



The Educational Measurement Profession in 2007: What is the state of our union?

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The College Board

Purpose of the Survey

- Need for highly trained professionals in educational measurement, assessment, and psychometrics
 - NCLB mandated testing and educational accountability
 - Increase in licensure and certification testing
- Brennan & Plake (1991) and Patelis, Kolen, & Parshall (1997): academic and nonacademic organizations have problems recruiting; low supply of qualified candidates at entry- and mid-level
- No studies have examined salary
 - APA, SIOP, ASA conduct these surveys

Overview

Results from a 2007 survey of educational measurement professionals

- Methodology
- Demographics & Descriptive Statistics
- Job Analysis
- Compensation
- Implications

Methodology: Survey

- Online survey
- 80 Questions covering a variety of areas: demographics, education, employment & compensation, job tasks, professional experiences, and memberships, conference attendance & presentations
- Small pilot (n = 10) to check administration time and applicability across various jobs
- Open from February 1 – April 17, 2007
- Median completion time = 10.4 minutes

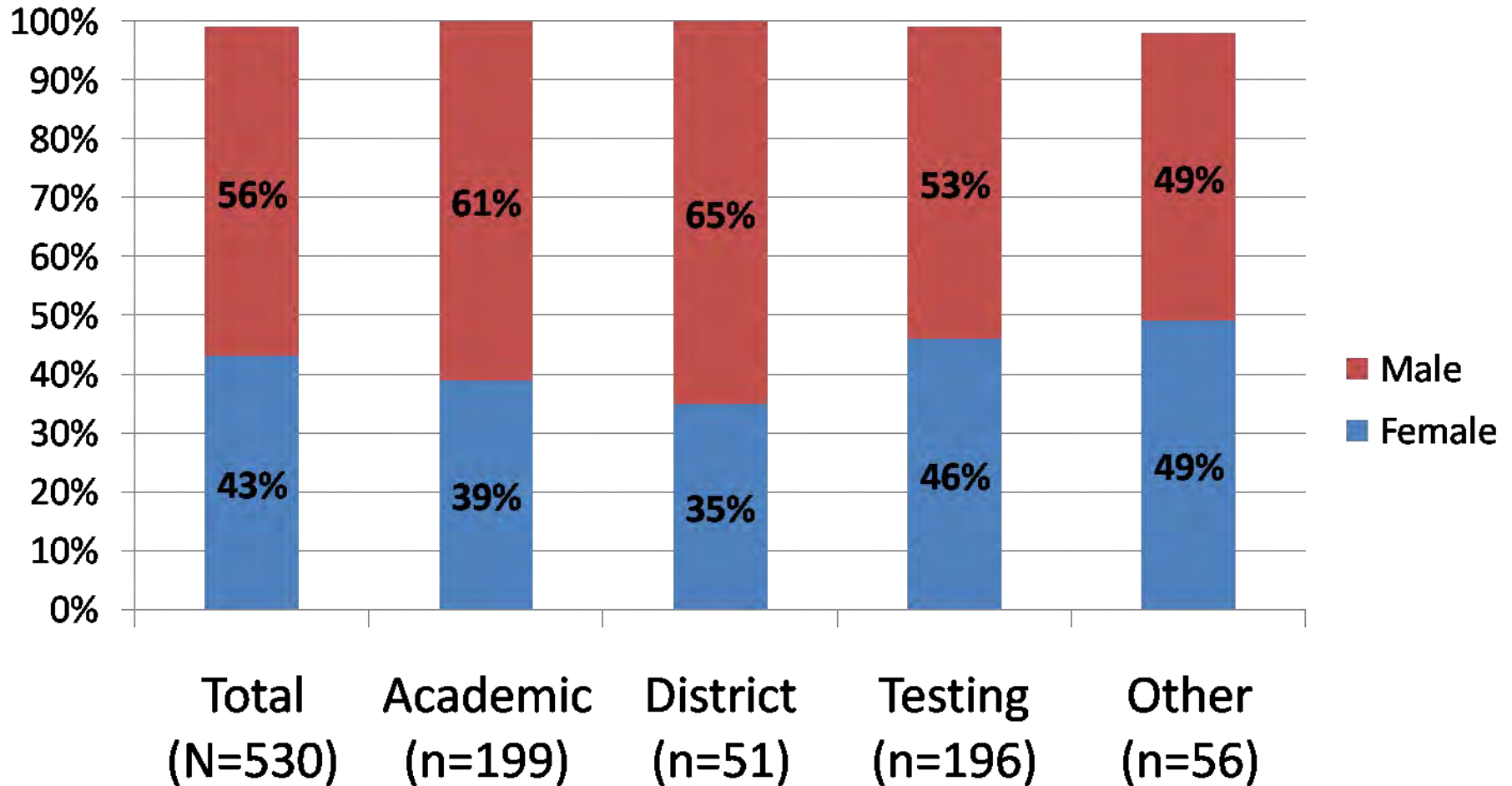
Methodology: Sample

- Contacted members of:
 - National Council on Measurement in Education (NCME)
 - National Association of Test Directors (NATD)
 - APA Division 5 (Evaluation, Measurement, & Statistics)
- Received an electronic or mailed invitation to participate with a link to the survey
- **538 respondents**
- Anonymous

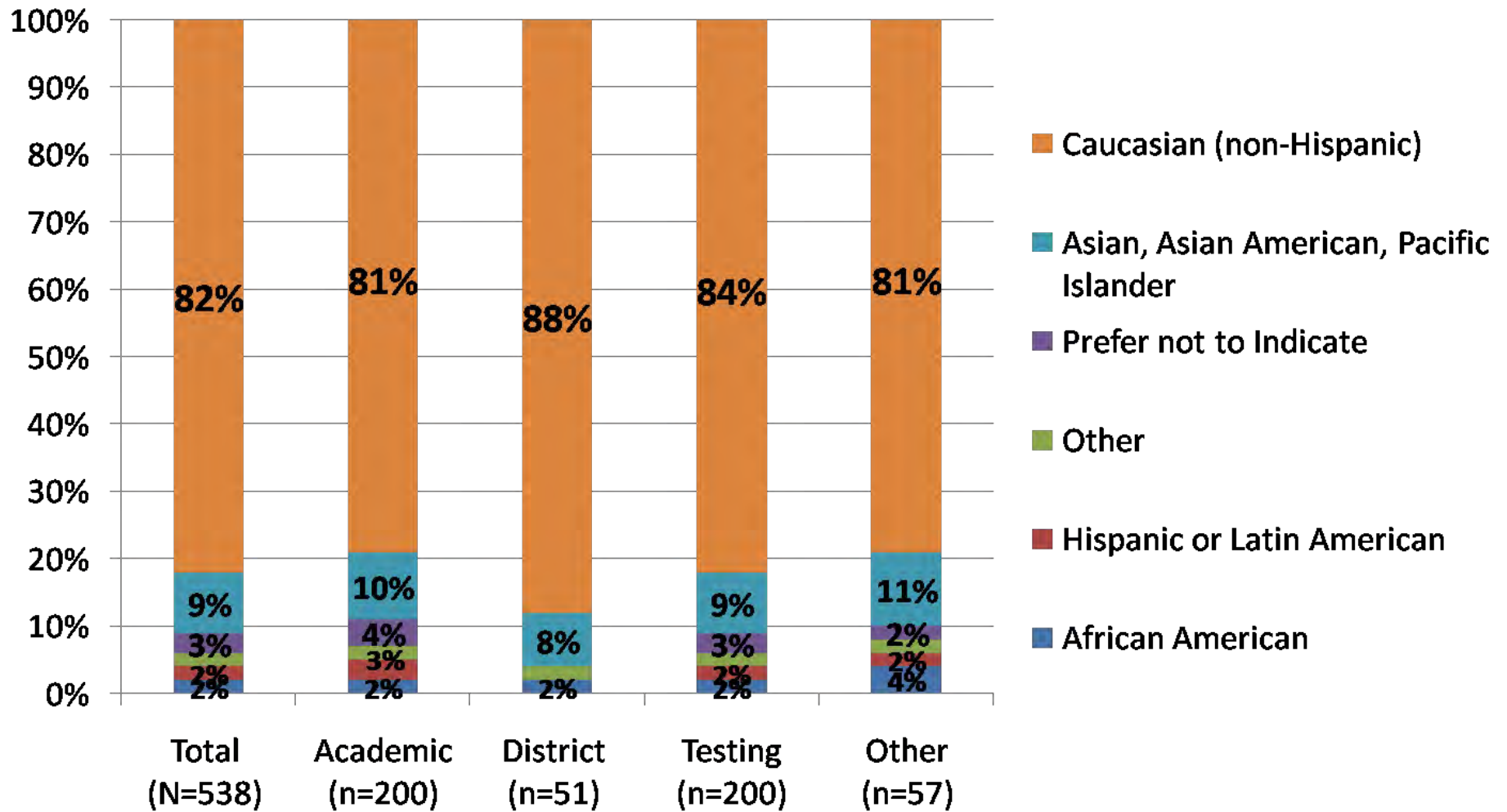
Job Setting

	#	%
Academic Setting	200	37.2
Research or Testing Organization	200	37.2
Other	57	10.6
District, State, Federal Setting	51	9.5
Missing	30	5.6
Total	538	100.0

