

CEPA

2010 Clinical Exercise Physiology Practice Survey

Clinical Exercise Physiology Association

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2010 Clinical Exercise Physiology Practice Survey

Clinical Exercise Physiology Association

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Executive Summary

In 2010 the Clinical Exercise Physiology Association (CEPA) conducted the *Clinical Exercise Physiology Practice Survey*. The purpose of this survey was to collect employment data including salary, scope of work, patient base, and job responsibilities among practicing clinical exercise physiologists.

Over 800 people participated in the survey that was delivered via the internet. The median age was 36-40 years and 68% were women. Ninety-four percent worked in the United States and 4% in Canada. The majority of respondents (82%) worked primarily with patients with cardiovascular disease. In addition, 749 (92%) clinical exercise professionals reported having a bachelor's degree or higher and did not report a concomitant degree or certification for another profession (e.g., not a dietitian, nurse, etc.).

Among the 749 clinical exercise professionals:

- 86% reported working full-time.
- 26% reported a bachelor's degree and 67% had a master's degree.
- 81% reported an ACSM clinical exercise certification.

Among the clinical exercise professionals who reported full-time employment:

- Median annual salary was \$47,501-\$50,000.
- Salary increased with years of experience.
- Median annual salary was \$5,000 higher among those with an ACSM clinical exercise certification compared to those without.
- Across regions within the United States, the highest median annual salary was \$57,501-\$60,000 reported by participants from the western region of the United States.

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Introduction

The focus of the Clinical Exercise Physiology Association (CEPA) is to *advance the profession of clinical exercise physiology* through advocacy, education, and career development. The primary purpose of the CEPA is to advance the scientific and practical application of clinical exercise physiology for the betterment of the health, fitness, and quality of life for patients at high risk or living with a chronic disease. CEPA's professional members have academic degrees in exercise physiology¹ and have earned a certification in the practice of clinical exercise physiology from an accredited organization. Approximately 20% of CEPA's members are students.

Individuals with various academic degrees in exercise physiology¹, with and without licensure or a clinical exercise certification, maintain varied roles in clinical settings. CEPA defines a clinical exercise physiologist (CEP) as an individual with a graduate degree in exercise physiology¹ and either licensed under state law and/or certified as an ACSM Clinical Exercise Specialist or ACSM Registered Clinical Exercise Physiologist. CEPA also recognizes those individuals who earned a bachelor's degree in exercise physiology and one of these certifications before July 2010 as a CEP. CEPA acknowledges that bachelor's-prepared individuals who earned their degree and/or certification after July 1, 2010 may be qualified to perform clinical exercise services and provide important contributions to clinical and public health programs.

¹ There are various titles for bachelor's and master's degree programs that prepare clinical exercise professionals, such as Clinical Exercise Physiology, Exercise Physiology, and Exercise Science.

There is little information describing the practice and salaries of CEPs. Therefore, the purpose of this survey was to collect employment data including salary, scope of work, patient base, and job responsibilities among practicing CEPs and other clinical exercise professionals.

Methods

In early 2010, the Advocacy Committee of the CEPA established a Salary Survey Working Group to develop survey questions, analyze data, and develop this report. Survey Monkey (www.surveymonkey.com, Palo Alto, CA) was used to collect survey responses. The survey was available during May and June of 2010. Survey questions are shown in Appendix A. Individuals were invited to participate through email and newsletters that were distributed by CEPA, the American College of Sports Medicine (ACSM), and the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR). Individuals were encouraged to share the survey with other CEPs who may not have directly received an invitation to participate. Personal identifiers were not collected as part of the survey; however, respondents were invited to provide their email address in order to receive survey results and be entered into a drawing to win a textbook or a CEPA webinar.

Coded data were imported into SPSS (version 17, IBM, Somers, NY) and descriptive statistics were calculated. Age, years of work experience, and salary data were defined as an ordinal data type and captured as ranges (e.g., age= 36-40 years). For each of these variables, the median response and the 25th and 75th percentile were determined.

