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"AN INSIDE LOOK AT DELTA NU ALPHA MEMBERSHIP"

by
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INTRODUCTION

Delta Nu Alpha is one of the largest fraternities for persons in the traffic, transportation, and logistics industry. Delta Nu Alpha was founded in 1940 to facilitate and promote greater knowledge of traffic and transportation, to develop an appreciation of the traffic profession as a motivating factor in industry and commerce, and to encourage young persons of ability to enter and remain in the field as a life's work.

The purpose of this report is to provide demographics, statistical characteristics, and professional viewpoints of the 1988 membership of Delta Nu Alpha. Specifically, the objectives are to:

1. Summarize professional characteristics and develop comparisons with a similar 1976 study,
2. Summarize salary levels by management position and level of decision-making responsibility,
3. Analyze the impact of deregulation on perceptions of stress and prestige,
4. Summarize the preferences for decentralized salesmarketing functions, centralized shipper traffic-distribution functions, and national accounts selling,
5. Develop profiles of decision making styles.

METHODOLOGY

In late Spring of 1988, 3,500 mail questionnaires were sent to a systematic sample drawn from a list of approximately 9,000 members of Delta Nu Alpha. This resulted in 920 usable returns or a response rate of 26.3 percent. The survey was, in part, a replication of a 1976 survey which was the basis for a previously published report on Delta Nu Alpha.¹ A single mailing of 2,000 questionnaires in 1976 to the then approximately 11,000 members of Delta Nu Alpha resulted in 664 usable returns for a response rate of 33.2 percent.

RESPONDENT CHARACTERISTICS

The mixture of carriers and shippers has remained relatively constant from 1976 to 1988, as shown in Table 1. However, the relative number of rail carriers has decreased four percent while motor carriers have grown eight percent. Manufacturing oriented shippers remain the overwhelming majority of shipper membership and grew by two percent. Whereas, wholesaling oriented shipper grew by four percent, and retail oriented shippers lost one percent over the time period.

The most pronounced changes in the profiles from 1976 to 1988 are shown by Table 2, which portrays changes in age, education, and growth in female membership. The 1988 membership is significantly better educated than the 1976 membership. Further, approximately sixty-two percent of the 1988 respondents are under age forty-five, compared to fifty percent of the 1976 respondents under age forty-five. This implies that the major educational programs of Delta Nu Alpha can be geared to an increasingly sophisticated audience. This also suggests that the organization is not plagued with an "aging fleet", and offers strong leadership potential for younger members.

TABLE 1
BUSINESS COMPOSTION: 1976 vs 1988

Carrier mode	1976	1988	Change
Motor	75%	83%	8%
Rail	16%	12%	-4%
Other	9%	5%	-4%
N	314	433	

Business type	1976	1988	Change
Carrier	48%	47%	-1%
Shipper	43%	43%	0%
Other	9%	10%	1%
N	664	920	

Shipper business	1976	1988	Change
Manufacturing	76%	78%	2%
Wholesaling	7%	11%	4%
Retailing	7%	6%	-1%
Other	10%	5%	-5%
N	282	388	

TABLE 2
RESPONDENT CHARACTERISTICS: 1976 vs 1988

Age	1976	1988	Change
Under 35	26%	22%	-4%
35-44	24%	40%	16%
45-54	33%	24%	-9%
55-64	16%	13%	-3%
65-Up	1%	1%	0%
N	649	811	

Education	1976	1988	Change
High School	12%	8%	-4%
Some College	47%	41%	-6%
College Graduate	24%	32%	8%
Some Graduate Work	10%	13%	3%
Graduate Degree	7%	6%	-1%
N	662	782	

Sex	1976	1988	Change
Male	96%	75%	-21%
Female	4%	25%	21%
N	654	782	

The most significant demographic change was the astounding growth of women membership. In 1976, there were hardly enough responding female members to count. In 1988, twenty-five percent of the responding members were female. This is a whopping twenty-one percent growth. Delta Nu Alpha is to be commended for its successful recruitment of women members and also for getting them involved at the officer level. The future Delta Nu Alpha member will most likely come from the ranks of the college graduate. Since the present undergraduate School of Business programs have over fifty percent women enrollment, Delta Nu Alpha seems to be on the right strategic track for long term growth in recruiting the female segment for membership.

