

First Annual Logistics Faculty Salary Survey

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ABSTRACT

While the Association to Advance Collegiate Schools of Business International (AACSB) conducts an annual survey of business school faculty and administrative salaries, the data do not include salary figures for logistics (and related areas such as transportation and supply chain management) faculty. Since the growth in number of logistics faculty positions has continued to exceed the output of doctoral programs in the field for more than a decade, it is logical to assume that logistics faculty salaries, at all levels, are increasing. However, without factual data, what salary should a new logistics Ph.D. expect, and what should an administrator budget for a logistics faculty position? In order to provide such factual data, the authors developed an electronic salary survey and distributed it to 236 faculty at colleges and universities in the United States. It is the intent of the authors to conduct the salary survey annually, and report the results in the *Journal of Transportation Management*.

INTRODUCTION

For the reader unfamiliar with hiring practices in academia, a brief overview of the process will enhance the understanding of the purpose of this research. The typical business faculty position at most colleges and universities in the United States requires a terminal degree or doctorate as a minimum qualification. Of the 445 business schools/colleges accredited in the United States by the Association to Advance Collegiate Schools of Business (AACSB) International, only 126

(28.31 percent) offer doctoral programs. Of those business schools/ colleges offering doctoral programs, only 17 (3.82 percent of the 445 accredited schools/colleges, 13.49 percent of the accredited doctoral granting institutions) offer doctoral programs in logistics, transportation, supply chain management or related fields (Mondello, 2006). The typical well-established business doctoral program, including all functional areas (accounting, management, logistics, etc.) will enroll fewer than ten new students each academic year, with average time

to degree completion in the range of three to five years. The supply of new doctorates to fill all business faculty positions is decidedly small and fixed in the short to intermediate term.

For more than thirty years, logistics-related degree programs have been growing in number and enrollment (Lancioni et al., 2001; Golicic et al., 2004). For the same period of time, staffing the increasing number of programs with qualified faculty has been a continuing problem (Tyworth and Grenoble, 1985; Rutner et al., 1996; Golicic et al., 2004). According to the Graduate Management Admission Council, there were 1.4 openings per doctoral graduate at AACSB member schools in the 1998-1999 academic year, with the number rising to 2.1 the following year (Graduate Management Admission Council, 2001). Further, the Logistics Academic Hiring Survey conducted annually by Dr. Martha Cooper at the Ohio State University directly illustrates the continuing gap between available faculty positions in logistics and the annual supply of new doctoral graduates in the field. In the 2000 survey, of 17 responding universities, there were 16 entry-level positions available, and just 3 logistics Ph.D. graduates that year (Cooper, 2000). In 2003, of 20 responding universities, there were 18 available positions, and only 4 graduates (Cooper, 2003). Note that this survey includes only logistics doctoral-granting universities, indicating that the real gap between supply of qualified new faculty and open positions across all AACSB member schools is much greater than that suggested by the quoted survey results.

The preceding discussion leads directly to the need for and importance of the survey research conducted by the authors. Each year university logistics, transportation and supply chain management programs are faced with the need for salary information when hiring for new and vacant positions, or for justifying salary adjustments for current faculty to remain competitive with other universities. Many fields of specialization utilize data from the annual

study of U.S. faculty and administrative personnel salaries conducted by the AACSB International. In 2006, the AACSB conducted the 38th annual survey of U.S. faculty and administrative personnel salaries (Association to Advance Collegiate Schools of Business International, 2006). Responses were received from 485 institutions. Salaries are stated as nine- or 10-month equivalents to allow direct comparability. Salary data were collected in 28 fields of specialization, including Management, Marketing, and Production and Operations Management as shown in Table 1. The category "other" includes general business, health services and hospital administration, hotel, restaurant and tourism, public administration, supply chain management, transportation and logistics, and other not classified.

The logistics and supply chain management discipline is composed of an amalgam of overlapping disciplines, creating a dilemma as to which category should be used to best reflect salaries in the logistics field. For this reason, the authors decided to initiate an annual logistics faculty salary survey in order to provide discipline-specific information of use to both faculty looking for positions and administrators seeking to fill them.

SURVEY METHODOLOGY

The survey methodology emphasized simplicity, ease of response, and confidentiality. The survey instrument is shown in Figure 1. A contact list was compiled from the Council of Supply Chain Management Professionals (CSCMP) annual Educators' Conference registration list for the last five years. The list was reviewed to remove duplicates, adjust for known changes of employment, and to remove faculty members whose primary field was not in logistics, transportation, or supply chain management. The authors added the names of other known logistics faculty members not included in the registration lists.

