).

The Central Office ($M=2.54$), Pierre ($M=2.52$), and Rapid City ($M=2.52$) region mean scores for the domain were significantly higher than those for Mitchell ($M=2.39$) and Aberdeen ($M=2.20$) regions. The Pierre Region (0.24) and Central Office (0.11) showed the greatest improvement in mean scores from 2000 to 2002.

As was commonly the case, people in the E and Q position classifications had higher mean assessment responses to the domain questions than did those in the T and N position classifications.

Executives had mean scores ($M=3.30$) in the operational range. The executives did score significantly higher than all other job groups, with only drafting ($M=2.64$), specialist/analyst ($M=2.59$) and engineering ($M=2.57$) being above the theoretical midpoint. The remaining job

groups; clerical, equipment, maintenance, technician, and financial/information and services/legal respondents, were all below the theoretical midpoint.

There was a difference (0.31) in the means comparing the opinions of new hires and existing employees. The mean scores for all but the shortest in tenure (M=2.71) were very near equal at 2.44, 2.46 and 2.41.

Males (M=2.45) scored slightly higher than females (M=2.43) in its assessment of the domain. It is not common that the mean for the males is greater than that for the females in SDDOT domain assessments.

Younger respondents tended to score higher than did older workers, except that respondents 53 and 65 scored slightly higher than those individuals between 46 and 52.

The respondents whose salary was at midpoint had the most favorable responses (M=2.56) followed closely by respondents whose salary was below midpoint (M=2.55). Those respondents whose salary was above midpoint had the lowest domain means (M=2.32).

Table 43: Problem Solving Domain 1998-2002

Variable	Category	Score		
		2002	2000	1998
Location	All SDDOT	2.4475	2.3606	2.3615
	Aberdeen Region	2.1958	2.1690	2.0658
	Mitchell Region	2.3867	2.3770	2.4611
	Pierre Region	2.5225	2.2778	2.4194
	Rapid City Region	2.5209	2.5120	2.4586
	Central Office	2.5412	2.4269	2.3706
Job Group	Clerical	2.4286	2.2065	2.2365
	Drafting	2.6381	2.5414	2.4479
	Engineering	2.5659	2.5221	2.4840
	Equipment	2.0694	2.1262	2.2405
	Executives	3.3000	3.3036	3.3810
	Maintenance	2.3883	2.2688	2.2860
	Specialist/Analyst	2.5889	2.3782	2.4145
	Technician	2.2611	2.3236	2.2345
	Financial/Information Services/Legal	2.5214	2.3095	2.7222
Class Code	N	2.3755	2.2780	2.2866
	T	2.5215	2.4709	2.4266
	Q	2.8685	2.8791	2.8933
	E	3.2000	2.0408	2.2381
Pay Status	Salaried	2.7405	2.7101	2.7968
	Hourly	2.4068	2.3214	2.3110
Midpoint Status	Below Midpoint	2.5488	2.5047	2.3923
	At Midpoint	2.5603	2.3662	2.3932
	Above Midpoint	2.3175	2.2018	2.2938
Tenure	0-2 years	2.7144	2.5498	2.5223
	2-6 years	2.4364	2.4433	2.4589
	6-10 years	2.4556	2.3226	2.3344
	>10 years	2.4058	2.3070	2.3303
Age	20-36	2.5374	2.4483	2.4390
	37-45	2.4468	2.3627	2.3113
	46-52	2.3562	2.2998	2.3229
	53-67	2.4542	2.3087	2.3577
Gender	Female	2.4251	2.2954	2.3608
	Male	2.4509	2.3702	2.3616

PERFORMANCE MEASUREMENT INITIATIVE DOMAIN

The Performance Measurement Initiative Domain refers to items noted in focus groups about the benefits of the performance measurement initiative. The Performance Measurement Initiative Domain was developed in 1998 to measure issues surrounding the performance measurement initiative affecting productivity, creativity, efficiency, and the exercise of authority in carrying out the mission of the organization.

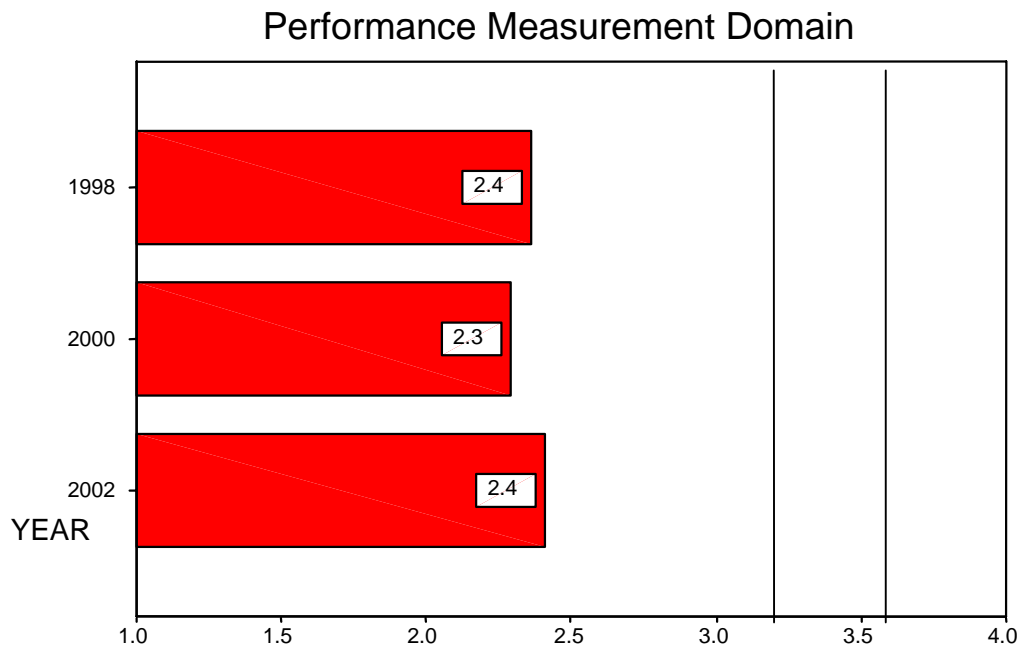


Figure 21: Performance Measurement Domain

2000 $p=.012$
2002 $p=.000$

The mean score for the Performance Measurement Initiative Domain (2.41) was below the theoretical midpoint, indicating that the average response was not favorable to the statements in the domain. There was a modest increase in favorable responses (0.12) from 2000 to 2002.

The difference in mean assessment values for the domain between the salaried ($M=2.64$) and hourly ($M=2.38$) employees was (0.26).

The Central Office and the Rapid City Region had notably higher mean scores than the Aberdeen, Mitchell, and Pierre Regions. The Central Office and Rapid City Region made the largest gains from 2000 to 2002; 0.26 and 0.19, respectively.

There was a steady progression in the decline of favorable responses starting with the E position classification and noting the means for the Q, T and N classifications.

Executives had a relatively low mean score (M=3.18) and it was lower than in 2000 (M=3.27). The executives' score may be low but it was significantly higher than all other job groups. Only the specialist/analyst (M=2.63) job group had a mean score above the theoretical midpoint. The remaining groups: clerical, drafting, engineering, equipment, maintenance, technician, and financial/information services/legal respondents, each averaged below the theoretical midpoint.

There was a difference (0.29) between new hires and existing employees. New employees had the highest acceptance of performance measures (M=2.67), with those over ten years (M=2.38) averaging above those with 6-10 years of SDDOT service (M=2.43) and those with 2-6 years of SDDOT service (M=2.39).

Males (M=2.40) had a lower domain mean score in this domain than did females (M=2.47). Females had a substantial increase (0.22) in this domain dwarfing the male's increase (0.10).

The means among the age groups showed a pattern lower on the ends and higher in the middle years: 20 through 36 (M=2.39), 37 through 45 (M=2.44), 46 through 52 (M=2.43) and 53 through 67 (M=2.37).

The respondents whose salary was above midpoint had the least favorable responses (M=2.34) to the performance domain

questions. The respondents whose salary was at midpoint were the highest (M=2.50), and the mean responses of people whose salary was below midpoint fell between the other two (M=2.47).

**Table 44: Performance Measurement Domain
1998-2002**

Variable	Category	Score		
		2002	2000	1998
Location	All SDDOT	2.4127	2.1864	2.3644
	Aberdeen Region	2.2202	2.1143	2.2536
	Mitchell Region	2.2394	2.2221	2.3387
	Pierre Region	2.3696	2.4812	2.2653
	Rapid City Region	2.5779	2.3930	2.3189
	Central Office	2.5514	2.2904	2.5016
Job Group	Clerical	2.4949	2.2033	2.2411
	Drafting	2.4333	2.5702	2.6541
	Engineering	2.4799	2.3649	2.4859
	Equipment	2.1476	2.2192	2.3235
	Executives	3.1833	3.2708	3.4286
	Maintenance	2.3628	2.2149	2.2211
	Specialist/Analyst	2.6259	2.2838	2.4684
	Technician	2.2227	2.3051	2.3239
Class Code	Financial/Information Services/Legal	2.4738	2.2145	2.5997
	N	2.3624	2.2387	2.2920
	T	2.4465	2.3473	2.4493
	Q	2.7101	2.5269	2.7533
Pay Status	E	3.1444	3.0238	3.1548
	Salaried	2.6380	2.5416	2.7098
Midpoint Status	Hourly	2.3820	2.2618	2.3248
	Below Midpoint	2.4657	2.3352	2.3942
	At Midpoint	2.4962	2.2866	2.3466
	Above Midpoint	2.3367	2.2439	2.3633
Tenure	0-2 years	2.6662	2.4968	2.4893
	2-6 years	2.3866	2.2322	2.4108
	6-10 years	2.4253	2.2439	2.2933
	>10 years	2.3779	2.2578	2.3609
Age	20-36	2.3915	2.3116	2.3561
	37-45	2.4437	2.2841	2.4003
	46-52	2.4336	2.2790	2.3330
	53-67	2.3742	2.2832	2.3689
Gender	Female	2.4725	2.2539	2.4070
	Male	2.4041	2.2957	2.3583

MORALE DOMAIN

The Morale Domain refers to and measures the level of recognition given employees, feelings that one's work is valued by others, and the extent to which management understands and appreciates employee's work related concerns. Morale, unlike job satisfaction, deals with how one feels others think about you and your job.

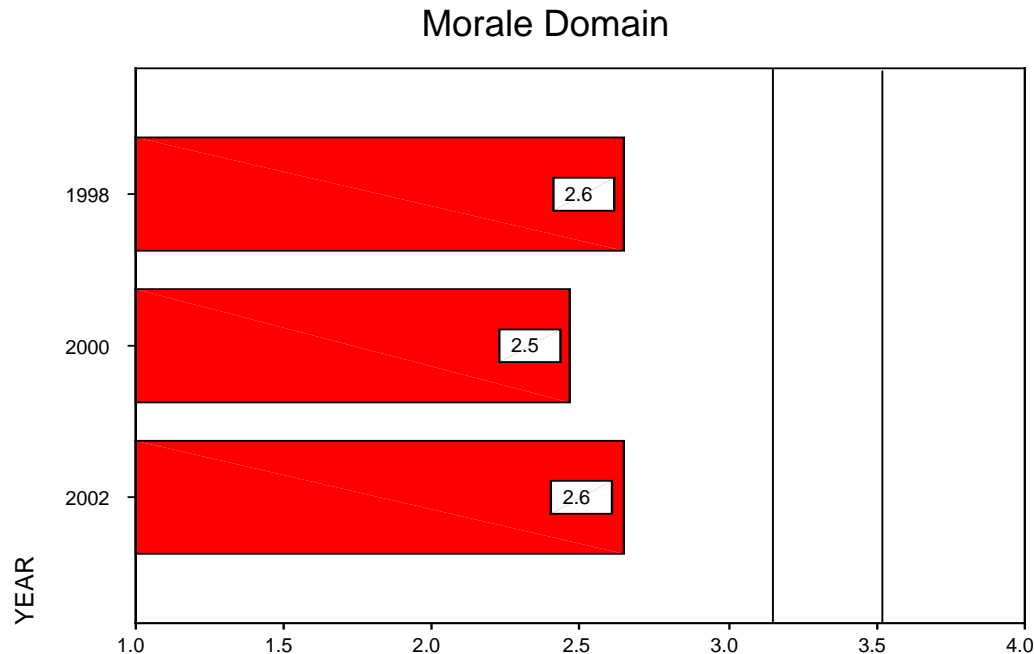


Figure 22: Morale Domain

2000 $p = .000$

2002 $p = .000$

The mean score for the Morale Domain ($M=2.64$) was above the theoretical midpoint, indicating that on average respondents agreed with the statements in the domain. Further, the responses for this domain mean were significantly higher (0.17) than they were in 2000 returning to 1998 levels.

For this domain, the difference in mean assessment values between the salaried ($M=3.01$) and hourly ($M=2.59$) employees was (0.42). That difference was fairly large. Both scores of both groups were over the theoretical midpoint.

Respondents from the Rapid City Region ($M=2.74$) and those in the Central Office ($M=2.73$) scored the highest and nearly identical means on the Morale Domain. The Pierre Region mean ($M=2.65$) was in the middle by itself while the Mitchell ($M=2.52$) and Aberdeen regions ($M=2.50$) were clustered at the bottom.

Respondents in the E ($M=3.45$) and Q ($M=3.11$) position classifications had higher domain means than did the T ($M=2.77$) and N ($M=2.55$) position classifications.

Executives had the highest mean score ($M=3.51$). Of the other job groups, all but the technician job group ($M=2.49$) scored above the theoretical midpoint and it fell just short of the mark. The other groups; clerical ($M=2.68$), drafting ($M=2.63$), engineering ($M=2.81$), equipment ($M=2.51$),

maintenance (M=2.53), specialist/analyst (M=2.66), and financial/information services/legal respondents (M=2.73), were all below the theoretical midpoint.

New hires (M=2.81) had higher domain means (0.19) than all others (M=2.62). As the years of service increased, the Morale Domain scores remained relatively stable: new employees (M=2.81), those with 2 to 6 years tenure (M=2.62), those with 6 to 10 years tenure (M=2.69), and respondents with over ten years on the job (M=2.62).

Females had a higher domain mean (M=2.67) than males (M=2.64) but by only a slight amount.

Younger respondents, 20 to 36 (M=2.67), frequently scored higher than did older workers but the next age group, 37 to 45 (M=2.69) scored the highest in the Morale Domain. The 46 to 52 (M=2.55) respondents presented the lowest mean score, while the oldest group, the 53 to 67 (M=2.66) was very close to the highest score. It was only 0.01 point below the mean score of the 20 to 36 year old respondents.

The respondents whose salary was below midpoint had the most favorable responses (M=2.70). The respondents whose salary was at midpoint were slightly lower (M=2.68), and those respondents whose salary was above midpoint had the lowest domain means (M=2.57).

Table 45: Morale Domain 1998-2002

Variable	Category	Average		
		2002	2000	1998
Location	All SDDOT	2.6437	2.4680	2.6486
	Aberdeen Region	2.5021	2.3473	2.6596
	Mitchell Region	2.5192	2.3574	2.6512
	Pierre Region	2.6540	2.4839	2.6353
	Rapid City Region	2.7381	2.6441	2.7167
	Central Office	2.7329	2.5070	2.6147
Job Group	Clerical	2.6757	2.4184	2.5405
	Drafting	2.6333	2.6375	2.6863
	Engineering	2.8114	2.6013	2.6823
	Equipment	2.5107	2.4013	2.6069
	Executives	3.5125	3.1719	3.1667
	Maintenance	2.5329	2.3604	2.6227
	Specialist/Analyst	2.6584	2.3103	2.6262
	Technician	2.4919	2.4720	2.6647
Class Code	Financial/Information Services/Legal	2.7313	2.4547	2.7018
	N	2.5519	2.3999	2.6234
	T	2.7685	2.5663	2.6648
	Q	3.1079	2.8702	2.8933
Pay Status	E	3.4536	2.9821	2.9000
	Salaried	3.0094	2.7707	2.8178
Midpoint Status	Hourly	2.5949	2.4338	2.6292
	Below Midpoint	2.7010	2.5967	2.6982
	At Midpoint	2.6811	2.4576	2.6474
Tenure	Above Midpoint	2.5727	2.3350	2.6105
	0-2 years	2.8128	2.6399	2.7138
	2-6 years	2.6234	2.5155	2.6436
	6-10 years	2.6901	2.3860	2.5836
Age	>10 years	2.6167	2.4350	2.6613
	20-36	2.6749	2.5165	2.6373
	37-45	2.6850	2.4517	2.6144
	46-52	2.5450	2.4040	2.6413
Gender	53-67	2.6642	2.5050	2.7085
	Female	2.6693	2.4184	2.5978
	Male	2.6396	2.4755	2.6559

SUMMARY OF DOMAIN CHANGES

In the following graph, we provide the domains ranked according to the size of the change between the 2000 and 2002 OHA. One can clearly see that there have been some very positive increases from the 2000 baseline. However, the previous discussion identified that there are some challenges for the SDDOT with respect to some domains and some categories of respondents.

There continues to be a significant management challenge in the Reward Domain. The Reward Domain captures how you are rewarded for doing your job.

The demographic variables of interest are the differences in the responses by region, the magnitude of difference between the E and Q position classes and the T and N position classes. Also of interest is the magnitude of differences between supervisors and non-supervisors (and salaried and hourly) and the distinctions between the job groups, including the relative low scores by equipment and maintenance respondents, and the decreases in scores for the drafting and technical job groups.

The following chart shows the relative performance among domains between the 2000 and 2002 OHA. All but the Standards domain showed an increase between the two OHAs.

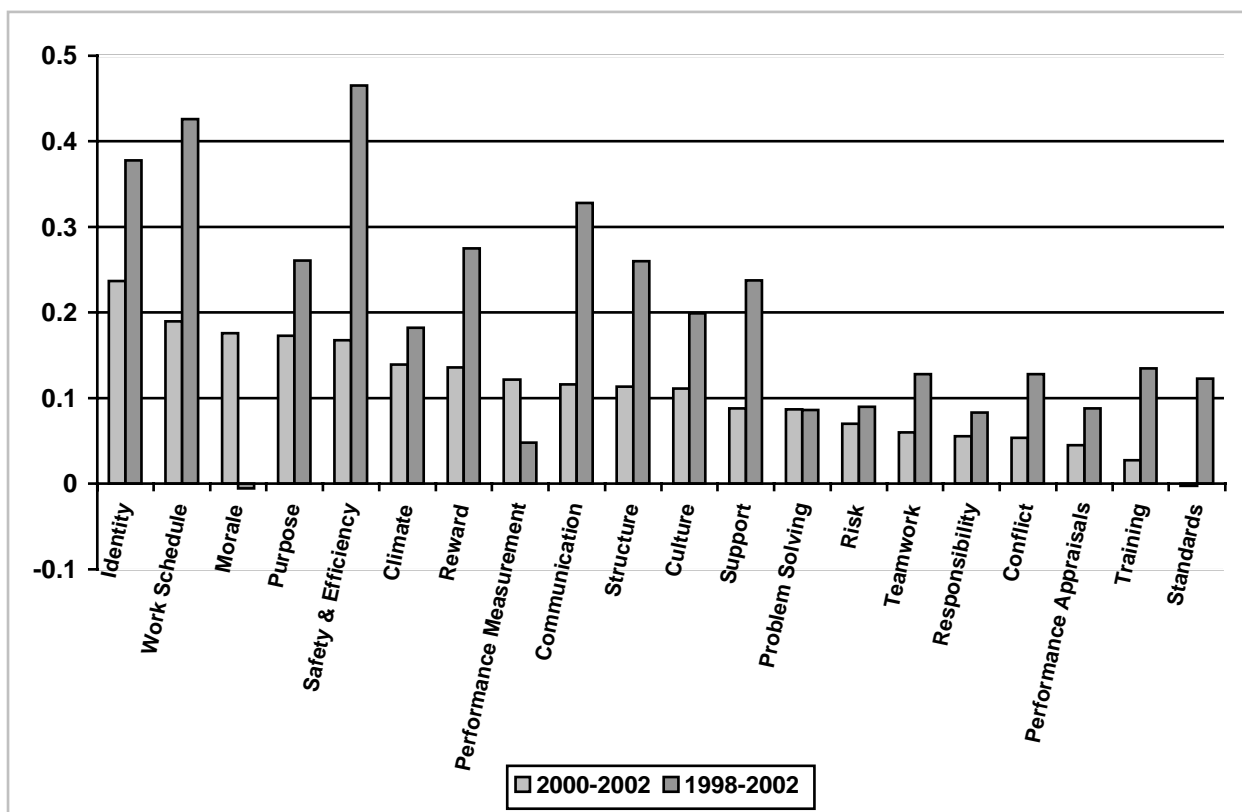


Figure 23: Domain Score Changes 2000 to 2002, 1998 to 2002

FINDINGS—OVERALL JOB SATISFACTION

Respondents were asked to describe their level of job satisfaction in various ways. One of the items in the survey asked respondents to respond to the question “How satisfied are you with your job, all in all?” The response options offered to the study participants ranged from Extremely Dissatisfied, Dissatisfied, Neither Satisfied nor Dissatisfied, Satisfied, to Extremely Satisfied.

The overall level of satisfaction of the respondents to the 2002 Organizational Health Assessment (OHA) survey increased from the 2000 score by 12.62 percentage points and is 20.63 percentage points higher than the base year of 1998. The SDDOT employees reporting some level of satisfaction, either satisfied or extremely satisfied, was 68.47 percent. The improvement may be modest but it is in the desired direction and represents substantive gains.

To put the SDDOT measure in context, the Gallup Organization estimated that approximately 86 percent of employees in the American work force are either completely satisfied or somewhat satisfied with their work.²³ While this national level of reported satisfaction among American workers is higher than the 2002 estimate of the SDDOT employee satisfaction, the Department has experienced a more than 20 percentage point increase from its base year of 1998. Nonetheless, the national measure indicates that there is room for further improvement.

The results of this analysis are presented below. Many employees attributed the modest gains to changes resulting from time alone. However, a more detailed empirical analysis should be accomplished in order to verify this, or any other conclusion.

The 2002 increase in overall satisfaction is a gain that comes from the groups represented as undecided or dissatisfied in 2000 and the base year of 1998. A smaller proportion indicated indecision. Fewer people reported a level of dissatisfaction, either dissatisfied or extremely dissatisfied. More respondents are indicating that they are satisfied than occurred in the two previous studies.