Years of work experience were reported for all respondents and by groups based on the interquartile range (i.e., below, within, and above). All salary data is based on individuals who reported full-time employment. Data is not reported where there were less than 5 responses. Footnotes are included where number of response was 5 to 9.

Results

Eight hundred, fifteen people responded to the survey. Two of these individuals identified themselves as physicians and were excluded from all analyses. Demographics for the remaining participants (n= 813) are shown in Table 1. Figure 1 shows the percentage of respondents by country and region within the United States. Select characteristics of the professional practice of survey participants are shown in Table 2.

Among all respondents, 3% were registered nurses, 2% were certified athletic trainers, 1% were physical therapists, 1% were registered dietitians, and 0.6% were respiratory therapists. Among the remaining participants, 749 (92%) reported a bachelor's, master's, or doctorate degree and were assumed to be clinical exercise professionals (Table 3). The remaining portion of this report will focus on these clinical exercise professionals.

Among these clinical exercise professionals, 93% reported a bachelor's or master's degree. The median salary was higher among men; however, men also reported a higher frequency of doctorate degrees and clinical exercise certifications (Table 3). Among clinical exercise professionals with a bachelor's or master's degree, the median salary was \$5,000 higher among those with a clinical exercise certification compared to those without a

certification (Table 4). The highest median salary was reported by participants from the western region of the United States (Table 4).

Median salary by academic degree and years of experience among the clinical exercise professionals is shown in Table 5. Data on individuals who reported being new to the field (i.e., < 2 years of experience) were limited with 17 total respondents. Among respondents with a bachelor's or master's degree, salary increased with years of work experience (Table 5). The median salary for clinical exercise professionals with a bachelor's or master's degree by certification and select sub-groups is shown in Table 6.

Summary

These data provide a description of the current practice and salaries of practicing clinical exercise professionals. This sample may provide a useful reference for students and current clinical exercise professionals. However, these data should be interpreted with caution due to the limited sample size and the lack of data on the population of clinical exercise professionals.

The largest single source of clinical exercise professionals may be those certified through the ACSM, which are greater than 3,000. However, anecdotal evidence suggests that there are many more exercise professionals working in clinical settings who are not certified. Until a superior reference population can be identified, the participant demographics of future surveys aimed at clinical exercise professionals should be compared

to the demographics of ACSM's certified clinical exercise professionals (if available) in order to assess the generalizability of the results.

It should be noted that the original focus of this survey was CEPs, but the results apply to a broader group of clinical exercise professionals. Since academic program information was not collected, it is unknown how many of these "clinical exercise professionals" earned a degree (bachelor's or higher) in exercise physiology. Future surveys of clinical exercise professionals should distinguish graduates of exercise physiology programs from graduates of other programs. In addition, future surveys should consider collecting salary information based on annual income as well as hourly rate in order to avoid limiting the salary information to those who are employed full-time. Finally, it will be important to increase the number and diversity of respondents by identifying additional avenues to reach practicing CEPs that are not members of CEPA, ACSM, or AACVPR.

Acknowledgements

The 2010 CEPA Salary Survey was a collaborative project of the CEPA and its executive board, with leadership by the Salary Survey Working Group. CEPA appreciates the support from the American College of Sports Medicine (ACSM) and the American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR), with special thanks to Traci Rush, MA and Jim Whitehead of the ACSM. We are also grateful to the individuals who participated in this survey and those that encouraged others to do the same.