Transportation and distribution executives have long suffered from somewhat of an identity crisis. Part of this, no doubt, comes from the wide variety of job titles given very similar functional assignments. The most common position titles given by survey respondents are shown in Table 3. The levels of management responsibility indicated by the respondents are given in Table 4. These levels of responsibility will be used in the following sections in the analysis of perceptions of stress and prestige and decision making styles.

TABLE 3
POSITION TITLES

Title	Carrier	Shipper	Other
President/Vice President	13%	2%	25%
Director of Physical Distribution		13%	
Terminal Manager	16%		
Traffic Manager		53%	
Other Middle Managers	8%		
Sales Manager	15%		
Sales Representative	34%		
Transportation Analyst		11%	
Other	14%	21%	75%
N	433	394	93

TABLE 4
MANAGEMENT LEVEL

Level	Rail	Motor	Shipper	Other
Strategic	10%	17%	7%	12%
Tactical	58%	42%	73%	58%
Operations	32%	41%	20%	30%
N	50	355	384	789

PROFESSIONAL MEMBERSHIPS

Table 5 shows the absolute number and the percentage of the responding Delta Nu Alpha membership that belong to various other related professional organizations. The biggest overlap is with the American Society of Transportation and Logistics. A smaller percent of 1988 survey hold multiple professional memberships in comparison to the 1976 survey. This leads to speculation that companies are probably sponsoring fewer memberships, and many may support only a single membership.

Table 6 shows the self-indicated management level in relation to professional organization membership. For example, Table 5 showed that ninety-one survey respondents or approximately ten percent Delta Nu Alpha members also belong to the American Society of Transportation and Logistics. Table 6 indicates that of

these ninety-one dual members, sixteen were at the strategic management level, sixty were at the tactical level, nine were at the operations level, and six did not provide their level of management.

Sixty-four percent indicated that membership dues were fully supported by their employers. Twenty-two percent indicated that membership dues were only partially supported, and thirteen percent stated that their employers provided no support. The differences in financial support across level of management responsibility are shown in Figure 1. As one would expect, the higher the level in the managerial hierarchy, the greater the company sponsored support. At the strategic level, seventy-seven percent were fully supported, eighteen percent were partially supported, and only five percent paid for their own professional activities. At the tactical level, sixty-seven percent were fully supported, twenty-three percent were partially supported, and ten percent provided their own support. While at the operations level, fifty-one percent received full support, twenty-five percent were partially supported, and twenty-four percent have no company support for professional memberships.

TABLE 5
PROFESSIONAL MEMBERSHIPS

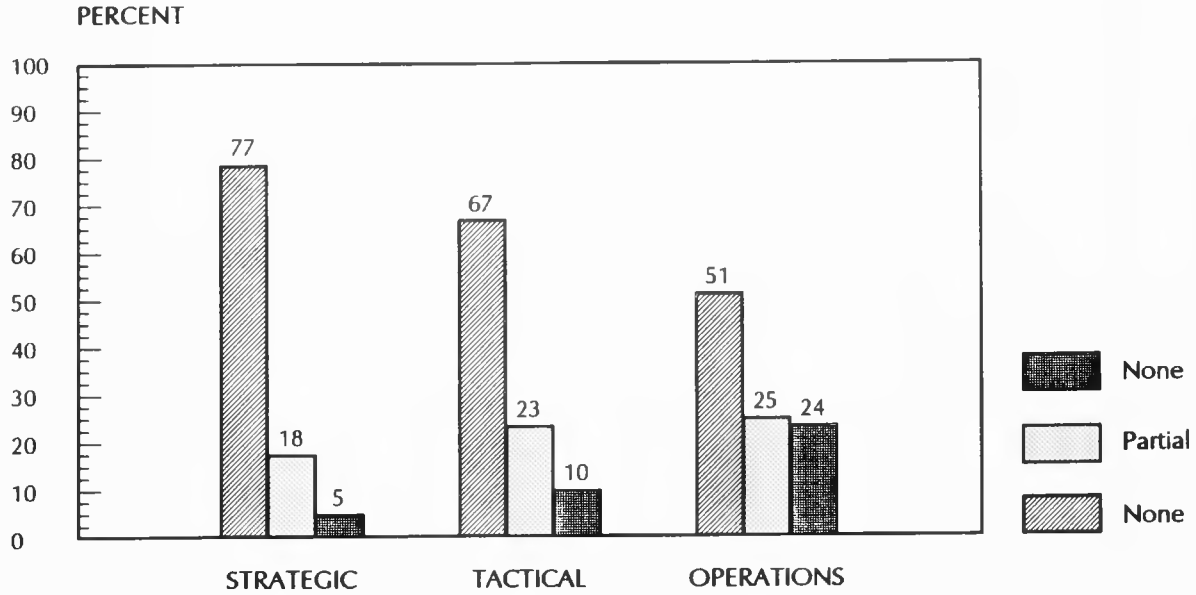
Organization	Number	Percent
American Society of Transportation and Logistics	91	10%
Council of Logistics Management	78	8%
NIT League	66	7%
Association of Transportation Practioners	51	5%
Transportation/Public Utilities Group - AEA	29	3%
Purchasing Management Association	18	2%
American Production and Inventory Control Society	17	2%
Transportation Research Forum	7	1%
Transportation Research Board	7	1%