TABLE 1
2005-2006 AACSB SALARY DATA
(000's)

Rank	Management	Marketing	Production/ Operations Management	Other*
Assistant				
- Private	\$ 89.0	\$ 93.8	\$104.1	\$ 78.2
- Public	\$ 80.7	\$ 88.9	\$ 87.9	\$ 72.0
Associate				
- Private	\$ 93.2	\$ 98.7	\$100.6	\$ 77.4
- Public	\$ 83.4	\$ 91.0	\$ 93.7	\$ 77.0
Full				
- Private	\$120.2	\$110.3	\$133.8	\$136.4
- Public	\$101.1	\$137.1	\$111.7	\$124.9

*Includes General Business, Health Services/Hospital Administration, Hotel/Restaurant/Tourism, Public Administration, Supply Chain Management/Transportation/Logistics, and Other not classified
Source: Association to Advance Collegiate Schools of Business International, *Salary Survey Report 2005-2006*.

After the initial survey was distributed, the list was corrected for any undeliverable addresses, and surveys were sent to the updated addresses. In total 236 surveys were sent. A follow-up survey was sent two weeks later. Due to the number of automated “out-of-office” replies and recognizing responses could be reduced because of the time of year, a third distribution was completed two weeks after the second.

The research employed a process to create an aggregate data set while maintaining the confidentiality of the respondents. Respondents were asked to email their completed surveys to a controlled email address assigned to the University of North Texas Center for Logistics Education and Research or to fax the completed one-page survey to the Center. At that point a research assistant numbered the response (to allow for the ability to confirm or correct data input) and entered the response into a Microsoft Access file. Original completed surveys, which could contain identifying marks such as email addresses or fax numbers, were isolated from

the authors. The Access file was then passed to the authors for analysis.

Out of 236 surveys, two respondents requested to be removed from the contact list. Usable responses were received from sixty-four faculty representing a response rate of twenty-seven percent.

ANALYSIS OF RESULTS

Demographics

The demographics in Table 2 reflect a broad mixture of responses. The data allow the survey report to differentiate pay structures in greater detail than the aggregate reports from the AACSB survey. With this information, the authors were able to develop conclusions regarding compensation differences between public and private universities, institution accreditation, type of program, years of service and workload allocation.

FIGURE 1 SURVEY INSTRUMENT

All of us are faced with the need for salary information when hiring for new positions or justifying adjustments to remain competitive in the market. The AACSB salary survey does not include a separate category for logistics faculty. We would appreciate your assistance by filling out this confidential survey and either emailing (logistics@unt.edu) or faxing (940 369-7012) the survey back to us. The results will be available at the CSCMP Educators Conference on October 15 in San Antonio.

Current rank:

- Full
- Associate
- Assistant
- Visiting
- Instructor/Non-PhD./Adjunct
- Other (please specify) _____

Current field (primary):

- Logistics/Transportation/Supply Chain
- Marketing
- Operations Management/Decision Sciences
- Operations Research
- Industrial Engineering
- Other (please specify) _____

_____ years Years in present rank

_____ years Total years in academic service since Ph.D./D.B.A. granted

My current institution is:

- Public
- Private
- AACSB accredited
- Not AACSB accredited

\$ _____ Base 9 month salary/wages (do not include summer pay, special stipends, professorships, chaired positions, or other non-base remuneration)

\$ _____ Total wages/salary compensated (including summer pay, special stipends, professorships, chaired positions, or other remuneration)—do not include benefit packages

Current employer:

- Logistics, Transportation, Supply Chain Management, etc. Ph.D granting institution
- Other Ph.D granting institution - with undergraduate and Graduate degrees in logistics fields
- Other Ph.D granting institution - no degrees offered in Logistics fields
- Non-Ph.D granting institution - with undergraduate and graduate degrees in logistics fields
- Non-Ph.D granting institution - no degrees offered in logistics fields
- Other

Present allocation of your workload as your performance is measured (should total 100%):