Table 46: Measures of Overall Satisfaction

Overall Satisfaction	Year			Percentage Change	
	2002	2000	1998	2000-2002	1998-2002
Extremely Satisfied	9.95	5.85	3.92	4.11	6.04
Satisfied	58.52	50.00	43.92	8.52	14.61
Undecided	16.44	21.05	25.31	-4.61	-8.87
Dissatisfied	12.82	17.98	20.98	-5.16	-8.16
Extremely Dissatisfied	2.26	5.12	5.87	-2.85	-3.61
Total	100.00	100.00	100.00		

LOCATION

The distribution of job satisfaction responses by location produced some interesting results. Approximately three in four employees responding to the 2002 OHA survey from the Rapid City Region (74.75 percent) and the Central Office (75.66 percent) reported that they were satisfied or extremely satisfied at work. The Pierre Region (70.09 percent) trailed the leaders by approximately

²³ Source: Gallup Poll Releases, <http://www.gallup.com/poll/pr990903.asp>, accessed on 6/28/2000. The poll had a margin of error of plus or minus four percentage points and was a sample of full-time and part-time employed Americans.

five percentage points. The Aberdeen (57.14 percent) and Mitchell (58.82 percent) regions each had strong majorities of their respondents indicating positive levels of satisfaction (satisfied or extremely satisfied). The overall proportion of survey participants indicating positive levels of satisfaction (68.48 percent) in the 2002 OHA study was approximately two in three employees.

Table 47: Mean Overall Satisfaction by Location by Year

Location	Year			Change	
	2002	2000	1998	2000-2002	1998-2002
Aberdeen Region	2.77	2.61	2.45	0.17	0.33
Mitchell Region	2.83	2.62	2.64	0.21	0.19
Pierre Region	2.98	2.81	2.62	0.17	0.36
Rapid City Region	3.08	2.92	2.73	0.16	0.34
Pierre Central Office	3.05	2.80	2.70	0.26	0.35

Table 48: Overall Satisfaction by Location by Year

YEAR			Overall Job Satisfaction					Total
			Extremely Dissatisfied	Dissatisfied	Undecided	Satisfied	Extremely Satisfied	
1998	Aberdeen Region	Count	7	38	24	42	1	112
		Group Percent	6.3%	33.9%	21.4%	37.5%	.9%	100.0%
	Mitchell Region	Count	6	25	43	56	3	133
		Group Percent	4.5%	18.8%	32.3%	42.1%	2.3%	100.0%
	Pierre Region	Count	9	19	35	47	4	114
		Group Percent	7.9%	16.7%	30.7%	41.2%	3.5%	100.0%
	Rapid City	Count	7	17	30	62	3	119
		Group Percent	5.9%	14.3%	25.2%	52.1%	2.5%	100.0%
	Central Office	Count	13	51	49	107	17	237
		Group Percent	5.5%	21.5%	20.7%	45.1%	7.2%	100.0%
	Total	Count	42	150	181	314	28	715
		Group Percent	5.9%	21.0%	25.3%	43.9%	3.9%	100.0%
2000	Aberdeen Region	Count	9	26	28	53	4	120
		Group Percent	7.5%	21.7%	23.3%	44.2%	3.3%	100.0%
	Mitchell Region	Count	6	30	35	49	7	127
		Group Percent	4.7%	23.6%	27.6%	38.6%	5.5%	100.0%
	Pierre Region	Count	5	13	28	55	6	107
		Group Percent	4.7%	12.1%	26.2%	51.4%	5.6%	100.0%
	Rapid City	Count	2	13	18	61	6	100
		Group Percent	2.0%	13.0%	18.0%	61.0%	6.0%	100.0%
	Central Office	Count	13	41	35	124	17	230
		Group Percent	5.7%	17.8%	15.2%	53.9%	7.4%	100.0%
	Total	Count	35	123	144	342	40	684
		Group Percent	5.1%	18.0%	21.1%	50.0%	5.8%	100.0%
2002	Aberdeen Region	Count	4	20	24	59	5	112
		Group Percent	3.6%	17.9%	21.4%	52.7%	4.5%	100.0%
	Mitchell Region	Count	4	14	31	65	5	119
		Group Percent	3.4%	11.8%	26.1%	54.6%	4.2%	100.0%
	Pierre Region	Count	1	15	16	65	10	107
		Group Percent	.9%	14.0%	15.0%	60.7%	9.3%	100.0%
	Rapid City	Count	2	10	13	58	16	99
		Group Percent	2.0%	10.1%	13.1%	58.6%	16.2%	100.0%
	Central Office	Count	4	26	25	141	30	226
		Group Percent	1.8%	11.5%	11.1%	62.4%	13.3%	100.0%
	Total	Count	15	85	109	388	66	663
		Group Percent	2.3%	12.8%	16.4%	58.5%	10.0%	100.0%

An analysis of the mean scores for these variables was revealing. The Rapid City Region responded (M=3.08) in the operational category (2.95 to 3.34) for the first time, as did the respondents in the Pierre Central Office (M=3.05) and the Pierre Region (M=2.98). Employees in

the Pierre Region scored the largest gain (0.25) for the period. The Mitchell (M=2.83) and Aberdeen (M=2.77) regions fell short of reaching the operational range but posted substantial increases in their mean scores from 1998 to 2000 and again from 2000 to 2002.

In the base year of 1998, nearly one in two employees (47.90 percent) responded that they were either satisfied or extremely satisfied with their jobs. That proportion has increased to approximately two in three employees in the 2002 study. Aberdeen Region employees have increased in terms of the percentage responding either satisfied or extremely satisfied from 1998 (40.2 percent) to 2000 (47.50 percent) and again in 2002 (57.14 percent). Mitchell employees have reported an increase in terms of respondents indicating some level of satisfaction with their job moving from 23.3, to 44.1 to 58.82 percent in 1998, 2000 and 2002, respectively. Pierre Region respondents indicated some level of satisfaction in 1998 (44.74 percent), 2000 (57.01 percent) and 2002 (70.09 percent). A majority of Rapid City respondents reported positive levels of employee satisfaction in 1998 (55.08 percent), 2000 (67.00 percent) and 2002 (74.75). Respondents in the Central Office increased their reporting of satisfaction, satisfied or extremely satisfied, from 1998 (52.33 percent) to 2000 (61.30 percent) and in 2002 (75.66 percent). The agency average has increased from 1998 (47.90 percent) to a majority in 2000 (55.9 percent), to more than two in three employees (68.48 percent) in 2002.

JOB GROUPS

When analyzing the level of satisfaction by job code, we found some dramatic results. Clerical respondents increased their percentage of reported satisfaction, either satisfied or extremely satisfied, from 1998 (49.02 percent) to 2000 (57.50 percent) but the 2002 (78.38 percent), an increase of 20.88 percentage points, dwarfs that gain. Drafting respondents increased their level of reported satisfaction from 1998 (62.50 percent) to 2000 (77.78 percent) but improvement was not made in 2002. The percentage scoring the workplace as satisfactory decreased 27.78 percentage points (50.00 percent) which is by far the most dramatic decrease among these job groups. Engineering respondents increased in their reported satisfaction from 56.34, to 66.67, to 83.61 percent in 1998, 2000 and 2002, respectively.

Table 49: Mean Overall Satisfaction by Job Group 1998-2002

Job Code Overall	Year			Improvement	
	2002	2000	1998	2000-2002	1998-2002
Clerical Employees	3.17	2.71	2.60	0.46	0.57
Drafting Employees	2.66	2.92	2.97	(0.26)	(0.31)
Engineering Employees	3.15	2.90	2.77	0.24	0.38
Equipment Employees	2.86	2.85	2.74	0.01	0.12
Executives	3.63	3.53	3.46	0.09	0.16
Maintenance Employees	2.83	2.57	2.44	0.27	0.39
Specialist/Analyst Employees	3.06	2.59	2.76	0.46	0.29
Technician Employees	2.70	2.78	2.66	(0.08)	0.04
Financial/Info Services/Legal	3.06	2.83	2.82	0.24	0.25
Total	3.17	2.71	2.60	0.46	0.57

Table 50: Overall Job Satisfaction by Job Group, 1998-2002

YEAR			Overall Job Satisfaction					Total
			Extremely Dissatisfied	Dissatisfied	Undecided	Satisfied	Extremely Satisfied	
1998	Clerical	Count	3	12	11	25	0	51
		Group Percent	5.9%	23.5%	21.6%	49.0%	.0%	100.0%
	Drafting	Count	0	1	5	9	1	16
		Group Percent	.0%	6.3%	31.3%	56.3%	6.3%	100.0%
	Engineering	Count	9	31	46	102	9	197
		Group Percent	4.6%	15.7%	23.4%	51.8%	4.6%	100.0%
	Equipment	Count	2	2	10	13	1	28
		Group Percent	7.1%	7.1%	35.7%	46.4%	3.6%	100.0%
	Executive	Count	0	0	1	3	3	7
		Group Percent	.0%	.0%	14.3%	42.9%	42.9%	100.0%
	Maintenance	Count	22	67	59	80	6	234
		Group Percent	9.4%	28.6%	25.2%	34.2%	2.6%	100.0%
	Specialist/Analyst	Count	2	8	12	20	4	46
		Group Percent	4.3%	17.4%	26.1%	43.5%	8.7%	100.0%
2000	Clerical	Count	3	8	6	21	2	40
		Group Percent	7.5%	20.0%	15.0%	52.5%	5.0%	100.0%
	Drafting	Count	1	2	1	14	0	18
		Group Percent	5.6%	11.1%	5.6%	77.8%	.0%	100.0%
	Engineering	Count	6	28	29	110	16	189
		Group Percent	3.2%	14.8%	15.3%	58.2%	8.5%	100.0%
	Equipment	Count	0	6	9	19	2	36
		Group Percent	.0%	16.7%	25.0%	52.8%	5.6%	100.0%
	Executive	Count	0	0	0	5	3	8
		Group Percent	.0%	.0%	.0%	62.5%	37.5%	100.0%
	Maintenance	Count	16	52	54	85	9	216
		Group Percent	7.4%	24.1%	25.0%	39.4%	4.2%	100.0%
	Specialist/Analyst	Count	3	6	8	16	0	33
		Group Percent	9.1%	18.2%	24.2%	48.5%	.0%	100.0%
2002	Clerical	Count	0	4	4	21	8	37
		Group Percent	.0%	10.8%	10.8%	56.8%	21.6%	100.0%
	Drafting	Count	1	2	4	7	0	14
		Group Percent	7.1%	14.3%	28.6%	50.0%	.0%	100.0%
	Engineering	Count	3	15	12	127	26	183
		Group Percent	1.6%	8.2%	6.6%	69.4%	14.2%	100.0%
	Equipment	Count	1	3	11	18	2	35
		Group Percent	2.9%	8.6%	31.4%	51.4%	5.7%	100.0%
	Executive	Count	0	0	0	5	5	10
		Group Percent	.0%	.0%	.0%	50.0%	50.0%	100.0%
	Maintenance	Count	8	38	55	139	14	254
		Group Percent	3.1%	15.0%	21.7%	54.7%	5.5%	100.0%
	Specialist/Analyst	Count	0	4	8	35	3	50
		Group Percent	.0%	8.0%	16.0%	70.0%	6.0%	100.0%
2002	Clerical	Count	0	4	8	35	3	50
		Group Percent	.0%	8.0%	16.0%	70.0%	6.0%	100.0%
	Drafting	Count	2	16	13	29	4	64
		Group Percent	3.1%	25.0%	20.3%	45.3%	6.3%	100.0%
	Engineering	Count	0	3	2	7	4	16
		Group Percent	.0%	18.8%	12.5%	43.8%	25.0%	100.0%
	Equipment	Count	15	85	109	388	66	663
		Group Percent	2.3%	12.8%	16.4%	58.5%	10.0%	100.0%

Equipment workers' responses over the three measures scored 50.00, 58.33 and 57.14 percent. Executives reported a complete level of satisfaction from nearly all executives reporting being

either satisfied or extremely satisfied (6 of 7) in 1998 to all executives reporting being either satisfied or extremely satisfied (8 of 8) in 2000 and 2002 (10 of 10). Maintenance respondents reported an increase in satisfaction from 1998 (36.75 percent) to 2000 (43.06 percent) and again in 2002 (60.24 percent). Specialist and Analyst employees' positive satisfaction measures decreased from 1998 (52.17 percent) to 2000 (48.48 percent) but rebounded strongly (27.52 percentage points) in the 2002 measure (76.00 percent). On the other hand, Technician employees increased in their level of reported satisfaction from 1998 (47.01 percent) to 2000 (55.47 percent) but scored (51.56 percent) a decrease in 2002 (3.91 percentage points). Financial/Information Services/Legal respondents decreased slightly in their reported levels of satisfaction from 1998 (57.90 percent) to 2000 (56.52 percent) but rebounded fairly strongly in 2002 (68.75 percent).

The decreases in overall satisfaction for the Drafting and Technician employees were demonstrated in the mean scores for the groups in Table 49.

SDDOT TENURE

Satisfaction by years of service favored those with the fewest years of service. The general pattern was that new employee respondents, those with fewer than two years of service, reported the highest levels of satisfaction (73.13 percent) up from the 2000 measure (69.73 percent), which also held the high mark among the tenure groupings. Respondents with between six and ten years of experience reported the lowest level of satisfaction (46.00 percent) in 2000 but secured the second highest position in 2002 (70.83 percent). Moving from the lowest to second highest score was the result of a 24.83 percentage point increase. Those with between two and four years had the lowest level of satisfaction (66.67 percent) this year but that measure was a more than 5 percentage point gain from 2000 (61.20 percent). Those with over ten years of SDDOT experience had a 2002 rate of satisfaction (68.10 percent), which was up 14.42 percentage points from the preceding study (53.67 percent).

Clearly, the standout activity in 2002 among the tenure groups was the dramatic increase in the six to ten years of service group. Even with the small increase in 2000 of 1.30 percentage points, the 24.83 percentage point gain of 2002 secured the two to six year group the best overall improvement between the base year of 1998 and 2002. This assessment is supported in the mean measures of satisfaction in Table 51.

Table 51: Mean Overall Job Satisfaction by Tenure with SDDOT 1998-2002

SDDOT Tenure	Year			Change	
	2002	2000	1998	2000-2002	1998-2002
New Employees (0-2yrs)	3.09	3.03	2.90	0.06	0.20
2 years—6 years	2.97	2.81	2.74	0.15	0.22
6 years—10 years	3.00	2.58	2.63	0.43	0.38
Over 10 years	2.93	2.71	2.59	0.22	0.33
Total	2.96	2.75	2.64	0.21	0.32

Table 52: Overall Job Satisfaction by Tenure with SDDOT 1998-2002

			Overall Job Satisfaction					Total
			Extremely Dissatisfied	Dissatisfied	Undecided	Satisfied	Extremely Satisfied	
YEAR								
1998	New Employees (0-2yrs)	Count	2	6	12	28	5	53
		Group Percent	3.8%	11.3%	22.6%	52.8%	9.4%	100.0%
	2 years - 6 years tenure	Count	8	8	29	50	3	98
		Group Percent	8.2%	8.2%	29.6%	51.0%	3.1%	100.0%
	6 years - 10 years	Count	5	30	38	56	3	132
		Group Percent	3.8%	22.7%	28.8%	42.4%	2.3%	100.0%
	Over 10 years Tenure	Count	27	106	102	180	17	432
		Group Percent	6.3%	24.5%	23.6%	41.7%	3.9%	100.0%
	Total	Count	42	150	181	314	28	715
		Group Percent	5.9%	21.0%	25.3%	43.9%	3.9%	100.0%
2000	New Employees (0-2yrs)	Count	1	9	23	64	12	109
		Group Percent	.9%	8.3%	21.1%	58.7%	11.0%	100.0%
	2 years - 6 years tenure	Count	2	12	12	38	3	67
		Group Percent	3.0%	17.9%	17.9%	56.7%	4.5%	100.0%
	6 years - 10 years	Count	7	23	24	45	1	100
		Group Percent	7.0%	23.0%	24.0%	45.0%	1.0%	100.0%
	Over 10 years Tenure	Count	25	79	85	195	24	408
		Group Percent	6.1%	19.4%	20.8%	47.8%	5.9%	100.0%
	Total	Count	35	123	144	342	40	684
		Group Percent	5.1%	18.0%	21.1%	50.0%	5.8%	100.0%
2002	New Employees (0-2yrs)	Count		5	13	40	9	67
		Group Percent		7.5%	19.4%	59.7%	13.4%	100.0%
	2 years - 6 years tenure	Count	3	16	32	87	15	153
		Group Percent	2.0%	10.5%	20.9%	56.9%	9.8%	100.0%
	6 years - 10 years	Count		7	7	29	5	48
		Group Percent		14.6%	14.6%	60.4%	10.4%	100.0%
	Over 10 years Tenure	Count	12	57	57	232	37	395
		Group Percent	3.0%	14.4%	14.4%	58.7%	9.4%	100.0%
	Total	Count	15	85	109	388	66	663
		Group Percent	2.3%	12.8%	16.4%	58.5%	10.0%	100.0%

EMPLOYEE TYPE—SALARIED/HOURLY

Salaried respondents reported higher levels of job satisfaction than that reported for hourly workers. This level is substantial, as can be seen in Table 52. Salaried respondents reported levels of job satisfaction at the range of an operational effectiveness ($M=3.33$) nearing the range of a strength (3.35 lower bound). The hourly workers ($M=2.91$) nudge closer to the lower bound for the operational range (2.95 lower bound). Note that while the scores differ in 2002, the increases in overall mean satisfaction scores compared to 1998 were very nearly the same.

Table 53: Mean Overall Satisfaction by Employee Type, 1998-2002

Employee Type	Year			Change	
	2002	2000	1998	2000-2002	1998-2002
Salaried	3.33	3.14	3.02	0.18	0.31
Hourly	2.91	2.71	2.60	0.20	0.31
Total	2.96	2.75	2.64	0.21	0.32

Salaried respondents' positive job satisfaction levels, percentage of those responding satisfied or extremely satisfied, increased from 1998 to 2000 and again in 2002 with scores of 72.97, 77.14 and 89.87 percent, respectively. Likewise, hourly respondents also increased their level of reported satisfaction over the three periods studied scoring 44.93, 53.42 and 65.58, which is a 12.16 one period and 20.65 two period percentage point gain.

Table 54: Overall Satisfaction by Employee Type by Year

YEAR			Overall Job Satisfaction					Total
			Extremely Dissatisfied	Dissatisfied	Undecided	Satisfied	Extremely Satisfied	
1998	Salaried	Count	1	9	10	46	8	74
		Group Percent	1.4%	12.2%	13.5%	62.2%	10.8%	100.0%
	Hourly	Count	41	141	171	268	20	641
		Group Percent	6.4%	22.0%	26.7%	41.8%	3.1%	100.0%
	Total	Count	42	150	181	314	28	715
		Group Percent	5.9%	21.0%	25.3%	43.9%	3.9%	100.0%
2000	Salaried	Count		6	10	42	12	70
		Group Percent		8.6%	14.3%	60.0%	17.1%	100.0%
	Hourly	Count	35	117	134	300	28	614
		Group Percent	5.7%	19.1%	21.8%	48.9%	4.6%	100.0%
	Total	Count	35	123	144	342	40	684
		Group Percent	5.1%	18.0%	21.1%	50.0%	5.8%	100.0%
2002	Salaried	Count		5	3	50	21	79
		Group Percent		6.3%	3.8%	63.3%	26.6%	100.0%
	Hourly	Count	15	80	106	338	45	584
		Group Percent	2.6%	13.7%	18.2%	57.9%	7.7%	100.0%
	Total	Count	15	85	109	388	66	663
		Group Percent	2.3%	12.8%	16.4%	58.5%	10.0%	100.0%

AGE GROUP

The distinction among the age groups in the 2000 study was that the youngest employees had the highest overall satisfaction scores. While younger employees continue to have the highest scores, the distinction among the groups is not large with one exception. The distinction in 2002 was that the forty-six to fifty-two year old age group scored the lowest, trailing the leader by more than ten percentage points (10.27). The younger respondents, age 20 through 36, were followed by the 37 to 45 age group and then by the oldest age grouping, the 53 years of age and older.

Table 55: Mean Overall Satisfaction by Age Group by Year

Age Group	Year			Change	
	2002	2000	1998	2000-2002	1998-2002
20 through 36	2.97	2.80	2.72	0.16	0.25
37 through 45	3.01	2.76	2.52	0.24	0.49
46 through 52	2.88	2.63	2.60	0.25	0.28
53 through 65	2.97	2.83	2.73	0.14	0.24
Total	2.96	2.75	2.64	0.21	0.32

The youngest age group reported an increase in their level of satisfaction from 1998 (49.76 percent) to 2000 (61.73 percent) and again in 2002 (71.52 percent). The next older group (37 through 45) also reported an increase in level of job satisfaction from 1998 (41.47 percent) to 2000 (52.91 percent). The overall one-period increase (17.62 percentage points) for the 37 to 45 age group from the 2000 measure to that for 2002 (70.53) was largest among the groups. The 46 through 52 age group had job satisfaction increases from 1998 (46.42 percent) to 2000 (50.57 percent) and again in 2002 (61.25 percent). The oldest age group reported increased scores starting with 53.98 percent in 1998, 58.40 percent in 2000, and 70.32 percent in 2002.

Table 56: Overall Satisfaction by Age Group by Year

YEAR			Overall Job Satisfaction					Total
			Extremely Dissatisfied	Dissatisfied	Undecided	Satisfied	Extremely Satisfied	
1998	20 through 36	Count	9	31	64	97	6	207
		Group Percent	4.3%	15.0%	30.9%	46.9%	2.9%	100.0%
	37 through 45	Count	16	43	45	67	6	177
		Group Percent	9.0%	24.3%	25.4%	37.9%	3.4%	100.0%
	46 through 52	Count	11	42	37	70	8	168
		Group Percent	6.5%	25.0%	22.0%	41.7%	4.8%	100.0%
	53 through 66	Count	6	34	35	80	8	163
		Group Percent	3.7%	20.9%	21.5%	49.1%	4.9%	100.0%
	Total	Count	42	150	181	314	28	715
		Group Percent	5.9%	21.0%	25.3%	43.9%	3.9%	100.0%
2000	20 through 36	Count	8	35	32	112	9	196
		Group Percent	4.1%	17.9%	16.3%	57.1%	4.6%	100.0%
	37 through 45	Count	7	32	50	88	12	189
		Group Percent	3.7%	16.9%	26.5%	46.6%	6.3%	100.0%
	46 through 52	Count	17	37	32	76	12	174
		Group Percent	9.8%	21.3%	18.4%	43.7%	6.9%	100.0%
	53 through 66	Count	3	19	30	66	7	125
		Group Percent	2.4%	15.2%	24.0%	52.8%	5.6%	100.0%
	Total	Count	35	123	144	342	40	684
		Group Percent	5.1%	18.0%	21.1%	50.0%	5.8%	100.0%
2002	20 through 36	Count	3	16	26	106	7	158
		Group Percent	1.9%	10.1%	16.5%	67.1%	4.4%	100.0%
	37 through 45	Count	2	22	32	114	20	190
		Group Percent	1.1%	11.6%	16.8%	60.0%	10.5%	100.0%
	46 through 52	Count	5	24	33	81	17	160
		Group Percent	3.1%	15.0%	20.6%	50.6%	10.6%	100.0%
	53 through 66	Count	5	23	18	87	22	155
		Group Percent	3.2%	14.8%	11.6%	56.1%	14.2%	100.0%
	Total	Count	15	85	109	388	66	663
		Group Percent	2.3%	12.8%	16.4%	58.5%	10.0%	100.0%

POSITION CLASS

Responses by position class also indicated solid increases. The personnel in the Q position classification indicated a substantial level of job satisfaction in all three measures; 1998, 2000 and 2002, but achieved “operational” status first in 2000 and repeated the achievement in 2002. The people comprising the T position entered the operational range (M=3.10) for the first time in 2002. The employees in the E position classification distinguished themselves by scoring in the “Strength” range all three years. They scored at the lower bound (M=3.35) on the “strength” range in 1998 and moved higher in the range in each of the following two studies.