TABLE 6

PROFESSIONAL MEMBERSHIPS BY MANAGERIAL LEVEL

Organization	Total Number	Strategic	Tactical	Operations	Not Stated
American Society of Transportation and Logistics	91	16	60	9	6
Council of Logistics Management	78	18	49	8	3
NIT League	66	18	41	6	1
Association of Transportation Practitioners	51	14	32	2	3
Transportation/ Public Utilities-AEA	29	7	13	9	0
Purchasing Management Association	18	3	13	2	0
American Production and Inventory Control Society	17	3	12	2	0
Transportation Research Forum	7	1	3	1	2
Transportation Research Board	7	0	5	1	1

FIGURE 1
COMPANY PAYS MEMBERSHIP DUES



Salary Levels

Comparative salary levels by position title and in total for carriers and shippers are displayed in Tables 7 and 8. Table 9 shows the salary distribution by level of management. Fifty-two percent of the respondents at the operations level reported salaries between \$30,000 and \$50,000. At the tactical level, forty percent reported salaries between \$40,000 and \$60,000. The greatest variance in salaries was at the strategic level, where thirteen percent had salaries of \$100,000 or more, but thirty-eight reported levels from \$40,000 to \$60,000.

TABLE 7
CARRIER SALARY LEVELS BY MAJOR JOB TITLE

Salary Level	President/ V.President	Terminal Manager	Operations Manager	Sales Manager	Sales Rep.
20000-29999	3%	16%	41%	7%	12%
30000-39999	13%	31%	32%	29%	48%
40000-49999	16%	20%	15%	23%	28%
50000-59999	22%	20%	3%	25%	9%
60000-69999	9%	11%	6%	9%	2%
70000-79999	15%	2%	3%	2%	1%
80000-89999	3%				
90000-99999	6%				
100000-UP	13%			5%	
N	68	64	34	56	128

TABLE 8
SHIPPER SALARY LEVELS BY MAJOR JOB TITLE

Salary Level	President/ V.President	Director of Physical Distribution	Traffic Manager	Transportation Analyst
20000-29999	0%	4%	22%	45%
30000-39999	11%	4%	39%	33%
40000-49999	11%	32%	26%	17%
50000-59999	11%	28%	6%	5%
60000-69999	33%	19%	4%	
70000-79999	11%	6%	2%	
80000-89999	11%	2%	1%	
90000-99999	11%			
100000-UP		4%		
N	9	47	189	42

Delta Nu Alpha demographics show a mature, experienced, well-educated work force with upward tending salaries. The salary increases appear to exceed inflation and cost of living increases, pointing to the growing status of transportation and distribution professionals.

TABLE 9
SALARY LEVELS BY MANAGEMENT LEVEL

Salary Level	Strategic	Tactical	Operations
20000-29999	6%	13%	37%
30000-39999	11%	37%	33%
40000-49999	19%	25%	19%
50000-59999	19%	14%	8%
60000-69999	15%	6%	2%
70000-79999	11%	2%	1%
80000-89999	3%	1%	
90000-99999	3%	1%	
100000-UP	13%	1%	
N	128	432	243

Status and Stress

Agreement concerning whether the deregulation movement has improved the status and role of a career in transportation and distribution management is summarized in Figure 2. Rail carriers expressed agreement with improved status. Also a strong majority of shippers agreed that deregulation had improved their status. The perception of change in status increased with managerial responsibilities for shippers. However, the perception of change in status was markedly different for motor carriers. Nearly, half of the motor carriers disagreed that deregulation had improved their status. In addition, motor carrier managers at the strategic and tactical management levels indicates less improvement in status than those at the operations level.