_____% Teaching
_____% Research
_____% Service
_____% Administration

Email to logistics@unt.edu or Fax to: (940) 369-7012

TABLE 2
RESPONDENT DEMOGRAPHICS

35.9%	Full Professor	67.2%	Public University	34.4%	Logistics Ph.D.
37.5%	Associate	28.1%	Private	31.3%	Other Ph.D. granting
20.3%	Assistant	4.7%	Not Specified	29.7%	Non-Ph.D. granting
6.3%	Not Specified			4.7%	Not Specified/Other
		73.4%	AACSB Accredited		
		26.6%	Not accredited		

Base Salary vs. Total Compensation

Survey respondents were asked to identify their base nine-month salary, as well as the total compensation, which includes such additional incentives as summer pay, special stipends, professorships, chaired positions, administrative positions or remuneration for other activities. Neither figure included benefit packages. Table 3 compares total compensation with base salary.

The nine-month base provides a convenient benchmark of compensation. However, this approach ignores total compensation. Many programs use other income sources as a means to attract and retain their faculty. The nine-month base provides an incomplete measure of compensation. The addition of incentives to base salary represents from sixteen percent (Associate) to twenty-three percent (Full) of total compensation.

Figures 2, 3, and 4 summarize base salary and total compensation at each academic level. These summary figures do not encompass all key differences since total compensation is influenced by factors such as public or private institution, institution accreditation, type of program, years of service and workload allocation.

Public vs. Private Institutions

The first difference is shown in Table 4. Over sixty-seven percent of respondents are employed

at public institutions. Contrary to the AACSB data, logistics faculty compensation at public institutions is higher than that from private institutions. This may be due simply to the mix of institutions included in the survey. Many of the private institutions represented in the AACSB data do not offer logistics programs. For example, there are no logistics programs at any of the “Ivy League” universities that are assumed to pay higher than average salaries.

For logistics faculty, compensation is higher from public universities at all levels for both the base salary and total compensation.

A comparison of the survey results with AACSB salary data indicates that logistics and supply chain faculty at public institutions generally receive a higher level of compensation (see Table 5). Logistics and supply chain assistant professors receive over \$10,000 more than management, marketing, production and operations management professors in public institutions. They receive over \$30,000 more in compensation than the Other category where AACSB reports logistics and supply chain faculty. At the associate level, logistics and supply chain professors receive more than \$13,000 per year more in public institutions than their counterparts in related fields and over \$30,000 more than reported in the Other category. Full professors in logistics and supply chain management receive over \$10,000 more than other areas in public institutions except for Marketing where less than a \$2,000 difference exists.

TABLE 3
NINE-MONTH BASE SALARY V. TOTAL COMPENSATION

	Mean Nine-Month Base Salary	Mean Total Compensation	Additional Incentives
Assistant	\$ 97,880	\$115,226	0.18
Associate	\$103,521	\$119,666	0.16
Full	\$133,254	\$164,271	0.23

FIGURE 2
ASSISTANT PROFESSOR COMPENSATION SUMMARY

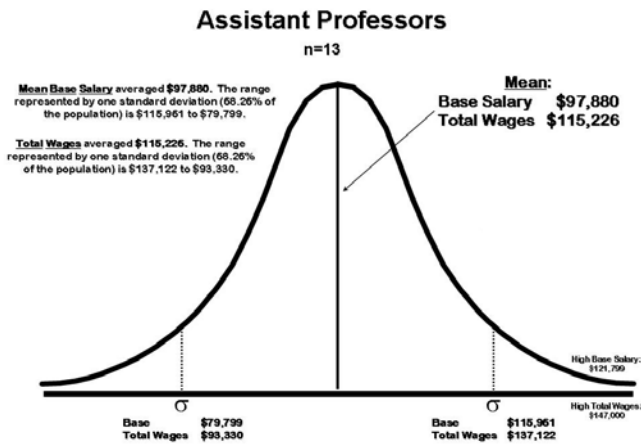
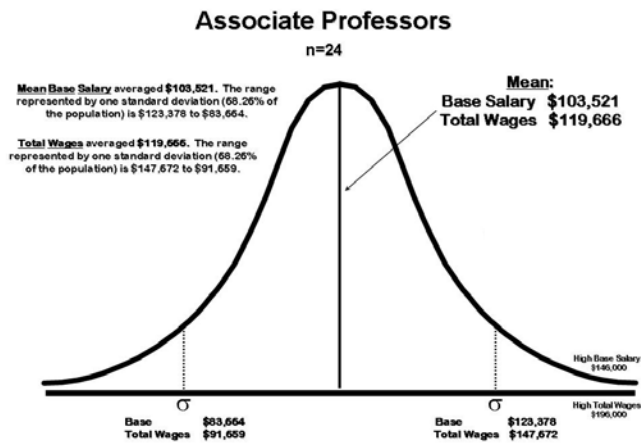
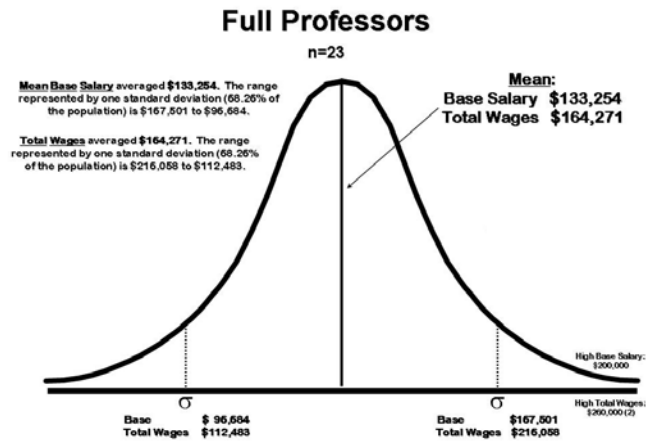