However, the story was different in the other position classifications. While the mean response in N position classifications increased in 2000 and again in 2002, it fell short of the lower bound of the operational range.

Table 57: Mean Overall Satisfaction by Position Class, 1998-2002

Position Class	Year			Change	
	2002	2000	1998	2000-2002	1998-2002
N	2.86	2.67	2.57	0.19	0.29
T	3.10	2.86	2.73	0.24	0.37
Q	3.48	3.28	3.04	0.20	0.44
E	3.65	3.41	3.35	0.24	0.30
Total	2.96	2.75	2.64	0.21	0.32

Table 58: Overall Satisfaction by Position Class by Year

YEAR			Overall Job Satisfaction					Total
			Extremely Dissatisfied	Dissatisfied	Undecided	Satisfied	Extremely Satisfied	
1998	N	Count	33	118	131	203	14	499
		Group Percent	6.6%	23.6%	26.3%	40.7%	2.8%	100.0%
	T	Count	9	28	46	86	7	176
		Group Percent	5.1%	15.9%	26.1%	48.9%	4.0%	100.0%
	Q	Count		3	3	17	2	25
		Group Percent		12.0%	12.0%	68.0%	8.0%	100.0%
	E	Count		1	1	8	5	15
		Group Percent		6.7%	6.7%	53.3%	33.3%	100.0%
	Total	Count	42	150	181	314	28	715
		Group Percent	5.9%	21.0%	25.3%	43.9%	3.9%	100.0%
2000	N	Count	28	95	114	222	18	477
		Group Percent	5.9%	19.9%	23.9%	46.5%	3.8%	100.0%
	T	Count	7	27	25	99	11	169
		Group Percent	4.1%	16.0%	14.8%	58.6%	6.5%	100.0%
	Q	Count		1	4	12	7	24
		Group Percent		4.2%	16.7%	50.0%	29.2%	100.0%
	E	Count			1	9	4	14
		Group Percent			7.1%	64.3%	28.6%	100.0%
	Total	Count	35	123	144	342	40	684
		Group Percent	5.1%	18.0%	21.1%	50.0%	5.8%	100.0%
2002	N	Count	12	70	97	254	32	465
		Group Percent	2.6%	15.1%	20.9%	54.6%	6.9%	100.0%
	T	Count	3	14	12	114	17	160
		Group Percent	1.9%	8.8%	7.5%	71.3%	10.6%	100.0%
	Q	Count		1		13	9	23
		Group Percent		4.3%		56.5%	39.1%	100.0%
	E	Count				7	8	15
		Group Percent				46.7%	53.3%	100.0%
	Total	Count	15	85	109	388	66	663
		Group Percent	2.3%	12.8%	16.4%	58.5%	10.0%	100.0%

JOB WORTH STATUS (MIDPOINT)

Respondents whose salary was below the midpoint and at midpoint had the highest mean job satisfaction scores (M=3.05 & M=3.04). Those above midpoint recorded a lower mean job satisfaction score (M=2.84). Those employees below or at the salary midpoint were in the “operational” range while those above the midpoint continued to be in the range labeled a “concern”. While trailing the other two categories, the improvement for those above the midpoint since 2000 was substantial reversing a slight decrease between 1998 and 2000.

Table 59: Mean Overall Satisfaction by Job Worth Status, 1998-2002

Job Worth	Year			Change	
	2002	2000	1998	2000-2002	1998-2002
Below Midpoint	3.05	2.93	2.69	0.12	0.36
At Midpoint	3.04	2.79		0.25	
Above Midpoint	2.84	2.53	2.54	0.31	0.30
Total	2.95	2.75	2.64	0.20	0.31

Perhaps the most telling distinction in the level of job satisfaction by a demographic variable lay in the level of reported job satisfaction when viewed by the respondent's salary status relative to job worth. The respondents at midpoint reported the highest levels of job satisfaction in 1998 (51.47 percent) and the second highest in 2000 (57.70 percent), an increase (6.23 percentage points) just below the agency average (7.95 percentage points).

In 2002, the proportion of people at midpoint reported the highest level of job satisfaction (73.42 percent). The below midpoint respondents were fairly close at 72.30 percent but the above midpoint respondents indicating that they were satisfied or extremely satisfied followed at a distant 63.37 percent.

Table 60: Overall Satisfaction by Job Worth Status

YEAR			Overall Job Satisfaction					Total
			Extremely Dissatisfied	Dissatisfied	Undecided	Satisfied	Extremely Satisfied	
1998	Below Midpoint	Count	23	96	132	228	19	498
		Group Percent	4.6%	19.3%	26.5%	45.8%	3.8%	100.0%
	Above Midpoint	Count	19	54	49	86	9	217
		Group Percent	8.8%	24.9%	22.6%	39.6%	4.1%	100.0%
	Total	Count	42	150	181	314	28	715
		Group Percent	5.9%	21.0%	25.3%	43.9%	3.9%	100.0%
2000	Below Midpoint	Count	5	33	60	156	24	278
		Group Percent	1.8%	11.9%	21.6%	56.1%	8.6%	100.0%
	At midpoint	Count	7	22	36	83	6	154
		Group Percent	4.5%	14.3%	23.4%	53.9%	3.9%	100.0%
	Above Midpoint	Count	23	68	48	103	10	252
		Group Percent	9.1%	27.0%	19.0%	40.9%	4.0%	100.0%
	Total	Count	35	123	144	342	40	684
		Group Percent	5.1%	18.0%	21.1%	50.0%	5.8%	100.0%
2002	Below Midpoint	Count	3	21	53	170	31	278
		Group Percent	1.1%	7.6%	19.1%	61.2%	11.2%	100.0%
	At midpoint	Count	0	10	11	49	9	79
		Group Percent	.0%	12.7%	13.9%	62.0%	11.4%	100.0%
	Above Midpoint	Count	12	54	45	168	24	303
		Group Percent	4.0%	17.8%	14.9%	55.4%	7.9%	100.0%
	Total	Count	15	85	109	387	64	660
		Group Percent	2.3%	12.9%	16.5%	58.6%	9.7%	100.0%

FINDINGS—SPECIAL ANALYSIS

This section reports the findings on a series of empirical evaluations of the differences, if any, between four identifiable groups of employees: those no longer with the South Dakota Department of Transportation (SDDOT), those new to the SDDOT, those that were employees in 1998 and are still employees on the date of the survey, and those that were employees in 2000 and are still employees on the date of the survey. Data obtained from the 1998, 2000 and 2002 Organizational Health Assessments (OHA) were used to identify the groups of interest for each analysis and to develop the necessary statistical metrics.

DATA SET PROCEDURES

In order to evaluate these hypotheses, the data sets from the 1998 OHA and the 2002 OHA were combined to match the 1998 responses to the 2002 responses. This resulted in three types of records:

- (1) records for those who were only employed at the time of the 1998 OHA;
- (2) those who only employed at the time of the 2002 OHA; and
- (3) those who were employed during both the 1998 and 2002 OHAs.

The same procedure was followed using the 2000 and the 2002 records. Keep in mind that these were estimates in that the response rates indicate that the three studies fell short of a full enumeration.

DIFFERENCES BETWEEN THOSE NO LONGER AT THE DEPARTMENT AND CONTINUING EMPLOYEES

This analysis reviewed the contention that those employees who left the SDDOT in the time between the first OHA in 1998 and the third OHA in 2002 were the most unsatisfied employees. The testing was directed at examining the hypothesis that the means from those that are no longer working for the SDDOT, referred to as “1998 Only”, would be different (lower) than those that are still employed at the Department, referred to as “Both Year.”

ANALYSIS

A chi-square test was run on a comparison of the “1998 Only” responders and “Both Year” responders on the 1998 Overall Job Satisfaction question. Both years refer to 1998 and 2002. The results are presented in Table 61. The findings are not statistically significant, therefore it can be concluded that there is no difference in the overall job satisfaction mean between the two groups ($p=.080$). The closeness of the means can be observed in the measures at the bottom of the table.

Table 61: Satisfaction of 1998 Employees Still Employed and Those No Longer Employed in 2002

			OPINION		Total
			Both Years	1998 Only	
Overall Job Satisfaction	Extremely Satisfied	Count	21	7	28
		Column Percent	5.0%	2.4%	3.9%
	Satisfied	Count	175	139	314
		Column Percent	41.7%	47.1%	43.9%
	Undecided	Count	118	63	181
		Column Percent	28.1%	21.4%	25.3%
	Dissatisfied	Count	83	67	150
		Column Percent	19.8%	22.7%	21.0%
	Extremely Dissatisfied	Count	23	19	42
		Column Percent	5.5%	6.4%	5.9%
Total	Count	420	295	715	
	Column Percent	100.0%	100.0%	100.0%	

		N	Mean	Std. Deviation	Std. Error Mean
Overall Job Satisfaction	OPINION				
	Both Years	420	2.3429	.74692	.03645
	1998 Only	295	2.3780	.76037	.04427

A chi-square test was run on a comparison of the “2000 Only” responders and “Both Year” responders on the 2000 Overall Job Satisfaction question. Both years refer to 2000 and 2002. The results are presented in Table 62. The findings were statistically significant, therefore it was concluded that there is a difference in the overall job satisfaction mean between the two groups ($p=.002$). Those that stayed with the Department were more satisfied on average in 2000 than those that have since left the organization. The mean measures of overall satisfaction are compared at the bottom of the table.

Table 62: Satisfaction of 2000 Employees Still Employed and Those No Longer Employed in 2002

			OPINION		Total
			Both Years	2000 Only	
Overall Job Satisfaction	Extremely Satisfied	Count	20	15	35
		Column Percent	4.1%	7.9%	5.1%
	Satisfied	Count	85	38	123
		Column Percent	17.2%	19.9%	18.0%
	Undecided	Count	93	51	144
		Column Percent	18.9%	26.7%	21.1%
	Dissatisfied	Count	269	73	342
		Column Percent	54.6%	38.2%	50.0%
	Extremely Dissatisfied	Count	26	14	40
		Column Percent	5.3%	7.3%	5.8%
Total	Count	493	191	684	
	Column Percent	100.0%	100.0%	100.0%	

OPINION		N	Mean	Std. Deviation	Std. Error Mean
Overall Job Satisfaction	Both Years	493	2.7982	.72526	.03266
	2000 Only	191	2.6296	.80942	.05857

DISCUSSION

The overall satisfaction measure used in Table 61 was that for 1998. The question explored was one of departure and satisfaction. Were the people that left, based on the 1998 measure of satisfaction, less happy in that year than those that stayed with SDDOT through 2002. The answer was no. The differences in scores were small and were not statistically significantly different.

Reviewing the overall satisfaction assessments of those that were working at SDDOT in 2000 but have since left, with those that were working with the Department then and have remained employed through 2002, shows there was a statistically significant difference in the mean assessments of overall satisfaction. People that have stayed were happier on average than those that left the Department. The pattern of response and the mean comparison are presented in Table 62.

DIFFERENCES BETWEEN NEW EMPLOYEES AT THE DEPARTMENT AND CONTINUING EMPLOYEES

The overall 1998 job satisfaction measure for those workers that were new employees in 1998 and are still working for SDDOT in 2002 was examined in **Error! Reference source not found.62**. The objective was to determine if there was a difference in the satisfaction measure between the new employees of 1998 that stayed and those that left the organization. A chi-square test was used to make the statistical comparison.

ANALYSIS

The differences between the two groups on the measure of job satisfaction proved to be statistically insignificant ($p=.364$). In other words, the “2002 survivors” of the “New Employee” class of 1998 did not respond significantly different from those that had left the organization by 2002.

Table 63: Overall Job Satisfaction of 1998 New Employees Still Employed vs. Departed

Years of Service to DOT			OPINION		Total
			Both Years	1998 Only	
New Employees (0-2yrs)	Extremely dissatisfied	Count	0	2	2
		% within OPINION	.0%	7.4%	3.8%
	Dissatisfied	Count	2	4	6
		% within OPINION	7.7%	14.8%	11.3%
	Undecided	Count	8	4	12
		% within OPINION	30.8%	14.8%	22.6%
	Satisfied	Count	13	15	28
		% within OPINION	50.0%	55.6%	52.8%
	Extremely satisfied	Count	3	2	5
		% within OPINION	11.5%	7.4%	9.4%
	Total	Count	26	27	53
		% within OPINION	100.0%	100.0%	100.0%

Table 64: Overall Job Satisfaction of 2000 New Employees Still Employed vs. Departed

Years of Service to DOT				OPINION		Total
				Both Years	2000 Only	
New Employees (0-2yrs)	Overall Job Satisfaction	Extremely Satisfied	Count		1	1
			Column Percent		3.0%	.9%
	Satisfied	Count	6	3	9	
		Column Percent	7.9%	9.1%	8.3%	
	Undecided	Count	14	9	23	
		Column Percent	18.4%	27.3%	21.1%	
	Dissatisfied	Count	48	16	64	
		Column Percent	63.2%	48.5%	58.7%	
	Extremely Dissatisfied	Count	8	4	12	
		Column Percent	10.5%	12.1%	11.0%	
	Total	Count	76	33	109	
		Column Percent	100.0%	100.0%	100.0%	

The differences between the two groups on the measure of job satisfaction proved to be statistically insignificant ($p=.393$). In other words, the “2002 survivors” of the “New Employee” class of 2000 did not respond differently enough from those that left to be statistically significant. The differences observed may be due to chance.

The overall satisfaction of people that were employed in 1998 that were still employed in 2002 are compared in Table 64. The difference in mean overall satisfaction measures from 1998 to 2002 was statistically significant ($p=.000$). The test compared the differences between overall satisfaction scores given by individuals in 1998 and the same individuals in 2002. The mean overall satisfaction scores for these individuals increased from 1998 to 2002.

Table 65: Paired Difference Test of Overall Satisfaction in 1998 and 2002

	Mean	N	Std. Deviation	Std. Error Mean
Overall Job Satisfaction 1998	2.6649	414	.74453	.03659
Overall Job Satisfaction 2002	2.9239	414	.72106	.03544

The overall satisfaction of people that were employed in 2000 that were still employed in 2002 are compared in Table 65. The difference in mean overall satisfaction measures from 2000 to 2002 was statistically significant ($p=.000$). The test compared the differences between overall satisfaction scores given by individuals in 2000 and the same individuals in 2002. The mean overall satisfaction scores for these individuals increased from 1998 to 2002.

Table 66: Paired Difference Test of Overall Satisfaction in 2000 and 2002

	Mean	N	Std. Deviation	Std. Error Mean
Overall Job Satisfaction 2000	2.7982	488	.72643	.03288
Overall Job Satisfaction 2002	2.9442	488	.69969	.03167

DISCUSSION

Since the difference in means was significant, it can be concluded that those SDDOT employees that were employed and responded in both the 1998 and 2002 OHAs had a significant increase in their overall job satisfaction during this timeframe. The same is true for the 2000 and 2002 time frame.

FINDINGS—NATIONAL STANDARD COMPARISON STATEMENTS

This section of the findings focuses on statements that are behavioral in nature. Respondents were asked to respond with a “yes” or “no” with respect to specific conditions and occurrences in their work lives. The response ranges for these statements were evaluated against Strength, Operational, and Concern, which are indicators of the Department’s level of organizational health. Finally, we took the responses to these statements and demonstrated how affirmative responses to the comparison statements identified improvements in job satisfaction and improvements in domain score means.

BACKGROUND

In 1998, the South Dakota Department of Transportation (SDDOT) technical panel approved the inclusion of a series of national comparison statements in the survey instrument. These statements were developed by the Gallup organization and were used with Gallup’s permission.²⁴

The sample of comparison organizations for this analysis is *Inc. Magazine’s* 15 fastest growing organizations. These organizations were selected by *Inc. Magazine* and surveyed by Gallup to determine the best practices of these innovative companies. While one might argue that these are firms from the private sector, and that in the public sector we cannot live up to their standards, we argue that these might reflect best practices for which to SDDOT should aspire.

Here are the national comparison statements (referred to as Q12 by Gallup):

- At work, I have the opportunity to do what I do best every day.
- My supervisor or someone at work seems to care about me as a person.
- I know what is expected of me at work.
- In the last seven days, I have received recognition or praise for good work.
- At the SDDOT, my opinion seems to count.
- There is someone at work who encourages my development.
- In the last six months, someone at work has talked to me about my progress.
- This last year, I have had opportunities at work to learn and grow.
- My associates (fellow employees) are committed to doing quality work.
- The mission of the SDDOT makes me feel my job is important.
- I have the materials and equipment I need to do my work right.
- I have a best friend at work.

Table 67 presents the differences in job satisfaction between the “yes” and “no” responses to the various comparison statements. The right-hand column indicates the difference in the mean job satisfaction score between the “yes” and the “no” responses. The mean difference in job satisfaction was 0.58 with standard deviation of 0.19. Respondents who answered “no” to these

²⁴ Telephone permission granted by the Gallup Organization’s Roarke Stratton on February 25 and 26, 1998.

questions were clearly less satisfied than those who responded “Yes.” Those who responded “yes” to all of these questions were above the M=2.95 score and were in the operational range for Job Satisfaction.

Table 67: Increase in Job Satisfaction by Response to the National Comparison Statements

National Comparison Statements	Response	2002 Job Sat. Mean	Mean Difference in Job Sat.
At work, I have the opportunity to do what I do best everyday	Yes No	3.13 2.55	0.58
My supervisor or someone at work seems to care about me as a person	Yes No	3.11 2.32	0.80
I know what is expected of me at work	Yes No	3.00 2.51	0.48
In the last seven days, I have received recognition or praise for good work	Yes No	3.22 2.82	0.40
At the SDDOT, my opinions seem to count	Yes No	3.26 2.60	0.67
There is someone at work who encourages my development	Yes No	3.26 2.66	0.60
In the last six months, someone at work has talked to me about my progress	Yes No	3.16 2.78	0.38
This past year, I have had opportunities at work to learn and grow	Yes No	3.08 2.46	0.63
My associates (fellow employees) are committed to doing quality work	Yes No	3.07 2.46	0.62
The mission of the SDDOT makes me feel my job is important	Yes No	3.14 2.46	0.68
I have the materials and equipment to do my work right	Yes No	3.04 2.65	0.39
I have a best friend at work	Yes No	3.05 2.90	0.15

The definitions associated with the Strength, Operational and Concern ranges change with the scale used in the survey. In the preceding sections of the report the scale was designed around a scale from 1 to 4. The questions that follow in this section are binomial, requiring only a yes or no response²⁵.

Strength Range—An average score of 84 percent agreement or above is considered to be in the strength range. This indicates the behaviors and perceptions of the employees, with regard to the issue being measured, are considered to be very consistent and strong and not to be causing any concern or dysfunctional behavior at this point in time.

Operational Range—An average score between 74 and 83 percent agreement is considered to be in the operational range. This is considered to be a good score. A score in this range indicates the

²⁵ Range scores and descriptions are from the Gallup Organization.

behaviors and perceptions of employees as consistent, and they are viewed as being quite positive. However, they are not as strong, nor as prevalent, as the behaviors identified in the strength range.

Concern Range—An average score of less than 73 percent agreement is considered to be at a level of concern. That is, the behaviors and perceptions are causing some concern or problem among employees and/or management. They may not have reached the point of causing dysfunctional behaviors, but the potential is there and the issue possibly needs to be addressed.

The scale ranges, as described, hold an organization to a very high standard. To reach the strength range, or even the operational range, most of the employees responding to a statement, or strategic behavior, must have responded “yes” to the statement. In summary, the standard is a high, but as noted previously, there are tremendous gains to be realized for attempting to reach the goal.

This score range has been studied in a variety of organizations, ranging from fast food to financial services companies, to a nationwide sample of workers. It has been shown to have relationships to productivity and performance with regard to both individuals within the organization as well as groups or departments. While considered a high standard, most people indicate it is one well worth working toward.

Table 68 through Table 81 show the percentage of SDDOT employees responding “yes” or “no” to the each of the respective twelve statements. Additionally, the percentages for the nationwide business sample were provided for comparison purposes. An astute reader will note that the national comparison group did not always meet the standards of operational or strength.

DEMOGRAPHIC RESPONSE PATTERNS

The pattern among the demographic variables was well established by the domain mean analyses. With respect to Region, Central Office and the Rapid City Region had the highest scores, with the Pierre Region in between the top two and the Mitchell and Aberdeen Regions. In terms of the position classification, E and Q classes had higher levels of affirmative responses than did N position classifications. Sometimes the T position classification was as high as the E and Q classifications, and sometimes the T position classification joined the N group at the lower level. With respect to salary status, salaried respondents had higher levels of agreement than did hourly respondents.

Job groups were a little more challenging to generalize. Executives always had the highest scores. Clerical, engineering, specialist/analyst, and the financial information and legal groups had the next highest level of affirmative responses. Drafting and technical employees had decreases from 2000 to 2002. The lowest levels of responses were drafting and technical job groups. Any discussion of supervisors parallels the discussion of salary status. Younger employees have higher levels of agreement than do other employees, but the age fifty-three plus is nearly identical to the age twenty through thirty-six group. The discussion presented below focuses on the items that demonstrate the largest increases between 2000 and 2002. These included Statement #5 “My opinions seem to count” and Statement #10 “The mission of the SDDOT makes me feel my job is important.” There were decreases in Statement #7 “In the last six months someone at work has talked to me about my progress,” and Statement #12 “I have a best friend at work.”

The discussion reported below focuses on the research supporting the question and on the specific changes within the Department. The analysis was organized by demographic characteristics of the respondents.

STATEMENT #1: AT WORK I HAVE THE OPPORTUNITY TO DO WHAT I DO BEST EVERYDAY

Table 68: At work, I have the opportunity to do what I do best everyday

Response	Year			Change		15 Fastest Growing
	2002	2000	1998	2000-2002	1998-2002	
Yes	70.23	60.47	56.27	9.76	13.97	82.00
No	29.77	39.53	43.73			

DISCUSSION

The opportunity to do what one does best every day addresses the issue of whether a person feels they are well suited to what they are doing. This statement captures an individual's sense of being in the right job for their talents. It measures whether the right person is in the right job. People who do what they love do not "burnout." In addition, they create positive energy for others.

The best supervisors see the specific talents needed for every job. Conventional wisdom dictates that some jobs are so easy, they don't require talent. Great supervisors realize that talents help with a job. The task is to figure out what talents are needed for each job. For example, the best front desk clerks in a hotel have a talent for "winning others over." They establish a trust relationship with people within the first seven seconds of an interaction. Great telephone service and sales personnel are talented in having a "third ear" or the ability to connect visually and emotionally with people they talk to on the phone. Outstanding accountants see patterns in numbers and "hear" a message or story (Buckingham & Coffman, 1998).²⁶

Excellence should be revered in every role. Often, we manage from the perspective that because we would not want a particular job or have the talent to perform it well, we must manage it as a job no one would want to do, thus creating a self-fulfilling prophecy. This is, however, a false perspective. The task of the best supervisors is to clearly define the talents needed for each role, and then choose the right person for that role. A supervisor's job is not to make people grow talents they do not have, but to identify and utilize existing talents to their fullest potential.