The nature of the economy, not deregulation, affects movement of the total amount freight. But the percentage of available freight that a particular type of carrier receives is highly influenced by deregulation. Rail carriers have shown impressive profit gains under deregulation, and this enhanced economic performance has likely resulted in both increased status and stress. Whereas, the motor carrier industry has had mixed financial results. Early under deregulation, the industry suffered from the economic downturn, and the large number of new carriers permitted in the changed environment. This resulted in excess capacity and lead to wide spread discounting. While this excess capacity has partially been reduced and profitability has been resorted to some degree, the responding motor carriers still indicate little support for deregulation.

Shippers in the 1976 survey did not express support for deregulation, which implied the perception their status and role would not be improved under deregulation. Now, in 1988, over fifty-five percent of the shippers believe that their status has improved as a result of deregulation. One plausible explanation for this change is that traffic and distribution functions are still treated as expense centers, despite the conceptual arguments to convert to profit

FIGURE 2
AGREEMENT THAT STATUS HAS BEEN
IMPROVED DUE TO DEREGULATION

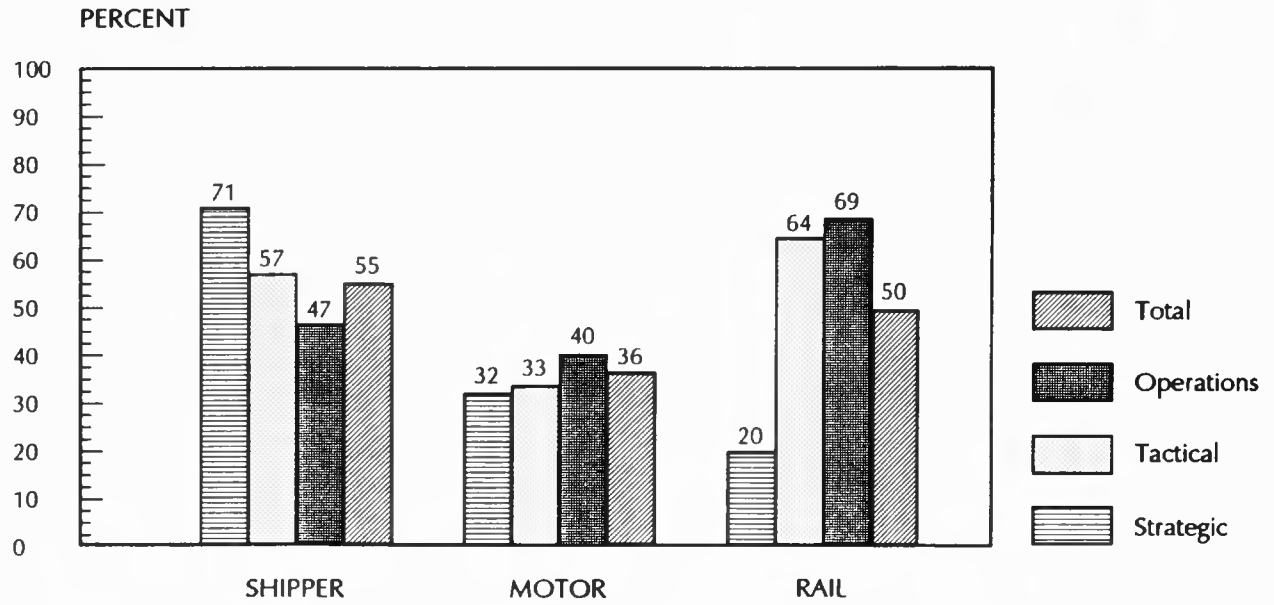
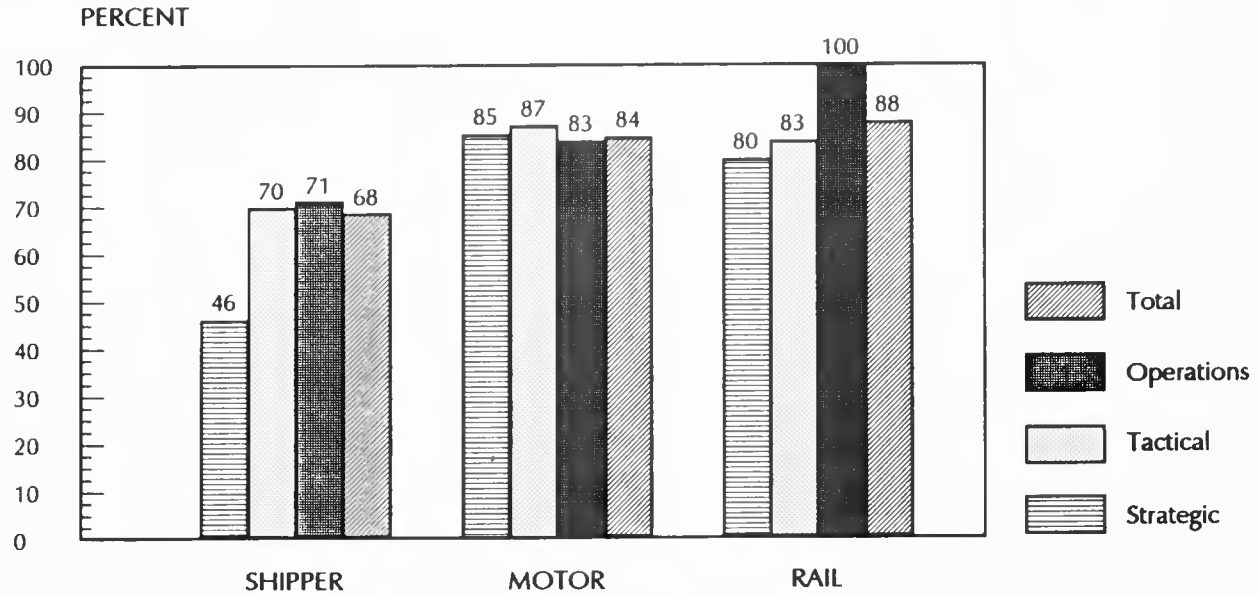