FIGURE 3
ASSOCIATE PROFESSOR COMPENSATION SUMMARY



**FIGURE 4
FULL PROFESSOR COMPENSATION SUMMARY**



**TABLE 4
PUBLIC VS. PRIVATE**

	Mean Nine-month Base Salary	Mean Total Compensation	Public Premium
Assistant			
- Public	\$102,180	\$123,410	0.13
- Private	\$ 95,277	\$108,949	
Associate			
- Public	\$107,422	\$121,193	0.05
- Private	\$ 91,817	\$115,083	
Full			
- Public	\$135,520	\$167,501	0.17
- Private	\$118,900	\$142,733	

TABLE 5
COMPARISON OF SURVEY RESULTS WITH 2005-2006 AACSB SALARY DATA
(000's)

Rank	2006 Salary Survey Results	Management	Marketing	Production/ Operations/ Management	Other*
Assistant					
- Private	\$ 95.3	\$ 89.0	\$ 93.8	\$104.1	\$ 78.2
- Public	\$ 102.2	\$ 80.7	\$ 88.9	\$ 87.9	\$ 72.0
Associate					
- Private	\$ 91.2	\$ 93.2	\$ 98.7	\$100.6	\$ 77.4
- Public	\$ 107.4	\$ 83.4	\$ 91.0	\$ 93.7	\$ 77.0
Full					
- Private	\$ 118.9	\$120.2	\$110.3	\$133.8	\$136.4
- Public	\$ 135.5	\$101.1	\$137.1	\$111.7	\$124.9

*Includes General Business, Health Services/Hospital Administration, Hotel/Restaurant/Tourism, Public Administration, Supply Chain Management/Transportation/Logistics, and Other not classified

Source: Association to Advance Collegiate Schools of Business International, *Salary Survey Report 2005-2006*.

AACSB Accredited Institutions vs. Non-Accredited Institutions

Another key difference is found between the compensation at AACSB accredited institutions and those without accreditation, as illustrated in Table 6.

AACSB accreditation involves adherence to a set of performance criteria and periodic review in order to promote quality and consistency in collegiate business education. There is a clear difference in compensation at all levels for both the base salary and total compensation. Base salaries are considerably lower at non-accredited institutions. In addition, additional incentives represent a higher percentage of the total compensation package.

Premium for Research

Respondents were asked to allocate their workload based on teaching, research, service, and

administrative duties. It was expected that tenure requirements would drive up the research allocation of untenured assistant professors. The actual allocations of workload reported by assistant professors in the respondent group was forty-four percent for research, forty-three percent for teaching, and thirteen percent for service.

Research allocations varied at the associate and full professor levels as shown in Table 7. Analysis reflects a clear compensation premium is paid for both the base salary and total compensation to senior faculty respondents that reported a higher allocation of their workload for research. Faculty at the rank of associate professor with a higher research allocation received forty-eight percent more in total compensation than respondents that emphasized teaching in their allocations. Faculty at the rank of professor with a higher research allocation received twenty-nine percent more in total compensation than respondents that emphasized teaching in their workload allocations.