ANALYSIS

Respondents to the 2000 Organizational Health Assessment increased their level of affirmative response to this statement by over nine percent (9.76 percentage points). The respondents agreed with this item 70.23 percent up from 60.47 percent in 2000, and the 56.27 percent level in 1998. The 2002 score nearly halved the difference between the SDDOT employee score from 2000 and the level of agreement from the respondents in the national comparison group.

Respondents in each Region increased the level by which they responded affirmatively. The largest increase (18.34 percentage points) was in the Pierre Region followed in magnitude of performance by the Aberdeen (9.93 percentage points) and the Central Office (8.82 percentage points). SDDOT employees from Mitchell improved (7.84 percentage points) on their average score. Rapid City's improvement trailed the others with an increase of (2.58 percentage points).

There were significant differences in how salaried and hourly employees viewed this statement in 2002 as were the differences in 2000. In 1998, salaried and hourly employees responded

²⁶ Buckingham, Marcus & Curt Coffman (1998) *First Break all the Rules: What the World's Greatest Managers Do Differently*, Simon & Schuster.

affirmatively at about the same rate with no statistically significant difference in their level of affirmative responses.²⁷ In 2002, salaried respondents responded affirmatively at a higher rate when compared to hourly-paid respondents by a margin of 83.5 to 68.4 percent both of which have increased substantially from the respective 2000 levels of 71.8 to 59.2 percent.

There were differences in how respondents from the varied job groups responded and the differences were significantly different statistically in 2002 as well as in the two preceding studies. All but one job group experienced an increase in the percentage of affirmative responses in 2002 compared with 2000: clerical (3.79 percent), drafting (1.05 percent), engineering (10.86 percent), equipment (9.68 percent), maintenance (12.64 percent), specialist/analyst (6.57), technician (9.73 percent) and financial/information services/legal (10.23 percent). The one group with a decrease in affirmative responses was the executive group (10.00 percent).

The age of the respondent and the years of SDDOT service did not produce statistically significant differences, and were not reported. There were gender significant differences in terms of level of affirmative answers to this statement. The gain in percentage of positive responses for females was nearly twelve points (11.79) and over nine percentage points (9.37) for males. That follows on the performance of 2000 where Male respondents increased (5.0 percent) their level of affirmative responses slightly from 1998 to 2000 (58.9 percent). Female respondents decreased (2.9 percent) their percentage of affirmative respondents in 2000 (71.0 percent) slightly from 1998.

The responses by employees “at”, “below” or “above” the midpoint were not statistically significantly different and were not reported.

STATEMENT #2: MY SUPERVISOR OR SOMEONE AT WORK SEEMS TO CARE...

Table 69: My supervisor or someone at work seems to care about me as a person

Response	Year			Change		15 Fastest Growing
	2002	2000	1998	2000-2002	1998-2002	
Yes	80.12	77.47	76.07	2.65	4.05	82.00
No	19.88	22.53	23.93			

DISCUSSION

This statement addresses whether one feels that they fit in at work. Buckingham and Coffman’s (1998) research indicates that employees don’t leave companies, they leave managers and supervisors. The impact that a supervisor has in today’s workplace can be either very valuable or very costly to the organization and the people who work there.

All of us as employees have had the unpleasant experience of having a bad supervisor or manager. Many of us have also experienced the results and benefits of a good one. When Gallup evaluates the difference between bad and good supervisors, it is amazing to see how clear the difference is in the minds of employees. Yet, when we ask employees “Do you want to be managed?” everyone says “No.” Why is this? It is because we automatically think of our bad experiences. What if someone who is similar to the best supervisor one has had could manage the employee? Would he

²⁷ We chose to use a confidence of 0.05, or that there was fewer than five chances in one hundred that the results were due to chance. It is possible, that since we are looking at every possible combination and doing this *post hoc*, that we are increasing the possibility of a type one error and a type two error. It is for these reasons that we chose to test for the possibility that this was a population, and not simply a sample of the population. We are reporting only those statistically significant differences to reduce the possibility of type one errors from reviewing all or nearly all possibilities.

or she want to be managed in that case? The answer would surely be “Yes.” So, the issue is really this—What makes a great supervisor?

Supervisors are the filters from which broader organizational changes and initiatives make sense to individual employees and thus gain true acceptance and understanding. Or, stated another way, when supervisors do not perform this function, the organization has real problems. One could speculate that people are not resistant to change; they just don’t have the relationships (and these relationships are with an individual’s supervisor or other mentor) to translate how such modifications will impact them and their jobs.

Gallup (Buckingham & Coffman, 1998) learned from surveys that the credibility of senior management is critical to employee perceptions of the organization. This led Gallup to consult with CEOs and leaders to encourage them to have greater visibility and clearer communications. Then, in 1995, Gallup made a discovery—employee perceptions of senior management credibility are largely driven by the quality of relationships employees have with their supervisors. Thus, rather than feeling the need for a town-hall meeting, the CEO should feel compelled to ensure that all employees have a caring relationship with their supervisors or designates.

ANALYSIS

Overall, the percentage of respondents giving affirmative responses to this statement increased slightly from 1998 to 2000 and again from 2000 to 2002. However, this rate of positive response remained below the percentage of affirmative answers given by the national benchmark organizations. At the same time, this rate of positive response was within the operational category.

There were no significant differences between Regions in terms of the percentages of respondents giving affirmative answers in 2002. A review of responses by position classification showed dramatic differences. The 2002 responses from the employees in the E (86.7 percent), Q (95.5 percent) and T (88.5 percent) were in the strength range. However, while the proportion of positive responses from the Q and T job classifications increased from the 2000 measure the employees in the E classification had a decrease in positive responses by 6.19 percentage points. The N respondents provided an operational (76.3 percent) level of response. While lagging the others, this group had the largest increase in positive responses (3.53 percent) to this question comparing the 2002 and 2000 studies.

Salaried and hourly SDDOT employ respondents did not differ in their responses significantly on this question.

There were significant differences in how respondents view this issue by the respondent’s job group. Some job groups experienced an increase in the percentage of affirmative responses in 2002 compared with 2000: engineering (0.15 percent), maintenance (6.98 percent), specialist/analyst (9.98 percent), equipment (9.69 percent), and financial/information services/legal (5.68 percent). Other job groups declined in terms of their percentage of affirmative responses over the two year period of 2000 to 2002: clerical (-2.38 percent), drafting (-5.00 percent), and technician (-4.66 percent). All executives participating in the 2000 survey (100 percent) responded affirmatively to this statement. Eight of the ten responding (80.00 percent) to the question indicated their supervisor or someone at work seems to care in 2002.

New hires were much more likely to have higher levels of affirmative responses (94.12 percent) than were other employees. These new hires exceeded not only the other tenure groups at the SDDOT but score well above the national benchmark. It was the only SDDOT tenure group to

achieve that status. The respondents in the group of two through four years of experience and the group with six through ten years of tenure decreased their level of affirmative responses by 3.31 and 1.30 percentage points, respectively.

While females responded affirmatively in greater proportion than males the difference in their responses were not statistically significant. Younger respondents tended to give higher levels of affirmative responses than older respondents and that was true (87.90 percent) with regard to this question. The second highest gain between 2000 and 2002 came from the respondents aged between 37 and 45 (78.61) but the participants' answers from the two older age categories were only slightly less than the 37 through 45 age group (77.22 and 76.87 percent).

The responses by employees "at", "below" or "above" the midpoint were not statistically significantly different and were not reported.

STATEMENT #3: I KNOW WHAT IS EXPECTED OF ME AT WORK

Table 70: I know what is expected of me at work

Response	Year			Change		15 Fastest Growing
	2002	2000	1998	2000-2002	1998-2002	
Yes	91.77	87.40	86.07	4.37	5.70	97.00
No	8.23	12.60	13.93			

DISCUSSION

This statement deals with standards and expectations of work. Most individuals indicate that they know what is expected of them at work. Expectations are the milestones against which we test our progress. Within the workplace, knowing what is expected can be viewed as the pathway that guides us toward achievement. If expectations are not clear, we are hesitant, indecisive, and unsure of ourselves. The results for this statement are in the strength category. A high percentage of respondents indicated they know what is expected of them at work.

Setting clear expectations is not a new concept for supervisors. In our attempts to set and define clear expectations, however, we often over-operationalize jobs. We put all of the focus on describing the steps to follow, and in so doing, create an environment that communicates "Check your mind at the door, follow these steps, do what you are told, and you will do okay." This is certainly not empowerment rather it is roboticizing of human potential, builds little self-worth or self-confidence, and dramatically impairs quality output. When defining steps becomes the focus, setting expectations then becomes a statement of how to control employees, rather than one of how to guide very different people with very different styles toward productive outcomes.

So, how does a supervisor, who is held accountable for a team's performance, set expectations? The best supervisors set outcomes first, and then let each person or team find his or her route toward those outcomes. This approach resolves the supervisor's dilemma. It allows for growth of the individual from an individual discovering what works for them, and appreciates and values differences between employee styles and flow, and permits individuals to use their strengths to their fullest potential.

Of course, every job has a certain number of steps associated with it. Some jobs have more steps than do others. The question is, do the steps support a clear perspective on the particular outcomes desired? Many times, the steps obscure the outcome and/or are developed to demonstrate the supervisor's or lead worker's authority; the result is mere activity that has no broader purpose.

ANALYSIS

There were no statistically significant differences in terms of levels of affirmative responses for any of the following demographic variables: regions, salary status, years of SDDOT service, employee status, years of age, and midpoint status.

A review of responses by position classification showed significant finding on this question. This was a strength area for each of the four position classifications. Still, the differences were significantly different. The 2002 responses from the employees in the E (100.00 percent), Q (95.65 percent), T (96.18 percent) and N (89.80 percent) position classifications were well within the strength range. Nonetheless, only the E position classification exceeded the national benchmark of 97 percent with the SDDOT missing the mark in the Q and T classifications by slim margins.

The clerical, executive and financial/information services/legal job groups scored (100 percent) this question as a strength and exceeded the national benchmark of 97 percent. The remaining job classifications also scored this question as a strength but failed to clear the bar of the national benchmark. The classifications drafting (3.33 percent) and equipment (1.67 percent) had decreased in their proportions of yes responses on this question.

The female respondents strongly scored (98.89 percent) in the affirmative on this question scoring it as a strength and also exceeded the benchmark. It was a strength for the males as well but their score (90.64 percent) fell considerably short of the benchmark.

With no real differences between the other categories of interest, one might be tempted to argue that there was little or no story here. That would be too simplistic. Knowing what was expected of one at work was a minimal condition for doing a good job. Falling short of the national benchmark on many of the demographic measures presented an opportunity for improvement efforts.

The responses by employees “at”, “below” or “above” the midpoint were not statistically significantly different and were not reported.

STATEMENT #4: IN THE LAST SEVEN DAYS, I HAVE RECEIVED RECOGNITION...

Table 71: In the last seven days, I have received recognition or praise for good work

Response	Year			Change		15 Fastest Growing
	2002	2000	1998	2000-2002	1998-2002	
Yes	34.00	30.39	24.13	3.61	9.86	60.00
No	66.00	69.61	75.87			

DISCUSSION

Praise and recognition are essential building blocks of a great workplace. We all have the need to be recognized as individuals and to feel a sense of accomplishment. There is nothing complicated about recognition, but it is one of the items that consistently receives the lowest ratings from employees, and the SDDOT is no exception. The principles that should guide the giving of recognition and praise for good work are that the recognition and praise be positive in nature, immediate and close-in-time to performance, specific about what is being praised, and close to the behavior good work.

Historically, praise and recognition in the workplace has been handled from the perspective of “If you don’t hear anything, assume you’re doing a good job.” In contrast to this “old industrial

workplace” mindset, the new knowledge-based worker relies and depends upon praise and recognition as the means of defining what is valued by the organization. Today, praise and recognition are communication vehicles for much of what is deemed important.

Obviously, recognition can be either positive or negative. Gallup has found, however, that positive and negative recognition are not opposites. Instead, the opposite of any kind of recognition is being ignored. The worst possible thing we can do to someone at work today is to ignore him or her! Workplaces that continue to abide by the old culture (“If you don’t hear anything...”) will destroy the very human spirit that makes the true difference in quality output and service delivery. In this sense, the recommended span of control for the SDDOT may be efficient, but it may not have a strong relationship to effectiveness. However, more data must be collected to establish effectiveness within the SDDOT.

Although recognition can be either positive or negative, effective recognition has the following characteristics—it is positive in nature, immediate and close-in-time to performance, specific about what is being praised, and close to the action. It is not once a year or whatever period of time the formal performance appraisal process requires. Many organizations have formal recognition programs that seem to have limited effectiveness. This is probably because these programs do not always give employees a clear idea of what, exactly, is being recognized (i.e., effective performance, increases in productivity, etc.). There can also be times when credit is given where credit is not due, such as rewarding the weatherman for a bright and sunny day.

Positive recognition is often thought of as coming strictly from supervisors or other superiors but Gallup has found that employees cherish praise and recognition from their peers. Coworkers know intimately the particulars of a job and when they notice excellence, it is a special event for those recognized. So, praise and recognition should not just come “from the top down” anymore!

ANALYSIS

Overall, responses to this statement were moving in the right direction with an increase of 3.61 percentage points in the level of affirmative response in 2002. Notwithstanding the gain, the level of respondents indicating yes to the question was significantly and substantially below the national benchmark.

The Pierre (30.48) and Aberdeen (26.61) regions had gains of 7.54 and 7.52 percentage points in affirmative responses in 2002. Other than these two regions the gains in positive response were modest. The Central Office, Mitchell, and Rapid City regions had gains of 1.78, 1.16 and 1.10, respectively. The percentage scores for each of these regions in 2002 were 37.6, 29.3 and 43.30 percent. Notice that the big gains for the Pierre and Aberdeen regions were catch-up gains bringing them more in line with the other regions.

Responses varied by position classification. Respondents gave a higher percentage of affirmative responses in 2002 compared with 2000 in the N, T, and Q classifications. Respondents in the E classifications gave a lower percentage of affirmative responses in 2002 (46.67 percent) when compared with 2000 (64.23 percent). The small number of employees in the E classifications made the measure very sensitive to small changes in responses affirmative or otherwise. The distribution of affirmative response in the 2002 Organizational Health Assessment among the position classifications were: N (31.96 percent), T (35.26 percent), Q (59.09 percent), and E (46.67 percent).

There were no statistically significant differences in the answer to this question with respect to salary status, years of service or job groups. There were no statistically significant differences in responses when sorted by the respondent's gender. Both females and males reported higher levels of affirmative responses in 2002 than in 2000.

Younger respondents tended to report higher levels of agreement than did older workers. Respondents in three of the four age categories reported higher proportions of yes responses in 2002. Respondents in the 46 through 52 age group made the greatest gain (9.46 percent) from 2000 to 2002 increasing from 23.24 to 32.70 percent. The 37 through 45 age category reported the second strongest gain (7.98 percent) increasing from 24.10 to 32.09 percent. The smallest positive increase (0.09 percent) in responses came from the youngest age group (42.86 to 42.95). The oldest group, the 53 through 67 age category declined from 2000 (30.50 percent) to 2002 (28.48 percent).

The differences among employees below, at, and above the midpoint were statistically significant. The "below", "at" and "above" midpoint measures were 39.49, 33.33 and 29.05 percent, respectively.

The comparison of mean domain scores for employees that indicated they had received recognition in the past seven days compared to those that indicated that they had not received recognition can be seen in Table 72. The mean domain scores of the group that had received recognition without exception are higher than those for the group that had not.

Table 72: Domain Means by Response to National Comparison Statement #4

Domain	Yes	No	Difference
Training	2.67	2.35	0.32
Teamwork	2.65	2.23	0.42
Performance Appraisals	2.65	2.27	0.38
Communication	2.62	2.46	0.16
Purpose	2.62	2.30	0.32
Morale	2.57	2.29	0.28
Climate	2.56	2.30	0.26
Identity	2.53	2.28	0.25
Safety and Efficiency	2.53	2.31	0.22
Structure	2.47	2.29	0.18
Standards	2.27	1.91	0.36
Culture	3.11	2.64	0.47
Overall Job Satisfaction	3.07	2.51	0.56

STATEMENT #5: MY OPINIONS SEEM TO COUNT

Table 73: At the SDDOT, my opinions seem to count

Response	Year			Change		15 Fastest Growing
	2002	2000	1998	2000-2002	1998-2002	
Yes	53.04	45.05	43.77	7.99	9.27	82.00
No	46.96	54.95	56.23			

DISCUSSION

This statement deals with standards and expectations. It reflects a minimal condition for good work. Feeling that one's opinion seems to count is a vital aspect of an individual's worth within the organization. The ways organizations hear and process employees' ideas will shape, to a large degree, whether or not they feel valued for their contributions.

The concept addressed by this statement has been described as employees' "internal stock price." It measures the sense of value that employees feel in their work and toward their organization. The degree to which an organization's employees feel their opinions count is readily apparent to its

customers. We have all encountered an employee who felt detached or insignificant, and we know the impact that employee's attitude had on us as customers.

If the ideas, instincts and intelligence of an organization's employees are its sustained competitive advantage, then employees' responses to this item are of great importance. Nothing is more demoralizing to employees than being excluded from significant decisions—decisions that affect their jobs. Great supervisors consult with employees regularly to make sure those close to the action have input into critical decisions. This does not mean that employees have the final say on decisions that affect their jobs; however, it does mean that when employees' desires and supervisors' decisions differ, the best supervisors explain the rationale behind their decisions. These supervisors use the decision-making process to help employees both to see the full scope of a decision, and to understand why the decision was made the way it was. A straightforward explanation can be a real credibility and communications builder. Likewise, a supervisor saying it is the "top brass", the "Central Office", or whoever, is the problem becomes a great communications destroyer. Great supervisors never ask employees for their opinions, and then decide to do the opposite, without clearly explaining why.

Great ideas are the building blocks for increased efficiency. Great places to work, where employees' opinions count, encourage ideas to flow, and to be heard, processed, and refined. Not all ideas will be successfully implemented, but the process of refining ideas is still wonderfully productive: It builds employees' confidence in the organization and reinforces to employees that their efforts can make the organization better.

ANALYSIS

Overall, there was a positive change (7.99 percent) in responses to this statement from 2000 to 2002. However, the respondent's level of agreement continues to be significantly lower than the benchmarking national average of 82.0. Improving this score should be considered important if true empowerment is to take place or if this standard is a goal of the organization.

There were significant statistical differences among the responses of the Regions and the Central Office. The frequencies of positive responses were 66.51 percent for the Central Office and 55.67 percent for the Rapid City, 51.46 percent for the Pierre, 44.35 percent for the Mitchell, and 34.26 percent for the Aberdeen regions. The largest gains from 2000 to 2002 were scored by the Central Office (12.96 percent) and Mitchell Region (10.77 percent).

There were significant differences within employee classifications. All changes in performance on this question from 2000 to 2002 were positive. The N position classification scored the largest increase (8.45 percent) during the period. The other classifications had increases of 7.62, 6.60 and 2.34 percentage points scored by the E, T and Q classifications, respectively. Differences in magnitude remained between E (93.33 percent) and Q (86.96 percent) with T (71.90 percent) significantly higher than the N (43.56 percent) position class.

Salaried respondents were much more likely to give affirmative responses to this question than were hourly respondents. The salaried workers increased (9.51 percent) their level of affirmative responses from 2000 to 2002 (76.4 to 85.90 percent). Hourly respondents increased (6.94 percent) their level of affirmative responses from 2000 to 2002 (41.56 to 48.49 percent). The most startling difference was in the disparity (37.41 percent) between salaried and hourly workers responses. It would appear that hourly respondents were much less likely to feel their opinions count and given

the disparity between 1998 and 2000 was smaller (34.8 percent), it doesn't appear the perception was getting better.

There were significant differences in terms of job groups. Several job groups posted increases in affirmative responses to this item, while two job groups, equipment and technician, scored decreases of -6.34 and -2.59 percentage points, respectively. The proportions of yes responses to this question by the job groups were: executives (90.00 percent), engineering (73.86 percent), financial/info services/legal (62.5 percent), drafting (60.00 percent), specialist/analyst (57.45 percent), clerical (51.52 percent), maintenance (40.89 percent), equipment (40.00 percent) and technician (37.10 percent).

Responses to this question by employee tenure were not significantly different. The gender of the respondents was not statistically significant with respect to the affirmative responses for this item. Neither salary midpoint nor age of the respondents was statistically significant with respect to the affirmative responses for this item.

STATEMENT #6: SOMEONE AT WORK ENCOURAGES MY DEVELOPMENT

Table 74: There is someone at work who encourages my development

Response	Year			Change		15 Fastest Growing
	2002	2000	1998	2000-2002	1998-2002	
Yes	48.98	48.96	43.75	0.02	5.23	70.00
No	51.02	51.04	56.25			

DISCUSSION

Conventional management theory has always highlighted the need for employee development. The traditional approach largely involved helping employees to identify their weaknesses, and then creating a plan to correct them. By focusing on their weaknesses, so the reasoning went, employees would become stronger and more productive. While this approach seems to make sense, it has had a significant, unintended consequence: It has emphasized who the employee is not, rather than who the employee is. As a result, the common theme in the management-employee relationship has been a constant determination to change something.

For the past 40 years, development has also meant "getting promoted." Today, it embodies the degree to which employees are growing within their current roles. Most employees want to be promoted, but not if it means doing a job that does not match their individual talents and skills. We have all witnessed the Peter Principle in action where an employee who is accomplished at a particular job is promoted to supervisor and further promoted until he/she reaches a level at which they no longer excel. However, often being a supervisor is the only way to increase one's compensation, irrespective of the value of the job. While this may work, being in a supervisor position often requires a distinctly different set of talents—talents that the promoted employee may not possess. So, in the end, the promotion significantly impacts the quality of life for both the individuals promoted and the people they supervise.

In today's workplace, the concept of "lifetime employment" is passé; the new emphasis is on "lifetime employability." Supervisors who want to encourage the lifetime employability of their direct reports help them equip themselves with self-understanding and a clear perspective on what roles they will excel in. To accomplish this goal, such supervisors pursue straightforward discussions with employees. In these discussions, they seek to understand employees' strengths,

talents, and skills, why they accepted a position with their employer in the first place, what keeps them there, what kind of relationships they need to be most productive, their desired mode of recognition, and the yearnings and directions the employees wish to follow.

ANALYSIS

There has been little if any overall change from 2000 to 2002 in the number of employees indicating that someone at work had encouraged them in their development. Discussions in previous studies suggested that there was little room for development and growth within the Department. It appears that little progress has been made but it is important that progress be made if the agency is to improve in terms of climate.