FIGURE 3
AGREEMENT THAT THE STRESS LEVEL
INCREASED DUE TO DEREGULATION



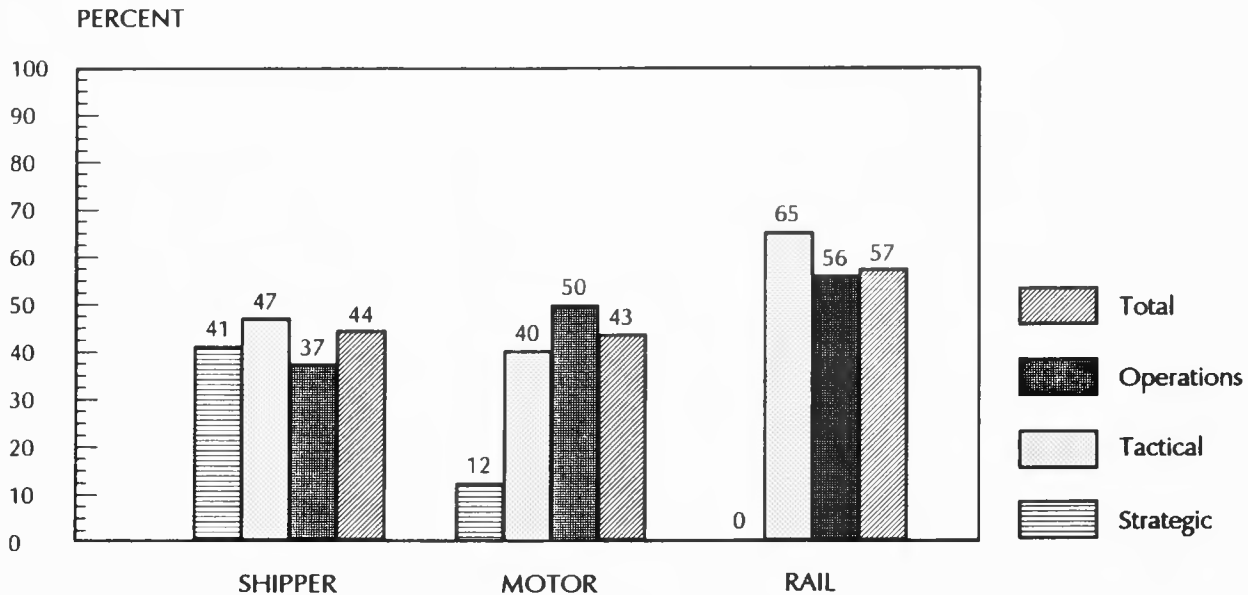
centers. The new pricing flexibility has allowed departments to move more freight through their systems at a lower unit cost, thus showing a very good expense performance.