**TABLE 6
AACSB INSTITUTIONS**

	Mean Nine-month Base Salary	Mean Total Compensation	Accreditation Premium
Assistant			
- Accredited	\$103,357	\$121,900	0.13
- Not accredited	\$ 91,490	\$107,440	
Associate			
- Accredited	\$105,732	\$121,135	0.17
- Not accredited	\$ 79,200	\$103,500	
Full			
- Accredited	\$138,544	\$167,699	0.07
- Not accredited	\$119,145	\$156,433	

**TABLE 7
WORKLOAD ALLOCATION**

	Mean Nine-Month Base Salary	Mean Total Compensation	Research Premium
Associate			
50% to 70% research	\$121,060	\$136,346	0.48
35% to 49% research	\$ 98,284	\$106,401	
Less than 35% research	\$ 92,175	\$106,194	
Full			
50% to 70% research	\$128,333	\$153,971	0.33
35% to 49% research	\$117,245	\$123,189	
Less than 35% research	\$103,000	\$119,000	

Administrative Pay

Average workload allocation differences between associate and full professors were somewhat obscured by the diverse mixture of activities, including administrative duties, at each level. The relationship in the sample between compensation and administrative duties was analyzed separately as shown in Table 8.

None of the respondents reported high allocations for both research and administrative duties. While all respondents reporting administrative duties also reported an allocation for research, the results suggest faculty members must choose between focusing on research or on administration in order to increase their total compensation. The average

compensation premium for undertaking administrative duties within the sample was six percent for associate professors and forty-eight percent for full professors.

Type of Program

Respondents were also asked to identify the academic level of their respective institutional programs. The reported levels reflected whether their institution granted a Ph.D. in logistics, granted a Ph.D. in other fields, or were non-Ph.D. granting institutions. The results are shown in Table 9. Programs awarding a Ph.D. in logistics accounted for thirty-four percent of the respondents.

**TABLE 8
ADMINISTRATIVE PAY PREMIUM**

	Mean Nine-month Base Salary	Mean Total Compensation	Additional Incentives
Associate			
- Administrative role	\$ 97,750	\$124,696	0.06
- No administrative role	\$105,444	\$117,989	
Full			
- Administrative role	\$150,568	\$204,699	0.48
- No administrative role	\$121,267	\$138,281	

**TABLE 9
PH.D. GRANTING INSTITUTIONS**

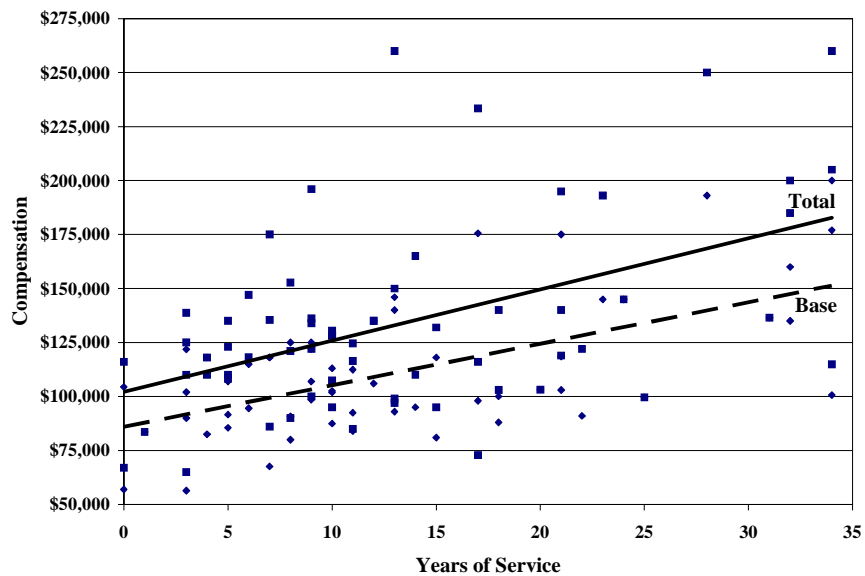
	Mean Nine-month Base Salary	Mean Total Compensation	Premium
Assistant			
- Logistics Ph.D. granting	\$108,825	\$125,012	0.4
- Other Ph.D. granting	\$ 98,100	\$118,450	
- Non-PhD. granting	\$ 86,660	\$101,410	
Associate			
- Logistics Ph.D. granting	\$114,982	\$139,210	0.51
- Other Ph.D. granting	\$ 98,630	\$112,746	
- Non-PhD. granting	\$ 92,863	\$100,425	
Full			
- Logistics Ph.D. granting	\$162,929	\$210,488	0.72
- Other Ph.D. granting	\$130,038	\$151,567	
- Non-PhD. granting	\$105,380	\$133,451	
- Other	\$118,500	\$140,000	