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Figure 1. Distribution of survey respondents by country and regions within the United States

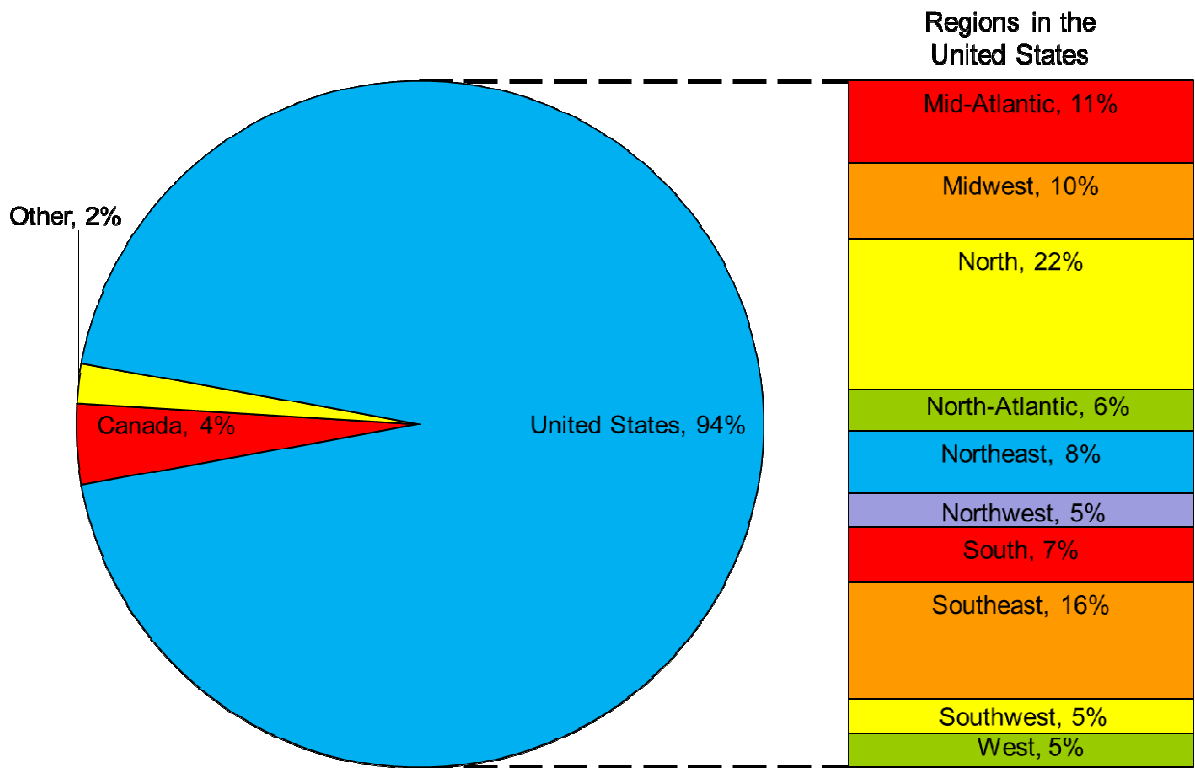


Table 1. Demographics of survey participants (n= 813)

| | |
|--|-------------------|
| Age (years) | |
| Median | 36-40 |
| 25 th , 75 th percentile | 26-30, 46-50 |
| Women (%) | 68 |
| Employment Status (%) | |
| Full-time (\geq 30 hours) | 86 |
| Part-time (< 30 hours) | 11 |
| Per diem | 2 |
| Unemployed | 1 |
| Work Experience (years) | |
| Median | 10-15 |
| 25 th , 75 th percentile | 4-5, 16-20 |
| Highest Academic Degree (%) | |
| Associate's | <1 |
| Bachelor's | 26 |
| Master's | 66 |
| Doctorate | 8 |
| Clinical Exercise Certification (%)* | 81 |
| Employer requires ACSM certification | 59 |
| Professional Memberships (%) | |
| ACSM | 58 |
| AACVPR | 34 |
| CEPA | 24 |
| None | 12 |
| Annual Salary† | |
| Median | \$47,501-\$50,000 |
| 25 th percentile | \$40,001-\$42,500 |
| 75 th percentile | \$60,001-\$62,500 |

* Includes individuals who reported current ACSM Clinical Exercise Specialist, ACSM Registered Clinical Exercise Physiologist, or ACSM Program Director certification.