All levels of management of motor and rail carriers indicated increased stress as shown in Figure 3. Overall, eighty-four percent of motor carriers and eighty-eight percent of the rail carriers agreed that deregulation has resulted in more stress. Shippers at the operations and tactical levels also considered the deregulated environment more stressful. However, less than half of the shippers at the strategic level viewed deregulation more stressful.

Organizational Issues

The survey made inquiry about preferences for decentralized carrier sales-marketing functions, centralized shipper traffic/distribution functions, and national accounts selling. For many years, the major carriers grew in size and moved from a centralized owner-operator orientation to a more decentralized management style. The implementation of this movement toward decentralized sales-marketing was often accomplished by a form of local territory or product management. Figure 4 shows that fifty-seven percent of all rail carriers preferred a decentralized sales-marketing function. It will be noted from Figure 4, that no rail managers at the strategic level preferred a decentralized sales-marketing function. However, this is a weak inference to all rail managers at the strategic level, in that this result is based on only five respondents. Overall, neither the motor carriers nor the shippers strongly supported sales-marketing decentralization. This implies that shippers want to deal with carriers at a higher managerial level. There was not much difference in shipper response by managerial level. However, motor carrier managers at the strategic level indicated much less support than those at the tactical and operations levels.

FIGURE 4
AGREEMENT THAT DECENTRALIZED CARRIER SALES OR
MARKETING FUNCTION IS PREFERRED TO A CENTRALIZED FUNCTION



Before the advent of the physical distribution concept, the distribution functions of traffic, inventory, and warehousing were scattered and decentralized, which resulted in the local carrier sales representative calling on the local traffic manager. But the new distribution concept called for the grouping of the distribution activity centers, and a centralization of responsibility control at either corporate headquarters or at a major distribution center. Rarely do textbooks or journal publications emphasize the potential benefits of distribution and customer service decentralization. The reason for this could lie in the many years spent in attempting to gain upper management's attention, while developing some form of control of the expenditures made to move products from the source of raw materials to the industrial user or ultimate consumer. Figure 5 shows that shippers strongly supported a centralized traffic-distribution function, with both rail and motor carriers being less supportive.

Shippers now tend to use significantly fewer carriers, and as a result, prefer to deal at a higher level in the carrier hierarchy. The organization charts of many carriers show that many have responded to this dilemma by establishing national account selling. While even the casual observer can see wide spread use of national account selling in this industry, Figure 6 shows that only a minority of both motor and rail carriers support this organizational form. Further, only approximately one-third of the shippers preferred national account selling.