Faculty at Ph.D. granting institutions may face different expectations for research, in the classroom, as well as additional responsibilities, including guiding doctoral candidates, all of which warrant higher salaries. The average compensation premium for working at an institution granting a Ph.D. in logistics was twenty-three percent for assistant professors, thirty-nine percent for associate professors and fifty-eight percent for full professors.

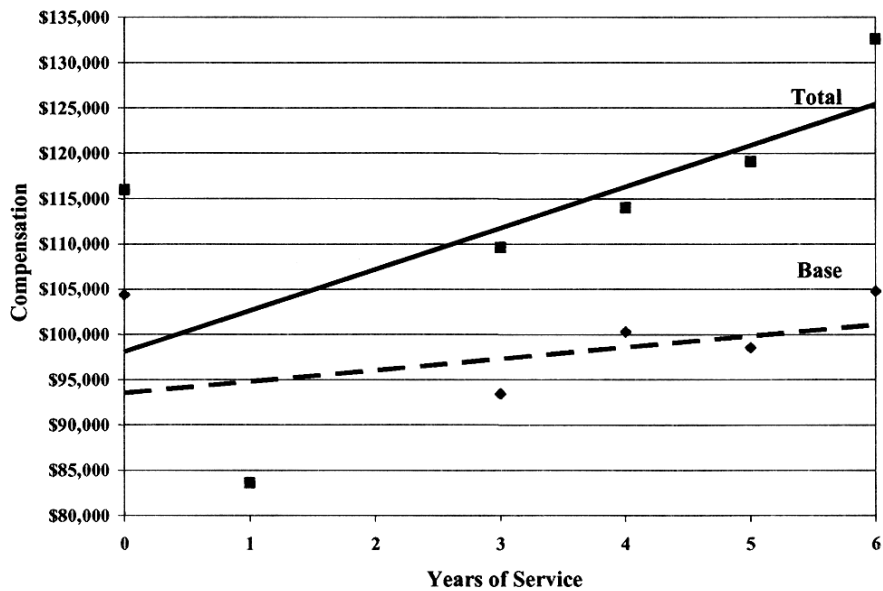
Years of Service

Respondents were asked to identify time in rank and total time in service. Fitting a regression line into total years of service indicates that seniority leads to additional compensation. Longer time in service results in higher pay and does not reflect salary compression. Figures 5, 6 and 7 illustrate compensation differences across academic rank and years of service.

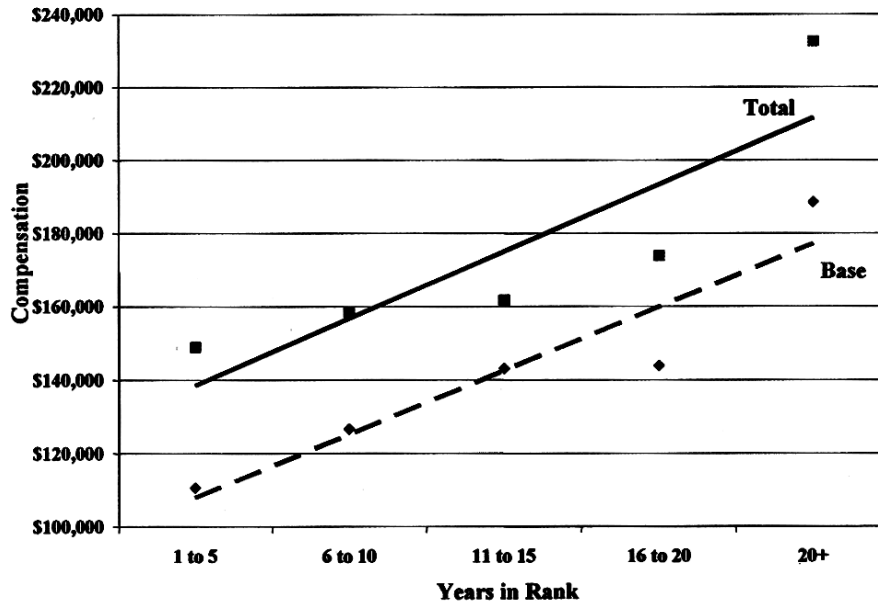
**FIGURE 5
TOTAL YEARS OF SERVICE
ALL RANKS**