The respondents in the Regions differed significantly and substantially in their proportion of positive responses. The change from 2000 to 2002 can be separated into three groups. The Pierre Region was the sole member of the group scoring any substantial increase (12.43 percent) on this question. There was the small gain and loss group which included the Central Office (2.05 percent) and Rapid City (-1.11 percent) and the larger loss group, which included Mitchell (8.86 percent) and Aberdeen (5.79 percent) regions.

While gain and loss was important to improvement, the level of positive responses summarized the cumulative history of a regions performance. The Rapid City Region received the highest rating (61.86 percent), the Central Office and the Pierre, Mitchell and Aberdeen regions scored 52.05, 50.96, 39.29 and 39.25 percent, respectively.

Position classes had different levels of affirmative responses. As was typical, respondents in E, Q, and T position classes responded yes in higher proportion to this statement than did respondents from N position classes. Respondents in the T and N position classifications decreased (1.53 and 0.39) their levels of agreement in 2002.

The salaried employees reported substantial gains (9.48 percent) from 2000 to 2002 while the hourly employees scored fewer positive responses (1.37 percent). The movement in opposite directions increased the difference (61.54 vs. 47.24) between the groups substantially enough to become statistically significant for this period where it had not been in 1998 or 2000.

Some interesting contrasts occurred between 2000 and 2002 with respect to job groups. The specialist/analyst (12.10 percent) and clerical job (10.60 percent) groups reported the largest increases in affirmative responses to this question. The groups showing the largest losses in positive responses to the question were drafting, technician and financial/info service/legal, which lost 13.33, 12.94 and 8.42 percentage points, respectively.

Respondents who were newly hired are much more likely to give an affirmative response (72.73 percent) to this item than are other employees. New hires (since January 1, 1999) responded affirmatively at a level of almost three of four (72.73 percent) compared with other respondents who responded affirmatively at the approximate rate of one in every two. The 2 through 6 and the 6 through 10 tenure groups showed decreases in 2002 while the new hires and those having over 10 years of service showed small increases.

The differences by gender were not statistically significant. The youngest employees responded affirmatively in greater proportion (63.23 percent) than the other three groups in order of age: 49.46, 38.85, and 44.06 percent. The 53 years of age and older group scored the largest increase (4.06 percent) in 2002.

There was a significant difference in percentage of employees giving affirmative responses in 2002 on this question. The “below”, “at” and “above” midpoint measures were 60.89, 52.56 and 36.24 percent, respectively.

Table 75 presents the some of the means of the domains differentiated by how employees responded to this statement. A casual reader can see the higher domain means for those who responded “yes” than those who responded “no.”

Table 75: Domain Means by Response to National Comparison Statement #6

Domain	Yes	No	Difference
Training	2.97	2.65	0.32
Teamwork	2.95	2.53	0.42
Performance Appraisals	2.87	2.35	0.52
Communication	2.86	2.39	0.47
Purpose	2.78	2.44	0.34
Morale	2.77	2.41	0.36
Climate	2.68	2.26	0.42
Identity	2.68	2.22	0.46
Safety and Efficiency	2.67	2.36	0.31
Structure	2.64	2.26	0.38
Standards	2.62	2.40	0.22
Culture	2.61	2.13	0.48
Overall Job Satisfaction	3.07	2.51	0.56

The mean domain scores of the group that are of the opinion that someone at work had encouraged their development are higher than those for the group that didn’t think someone was doing so.

STATEMENT #7: ...SOMEONE AT WORK HAS TALKED TO ME ABOUT MY PROGRESS

Table 76: In the last six months, someone at work has talked to me about my progress

Response	Year			Change		15 Fastest Growing
	2002	2000	1998	2000-2002	1998-2002	
Yes	46.19	47.16	63.35	(0.97)	(17.16)	62.00
No	53.81	52.84	36.65			

DISCUSSION

Respondents indicated a substantial decrease in the level of affirmative responses to this item from 1998 to 2000 and it continued to decline in 2002. The 2000 decrease was associated with the move from biannual evaluations to annual evaluations. Noted in 2000 was that for many employees, the only time that someone talks to them about their progress is at annual evaluation time and that speaking of one’s progress has become associated with performance appraisals.

It was noted that everyone has the infamous annual or semi-annual job performance review with their supervisor and that there is two minutes of the review which is focused on what the supervisor likes about us and our work and the remaining time is spent on our “areas of opportunity.” It was pointed out that opportunities are thought of as the things people are weak at and should improve upon and that the employees usually walk out of their meeting feeling deflated. Respondents explained that they have a clearer understanding of what they don’t do well but have little understanding of what they do well.

One of the paradoxes of hiring and retaining talented employees is that they tend to lack an intuitive understanding of how their talents manifest themselves in specific behaviors. Employees need objective feedback as to how they can focus these talents to become more productive—feedback supervisors can provide. Great supervisors understand that because talents are innate and

natural, it is impossible to not use one's talents. So, instead of trying to change individual employees through centering on their weaknesses, great supervisors feel compelled to help them gain self-understanding and knowledge about the talents they possess and how they are applied every day at work.

Talent never becomes "talented" until an employee has a role that uses that personal talent. Great supervisors are always holding up a mirror to employees and encouraging them to "look in the mirror" to know themselves well and to know the roles in which they will most likely succeed. The world's greatest supervisors can answer some basic questions about every one of their employees. Some of these are:

- "What do employees enjoy the most about their current and previous work experiences?"
- "What attracted them to come to work for the organization and what keeps them there?"
- "What are employees' strengths, talents, skills and knowledge?"
- "What are their goals for their current roles?"
- "How often would they like to meet to discuss their progress?"
- "Are they the kind of people who will tell me how they're feeling or will I have to ask?"
- "What are their personal goals or commitments?"
- "What is the best praise and recognition they have ever received?"
- "What have been the most productive relationships they have had with a mentor or supervisor and what made them so special?"

Talent only responds in relationship to another human being. Thus, feedback must be specific to the individual, and must be given in the context of a positive employee-supervisor relationship. The last words in this statement, "my progress", are crucial. Employees must walk away from any discussion of their growth with a clearer understanding of who they are, instead of who they are not.

ANALYSIS

There was a substantial overall decline in the percentage of affirmative responses in the 2000 measure on this question. Not one region or the Central Office scored an increase in the proportion of "yes" responses on this question in that year. The 2002 study showed no recovery or improvement in the measure. In fact, there was further decline in the overall measure.

The Mitchell and Pierre regions stemmed the decline from 2000 to 2002. Mitchell had an increase of 2.48 and Pierre an increase of 1.02 percentage points. The gains were modest but were better than the experience reported by the Central Office and two other regions: Aberdeen Region (-5.11 percent), Rapid City Region (-2.82 percent), and the Central Office (-1.27 percent). The cumulative measure continued to show the Rapid City Region the most positive (57.73 percent) on the question even with the 2002 decrease.

Meaningful information was contained in the position classification. The differences among the response proportions were statistically significant. An important contrast in 2002 was that the E, Q

and T position classifications all showed increases: 23.33, 13.99 and 5.98 percentage points, respectively. And, the people in the N position classifications decreased their affirmative responses by 4.96 percentage points. Interestingly, while the decrease in the N classification had the smallest magnitude of change, the proportion of the much larger N classification in a weighted average more than offset the gains made in the E, Q, and T classifications. The N classification was influential on summary statistics in that it represented nearly two in three people (63.64 percent) responding to the question.

The proportion of affirmative responses relative to a respondent's pay status as salaried or hourly was not statistically significant. The distribution of responses relative to the respondents' gender was not significant.

The distribution of positive responses among the job groups was statistically significant in 2002 where it was not in 2000. In 2000 the decline was general and fairly well distributed but in 2002 there were improvers and decliners resulting in differences in proportions sufficient in size to be statistically significant. The gainers were the executives, engineering, and the financial/info services/legal classification group. Maintenance showed very slight improvement. The decliners in 2002 were drafting, clerical, specialist/analyst, equipment and technician groups. The result showed engineering (55.14 percent) as the leader in affirmative responses followed by drafting (53.33 percent), technician (51.61 percent), financial/info services/legal (50.00 percent), specialist/analyst (48.94 percent), clerical (40.00 percent), maintenance (38.71 percent) and equipment (35.29 percent).

Respondents with fewer than two years of tenure were much more likely to respond affirmatively to this item. Respondents with 2 to 6 years of service were the only group to show a decline (8.41 percent) on this question in the 2002 survey. That was an improvement from 2000 when three of the four groups showed declines. The percentage of affirmative responses listing from youngest to oldest was 73.85, 49.33, 51.06 and 39.63 percent. The substantial decline (8.41 percent) in the second group, the 2 to 6 year employee, affected the order of rankings among the affirmative responses.

Younger employees were much more likely to respond affirmatively than were other employees but the older respondent showed the greatest gain (5.51 percent) in affirmative responses in 2002. The younger and older employee reversed the negative measures recorded in the 2000 study. The middle age groups, the 37 to 45 and 46 to 52, both showed decreases in positive responses from 2000 to 2002 failing to reverse the trend of the 1998 to 2000 measure.

The 20 through 36 age group decreased its level of agreement from 66.82 percent in 1998, to 58.62 percent in 2000 but rebounded to 59.62 percent in 2002. In the 37 through 45 age group the level of agreement decreased from 63.28 percent in 1998 to 48.21 percent in 2000, followed by a decline to 45.11 percent in 2002. The 46 through 52 age group decreased its level of agreement from 62.79, to 39.67, to 35.67 percent in 1998, 2000 and 2002, respectively. For the age group 53 and over, respondents decreased their level of agreement from 59.88 percent in 1998 to 39.00 percent in 2000 but showed an increase to 44.52 percent in 2002.

The 2002 differences in the responses by job worth were statistically different. Respondents "below" or "at" the midpoint were more likely to respond affirmatively (53.85 49.35 percent) compared with those that were above midpoint (37.95 percent). The movement from the 2000 to 2002 measure showed a modest decrease overall (-0.65 percent). The "at" midpoint group

increased (6.25 percent) but not enough to offset the decreases of the “below” and “above” midpoint groups -2.79 and -0.34 percent.

Clearly the change from biannual reviews to annual reviews has had a large effect. What appeared to be happening was that either annual reviews are the only place where someone at work talked with respondents about their development, or that talk about development was seen as an annual review issue. Many individuals saw little room for growth and progress under the current compensation system, the classification system, and supervisory system.

STATEMENT #8: ...I HAVE HAD OPPORTUNITIES AT WORK TO LEARN AND GROW

Table 77: This past year, I have had opportunities at work to learn and grow

Response	Year			Change		15 Fastest Growing
	2002	2000	1998	2000-2002	1998-2002	
Yes	78.98	72.82	68.92	6.16	10.06	84.00
No	21.02	27.18	31.08			

DISCUSSION

The need to learn and grow is a very natural instinct for human beings. Finding more efficient ways to do our jobs is one way we learn and grow. Where there is learning, there is innovation and a fertile breeding ground for a more positive and refreshing perspective toward our perceptions of self and others.

We have all worked with people who have stopped learning and growing. They suddenly have all the answers, and become unable or unwilling to see alternative solutions. Their attitude infects both the workplace climate as a whole and their coworkers, individually. It limits the very growth and innovation that create competitive advantages for today’s organizations.

Why do people become unwilling to learn and grow? Because learning and growing involve risk—the risk of challenging the status quo. Change brings about unfamiliarity, and with unfamiliarity comes insecurity.

Great supervisors recognize that they face a challenge every day. How do you create a culture that is open to new ideas and allows employees the opportunity to explore possible implications of those ideas without fear of rejection or retribution? Great supervisors know that, initially, good ideas are not always perfectly thought-out, executable strategies. Good ideas are often abstract, and need discussion so they can be defined and sculpted toward the best possible outcomes. This process takes time and energy; time and energy are limited resources. Nevertheless, the investment of time and energy is imperative to making good ideas useful. For employees, the creation of a culture receptive to new ideas also involves significant belief and trust in their supervisors and teams.

An organization’s future is dependent upon the learning and growth of its individual employees who are close to the action. Great supervisors, employees and teams are never quite satisfied with current ways of doing things. They always feel a slight tension about finding better, more efficient ways to work.

ANALYSIS

Respondents to the 2002 Organizational Health survey increased their level of agreement from 1998 to 2000 by almost six percent (6.16 percent). This level of affirmative responses (78.98 percent) was well within the defined operational range of 74 to 83 percent.

Respondents by Region were statistically different from each other. The level of responses summarized the cumulative history of a region's performance. The Central Office received the highest rating (86.16 percent) and distinguished itself by being in the strength range of 84 percent and over. The Rapid City Region was just short of being in the strength range (83.51 percent). The Mitchell, Pierre and Aberdeen regions scored 75.68, 74.29 and 68.18 percent, respectively. Only the Aberdeen Region was not in the operational range or higher.

The general pattern for the position class holds true. E, Q, and T position classes gave higher levels of response than did N position class respondents. The affirmative responses given by the E, Q, and T position classes, 100.00, 95.65 and 91.67 percent, were well within the strength range. The much larger N group provided affirmative responses (73.07) falling just short of being in the operational range and clearly defined a group in need of attention in this regard.

Salaried respondents had a substantially higher proportion of affirmative responses (93.67 percent) than did the hourly respondents (76.94 percent). Both salaried (3.39 percent) and hourly (6.06 percent) increased their level of affirmative responses from 2000 to 2002.

Executives, engineering, specialist/analyst and drafting gave higher responses than did the other job groups scoring 100.00, 92.18, 85.42 and 80.00 percent positive responses. Executives remained at total agreement, offering no possibility of an increase. Equipment, financial/info services/legal, technical, maintenance and clerical had affirmative responses of 77.14, 75.00, 74.60, 70.73, and 65.71, respectively. The largest 2002 gain on this question was scored by the maintenance group (10.47 percent), and the largest loss by the drafting group (-10.00 percent).

New workers were much more likely to give higher levels of affirmative responses than were other employees (93.94 versus 77.28 percent). Usually, the level of affirmative responses decreased as the years of service increased, but not this time. The exception was the employees with 6 to 10 years of tenure. That group showed the greatest increase (12.99 percent) from 2000 to 2002 on the question. The result was this four-category distribution of positive responses listed from youngest to oldest that reflected that notable gain: 93.94, 84.11, 85.11 and 73.63 percent.

The response differences between the genders were not statistically different.

Younger employees turned in the highest levels (90.32 percent) of affirmative responses. The proportion of those responding "yes" on this question went down with the categories representing increasing ages went up: 90.32, 81.38, 73.58 and 69.66 percent.

Those respondents "at" and "below" midpoint had higher levels of agreement (86.86 and 81.58 percent) than those above the midpoint (70.75 percent). The differences among these scores were statistically significantly different.

STATEMENT #9: MY ASSOCIATES ARE COMMITTED TO DOING QUALITY WORK

Table 78: My associates (fellow employees) are committed to doing quality work

Response	Year			Change		15 Fastest Growing
	2002	2000	1998	2000-2002	1998-2002	
Yes	81.58	76.19	76.64	5.39	4.94	86.00
No	18.42	23.81	23.36			

DISCUSSION

Highly productive employees tell us there is a vast difference between being named to a team and actually identifying with that team. We have all experienced being assigned to a team or a workgroup—our supervisor assigns us and our name is added to the team roster. Just because our names are added, however, doesn't mean that we psychologically join the team, especially if we are afraid the other team members don't share our commitment to producing quality work. Helping all members identify the team characteristics that will result in a quality product can lead to insights into greater efficiency and increased productivity.

When employees are asked, "Are you committed to quality?" they all answer in the affirmative. This reflects employees' natural, human tendency to think highly of the work they produce. Since they all give the same answer to this statement, however, the statement does not differentiate the most productive workgroups from those that are less productive. Instead, employees' answers to the statement "My associates are committed to doing quality work" are much more revealing. Employees want their coworkers to share their commitment to quality, and want to be part of an organization that challenges and enables them to excel.

Often, the definition of quality sets the tone for a workplace climate. If quality is defined as the absence of defects or mistakes, we send a strong message to employees that encourage them to cover up mistakes or problems quickly, with little attention or exposure. This can manifest itself when employees report that the only time they hear from their supervisor is when they make a mistake. In the best workplaces, supervisors realize that human beings will make mistakes, and can learn from correcting them. In these workplaces, quality is defined as the process employees use to recognize a problem and work toward its solution. In healthy workplaces, employees understand that a customer's loyalty can actually increase if the employees take a positive approach toward solving a quality problem. The best supervisors and workgroups do not scapegoat; rather, they see quality issues as a challenge to improve their product or service and, thus, to increase customer loyalty.

A problem can also bring out a greater sense of teamwork in a workplace. Employees who are committed to doing quality work look at a problem as a challenge to improve their team cohesiveness. They use the power of the team not only to overcome the crisis, but to correct the process to avoid future problems, and move on to greater productivity and quality. Interestingly, some of the most productive teamwork is observed during these times of crisis. The excellence and the spirit of teamwork that emerge from dealing effectively with problem situations are the stuff of great workplaces. One need only look to emergency situations (e.g., blizzards of 1996, Rosebud tornado, etc.) to see what is possible.

ANALYSIS

It was thought in 2000 that the slight decrease in affirmative responses for this item may indicate problems down the road for the agency but in the 2002 study the performance measure took a fairly strong turn for the better placing the agency well into the operational status range in this area.

The largest improvement was in the Rapid City Region (12.58 percent). All regions had positive change in affirmative responses in the 2002 study. The increases by region include: Pierre (6.46 percent), Aberdeen (4.36 percent), the Central Office (3.98 percent) and Mitchell (0.97 percent).

The general pattern that E, Q, and T position classes had substantially higher levels of affirmative answers holds true. These position classes had scores placing them in the strength range. The E (100 percent) and Q (100 percent) position class respondents were in complete agreement and positively assessed their coworker's commitment to do quality work. The vast majority (91.61 percent) of people in the T position class assessed that their co-workers had a commitment to quality. Three out of four people in the N group answered affirmatively when asked if their co-workers had a commitment to quality placing them in the operational range.

Salaried respondents had higher levels (97.44 percent) of affirmative responses than did the hourly respondents (79.40 percent). Salaried respondents increased their level of affirmative responses (4.29 percent) from 2000 to 2002 while hourly persons also increased their level of affirmative responses (5.14 percent).

Financial/info services/legal (11.68 percent), Clerical (10.07 percent), maintenance (10.05 percent), engineering (2.49 percent), specialist/analyst (1.93 percent) and equipment (0.70 percent) respondents increased their level of affirmative responses from 2000 to 2002. Drafting (1.67 percent) and technician (0.81) groups showed small decreases in positive responses. Executives witnessed no change from 1998 to 2000 or from 2000 to 2002 remaining at 100.00 percent affirmative responses.

Responses differentiated by years of SDDOT service were not statistically different in terms of their level of agreement with this item. Gender did not provide any significant explanation of the differences on this question. The age of the respondent produced no statistically significant difference in the level of affirmative responses.

The responses by employees "at", "below" or "above" the midpoint were not statistically significantly different and were not reported.

STATEMENT #10: THE MISSION OF THE SDDOT MAKES ME FEEL MY JOB IS IMPORTANT

Table 79: The mission of the SDDOT makes me feel my job is important

Response	Year			Change		15 Fastest Growing
	2002	2000	1998	2000-2002	1998-2002	
Yes	73.08	60.98	55.66	12.10	17.42	59.00
No	26.92	39.02	44.34			

DISCUSSION

Excellence happens only when people have a deeply felt sense of purpose in their lives. Human beings want to belong to something that has significance and meaning. They want to know they are making a difference and that they are contributing to an important endeavor. The best workplaces

give their employees a sense of purpose, help them feel they belong, and enable them to make a difference.

Employees at every level or function like to feel that they belong. Individual achievement is important, of course, but when employees of an organization feel they are an integral part of a larger whole, they are more likely to stay committed to that organization. All of us like to feel as though our organizations stand for us, represent us, share our values, and have the same kinds of goals. It is more exciting to “share a mission” than simply to “complete a task” or “do a job.”

Every individual has a different and unique sense of purpose, and individuals find different meanings in similar situations. Thus, designing the proverbial “mission statement” is not necessarily the solution to helping employees find a sense of purpose in their work. There is nothing inherently wrong with mission statements, but they are often too vague and too broad to allow each employee to connect with them. Think about it. All employees, either consciously or unconsciously, ask themselves “What is this organization’s purpose? Does this organization look at the world in the same way I do?” Employees all want to know whether their purpose meshes with the organization’s purpose, and since each one of them looks at the world in a slightly different way, each comes up with a different answer.

Great supervisors continually strive to help employees understand how the organization’s purpose/mission relates directly to the work that employees do. This, in turn, enables employees to find a connection between the organization’s values and their own. Every employee has different values. Some value competition, others value service, others value technical competence. Great supervisors translate the organization’s purpose into language that each employee can understand (Buckingham & Coffman, 1998).

ANALYSIS

The total increase in positive responses for this statement was 12.10 percentage points. These findings were a bright spot for the SDDOT. The Department’s 73.08 percent affirmative response on this question was higher than the national sample of fastest growing firms. That was to say that the mission of SDDOT was important to the employees of the organization.

Respondents in all Regions and the Central Office increased their level of affirmative responses from 2000 to 2002. The level of affirmative responses by region included: Pierre (79.25 percent), Rapid City (79.17 percent), Mitchell (66.06 percent) and Aberdeen (59.26 percent). The Central Office scored 77.73 percent positive responses to this question placing it in the middle of the regional groups. The largest increases were in the Pierre Region (17.78 percent) and the Central Office (13.17 percent).

The Q and E position classification had a substantially higher level of affirmative response than did the respondents in the N and T position classifications. The gains reported in 2002 were double digit for all position classifications: N (10.88 percent), T (14.76 percent), Q (10.14 percent) and E (21.43 percent).

Salaried employees had a higher level of affirmative responses than hourly workers consistent with previous findings. The measures for both groups exceed the national benchmark. The salaried employees were in the strength level of responses while the hourly employees fell short of the operational range.

The respondents from all job groups increased the proportion of their affirmative responses with the exception of the drafting employees who as a group scored a decrease of 6.67 percentage points. Maintenance, financial/info services/legal, and engineering had the greatest increases from 2000 to 2002 reporting 17.87, 14.67 and 14.20 percentage points.

The distinctions among the years of service with respect to this question showed no statistically significant difference in responses. Gender differences of opinion in the responses were not significantly different.

There was a significant difference in among the age groupings in their 2002 responses. The increases from 2000 varied in magnitude sufficiently to make the differences significant: 20 through 36 (8.04 percent), 37 through 45 (19.28 percent), 46 through 52 (12.65 percent) and 53 through 67 (6.90 percent). The affirmative measures for the age groups were 72.08, 80.54, 69.48 and 68.49, respectively. Contrary to the typical finding, the youngest group of employees did not score the highest percentage of affirmative responses on this question.

Those respondents “at” and “below” midpoint had higher levels of agreement (78.23 and 77.33 percent) than those above the midpoint (66.90 percent). The differences among these scores were statistically significantly different.