FIGURE 5
AGREEMENT THAT CENTRALIZED SHIPPER TRAFFIC OR DISTRIBUTION
FUNCTION IS PREFERRED TO A DECENTRALIZED FUNCTION

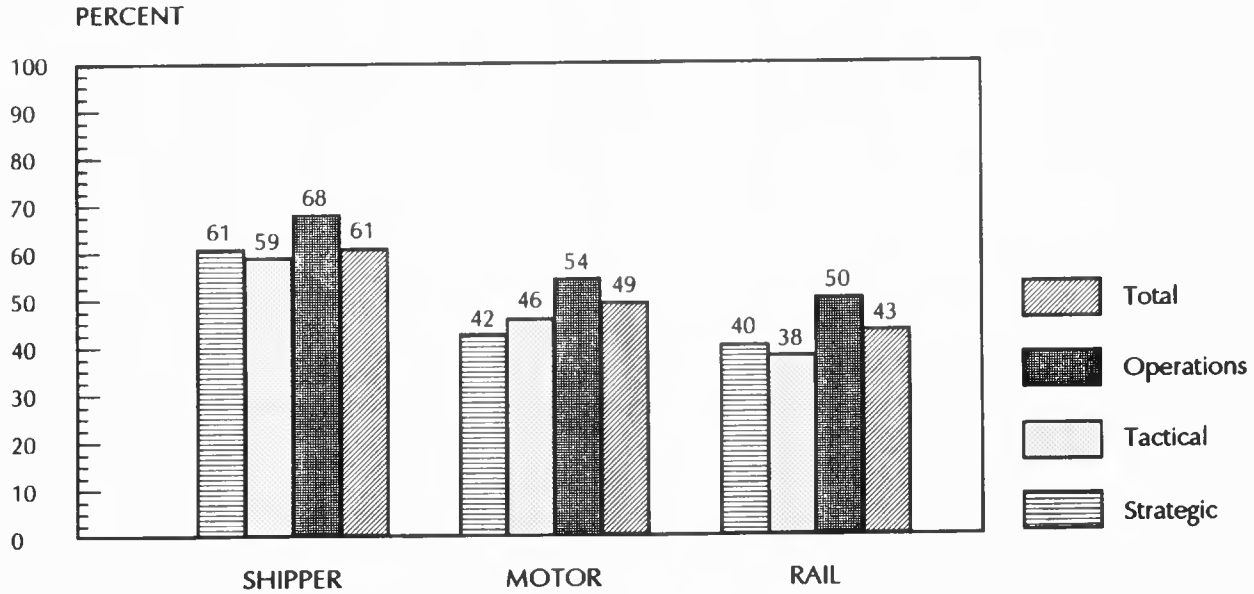
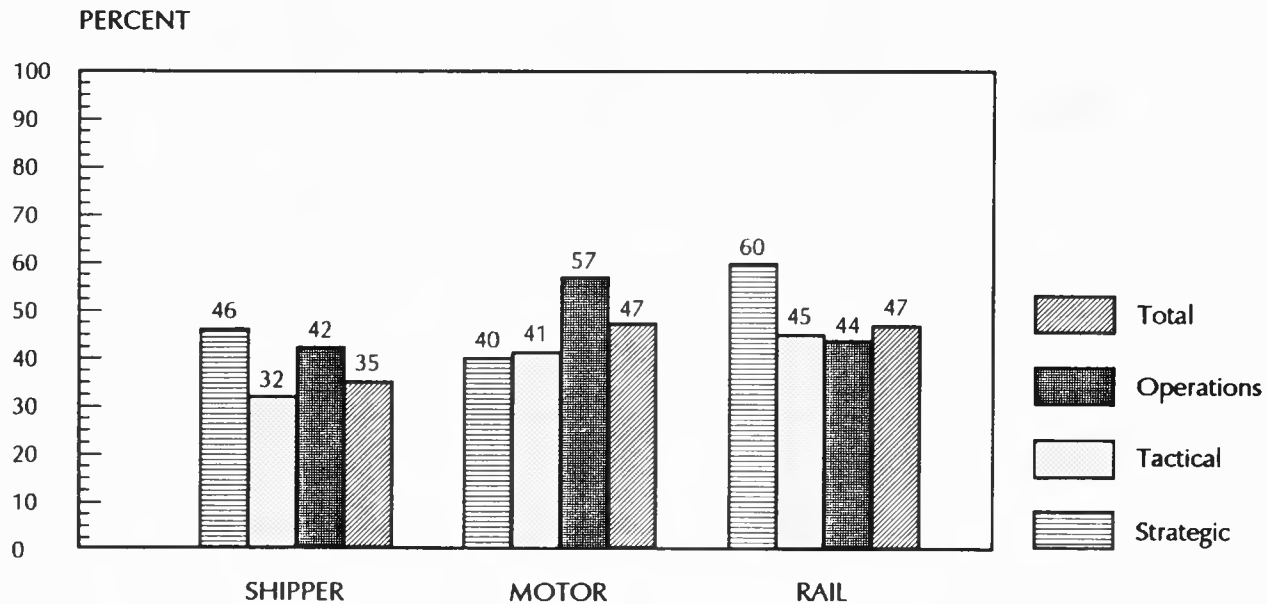


FIGURE 6
AGREEMENT THAT BETTER SERVICE IS
PROVIDED BY NATIONAL ACCOUNTS SELLING



Decision-Making Style

Table 10 displays profiles of decision-making style preferences. The four decision-making style categories were labeled as "supportive", "aggressive", "creative", and "cautious". The most frequent style was the "supportive" style which described thirty-one percent of the respondents. The profile of the "supportive" style manager includes "being best in my field" as the most common primary work objective, tending to "look for new ideas" in the job, preferring either a "creative approach" or "careful analysis" to problem solving, avoiding "conflict", and being good at "interacting with others".