**FIGURE 6
RANK OF ASSISTANT PROFESSOR**



**FIGURE 7
RANK OF FULL PROFESSOR**



This relationship appears to hold for both assistant professors and full professors. However, the relationship does not appear to be the same for associate professors (see Figures 8 and 9). This could be the result of “associate purgatory”, where some associate professors simply stop seeking to fulfill the requirements for promotion to full professor. As a result, additional incentives taper off.

Further examination of the data for respondents with five or less years of time in rank illustrates an even sharper decline. It is interesting to note that no associate professor with time in rank beyond nine years responded to the survey.

SURVEY LIMITATIONS

This survey has several limitations that could affect the accuracy of the data collected and the analysis.

Self-Reported Data

The data come directly (e.g. self reported) from the faculty members. It is assumed that each

respondent accurately reported his/her compensation.

Sampling Error

Not all logistics, transportation and supply chain management faculty attend the CSCMP Educators’ Conference or are included in the CSCMP membership roster. The use of the convenience sample excludes some faculty from participation.

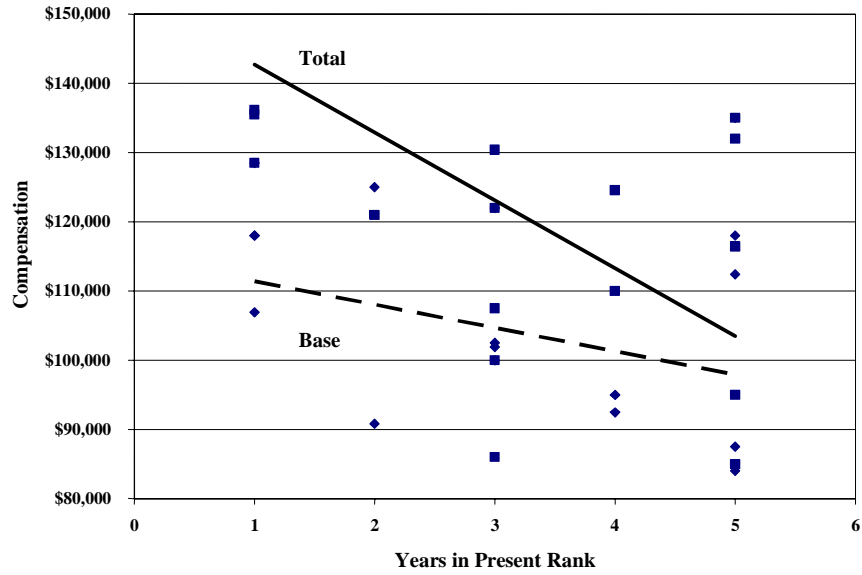
Overlapping Disciplines

The academic field of logistics involves overlapping disciplines that may include faculty classified as logistics, transportation, supply chain management, marketing, management, operations and production, or industrial engineering. The population of all faculty in these fields is not known.

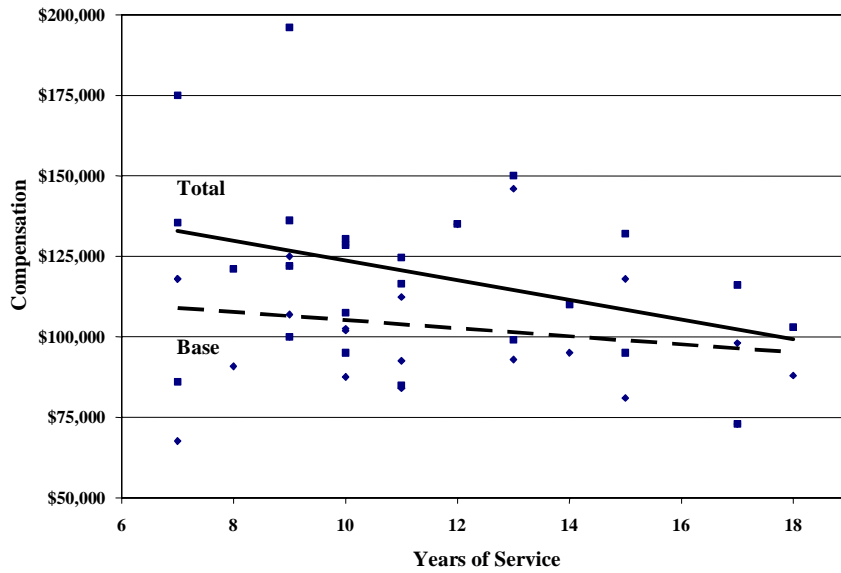
Survey Time of Year

The survey was completed in June and July. Many faculty do not teach during the summer