†Salary data are based on those who reported full-time employment (\geq 30 hours per week). ACSM= American College of Sports Medicine. AACVPR= American Association of Cardiovascular and Pulmonary Rehabilitation. CEPA= Clinical Exercise Physiology Association.

**Table 2. Select characteristics of the professional practice of survey participants
(n= 813)**

| | |
|--|-----------|
| Primary Work Setting (%) | |
| Cardiac Rehabilitation | 39 |
| Cardiac/Pulmonary Rehabilitation | 21 |
| University Instructor | 7 |
| Hospital Wellness | 7 |
| Exercise Testing | 5 |
| Research | 3 |
| Corporate Fitness | 2 |
| Disease Management | 2 |
| Pulmonary Rehabilitation | 2 |
| Obesity Clinic | 2 |
| Fitness Center | 2 |
| Government Fitness | 1 |
| Cancer Rehabilitation | <1 |
| Other | 6 |
| Type of Disorder of Primary Patient Group (%) | |
| Cardiovascular | 82 |
| Metabolic | 16 |
| Orthopedic | 7 |
| Pulmonary | 7 |
| Neoplastic/Immunologic/Hematologic | 2 |
| Neuromuscular | 1 |
| Direct Patient Contact (%) | 88 |
| Billing Mechanism (%) | |
| Hospital/Program-Based | 78 |
| Physician-Based | 9 |
| Private Pay | 5 |
| Other | 8 |
| CPT/G-Codes Used for Billing (%) | |
| Unknown | 42 |
| 93798 | 36 |
| 93797 | 25 |
| G0424 | 13 |
| Do not use | 12 |
| G0239 | 11 |
| G0238 | 10 |
| G0237 | 9 |
| Other | 17 |
| Life Support Certification (%) | |
| Basic life support | 94 |
| Advanced life support | 67 |
| None | 2 |

Table 3. Demographics by gender among clinical exercise professionals with a bachelor's degree or higher who did not report a concomitant degree or certification for another profession

| | All (n= 749)* | Women (n= 508) | Men (n= 234) |
|--|-------------------|-------------------|-------------------|
| Age (years) | | | |
| Median | 36-40 | 31-35 | 36-40 |
| 25 th , 75 th percentile | 26-30, 46-50 | 26-30, 41-45 | 31-35, 46-50 |
| Employment Status (%) | | | |
| Full-time (\geq 30 hours) | 86 | 81 | 94 |
| Part-time (< 30 hours) | 12 | 15 | 4 |
| Per diem | 2 | 2 | 3 |
| Unemployed | <1 | 1 | <1 |
| Work Experience (years) | | | |
| Median | 10-15 | 10-15 | 10-15 |
| 25 th , 75 th percentile | 4-5, 16-20 | 4-5, 16-20 | 6-7, 16-20 |
| Degree (%) | | | |
| Bachelor's | 26 | 28 | 19 |
| Master's | 67 | 68 | 66 |
| Doctorate | 7 | 4 | 15 |
| Clinical Exercise Certification (%) † | 81 | 79 | 85 |
| Country (%) | | | |
| United States | 95 | 95 | 96 |
| Canada | 4 | 4 | 3 |
| Other | <1 | <1 | 2 |
| Annual Salary‡ | | | |
| Median | \$47,501-\$50,000 | \$45,001-\$47,500 | \$52,501-\$55,000 |
| 25 th percentile | \$37,501-\$40,000 | \$37,501-\$40,000 | \$42,501-\$45,000 |
| 75 th percentile | \$60,001-\$62,500 | \$57,501-\$60,000 | \$67,501-\$72,500 |

*Gender was not provided by 7 respondents.

†Includes individuals who reported current ACSM Clinical Exercise Specialist, ACSM Registered Clinical Exercise Physiologist, or ACSM Program Director certification.

‡Salary data are based on those who reported full-time (\geq 30 hours per week) employment.