STATEMENT #11: I HAVE THE MATERIALS AND EQUIPMENT TO DO MY WORK RIGHT

Table 80: I have the materials and equipment to do my work right

Response	Year			Change		15 Fastest Growing
	2002	2000	1998	2000-2002	1998-2002	
Yes	77.27	71.53	66.20	5.74	11.06	85.00
No	22.73	28.47	33.80			

DISCUSSION

Everyone at one time or another has been placed in the position of having an expectation put on them without the tools necessary to achieve it. It is a frustrating position to be in and is the essence of the issue addressed in Statement #11.

The challenge we face in providing the necessary tools in the workplace is how to appropriately match individuals with a wide range of skills and knowledge with the right tools to maximize their potential. If this matching is not thoroughly examined, there can be great cost for the individual, the organization, or both. Many organizations, for example, have come into the higher technology era boldly and rapidly. People have been supplied with laptop computers with the idea that computers will help them better manage time, keep accounts organized, communicate with the home office, and so on. But the reality is that many simply don't use them. Many organizations would tend to view this lack of usage as a training issue. So they send the people off to computer school to try to build a comfort level with computers, and their people end up not using them, or using them to play solitaire. In other words, sometimes we give people materials and equipment they actually don't need to do their job right. What we need to do is to see how people who use the equipment, will actually use the equipment.

There is also another issue measured by this item. In today's nonhierarchical, flat organization, employees are looking around for clues that define where they stand in the social order of things. Materials and “stuff” have become those clues. So, a supervisor may receive an employee request

for some piece of equipment, only to discover that the main reason given is “because George²⁸ has a conference table in his office, and I am as important as he is.” There is, therefore, a relational component to this item as well.

The best supervisors and managers shift the decision to the employee. They provide criteria for employees to use in making decisions such as, how is this new tool or piece of equipment going to help: 1) you as an employee, 2) our organization, and 3) our customers? This broadens the perspective of the employee, expands clarification on desired outcomes, and builds better communication between individuals and managers. It also takes the manager out of the traditional “parent” role and allows for true ownership and accountability. Customers have to be the focus of our activity.

ANALYSIS

Possessing the materials and equipment to do one’s job right are considered by the employee to be a minimal condition for doing one’s job correctly. We see the increased expenditures on equipment and the renewed allocation procedures are improving the scores. An increased percentage of affirmative responses in 2002 brings the affirmative responses up to 77.27 percent and placed the SDDOT squarely in the operational level. However, falling short of the national benchmark demonstrates that while things were better, there was still room to grow.

The respondents across the board indicated higher levels of affirmative responses on this question than in 2000. The Pierre Region had the largest increase (8.76 percent) in the proportion of yes responses to this question with the Central Office (6.15 percent) positioned second in the number of percentage points gained. The increases for the other regions were 4.99 percent for Mitchell, 4.06 percent for Aberdeen and 2.77 percent for Rapid City. Notwithstanding the gains, the Central Office (91.15 percent) and the Rapid City Region (76.84 percent) were the leaders in affirmative responses to this question.

Affirmative responses were highest level for E position classifications scoring 100 percent positive responses, which was up 7.14 percentage points from 2000. The Q response followed with an affirmative response percentage of 95.65 percent. The T affirmative response rate followed at 89.74 percent and the people in the N classification marked yes on 71.33 percent of their survey forms.

As was commonly the case, the salaried respondents (93.67 percent) gave higher levels of affirmative responses than did hourly respondents (75.00 percent). Salaried respondents increased their level of affirmative responses 2.00 percentage points from 2000 to 2002 while the hourly-paid respondents increased their level of affirmative responses 5.71 percentage points.

Several job groups demonstrated high levels of affirmative responses. The job groups with scores of ninety or more included clerical, drafting, engineering, executive, and financial/information services/legal. Still in the strength range but scoring less than ninety was the specialist/analyst group. There were no job groups in the operational range of 74 to 83. The job classifications in the less than operational or concern range included equipment (51.43 percent) and maintenance (64.52 percent). These classifications represent over two in five SDDOT respondents in the survey (43.47 percent).

The years of SDDOT service was not significant in explaining the responses to this item.

²⁸ Any reference to any individual is purely hypothetical.

Males increased their affirmative responses (5.99 percent) from 2000 to 2002, but have significantly lowered levels of agreement (75.04 percent) than did females (91.11 percent). Females increased their level of affirmative responses (2.94 percent) from 2000 to 2002.

The levels of affirmative responses were not significantly affected by the age of respondents.

There were no significant differences in responses for 2002 when considered from the perspective of salary midpoint status.

STATEMENT #12: I HAVE A BEST FRIEND AT WORK

Table 81: I have a best friend at work

Response	Year			Change		15 Fastest Growing
	2002	2000	1998	2002-00	2002-98	
Yes	35.74	38.01	41.67	(2.27)	(5.93)	57.00
No	64.26	61.99	58.33			

DISCUSSION

This statement is clearly one of the most controversial of the 12 traits of highly productive work groups. In answering this item, many employees do not stumble over the word “friend” since they have many friends at work. Instead, they may get stuck on the word “best” because they feel the term implies exclusivity, and they have trouble identifying one “best friend” among their friendships with their coworkers.

Gallup discovered the power of this item in identifying talented work groups—that is that the strongest agreement with this item occurred in the most productive work groups. Because some employees had difficulty with the item, Gallup went back to those groups and softened the word “best” to “close” or “good,” or excluded the word “best” entirely. When this was done, however, the item lost its power to differentiate highly productive work groups from mediocre work groups. This suggested that the item’s use of the word “best” actually pinpoints a dynamic of great work groups.

While companies often pay significant attention to the loyalty employees feel toward the organization, the best employers recognize that loyalty also exists among employees toward one another. All employees have “leaving moments” when they examine whether to leave or stay at an organization. The best supervisors in the world observe that the quality and depth of the relationships that employees have with others on the job will be a critical component that affects their decision to stay or to leave.

This item also cuts to the issue of trust between coworkers. When strong loyalty is felt in an employee work group, employees believe that their coworkers will help them during times of stress and challenge. In this day of rapid-fire change, reorganization, mergers and acquisitions, having best friends at work may be the true key to effective change integration and adaptation. While employees who have best friends at work do not report lower levels of stress on the job compared to those who do not have best friends, they do identify significantly higher levels of healthy stress management.

ANALYSIS

There was a small decrease in terms of level of affirmative responses for this item from 1998 to 2000 and there was further decline in the most recent survey. The SDDOT had a relatively small

level of agreement for this item. This point was made more lucid when the SDDOT measure was compared with the national comparison or benchmark level.

There was improvement in two of the regions Rapid City (4.28 percent) and Mitchell (2.96 percent). The responses for the Central Office, Aberdeen and Pierre regions showed further decline between 2000 and 2002: decreases of 6.52, 4.93 and 4.07, respectively. The comment further decline came on the heels of the 2000 survey where all regions and the Central Office yes responses to this question decreased. The level of affirmative scores for Rapid City and the Central Office were nearly equal in 2002 as a result of the ten-point swing resulting from an increase for the Rapid City Region (4.28 percent) and a rather substantial decrease for the Central Office (6.52 percent).

Gender was the only other response category in which the differences in the distribution of responses were statistically significant. The percentage of affirmative responses from female employees was 45.35 percent while the same measure for the males was 34.24 percent. The differences became significant because the female percentage increased 1.73 percentage points while the male's affirmative response percentage decreased 2.92 percentage points.

There were no significant differences in responses for 2002 when considered from the perspective of salary midpoint status.

FINDINGS—COMMUNICATIONS

Communication was discussed in the focus groups as an issue that is improving but needs further improvement. The following discussion provides an analysis of the survey instrument's three communication specific questions.

COMMUNICATION QUESTION 1

Table 82: Which type of information is most important to you?

Response	2000		2002	
	Number	Valid Percent	Number	Valid Percent
Departmental information	233	33.72%	189	29.49%
Region- or Division-wide information	83	12.01%	92	14.35%
Area- or Program-wide information	127	18.38%	122	19.03%
Job specific information	230	33.29%	225	35.10%
Other	18	2.60%	13	2.03%
Total	691	100.00%	641	100.00%
System Missing	34		36	
Total	725		677	

Of the 725 respondents, 691 answered this question in 2000 and of the 677 survey participants in 2002, 641 responded to the question. Of those responding, 35.10 percent indicated Job specific information and 29.49 percent indicated Departmental information as the most important type of information followed by Area or Program-wide information (19.03 percent), Region or Division-wide information (14.35 percent), and Other (2.03 percent). The preference has moved a small amount positioning Job specific information as the most preferred in 2002 over Department information.

If the respondent selected other, they were asked to specify the type of information. Table 83 is a listing of those other responses.

Table 83: Communication Question 1—Other

Response	Number	Percent
Communication	1	7.69%
All the above	8	61.54%
Supervisor Information	1	7.69%
Project or Contract Information	1	7.69%
1,2 and 3—need the info to do the job	1	7.69%
None	1	7.69%
Total	13	100.00%

Table 84: Communication Question 1 by Region

		Location of Respondent					Total
		Aberdeen Region	Mitchell Region	Pierre Region	Rapid City	Central Office	
Departmental information	Count	22	29	29	16	93	189
	Column Percent	20.8%	25.0%	27.9%	16.8%	42.3%	29.5%
Region- or Division-wide information	Count	16	27	12	20	17	92
	Column Percent	15.1%	23.3%	11.5%	21.1%	7.7%	14.4%
Area- or Program-wide information	Count	22	27	30	18	25	122
	Column Percent	20.8%	23.3%	28.8%	18.9%	11.4%	19.0%
Job specific information	Count	44	30	28	40	83	225
	Column Percent	41.5%	25.9%	26.9%	42.1%	37.7%	35.1%
Other	Count	2	3	5	1	2	13
	Column Percent	1.9%	2.6%	4.8%	1.1%	.9%	2.0%
Total	Count	106	116	104	95	220	641
	Column Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In reviewing Communication Question 1 by region, the importance of Departmental and Region/Division and Area/Program information displayed the greatest differences. With respect to Departmental information, the Central Office perceived this information was more important to them than the Regions. Region/Division information was most important to the Mitchell Region (23.28 percent) followed by the Aberdeen Region (15.09 percent) with the Central Office (7.73 percent) perceiving Region/Division information as the least important to them. Area Information was the most important to Rapid City Region in 2000 (27.72 percent) but their ranking slipped to third this reporting period. The Pierre Region (28.85 percent) scored this form of conveyance the highest followed by the Mitchell Region (23.28 percent). It was the least important to the Central Office (11.36 percent). Job specific information was fairly even in all regions. The differences in the percentages among the cells was more than one would expect to find by chance. These differences were statistically significant ($p=.000$).

Table 85: Communication Question 1 by Position Class

		Position Classification				Total
		N	T	Q	E	
Departmental information	Count	126	43	9	11	189
	Column Percent	28.0%	28.1%	39.1%	73.3%	29.5%
Region- or Division-wide information	Count	68	16	5	3	92
	Column Percent	15.1%	10.5%	21.7%	20.0%	14.4%
Area- or Program-wide information	Count	78	38	6	0	122
	Column Percent	17.3%	24.8%	26.1%	.0%	19.0%
Job specific information	Count	169	54	1	1	225
	Column Percent	37.6%	35.3%	4.3%	6.7%	35.1%
Other	Count	9	2	2	0	13
	Column Percent	2.0%	1.3%	8.7%	.0%	2.0%
Total	Count	450	153	23	15	641
	Column Percent	100.0%	100.0%	100.0%	100.0%	100.0%

The type of information most important to Position Classification E (73.3 percent) and Q (39.13 percent) was Departmental followed by T (28.10 percent) and N (28.00 percent) position classes. As one would expect, Job specific information was most important to the N (37.56 percent) and T

(35.29 percent) position classes. The differences among the findings were statistically significant (p=.000).

Table 86: Communication Question 1 by Pay Status

		Employee Status		Total
		Salaried	Hourly	
Departmental information	Count	29	160	189
	Column Percent	36.7%	28.5%	29.5%
Region- or Division-wide information	Count	18	74	92
	Column Percent	22.8%	13.2%	14.4%
Area- or Program-wide information	Count	21	101	122
	Column Percent	26.6%	18.0%	19.0%
Job specific information	Count	8	217	225
	Column Percent	10.1%	38.6%	35.1%
Other	Count	3	10	13
	Column Percent	3.8%	1.8%	2.0%
Total	Count	79	562	641
	Column Percent	100.0%	100.0%	100.0%

Salaried employees viewed all information other than Job specific information as more important than do hourly. These findings were statistically significant (p=.000).

COMMUNICATION QUESTION 2

“How would you prefer to receive the information you selected in the previous question?”

Table 87: Communication Question 2

Response	2000		2002	
	Number	Valid Percent	Number	Valid Percent
E-mail	305	44.33%	308	48.43%
Web sites	28	4.07%	13	2.04%
Written updates			63	9.91%
Work unit staff meetings	162	23.55%	100	15.72%
One-page flyers	69	10.03%	13	2.04%
Newsletter	6	0.87%	46	7.23%
Area or Program meetings	85	12.35%	36	5.66%
Region or Division meetings			29	4.56%
Other	33	4.80%	28	4.40%
Total	688	100.00%	636	100.00%
System Missing	37		41	
Total	725		677	

Of the 677 participants in the survey, 636 provided valid responses to this question. And, of those giving an opinion, 48.43 percent would like to receive the information by E-mail. Work Unit meetings came in a distant second (15.72 percent) followed by Written updates (9.91 percent), Newsletter (7.23 percent), Area meetings (5.66 percent). The remaining categories all scored below

five percent. The attraction of e-mail appeared to be growing slowly but the preference for Work unit staff meetings and Area or Program meetings were waning.

If the respondent selected other, they were asked to specify the method by which they would like to receive this information. Table 88 is a listing of those other responses.

Table 88: Communication Question 2—Other Responses

Response	Number	Percent
In person or face-to-face	14	50.00%
All the above	7	25.00%
Non-permanent marker board	1	3.57%
Daily in any way I can get it	1	3.57%
Mail Home	1	3.57%
Schooling	1	3.57%
Plans / spec books / policies	1	3.57%
Training manual updates	1	3.57%
No response	1	3.57%
Total	28	100.00%

Table 89: Communication Question 2 by Region

		Location of Respondent					Total
		Aberdeen Region	Mitchell Region	Pierre Region	Rapid City	Central Office	
E-mail	Count	39	50	26	47	146	308
	Column Percent	36.4%	45.0%	25.0%	50.0%	66.4%	48.4%
Web sites	Count	3	1	1	0	8	13
	Column Percent	2.8%	.9%	1.0%	.0%	3.6%	2.0%
Written updates	Count	12	16	18	7	10	63
	Column Percent	11.2%	14.4%	17.3%	7.4%	4.5%	9.9%
Work unit staff meetings	Count	20	16	19	17	28	100
	Column Percent	18.7%	14.4%	18.3%	18.1%	12.7%	15.7%
One-page flyers	Count	4	1	6	2	0	13
	Column Percent	3.7%	.9%	5.8%	2.1%	.0%	2.0%
Newsletter	Count	11	10	15	6	4	46
	Column Percent	10.3%	9.0%	14.4%	6.4%	1.8%	7.2%
Area or Program meetings	Count	6	8	8	5	9	36
	Column Percent	5.6%	7.2%	7.7%	5.3%	4.1%	5.7%
Region or Division meetings	Count	8	4	4	7	6	29
	Column Percent	7.5%	3.6%	3.8%	7.4%	2.7%	4.6%
Other	Count	4	5	7	3	9	28
	Column Percent	3.7%	4.5%	6.7%	3.2%	4.1%	4.4%
Total	Count	107	111	104	94	220	636
	Column Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In reviewing Communication Question 2 by Region, E-mail was the most often selected method of communication for every region but the people in Pierre seemed to trade some of the electronic word's popularity for written updates on paper. The Work unit staff meeting was most popular with the employees in the N classification, which may reflect their access to e-mail rather than any aversion. The differences among the findings were statistically significant (p=.000).

Table 90: Communication Question 2 by Position Class

		Position Classification				Total
		N	T	Q	E	
E-mail	Count	174	109	13	12	308
	Column Percent	39.0%	71.7%	56.5%	80.0%	48.4%
Web sites	Count	8	5	0	0	13
	Column Percent	1.8%	3.3%	.0%	.0%	2.0%
Written updates	Count	55	7	1	0	63
	Column Percent	12.3%	4.6%	4.3%	.0%	9.9%
Work unit staff meetings	Count	86	13	1	0	100
	Column Percent	19.3%	8.6%	4.3%	.0%	15.7%
One-page flyers	Count	13	0	0	0	13
	Column Percent	2.9%	.0%	.0%	.0%	2.0%
Newsletter	Count	43	2	1	0	46
	Column Percent	9.6%	1.3%	4.3%	.0%	7.2%
Area or Program meetings	Count	29	6	1	0	36
	Column Percent	6.5%	3.9%	4.3%	.0%	5.7%
Region or Division meetings	Count	20	3	4	2	29
	Column Percent	4.5%	2.0%	17.4%	13.3%	4.6%
Other	Count	18	7	2	1	28
	Column Percent	4.0%	4.6%	8.7%	6.7%	4.4%
Total	Count	446	152	23	15	636
	Column Percent	100.0%	100.0%	100.0%	100.0%	100.0%

Table 91: Communication Question 2 by Pay Status

		Employee Status		Total
		Salaried	Hourly	
E-mail	Count	54	254	308
	Column Percent	68.4%	45.6%	48.4%
Web sites	Count	1	12	13
	Column Percent	1.3%	2.2%	2.0%
Written updates	Count	2	61	63
	Column Percent	2.5%	11.0%	9.9%
Work unit staff meetings	Count	4	96	100
	Column Percent	5.1%	17.2%	15.7%
One-page flyers	Count	0	13	13
	Column Percent	.0%	2.3%	2.0%
Newsletter	Count	3	43	46
	Column Percent	3.8%	7.7%	7.2%
Area or Program meetings	Count	2	34	36
	Column Percent	2.5%	6.1%	5.7%
Region or Division meetings	Count	9	20	29
	Column Percent	11.4%	3.6%	4.6%
Other	Count	4	24	28
	Column Percent	5.1%	4.3%	4.4%
Total	Count	79	557	636
	Column Percent	100.0%	100.0%	100.0%

Methods of information dissemination differed by employee status with the major difference coming in the areas of E-mail, Work unit meetings and other forms of the written word. Access and therein familiarity would most likely explain much of this difference. Salaried (68.35 percent) were more likely to prefer E-mail than did the hourly survey participants (45.60 percent). Hourly

employees (17.24 percent) were more likely to select Work unit meetings than those that were salaried (5.06 percent). Finally salaried workers were more likely to select Regional or Division meetings as their preference while the hourly worker was more likely to select Area or Program meetings. The differences in the findings were statistically significant ($p=.000$).

COMMUNICATION QUESTION 3

“Which of the following is the most effective way of communicating information to you from top management?”

Table 92: Communication Question 3

Response	2000		2002	
	Number	Valid Percent	Number	Valid Percent
E-mail	321	46.39%	312	50.90%
Web sites	9	1.30%	10	1.63%
Written updates			55	8.97%
Work unit staff meetings	77	11.13%	78	12.72%
One-page flyers	115	16.62%	12	1.96%
Newsletter	103	14.88%	47	7.67%
Area or Program meetings	39	5.64%	41	6.69%
Region or Division meetings			38	6.20%
Other	28	4.05%	20	3.26%
Total	692	100.00%	613	100.00%
System Missing	33		64	
Total	725		677	

Of the 677 survey participants, 613 responded to this question. The appreciation for e-mail in communicating effectively was clear. If the remaining responses were divided into meetings versus written communication, meetings were thought to be the second most effective way of communicating. Among the meetings, Work unit staff meetings were the SDDOT employees' first preference (12.72 percent). Among the choices for the low-tech paper communication conveyances, Written updates scored the highest (8.98%). The One-page flyer was the biggest loser in respondent preference from 2000 to 2002.

If the respondent selected other, they were asked to specify the most effective way for top management to communicate with them. Table 93 is a listing of those other responses.

Table 93: Communication Question 3—Other Responses

Response	Number	Percent
None	11	44.00%
All the above	3	12.00%
Let us know what is going on	3	12.00%
Career advancement or job openings	3	12.00%
Assignments—what they want me to do	1	4.00%
Someone to tell on how to save money	1	4.00%
Personnel training	1	4.00%
What is going on at SDDOT	1	4.00%
Problems	1	4.00%
Total	25	100.00%

Table 94: Communication Question 3 by Region

		Location of Respondent					Total
		Aberdeen Region	Mitchell Region	Pierre Region	Rapid City	Central Office	
E-mail	Count	43	49	32	39	149	312
	Column Percent	42.2%	45.0%	32.0%	44.3%	69.6%	50.9%
Web sites	Count	1	0	1	1	7	10
	Column Percent	1.0%	.0%	1.0%	1.1%	3.3%	1.6%
Written updates	Count	14	13	15	10	3	55
	Column Percent	13.7%	11.9%	15.0%	11.4%	1.4%	9.0%
Work unit staff meetings	Count	11	14	21	7	25	78
	Column Percent	10.8%	12.8%	21.0%	8.0%	11.7%	12.7%
One-page flyers	Count	3	2	3	4	0	12
	Column Percent	2.9%	1.8%	3.0%	4.5%	.0%	2.0%
Newsletter	Count	11	8	9	8	11	47
	Column Percent	10.8%	7.3%	9.0%	9.1%	5.1%	7.7%
Area or Program meetings	Count	7	12	11	4	7	41
	Column Percent	6.9%	11.0%	11.0%	4.5%	3.3%	6.7%
Region or Division meetings	Count	9	8	5	12	4	38
	Column Percent	8.8%	7.3%	5.0%	13.6%	1.9%	6.2%
Other	Count	3	3	3	3	8	20
	Column Percent	2.9%	2.8%	3.0%	3.4%	3.7%	3.3%
Total	Count	102	109	100	88	214	613
	Column Percent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In reviewing Communication Question 3 by Region, the enthusiasm for E-mail may be to some degree rooted in its perceived value in communicating effectively. It received the highest rating across the board from all regions as the most effective way for top management to communicate with employees. These findings were statistically significant ($p=.000$).

Table 95: Communication Question 3 by Position Class

		Position Classification				Total
		N	T	Q	E	
E-mail	Count	188	103	12	9	312
	% within POSCLASS	44.3%	67.3%	54.5%	64.3%	50.9%
Web sites	Count	1	8	1	0	10
	% within POSCLASS	.2%	5.2%	4.5%	.0%	1.6%
Written updates	Count	52	3	0	0	55
	% within POSCLASS	12.3%	2.0%	.0%	.0%	9.0%
Work unit staff meetings	Count	60	16	1	1	78
	% within POSCLASS	14.2%	10.5%	4.5%	7.1%	12.7%
One-page flyers	Count	12	0	0	0	12
	% within POSCLASS	2.8%	.0%	.0%	.0%	2.0%
Newsletter	Count	40	5	1	1	47
	% within POSCLASS	9.4%	3.3%	4.5%	7.1%	7.7%
Area or Program meetings	Count	32	8	1	0	41
	% within POSCLASS	7.5%	5.2%	4.5%	.0%	6.7%
Region or Division meetings	Count	29	5	3	1	38
	% within POSCLASS	6.8%	3.3%	13.6%	7.1%	6.2%
Other	Count	10	5	3	2	20
	% within POSCLASS	2.4%	3.3%	13.6%	14.3%	3.3%
Total	Count	424	153	22	14	613
	% within POSCLASS	100.0%	100.0%	100.0%	100.0%	100.0%

E-mail was the most often selected as the preferred way for top management to communicate with employees by all position classes. The T position class (67.32 percent) had the highest preference for E-mail followed by E (64.29 percent), Q (54.55 percent), and N (44.34 percent). The responses were significantly ($p=.000$) different among the groups.