**FIGURE 8
ASSOCIATE PROFESSORS ALL YEARS WITHIN RANK**



**FIGURE 9
ASSOCIATE PROFESSORS FIRST FIVE YEARS IN RANK**



months and may not have been available to respond to the survey. Future surveys will be conducted in early May to resolve this potential limitation.

Low Response Rate

Due to the confidential nature of the data collected, some potential respondents may have opted not to participate. It is hoped that as this survey is repeated annually and recognition of its value and importance increase, more faculty will participate.

SUMMARY AND CONCLUSIONS

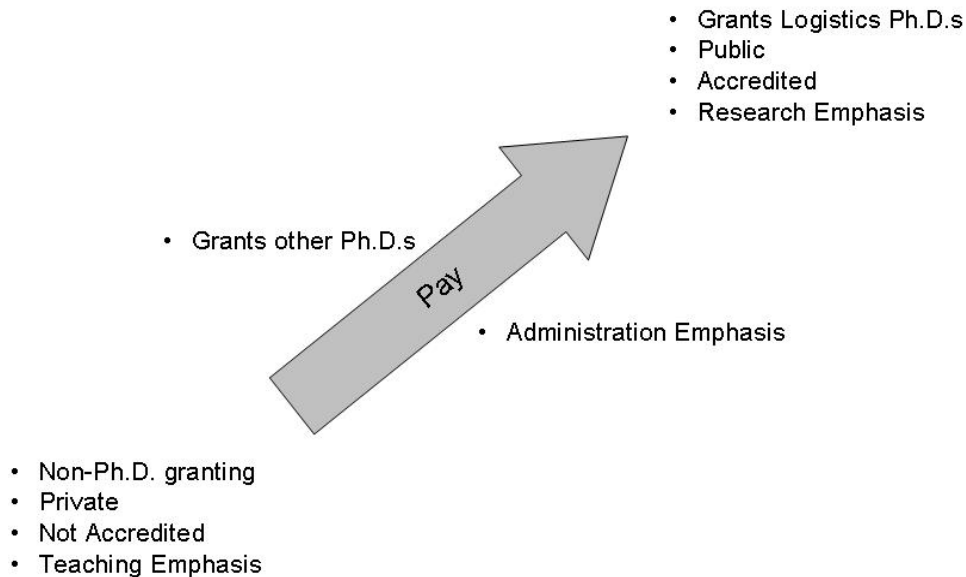
The first annual logistics faculty salary survey offers career guidance for both new and current faculty members, as well as administrators.

Salary represents one of the key criteria used in selecting faculty positions, and new career candidates seeking employment will find the highest compensation in accredited public institutions granting Ph.D.s in logistics as shown in Figure 10. Long term career focus should emphasize research first and administration second to increase potential compensation levels.

Care should be taken when utilizing a single overall average salary for a given academic rank. Readers should consider which variables best reflect their situation and interpret the data accordingly.

Finally, it is the expectation of the authors that the logistics faculty salary survey will be conducted annually, and that the results will be published in this journal.

**FIGURE 10
COMPENSATION HIERARCHY**



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Jerry W. Wilson is a professor of marketing and logistics at Georgia Southern University. He received the D.B.A. degree in marketing and transportation from Memphis State University and B.S. and M.B.A. degrees from Arkansas State University. He is co-founder of the logistics and intermodal transportation program at Georgia Southern and serves as Editor of the *Journal of Transportation Management*. Dr. Wilson is a member of the board of directors of Delta Nu Alpha Logistics and Transportation Association and serves on two committees for the Intermodal Association of North America. He also holds the CTL professional certification and is a member of the CTL certification Board of Examiners for the American Society of Transportation and Logistics. His research interests include service process simulation, transportation policy analysis and intermodal connectivity issues.