Table 4. Median salary among clinical exercise professionals with a bachelor's or master's degree who did not report a concomitant degree or certification for another profession and reported full-time employment (≥ 30 hours per week)

| | Median | 25 th Percentile | 75 th Percentile |
|---|-------------------|-----------------------------|-----------------------------|
| Academic Degree | | | |
| Bachelor's (n= 157) | \$40,001-\$42,500 | \$37,501-\$40,000 | \$47,501-\$50,000 |
| Master's (n= 421) | \$47,501-\$50,000 | \$40,001-\$42,500 | \$60,001-\$62,500 |
| Clinical Exercise Certification* | | | |
| Yes (n= 471) | \$47,501-\$50,000 | \$40,001-\$42,500 | \$57,501-\$60,000 |
| No (n= 107) | \$42,501-\$45,000 | \$37,501-\$40,000 | \$50,001-\$52,500 |
| Country | | | |
| United States (n= 550) | \$45,001-\$50,000 | \$37,501-\$40,000 | \$57,501-\$60,000 |
| Canada (n= 23) | \$60,001-\$62,500 | \$52,501-\$57,500 | \$65,001-\$67,500 |
| Other (n= 4) | \$37,501-\$40,000 | NA | NA |
| United States Region | | | |
| Southeast (n= 96) | \$42,501-\$45,000 | \$35,001-\$37,500 | \$52,501-\$55,000 |
| South (n= 45) | \$42,501-\$45,000 | \$35,001-\$37,500 | \$60,001-\$62,500 |
| Midwest (n= 59) | \$42,501-\$45,000 | \$37,501-\$40,000 | \$50,001-\$52,500 |
| North (n= 123) | \$45,001-\$47,500 | \$37,501-\$40,000 | \$55,001-\$57,500 |
| Mid-Atlantic (n= 70) | \$45,001-\$47,500 | \$40,001-\$42,500 | \$52,501-\$55,000 |
| Southwest (n= 29) | \$50,001-\$52,500 | \$42,501-\$45,000 | \$60,001-\$62,500 |
| North-Atlantic (n= 29) | \$52,501-\$55,000 | \$45,001-\$47,500 | \$65,001-\$67,500 |
| Northeast (n= 47) | \$52,501-\$55,000 | \$40,001-\$42,500 | \$60,001-\$65,000 |
| Northwest (n= 29) | \$52,501-\$55,000 | \$37,501-\$40,000 | \$60,001-\$62,500 |
| West (n= 23) | \$57,501-\$60,000 | \$47,501-\$50,000 | \$77,501-\$80,000 |

*Includes individuals who reported current ACSM Clinical Exercise Specialist, ACSM Registered Clinical Exercise Physiologist, or ACSM Program Director certification.

NA = data not available due to low sample size (n< 5).

Table 5. Median salary by years of experience and degree among clinical exercise professionals with a bachelor's degree or higher who did not report a concomitant degree or certification for another profession and reported full-time employment (≥ 30 hours per week)

| | Bachelor's (n= 157) | Master's (n= 421) | Doctorate (n= 51) |
|---------------------|---------------------|-------------------|--------------------|
| All | \$40,001-\$42,500 | \$47,501-\$50,000 | \$85,501-\$90,000 |
| Years of Experience | | | |
| < 2 | \$37,501-\$40,000* | \$37,501-\$40,000 | NA |
| 2-3 | \$32,501-\$35,000 | \$37,501-\$40,000 | NA |
| 4-5 | \$35,001-\$37,500 | \$42,501-\$45,000 | NA |
| 6-7 | \$35,001-\$37,500 | \$42,501-\$45,000 | NA |
| 8-9 | \$40,001-\$42,500 | \$47,501-\$50,000 | NA |
| 10-15 | \$47,501-\$50,000 | \$50,001-\$52,500 | \$65,001-\$67,500 |
| 16-20 | \$57,501-\$60,000* | \$52,501-\$55,000 | NA |
| 21-25 | \$42,501-\$45,000* | \$60,001-\$62,500 | \$80,001-\$85,000* |
| > 25 | NA | \$67,501-\$72,500 | >\$90,000 |

*Data based on n= 5-9.
NA = data not available due to low sample size (n< 5).