The N position class had a combined 41.77 percent preference for meetings as the preferred way for top management to communicate with them, Work unit (14.15 percent), Area (7.55 percent), and Region (6.84 percent).

Table 96: Communication Question 3 by Pay Status

		Employee Status		Total
		Salaried	Hourly	
E-mail	Count	52	260	312
	Column Percent	68.4%	48.4%	50.9%
Web sites	Count	3	7	10
	Column Percent	3.9%	1.3%	1.6%
Written updates	Count	0	55	55
	Column Percent	.0%	10.2%	9.0%
Work unit staff meetings	Count	5	73	78
	Column Percent	6.6%	13.6%	12.7%
One-page flyers	Count	0	12	12
	Column Percent	.0%	2.2%	2.0%
Newsletter	Count	3	44	47
	Column Percent	3.9%	8.2%	7.7%
Area or Program meetings	Count	2	39	41
	Column Percent	2.6%	7.3%	6.7%
Region or Division meetings	Count	5	33	38
	Column Percent	6.6%	6.1%	6.2%
Other	Count	6	14	20
	Column Percent	7.9%	2.6%	3.3%
Total	Count	76	537	613
	Column Percent	100.0%	100.0%	100.0%

The contrasts between salaried and hourly employees followed the discussion above. The hourly employee valued paper communication and meetings more than the salaried worker. Access to e-mail by the hourly workers and possibly familiarity were thought to be important factors in this distinction.

FINDINGS—RULE OF 85 ANALYSIS

Most businesses and organizations recognize that many of the baby boomers are in their fifties and have or will be taking retirement within the next decade. The Department of Transportation employees had three hundred and thirty-five (335) employees in their 50's and 60's in 2002. That was nearly thirty-five percent (34.9%) of the workforce.

An older workforce always alerts management to recruiting challenges that are on the horizon but the SDDOT personnel were more introspective in the focus groups looking beyond the need for numbers. These personnel cautioned that the mentoring system that has served the Department well over the years may fail some parts of the organization where there is greater turnover. The lack of experienced personnel to guide the activities and development of the next generation of workers will require the use of a different paradigm in those situations. The alternative mentioned in the focus groups was structured training and education.

The request to explore the "Rule of 85" came from that discussion in the focus groups. The descriptions presented below are meant to further that understanding and assist management with their training decisions.

Three hundred thirty-five (335) of the nine hundred sixty-one (961) people working for SDDOT in 2002 were fifty years of age or older. One hundred and fifty-eight (158) of those employees were fifty-five years of age or older.

Table 97: Age by Categories for All SDDOT Employees

		Number	Percent	Cumulative Percent
Valid	Under 50	626	65.1	65.1
	50 to 55	177	18.4	83.6
	55 to 60	97	10.1	93.7
	60 to 65	56	5.8	99.5
	65 or Over	5	.5	100.0
	Total	961	100.0	

An age of fifty-five is necessary for one to take early retirement but not sufficient qualification to do so. In addition to meeting the minimum age requirement, one must have a sufficient number of years of service when combined with age equals an amount of eighty-five or more years. The combination of meeting the minimum age and having invested thirty or more years as a state employee, qualifies for the state retirement provision known as the Rule of 85.

Table 98: Rule of 85 Calculations for Employees 55 Years of Age or Older

		Number	Percent	Cumulative Percent
Valid	Up to 75	42	26.6	26.6
	75 to 80	20	12.7	39.2
	80 to 85	22	13.9	53.2
	85 or Over	74	46.8	100.0
	Total	158	100.0	

How many people now working for the Department of Transportation currently meet the minimum age and years of service requirements? Of the total, one hundred fifty-eight (158) people are fifty-five years of age or older. Of that number, seventy-four (74) have sufficient years of service to qualify them for retirement under the Rule of 85.

There are people who have over thirty years of service but have not reached the minimum age of fifty-five. The table below includes all employees in Rule of 85 calculations. All nine hundred and sixty-one Department of Transportation employees are represented. Ninety-four (94) employees have years of combined age and years of service that sum eighty-five or more. Seventy-four (74) of those employees were identified in the table above as being fifty-five years of age or older. That means there are twenty (20) employees too young to retire that satisfy the years of service requirement. These people will qualify for early retirement on their fifty-fifth birthday if still employed by the state.

Table 99: All Employee Rule of 85 Calculations

	Number	Percent	Cumulative Percent
Valid Up to 75	739	76.9	76.9
75 to 80	60	6.2	83.1
80 to 85	68	7.1	90.2
85 or Over	94	9.8	100.0
Total	961	100.0	

Table 100 shows the relationship between employee age and the Rule of 85. Not surprisingly, no person under fifty years of age has enough years of service to have combined years of age and service that total eighty-five or more. On the other hand, there are sixty-five year old and older employees that joined the state's workforce later in life and have not yet reached the Rule of 85.

Table 100: Rule of 85 Categorical Distribution Summarized by Age Categories

			Rule of 85				Total
			Up to 75	75 to 80	80 to 85	85 or Over	
Age Categories	Under 50	Count	608	15	3	0	626
		Percent within Age Group	97.1%	2.4%	.5%	.0%	100.0%
	50 to 55	Count	89	25	43	20	177
		Percent within Age Group	50.3%	14.1%	24.3%	11.3%	100.0%
	55 to 60	Count	31	10	15	41	97
		Percent within Age Group	32.0%	10.3%	15.5%	42.3%	100.0%
	60 to 65	Count	10	8	7	31	56
		Percent within Age Group	17.9%	14.3%	12.5%	55.4%	100.0%
	65 or Over	Count	1	2	0	2	5
		Percent within Age Group	20.0%	40.0%	.0%	40.0%	100.0%
	Total	Count	739	60	68	94	961
		Percent within Age Group	76.9%	6.2%	7.1%	9.8%	100.0%

The column with the heading "85 and Over" is the information discussed in Table 98 and

Table 99, previously. Twenty people between the ages fifty and fifty-five have a score of eighty-five or higher on the Rule of 85 calculation. The remaining seventy-four people in that column are fifty-five years of age or older and have a Rule of 85 score that is eighty-five or over.

A crude form of forecast can be accomplished by arbitrarily adding five years to everyone's age and years of service. This will provide some sense of how time affects the distribution of older employees. By definition, there will be fewer younger people since no provision is made for new hires. The results in the "85 or Over" column are dramatic with the total more than doubling.

Table 101: Age and Years of Service Increased Five Years Table

			Rule of 85				Total
			Up to 75	75 to 80	80 to 85	85 or Over	
Age Categories	Under 50	Count	481	11	1	0	493
		Percent in Group	97.6%	2.2%	.2%	.0%	100.0%
	50 to 55	Count	75	17	23	18	133
		Percent in Group	56.4%	12.8%	17.3%	13.5%	100.0%
	55 to 60	Count	44	20	25	88	177
		Percent in Group	24.9%	11.3%	14.1%	49.7%	100.0%
	60 to 65	Count	14	6	11	66	97
		Percent in Group	14.4%	6.2%	11.3%	68.0%	100.0%
	65 or Over	Count	1	2	8	50	61
		Percent in Group	1.6%	3.3%	13.1%	82.0%	100.0%
Total	Count	615	56	68	222	961	
	Percent in Group	64.0%	5.8%	7.1%	23.1%	100.0%	

Table 102, which follows, shows the distribution of employees 55 years of age or older by job description. The people in the job descriptions listed with 85 or over in their Rule of 85 scoring can opt to retire at any time.

COMMENT

The reason for looking at the "Rule of 85" is to better anticipate the need for workers in specific SDDOT positions in the coming years. It is not being suggested that all people reaching the Rule of 85 will be retiring on their fifty-fifth birthday. Many will continue to work for and serve the Department well. However, if succession needs are to be explored, the Rule of 85 does provide an objective measure of potential for personnel loss and further, a position by position review of those nearing retirement will provide an opportunity for managers to anticipate and shape acceptable alternatives for that time when the next generation assumes the task.

The Department is not all older people. Nearly two-thirds of the people employed in 2002 were under the age of 50. A sizeable group are in the 50 to 55 age group (18.4%) while a slightly smaller proportion are 55 or older (16.4%). It is that sizeable group in the 50 to 55 age group that suggests succession is important from the perspective of losing good and faithful employees, but just as important, is the potential for loss of supervisory personnel. The potential for that type of loss is real and the need to strategize how future supervisors will be selected for grooming for mentorship or more formal education should be contemplated. The seventy-four (74) currently qualified to retire is roughly seven and one-half percent (7.7%) of the total number of employees (961). The crude estimate made here shows that percentage could more than double in the next five years.

Table 102: Rule of 85 Scores by Job Description for Employees 55 Years of Age or Older

		Rule of 85				Total
		Up to 75	75 to 80	80 to 85	85 or Over	
Accounting Assistant	Count	1	0	0	0	1
	Percent of Job Grp	100.0%	.0%	.0%	.0%	100.0%
Business Manager	Count	0	1	0	1	2
	Percent of Job Grp	.0%	50.0%	.0%	50.0%	100.0%
Chief Cartographer	Count	0	0	0	1	1
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Civil Engineering Technic	Count	1	0	0	0	1
	Percent of Job Grp	100.0%	.0%	.0%	.0%	100.0%
Department Secretary	Count	1	0	0	0	1
	Percent of Job Grp	100.0%	.0%	.0%	.0%	100.0%
Deputy Secretary	Count	0	0	0	1	1
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Draftsman	Count	3	0	0	1	4
	Percent of Job Grp	75.0%	.0%	.0%	25.0%	100.0%
Equipment Mechanic	Count	0	0	0	1	1
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Equipment Service Worker	Count	0	0	0	1	1
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Equipment Technician	Count	1	0	0	0	1
	Percent of Job Grp	100.0%	.0%	.0%	.0%	100.0%
Exempt Professional E99	Count	1	0	0	0	1
	Percent of Job Grp	100.0%	.0%	.0%	.0%	100.0%
Fabrication Technician	Count	0	1	0	1	2
	Percent of Job Grp	.0%	50.0%	.0%	50.0%	100.0%
Grounds Keeper	Count	1	0	0	0	1
	Percent of Job Grp	100.0%	.0%	.0%	.0%	100.0%
Highway Maintenance Super	Count	0	1	0	8	9
	Percent of Job Grp	.0%	11.1%	.0%	88.9%	100.0%
Highway Maintenance Worke	Count	13	6	10	7	36
	Percent of Job Grp	36.1%	16.7%	27.8%	19.4%	100.0%
Internal Auditor	Count	1	0	1	0	2
	Percent of Job Grp	50.0%	.0%	50.0%	.0%	100.0%
Journey Transportation Te	Count	2	0	1	1	4
	Percent of Job Grp	50.0%	.0%	25.0%	25.0%	100.0%
Lead Highway Maint Worker	Count	6	4	5	6	21
	Percent of Job Grp	28.6%	19.0%	23.8%	28.6%	100.0%
Medium Equipment Operator	Count	0	0	0	1	1
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Partsroom Assistant	Count	0	1	0	0	1
	Percent of Job Grp	.0%	100.0%	.0%	.0%	100.0%
Partsroom Technician	Count	0	0	0	1	1
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Press/Bindery Operator	Count	0	0	0	1	1
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Program Assistant I	Count	1	0	0	0	1
	Percent of Job Grp	100.0%	.0%	.0%	.0%	100.0%
Region Maintenance Coordi	Count	0	0	0	2	2
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Right of Way Supervisor	Count	1	1	0	0	2
	Percent of Job Grp	50.0%	50.0%	.0%	.0%	100.0%
Right of Way Technician	Count	1	0	0	0	1
	Percent of Job Grp	100.0%	.0%	.0%	.0%	100.0%
Secretary	Count	2	0	0	1	3
	Percent of Job Grp	66.7%	.0%	.0%	33.3%	100.0%
Senior Accountant	Count	0	0	0	2	2
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Senior Claims Clerk	Count	1	0	0	0	1
	Percent of Job Grp	100.0%	.0%	.0%	.0%	100.0%
Senior Right of Way Spec	Count	0	1	0	2	3
	Percent of Job Grp	.0%	33.3%	.0%	66.7%	100.0%
Senior Secretary	Count	1	2	1	4	8
	Percent of Job Grp	12.5%	25.0%	12.5%	50.0%	100.0%
Senior Statistician	Count	0	0	0	1	1
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Senior Transportation Tec	Count	2	0	2	8	12
	Percent of Job Grp	16.7%	.0%	16.7%	66.7%	100.0%
Statistical Program Manag	Count	0	0	0	1	1
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Technical Administrator	Count	0	0	1	4	5
	Percent of Job Grp	.0%	.0%	20.0%	80.0%	100.0%
Traffic Data Technician	Count	0	1	0	1	2
	Percent of Job Grp	.0%	50.0%	.0%	50.0%	100.0%
Transportation Analyst	Count	0	0	0	1	1
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Transportation Specialist	Count	1	0	0	1	2
	Percent of Job Grp	50.0%	.0%	.0%	50.0%	100.0%
Trnsprtn Engineering Spcl	Count	0	0	0	3	3
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Trnsprtn Lead Project Eng	Count	0	0	0	3	3
	Percent of Job Grp	.0%	.0%	.0%	100.0%	100.0%
Trnsprtn Project Engineer	Count	1	1	0	7	9
	Percent of Job Grp	11.1%	11.1%	.0%	77.8%	100.0%
Trnsprtn Region Engring S	Count	0	0	1	1	2
	Percent of Job Grp	.0%	.0%	50.0%	50.0%	100.0%
Total	Count	42	20	22	74	158
	Percent of Job Grp	26.6%	12.7%	13.9%	46.8%	100.0%

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Since 1998, the SDDOT has been engaged in a concerted and continuous effort to improve the subjective nature of the quality of its organizational environment by examining the organizational climate variables. The climate of the organization can be measured and can be described in numerical form, and once measured, organization climate can be managed in proactive, deliberate ways to improve performance.

The findings of the 2002 Organization Health Assessment (OHA) indicated that leadership practices, formal organization relationships, and efforts at goal achievement were improving at the South Dakota Department of Transportation. The discussions with employees in focus groups prior to and following the survey clearly supported that finding. Employees have noted that there has been continuous improvement in the operation and attitudes in the organization and they were more satisfied with their jobs than they were in either 1998 or 2000.

Much of the improvement within the organization can be traced to actions taken by management within the Department in response to items identified by employees during the 1998 and 2000 OHA and departmental quarterly meetings. Gains reflecting the organization's focus on attitudes and goals were demonstrated in nearly every domain and the national comparison questions. The pervasive nature of the improvement was reflected in gains scored by almost all employee groups.

What has SDDOT done right? The organization has shown an increased respect for its employees. Management is more sensitive to employee concerns and issues demonstrated by their listening to employees and developing programs to address issues brought forward. Departmental management appears to be willing to talk about most issues as evidenced by the transcript of the questions and answers from the employee meetings. There is a general perception that management has reduced the incidence of arbitrary and capricious management practices. In the spirit of continuous improvement, we have seven recommendations to maintain momentum and increase the organization's ability to respond to future challenges.

RECOMMENDATIONS

Continuous improvement requires that the Department continue the improved practices initiated in the last four years and make refinements in policy and actions where potential gains in employee satisfaction and associated gains in productivity and efficiency are thought to lie.

The goal of the next two years should be to maintain the Base Camp and progress to Camp 1 in the organization's mountain climb.²⁹ Maintaining the Base Camp requires that the supervisors continue to ask themselves the questions that encompass that level of performance: "Do my employees know what is expected of them?" and "Do my employees have the material and equipment they need to do the job right?"

If employees do not have the material and equipment that they think they need, do they see how the material and equipment allocation by the Department relates to the organizational outcomes?

²⁹ See page 9 of this report for explanation of organizational health Mountain Climbing, Base Camp and Base Camp 1 concepts.

Supervisors should, on a quarterly basis, review the work unit's responsibilities to the Department and its role in the completion of the mission with their employees.

With maintenance of the Base Camp in mind, attention moves toward Camp 1. Four statements comprise Camp 1. The respondents scored the Department as being operational on one statement, improving substantively on another and doing little more than maintaining on the other two. The SDDOT was scored by employees as being "operational" on the statement "My supervisor or someone at work seems to care about me as a person."

RECOMMENDATION 1: WORK ENVIRONMENT

The first series of BRB recommendations relate to the Gallup Organization's Base Camp and Camp 1 statements.

- The BRB recommends the Department and each supervisor continue to provide a caring environment for their workgroup.

The level of agreement on the statement, "At work, I have the opportunity to do what I do best every day" is where substantial improvement has been made moving from 56.4 percent in 1998 to 70.2 percent in 2002. The Department has not yet reached the minimum operational range of 74 percent on this measure, but good progress has been made.

- The BRB recommends that supervisors identify what each employee does best in fulfilling the workgroup's mission and tell them, "This is what you do best..." This will help establish a culture that values employee's talents and contribution to the workgroup, the Department, and the mission. Supervisors should identify what prevents employees from doing what they do best and seek remedy.

The BRB suggests the SDDOT give more attention to actions affecting the statements, "In the past seven days, I have received recognition and praise for good work," and "There is someone at work that encourages my development." We need to continue giving attention to the statements previously discussed, but need more attention on these issues to initiate movement on these measures.

- The BRB recommends that supervisors regularly provide specific performance feedback to individual employees and the work team. Supervisors should ensure that employee feedback is close in time to the behavior that produced the good result, and is specific in terms of the behavior that led to the desired performance. Supervisors should attempt to give three or four supportive comments for each negative comment made to a worker or workgroup. The idea is that more productivity results from praising employees for what they do well than from only mentioning what they do poorly. Praise is better at producing productivity than is criticism or punishment. Note that criticism is constructive and not punishment if it specifies a desired behavior by informing the employee what needs to be accomplished and is not made personal.
- The BRB recommends the Department provide training and coaching on the skill sets necessary to provide positive performance feedback to the employees.

The issue in this last recommendation, from the employee's perspective, requires further development of relational or people skills in the supervisory ranks. The same issue from the perspective of the supervisors leads to recommendations on the second statement "There is someone at work that encourages my development."

- The BRB recommends supervisors identify developmental opportunities for each employee that helps them get better at what they do best. This might include training or project assignments.
- The BRB recommends supervisors ask each employee what the employee needs to grow and develop.
- The BRB recommends the Department identify individuals by means of nomination for developmental experiences and training to facilitate a productive succession as people retire. Nominations for consideration should come from both individuals and supervisors.
- The BRB recommends the Department continue assisting people with career planning.

RECOMMENDATION 2: EMPLOYEE CONCERNS

Second, it cannot be overstated that the SDDOT must be sensitive to employee concerns and issues showing increased respect for them and their ideas. Respect for one another is the lynch pin upon which the other recommendations build. The vision is one of having a job that each person does well, having the equipment that one needs to do that job, and having the respect of supervisors and coworkers in how one does their job. It is from this foundation or Base Camp that the engagement of employees in their work and greater productivity is achieved.

- The BRB recommends the continuation of the Organizational Health Survey. Continuation is recommended because people and organizations do better at what is measured. The literature notes that sporting events would not have the same intensity or garner as much interest without scores being kept. A second reason to continue the OHA is that the employees are provided a venue where their voices are heard and either reward the organization on its achievements or point out concerns that need to be addressed.
- The BRB recommends the Department continue the semi-annual listening sessions between top management and other personnel. This is “bottom up” communication between the workers and the management. Continue as well the publication of employee questions and management responses to those concerns.
- The BRB recommends the Department create a web site enumerating policy changes and support for the changes to insure the flow of information from top management to other personnel. This provides a direct channel of “top down” communication between the management and the workers.
- The BRB recommends utilizing the web site to implement an electronic suggestion box to provide input to management on a continuous basis. This would be the modernization of the index card approach currently used. The index card system should be continued recognizing that not all employees are adept at computer mediated communication.
- The BRB recommends efforts be made to include supervisors in sharing the departmental vision and including supervisors in goal setting. One action to implement this recommendation is to include workers as a constituency, a group served by the agency.

These suggestions are consistent with the Organizational Health component of the South Dakota Department of Transportation Strategic Plan 2003.³⁰

RECOMMENDATION 3: LONG-TERM STRATEGY

Third, we recommend that the SDDOT management think longer term—to move its strategic planning process out to five years with a vision looking to ten years. This will be a challenge to top management because of the effort required and the likelihood they will not see the vision completed during their tenure. But, just as today's management is responding to issues dependent on routines and practices developed years ago, the actions of today's management will affect the organization's younger long-term employees in years to come. The motivation to act now to challenges anticipated five or ten years from now is not the easy road but the choice to act now will greatly enhance the organization's ability to respond to future challenges.

- The BRB recommends the SDDOT lengthen its time horizon from a couple of years to between five and ten years in its planning and strategic goal setting.

We are not recommending that the SDDOT engage in a “self visioning” exercise that results in unachievable goals like experienced in neighboring states. Instead we are recommending that the word “mobility” in the Department's mission statement be explored from the perspective of what mobility means to the customers using this service. Then the Department can explore how external influences and factors such as the economic, sociologic and technological trends will affect the need for mobility in the state. The state's sociologists and economists are discussing the changing demographics and centers of business within the state. In this sense, the term “strategic” in strategic planning refers to those factors that have the ability to affect plans and transfer significant costs to the organization or even threaten its funding base and operations.

We think that the SDDOT has been very adept at planning the accomplishment of specific goals, usually short-term in nature, and allocating resources to achieve those goals. What has been missing is a sense of future environmental influences on the SDDOT. This is not unusual. Peter Drucker when receiving his lifetime achievement award from the Academy of Management in 1998 said, “The biggest lie of management is that we account for the external environment.” What Drucker means is that many businesses fail by failing to plan for events outside their control. In effect, Drucker asserts that strategic planning is planning for the future consequences of present decisions made by you or by others. The SDDOT must continue to systematically analyze its environments and plan for future external influences.

- The BRB recommends utilizing an external facilitator to insure that environmental factors such as those presented in Figure 24 are considered. This approach ensures that participants will also consider what the organization “might” do within its environment to improve the transportation system rather than continuing with what the organization “can” do based upon the organization's past experiences.
- The BRB recommends that supervisors be involved in the strategic planning process to strengthen their perception that they are a part of the management team. Involving supervisors facilitates changing their perception from “us” and “them” to “we” the management.