The "aggressive" style applied to twenty-seven percent of the respondents. The profile of the "aggressive" style manager includes "status or recognition" as the most frequent primary work objective, seeking the "best solutions" in the job, using "careful analysis" in problem solving, avoiding "long debates", and being good at "solving problems". The largest percentage of females were classified as having an "aggressive" decision-making style.

The "creative" style also described twenty-seven percent of the respondents. The profile of the "creative" style manager includes "being the best in my field" as the most frequent primary job objective, looking for "new ideas" in the job, adopting a "creative approach" to problem solving, avoiding "incomplete work", and being good at both "solving problems" and "seeing possibilities". The "creative" style had the smallest percentage of respondents at the operations level and the largest percentage at the tactical level within a given category.

The "cautious" style had the least number of respondents at fifteen percent. The profile of the "cautious" style manager includes "being the best in my field" as the most common primary job objective. However, it should be noted that thirty-five percent of those in this category stated that "security" was the prime objective.

TABLE 10
DECISION-MAKING STYLE

Indicator	"Supportive"	"Aggressive"	"Creative"	"Cautious"
Primary Objective:				
Be the best	50%	37%	54%	54%
Status	28%	47%	30%	11%
Security	22%	16%	16%	35%
Look for in my job:				
New ideas	41%	11%	55%	6%
Best solutions	34%	48%	31%	43%
Good environment	15%	10%	5%	14%
Practical results	10%	31%	9%	37%
Problem solving:				
Creative approach	40%	12%	49%	7%
Careful analysis	39%	51%	40%	54%
Feelings	13%	12%	5%	14%
Proven approach	8%	25%	6%	25%
Like to avoid:				
Conflict	52%	28%	9%	56%
Incomplete work	25%	31%	48%	25%
Long debates	17%	37%	33%	10%
Using numbers	6%	4%	10%	9%
I am good at:				
Interacting	60%	28%	9%	34%
Solving problems	20%	36%	42%	28%
Seeing possibilities	13%	15%	37%	17%
Dates and facts	7%	21%	12%	21%
Management level:				
Strategic	16%	18%	17%	11%
Tactical	54%	50%	61%	49%
Operations	30%	32%	21%	40%
Sex:				
Female	27%	30%	20%	20%
Male	73%	70%	80%	80%

Forty-three percent look for "best solutions" in their job, while thirty-seven percent look for "practical results". The approach to problem solving is "careful analysis", "conflict" is avoided, and are good at "interacting with others" and "solving problems". This "cautious" style had the largest percentage at the operations level within a category.

SUMMARY

The Delta Nu Alpha membership is predominantly male, with nearly an equal split between shipper and carriers. Compared to the 1976 survey, the number of rail carriers has declined, the number of motor carriers has increased, and the percentage to shippers has remained approximately the same. The most significant demographic change is the growth of the female membership. It appears that Delta Nu Alpha has capitalized on the growing number of women employed in transportation and distribution. The membership has a higher education level than twelve years ago, and is younger. In total, Delta Nu Alpha demographics show a mature, experienced, and increasingly well-educated work force with upward trend in salaries.

The present Delta Nu Alpha membership does not have a large overlap of memberships with other professional organizations. The largest cross-membership is with the American Society of Transportation and Logistics. Two-thirds of Delta Nu Alpha members are fully supported by their employers for membership dues, with higher level managers receiving substantially more financial support than those at the tactical and operations levels.

Rail carriers and shippers consider the deregulation movement to have improved their career status. Motor carriers did not agree. All three groups were in general agreement that deregulation has significantly increased job stress, especially at the operations level of management.

Rail carriers indicated a preference for a decentralized sales-marketing function, but the motor carriers and the shippers did not. Shippers preferred a centralized traffic-distribution function, while carriers gave much less support to this issue. Although national account selling is widely used in the industry, preference for this type of selling organization was weak from both carriers and shippers.

Four categories of decision style were identified and profiled. These profiles reflect differences in job objectives, what is looked for in a job, the preferred approach to problem solving, what is to be avoided, and what managers feel they are good at. Different styles are related to managerial level, and to a lesser extent, sex.

ENDNOTE

¹Roger E. Jerman, Ronald D. Anderson, and James A. Constantin, "Delta Nu Alpha Membership Profile," The Alphan, Volume 30, Number 7 (November, 1977), pp. 24-25.