Table 6. Median salary by certification among clinical exercise professionals with a bachelor's or master's degree who did not report a concomitant degree or certification for another profession and reported full-time employment (≥ 30 hours per week)

| | Clinical Certification* | No Clinical Certification |
|--|-------------------------|---------------------------|
| <i>Clinical Exercise Professionals with a Bachelor's Degree</i> | | |
| n | 115 | 42 |
| All | \$42,501-\$45,000 | \$35,001-\$37,500 |
| Years of Experience | | |
| < 6 | \$37,501-\$40,000 | \$37,501-\$40,000 |
| 6-15 | \$45,001-\$47,500 | \$42,501-\$45,000 |
| > 15 | \$60,001-\$62,500 | NA |
| Patient Contact | | |
| Yes | \$42,501-\$45,000 | \$35,001-\$37,500 |
| No | \$40,001-\$42,500† | \$42,501-\$45,000† |
| Cardiac/Pulmonary Rehabilitation | | |
| Yes | \$40,001-\$42,500 | \$37,501-\$40,000 |
| No | \$45,001-\$47,500 | \$37,501-\$40,000 |
| Billing | | |
| Hospital-Based | \$40,001-\$42,500 | \$35,001-\$37,500 |
| Hospital/Physician-Based | \$42,501-\$45,000 | \$35,001-\$37,500 |
| <i>Clinical Exercise Professionals with a Master's Degree</i> | | |
| n | 356 | 65 |
| All | \$50,001-\$52,500 | \$47,501-\$50,000 |
| Years of Experience | | |
| < 6 | \$37,501-\$42,500 | \$40,001-\$45,000 |
| 6-15 | \$47,501-\$50,000 | \$47,501-\$50,000 |
| > 15 | \$57,501-\$60,000 | \$57,501-\$60,000 |
| Patient Contact | | |
| Yes | \$47,501-\$50,000 | \$47,501-\$50,000 |
| No | \$55,001-\$57,500 | \$52,501-\$55,000† |
| Cardiac/Pulmonary Rehabilitation | | |
| Yes | \$50,001-\$52,500 | \$47,501-\$50,000 |
| No | \$47,501-\$50,000 | \$45,001-\$47,500 |
| Billing | | |
| Hospital-Based | \$50,001-\$52,500 | \$47,501-\$50,000 |
| Hospital/Physician-Based | \$50,001-\$52,500 | \$47,501-\$50,000 |
| *Clinical certification includes the ACSM Clinical Exercise Specialist, ACSM Registered Clinical Exercise Physiologist, or ACSM Program Director certifications. | | |
| †Data based on n= 5-9. | | |
| NA = data not available due to low sample size (n< 5). | | |

Appendix A. Survey questions

1. My age is ____
2. My gender is ____
3. What is your highest level of education?
4. How many years have you worked in the field of exercise physiology? (Note: if < 1 year, 0-1; if 3 years and 7 months, round up to 4 years)
5. What is your current job title?
6. What is your primary work or educational setting?
7. What certifications/registrations do you currently have other than ACSM?
8. What health related fitness organizations do you currently belong to?
9. Which ACSM certifications (if any) do you currently have?
10. What is your current salary?
11. What is your current work status?
12. Does any of your job include direct patient contact or the supervision of clinical services?
13. What type of patients do you work with? Please rate in order of patient contacts from 1-6. For example, if you work with cardiovascular patients mostly, rate this as "1".
14. What percentage of patients that you treat fall under each disease category? (Select one answer per disease category, does not need to add up to 100%)
15. How do you primarily bill for your services?
16. The services you provide are billed for with which of the following CPT or G-codes?
17. What percent of your time is spent doing research?
18. Which region of the United States or which country do you work in?
19. Check all life support certifications that apply:
20. Does your work facility require any type of ACSM (or other) certification for employment?