³⁰ South Dakota Department of Transportation Strategic Plan 2003, South Dakota Department of Transportation Office of Research, Pierre, SD, January 2003.

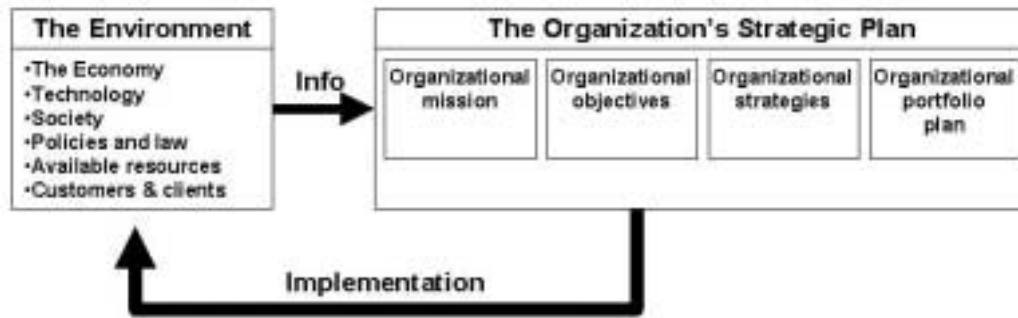


Figure 24: The Strategic Process

Our recommendation is that the SDDOT systematically assess the environments in which the agency operates, review the statutory mission and the operating mission, and the strategic goals listed in the Strategic Plan 2003 for congruency with this assessed environment. We recommend that the discussion needs to be facilitated by someone outside the agency, who can identify “group think” and other phenomena that involve the group making decisions on bases other than the facts presented.

RECOMMENDATION 4: PERFORMANCE MEASUREMENT

Fourth, we recommend that the SDDOT invigorate its performance measurement initiative. The agency must develop more outcome, performance, and productivity measures to speed progress. The purpose of developing these measures is not to provide a “rope to hang us with” as noted by an employee in the 1998 OHA, but to provide valuable measures by which to judge performance. Measurement is the hallmark of continuous improvement. One need only think of the analogy of going to watch a football game. There will be lots of great passing, blocking, running, and tackling as a result of the game being played. But the game will generate little interest for anyone if we do not keep score. Most of us need to see the scorecard in order to improve. A score provides a metric against which we can judge our performance. Measured improvement in performance is a positive outcome for supervisors and employees to discuss during annual reviews.

- The BRB recommends, in preparation for future reviews, that each worker with their supervisor develop three challenging and achievable goals that both agree will benefit the worker’s development and the SDDOT as an organization.
- The BRB recommends that training be provided to supervisors to improve their appraisal and goal setting skills.
- The BRB recommends that independent coaches with appraisal and goal setting skills be assigned to assist the supervisors develop employees and link individual behaviors to organizational outcomes.

The BRB is not recommending the SDDOT appoint a department-wide review of the goals set or their achievement in response to the above recommendations. The objective in the short term is to build trust between supervisors and employees as a mechanism for adding value to the organization. The long-term objective is for the employees to identify strategic performance measures that will link individual accomplishment to unit activity to mission accomplishment.

The BRB recommends the continued development of the activity-based costing system. Activity-based costing answers the question, “If SDDOT engages in an activity, what does it actually cost the organization to provide that product or service?” Strategic performance measures, on the other hand, identify which activities lead to the accomplishment of the mission. The recommendation is to ask a preliminary question, “Should the SDDOT engage in the activity?” The order of these questions should be reversed. The first question should be whether or not the activity contributes to mission accomplishment and the follow-up question is how much does it cost?

RECOMMENDATION 5: MANAGEMENT DEVELOPMENT

Fifth, we recommend initiating an ongoing supervisory and management development program. The importance of developing the people skills of the SDDOT’s well-trained technical staff was identified as an important objective. The training and development program should be tailored to ongoing key variables identified as capable of impacting the climate in a positive way. In particular a major focus should center on skill in communications, policy interpretation and implementation, trust, and desired outcomes of training. We recommend all supervisors attend supervisory training, and that training be available to individuals who wish to be considered for promotion and upward mobility in the organization. Current supervisors need to attend supervisory training to maintain the momentum of continuous improvement. We still hear of supervisors that use poor technique and questionable judgment in motivating and encouraging subordinates.

Immediacy is an issue in this regard. We analyzed the potential for turnover in SDDOT and have found that within five years, nearly 25 percent of the workgroup members of the agency will be eligible for retirement under South Dakota Retirement System rules. The SDDOT needs supervisors with sound management skills to familiarize new employees with desired behaviors and attitudes as well as indoctrinate the SDDOT culture and values into the new employee.

- The BRB recommends that the SDDOT employ supervisory training in addition to the tradition of mentored experiences. Retirements will require the cultivation of talents by means of training for two reasons. The first is the loss of mentors to retirements. The second is the opportunity to employ contemporary supervisory practices.
- The BRB recommends the Department identify individuals with supervisory potential for training and development into supervisors.
- The BRB recommends the SDDOT project skill sets needed five to ten years into the future because of looming retirements.
- The BRB recommends formalizing the orientation of new employees so they learn desirable values and work behaviors.

RECOMMENDATION 6: SURVEY RESPONSE RATE

Sixth, we recommend that the SDDOT work to improve the response rate of future surveys. While the response rate reported in the literature for most organizations is about 70 percent, the SDDOT rate in 2002, the concern is the drop off in response between 1998 and 2002 and the need to reverse the trend minimizing the potential for non-response bias. It is important that employees understand that efforts to improve the Department are not solely the result of better “top down” management. An engaged workforce requires that the executives, the supervisors, and the frontline workers share a vision of the organization’s future that will improve performance and the satisfaction that each employee takes in his or her contribution. The appearance of being a “top

down” managed organization will be diminished with engagement and respect for the information that comes from the “bottom up.” Participation in the survey is as essential to an organization as the vote is to a healthy democracy.

- The BRB recommends the implementation of a “Survey Day” to increase the participation in the survey and stress the importance of employee contributions. While “Survey Day” suggests that the selection of a single day for the entire organization is preferred, flexibility is recommended within a specific period of time to better fit the schedules of different offices. A “Survey Week” may be a better designation.

The SDDOT has made substantive gains in its organizational health since 1998 as is measured in the quantitative findings of the written survey and confirmed by discussions in post survey focus groups and workshops. The need for continuous improvement is recognized by the Department and efforts to proceed on that path are becoming part of the culture.

RECOMMENDATION 7: SURVEY LENGTH

Seventh, we recommend shortening the OHA survey. The Business Research Bureau has worked at reducing the number of questions by removing redundant questions, and subjecting each question to “reliability assessment” to determine its necessity. The objective was to determine whether any questions or a specific question could be removed and still obtain a “healthy” reliability coefficient for the domain. The BRB also performed a factor analysis of the questions to see if we should restore questions that contribute substantially to the overall domain measure. If the number of questions could be reduced, it would be more convenient for SDDOT staff to respond to the Organizational Health Assessment. With an increased response rate we can say with confidence that the views reported represent the views of all employees of the SDDOT improvement.

APPENDIX A: MODIFICATIONS RECOMMENDED FOR 2004 SURVEY

Members of the South Dakota Department of Transportation (SDDOT) suggested that the OHA instrument used in the 2002 survey be reviewed for the purpose of eliminating redundancy and reducing the “onerous” length of the questionnaire. The motivation for undertaking this reduction is to make completion of the survey instrument in future iterations more appealing to the employees of the Department and increase their participation in the survey. The response rate has declined with each subsequent iteration of the assessment. This remedy in conjunction with the set aside of work time for the employees to complete the survey is intended to address the issue.

There are different courses of action that can be taken to shorten the domain analysis portion of the survey. Each has a cost either in lost information or in the cost of rebasing the data. The options include:

- 1) Leave the questionnaire as is concluding that changes are not worth the additional design costs. Further, the length is less of an issue in that the SDDOT employees will be paid to complete the survey on “Survey Day.”
- 2) Shorten the survey by prioritizing among the domains and rotating selected domains among future studies. The time of the employee is saved and there are no additional design costs. Domain selection could be an issue.
- 3) Shorten the survey by removing questions thought to be redundant or assessed as statistically adding little to the understanding of the domain. This option again will save SDDOT employees’ time but it will require additional survey design analysis along with the rebasing of the results from 1998, 2000 and 2002 OHAs. This option is costly. The integrity of the work in past studies as well as those to be performed in the future will require rebasing of the 1998, 2000 and 2002 studies to assure everyone that the comparative measures among the years are the comparison of “apples to apples.” This means that the internal consistency within the domain measures will have to be analyzed and preserved.

In concert with the contract for the 2002 effort, the discovery portion of option three above was undertaken. All one hundred seventy-one questions were individually considered for continued inclusion or exclusion in the recommendation. Choices between continued inclusion and potential exclusion were made employing two statistical techniques and researcher judgment. Data reduction is part science, part art, and finally preference stemming from project knowledge. Reliability analysis was employed to assess each question’s contribution to the measure presented as a domain. The goal is to preserve consistency as questions are selected and removed. The procedure does not employ the correlation coefficient directly to assess internal consistency. An alpha formula is used to calculate a statistic that measures how substantially items or answers to questions are intercorrelated. Those questions that are strongly intercorrelated are contributing information similar to other questions. The idea is to remove highly intercorrelated items thereby shortening the questionnaire while preserving the reliability or consistency of those estimates.

Following the reliability analysis, factor analysis was performed on the 2002 data as an additional data reduction technique. Factor analysis looks for commonalties in the total variation. The thought here is if a group of questions appear related by measure of their variance, it is important to make sure at least one of those questions remains in the domain to represent that shared information.

Factor analysis was used as a check on questions excluded by application of reliability analysis to see if substantive influences on the domain had been removed.

The art of data reduction is to know when to quit and when to restore questions that the researcher thinks important from his or her experience with the topic and his or her knowledge of issues being addressed by the organization. Not all inclusions or exclusions can be justified by simple decision rules. For example, the questions added to the questionnaire in 2000 or 2002 were given less review in that stakeholders thought them important enough to add. Also, a minimum number of questions left in each domain is thought to be important to minimize the potential for spurious or volatile movement in the measures as the result of one or two issues.

The result of the effort is to recommend fifty-one questions for potential exclusion. The final decision on these questions should be reserved until the 1998, 2000 and 2002 domain scores are rebased and the researcher is satisfied that the techniques employed have preserved the internal consistency of the domain measures.

The choice of options one, two, and three rests with the Department. Option one has a cost of employee time but no additional cash outlay. Option two involves no direct cash outlay but there is a loss of information. Option three will make the questionnaire more attractive to the employee but will involve a substantial work effort and cash outlay.

Table 103: Questions Recommended for Inclusion in the 2004 SDDOT Organizational Health Survey (n=120)

Domain & Sequence	Question Recommended for Inclusion
Structure 1	The jobs in the SDDOT are clearly defined and logically structured.
Structure 2	The policies and organization structure of the SDDOT have been clearly explained to me.
Structure 3	In the SDDOT, it is sometimes unclear who has the formal authority to make a decision.
Structure 4	Red tape is kept to a minimum in the SDDOT.
Structure 5	Productivity sometimes suffers from lack of organization and planning.
Structure 6	When I have a question about work assignments, I know whom to ask.
Responsibility 1	The SDDOT top management resents everything being checked with them; if you think you have the right approach, you just go ahead.
Responsibility 2	Supervision in the SDDOT is mainly a matter of setting guidelines for subordinates; subordinates should take responsibility for the job.
Responsibility 3	You won't get ahead in the SDDOT unless you stick your neck out and try things on your own sometimes.
Responsibility 4	At the SDDOT, there are an awful lot of excuses when somebody makes a mistake.
Responsibility 5	One of the problems in the SDDOT is that individuals won't take responsibility.
Responsibility 6	I am only held responsible for things I can influence.
Identity 1	People are proud to be a part of the SDDOT.
Identity 2	I feel that I am a member of a well functioning SDDOT team.
Identity 3	As far as I can tell, there isn't very much personal loyalty to SDDOT.
Reward 1	The SDDOT has a promotion system that helps the best person to rise in the organization.
Reward 3	In the SDDOT, people are rewarded based on their job performance.
Reward 7	Wages paid by SDDOT are sufficient to keep me from looking for another job.
Reward 8	I am satisfied with the opportunities for future career advancement in the SDDOT.
Risk 1	SDDOT takes calculated risks at the right time.
Risk 2	Decision making in the SDDOT is too cautious for maximum effectiveness.
Risk 3	The SDDOT is willing to take a chance on a good idea.

Domain & Sequence	Question Recommended for Inclusion
Climate 1	A friendly atmosphere prevails among people in the SDDOT.
Climate 2	The SDDOT is characterized by a relaxed, easygoing working climate.
Climate 6	The SDDOT is loyal to me.
Climate 7	I would encourage my best friend to work for the SDDOT.
Communication 1	My supervisor holds regularly scheduled staff meetings.
Communication 5	I have adequate opportunities to express my views in the SDDOT.
Communication 10	My supervisor encourages me to express my opinion.
Communication 11	When a decision is made involving your expertise, you are involved in the decision.
Communication 12	I understand what the SDDOT's top priorities are.
Support 2	My supervisor makes an effort to talk with me about my career goals within the SDDOT.
Support 4	The philosophy of the SDDOT emphasizes the human factor, how people feel, etc.
Support 5	When I am on a difficult assignment, I can usually count on getting assistance from my supervisor and co-workers.
Support 6	The SDDOT does a good job of meeting my needs as an individual.
Morale 2	My job, directly or indirectly, serves the citizens of South Dakota.
Morale 4	The results of my work significantly affect many other people.
Morale 5	Top management respects my job.
Morale 6	Morale is high within SDDOT.
Morale 7	Morale is high within my unit in SDDOT.
Morale 8	My personal morale is high.
Standards 1	In the SDDOT we set very high standards for performance.
Standards 2	SDDOT top management believes that no job is so well done that it couldn't be done better.
Standards 3	At the SDDOT there is a feeling of pressure to continually improve our personal and group performance.
Standards 4	SDDOT top management believes that if the employees are happy, productivity will take care of itself.
Standards 7	Often, I encounter situations where my professional standards are in conflict with SDDOT policies.
Conflict 1	The best way to make an impression at the SDDOT is to steer clear of disagreements.
Conflict 2	At the SDDOT we are encouraged to speak our minds, even if it means disagreeing with our supervisors.
Conflict 3	In SDDOT meetings, the goal is to arrive at a decision as smoothly and quickly as possible.
Conflict 4	My supervisor supports me even if it is in conflict with established SDDOT policies.
Conflict 5	There is too much competition between work units at SDDOT.
Training 2	The quality of the job-related training I have received has been good.
Training 5	The job-related training has made me more efficient.
Training 6	The job related training has made me more effective.
Training 8	The Bureau of Information Technology training meets my needs.
Training 9	The training I receive from DOT meets my needs.
Culture 1	The people I work with at the SDDOT really trust one another.
Culture 2	Employees in my work unit can voice their opinions freely.
Culture 4	I can trust my supervisor to represent my interests at higher levels.
Culture 6	In the SDDOT the recognition you get usually outweighs the criticism.
Culture 7	SDDOT top management respects employees.
Teamwork 1	People in SDDOT feel they are part of an effective team.
Teamwork 2	The quality of performance is high in my work team.

Domain & Sequence	Question Recommended for Inclusion
Teamwork 4	My supervisor encourages teamwork.
Teamwork 5	My co-workers treat me with respect.
Teamwork 6	Trust levels are high between work teams.
Performance Appraisal 3	I think my work on the job is evaluated fairly by the performance appraisal system.
Performance Appraisal 5	My supervisor and I agree on the goals used for my performance appraisal.
Performance Appraisal 6	I agree with the standards used to evaluate my work performance.
Performance Appraisal 7	There is follow-through on the plans listed in my Performance Planning and Review document.
Problem Solving Initiative 2	The results of the problem solving teams' decisions are carried out.
Problem Solving Initiative 3	The problem solving groups improve communication.
Problem Solving Initiative 4	The problem solving groups improve quality and productivity.
Problem Solving Initiative 7	We hear back on recommendations we make to higher level authorities.
Performance Measure Initiative 1	My unit has worked to identify good performance measures to help establish goals.
Performance Measure Initiative 3	The performance measurement initiative improves communication.
Performance Measure Initiative 4	The performance measurement initiative improves performance over time.
Performance Measure Initiative 5	The performance measurement initiative takes more time than it is worth.
Safety and Efficiency 1	Safety is an important issue at the SDDOT.
Safety and Efficiency 2	Efficiency at the SDDOT has increased productivity.
Safety and Efficiency 3	Efficiency has made it possible to be more effective at the SDDOT.
Safety and Efficiency 4	Policies at the SDDOT enable employees to do their jobs better.
Safety and Efficiency 5	Safety at the SDDOT has improved in the past two years.
Safety and Efficiency 6	Inmate laborers make me more efficient in the performance of my job.
Safety and Efficiency 8	Equipment assigned to the SDDOT is properly maintained.
Safety and Efficiency 9	The vehicles Fleet and Travel Management maintain add to our productivity.
Safety and Efficiency 10	Procedures at Fleet and Travel Management are too burdensome.
Work Schedule 1	Adjusting schedules to minimize overtime is necessary to properly maintain South Dakota's transportation system.
Work Schedule 2	Overtime is fairly applied to all employees in the SDDOT.
Work Schedule 3	The current flextime system creates a hardship for me and/or my family.
Work Schedule 4	I am satisfied with my hours and schedule of work.
Work Schedule 5	Staffing levels allow us to do quality work.
Work Schedule 6	I am able to complete all-important tasks within my scheduled work hours.
Purpose 2	The SDDOT has goals and objectives that are both clear-cut and reasonable.
Purpose 3	The work activities at the SDDOT make sense.
Purpose 4	The SDDOT is effective in getting me to meet its needs and contribute to its effectiveness.
Purpose 5	I clearly understand the direction in which the SDDOT is heading.
Purpose 7	I know how my work contributes to the overall SDDOT organization.
Purpose 8	I am proud of the South Dakota DOT.
Purpose 9	We have clear priorities at the SDDOT.
Purpose 10	My job at the SDDOT is pretty important in the scheme of things.
Purpose 11	There is little undesired turnover at the SDDOT.
New 1 Communications	I am told why and how work assignments are to be done by my supervisor.
New 2 Communications	I receive information and assignments in a timely manner.
New 3 Morale	I feel free to openly state my opinions to my supervisor.
New 4 Training	I look to my supervisor to provide the training I need to do my job.

Domain & Sequence	Question Recommended for Inclusion
New 5 Training	I believe the training I receive will help me advance professionally.
New 6 Training	I have been trained to supervise people.
New 7 Communications	I trust my supervisor to give me all the information I need to complete a job on or before the deadline.
New 8 Standards	All supervisors carry out policy and procedures in a consistent manner.
New 9 Standards	Personnel rules and policies should not make exceptions for anyone.
New 10 Work Schedule	The policy on flexible scheduling is fair.
New 11 Reward	Being recognized as a good worker is important.
New 12 (Identity)	I have plans and aspirations to advance in SDDOT.
New 13 Safety	The new safety program will reduce accidents.
New 15 Reward	I feel good about myself when my work is valued by my supervisor.
New 16 Purpose	My job is essential to the S.D. transportation system.
New 17 Work Schedule	Lead time is often too short to do an outstanding job.
New 18 Support	I receive the administrative and staff support necessary to do my job.
New 19 (Identity)	The SDDOT is a good place to build a career.

Table 104: Potential Questions for Deletion from the 2004 SDDOT Organizational Health Survey (n=51)

Domain & Sequence	Question Recommended for Deletion
Identity 4	In the SDDOT, people pretty much look out for their own interests.
Identity 5	I am loyal to the SDDOT.
Identity 6	Loyalty is increasing at the SDDOT.
Reward 2	In the SDDOT, the rewards and recognition usually outweigh the threats and criticisms.
Reward 4	There is a great deal of criticism within the SDDOT.
Reward 5	There is not enough reward and recognition given in the SDDOT for doing good work.
Reward 6	If you make a mistake in the SDDOT, you will be punished.
Reward 9	If I am willing to move to another office or area within the SDDOT, I have an equal chance of being selected for the open position.
Risk 4	The SDDOT philosophy emphasizes that people should solve problems by themselves.
Climate 3	It is very hard to get to know people in the SDDOT.
Climate 4	People in the SDDOT tend to be cool and aloof toward each other.
Climate 5	There is a lot of warmth in the relationships between management and workers in the SDDOT.
Communication 2	Staff meetings are a source of reliable information.
Communication 3	I get the information I need to know from my supervisor.
Communication 4	I feel free to openly state my opinion during the employee meetings with the Secretary of Transportation or his representative.
Communication 6	My unit works well with other parts of the SDDOT.
Communication 7	I understand clearly how I can contribute to the overall goals of the SDDOT.
Communication 8	The Organizational Health Study is a good way to get input from me.
Communication 9	There is adequate two-way information between subordinates and top management
Support 1	You don't get much sympathy from higher-ups in the SDDOT if you make a mistake.
Support 3	People in the SDDOT don't really trust each other enough.
Support 7	My co-workers put me under work pressure.
Support 8	There is too much work and too little time.
Morale 1	The SDDOT goes out of its way to recognize employees for extraordinary service.

Domain & Sequence	Question Recommended for Deletion
Morale 3	There are few opportunities at the SDDOT for employees to express their opinions about morale.
Standards 5	To get ahead in the SDDOT, it is more important to get along with others than it is to be a high producer.
Standards 6	At the SDDOT, people do not seem to take much pride in their performance.
Training 1	I receive all the training I need to do a good job.
Training 3	The training available to me is job-related.
Training 4	I would like more job-related training.
Training 7	The Bureau of Personnel training meets my needs.
Training 10	My supervisor lets me know when training is available.
Culture 3	If you make a mistake in the SDDOT, you will be punished.
Culture 5	There is a great deal of criticism of the SDDOT by employees.
Culture 8	Changes will happen as a result of this survey.
Teamwork 3	My work group has all the resources it needs to do its job.
Performance Appraisals 1	I receive frequent feedback on my work performance.
Performance Appraisals 2	I receive constructive feedback on my work performance.
Performance Appraisals 4	My performance goals are important to me.
Problem Solving Initiative 1	The problem solving groups address problems that have a solution.
Problem Solving Initiative 5	Creativity and innovation are used to solve problems.
Problem Solving Initiative 6	The members of my problem solving group feel empowered to make decisions that affect our work.
Performance Measure Initiative 2	The performance measurement initiative allows us to take into account regional differences.
Performance Measure Initiative 6	I understand the performance measurement initiative.
Safety and Efficiency 7	New equipment motivates me to be more productive.
Safety and Efficiency 11	I know where I can find standard operating procedures and policies.
Work Schedule 7	I could save the state money if I could use overtime.
Work Schedule 8	Part-time and seasonal workers improve working conditions.
Purpose 1	The SDDOT is generally quick to use improved work methods.
Purpose 6	The SDDOT listens to its customers.
New 14 Team	Scheduling and coordinating teamwork are a part of my job.