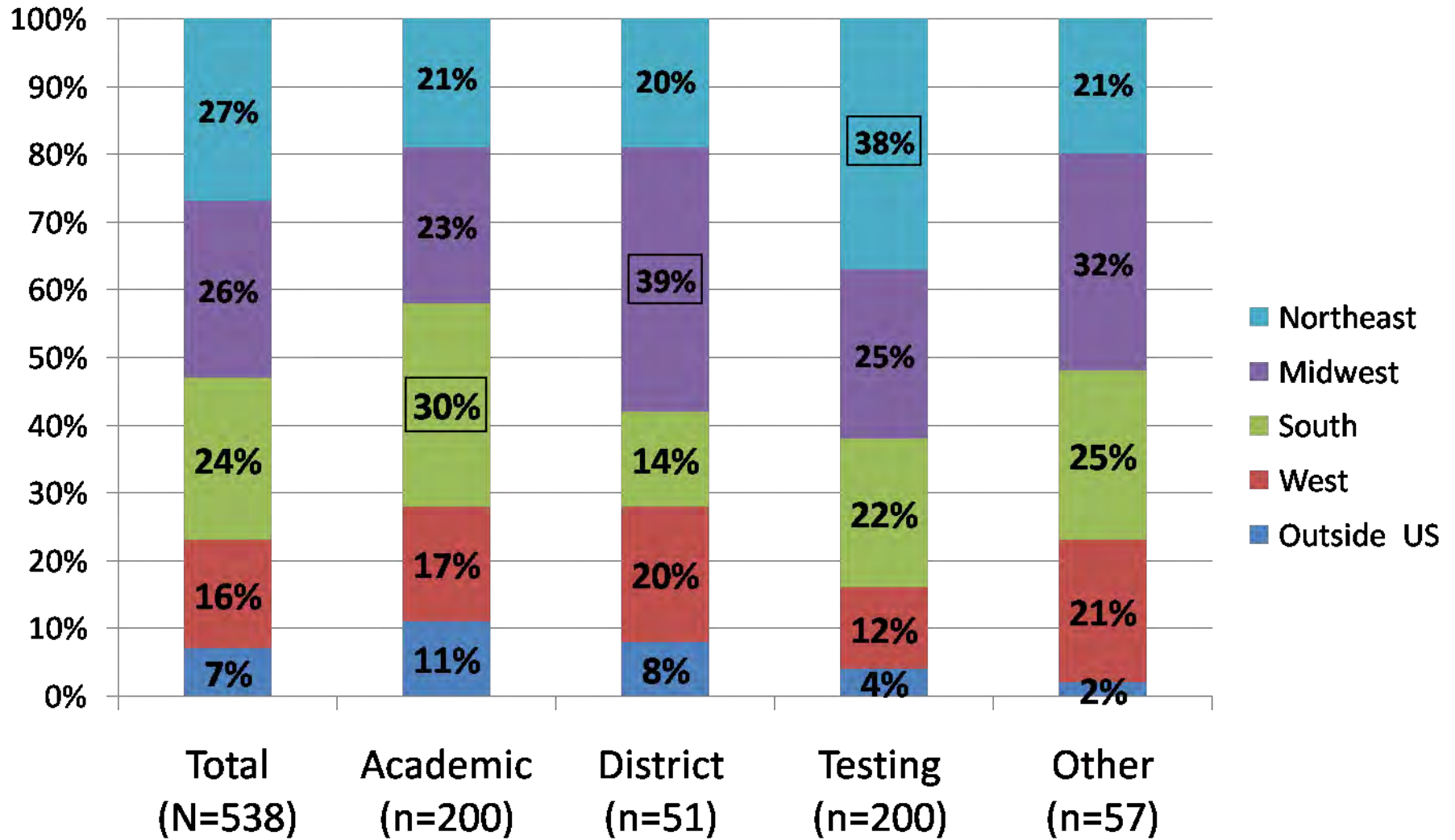
Gender



Race/Ethnicity

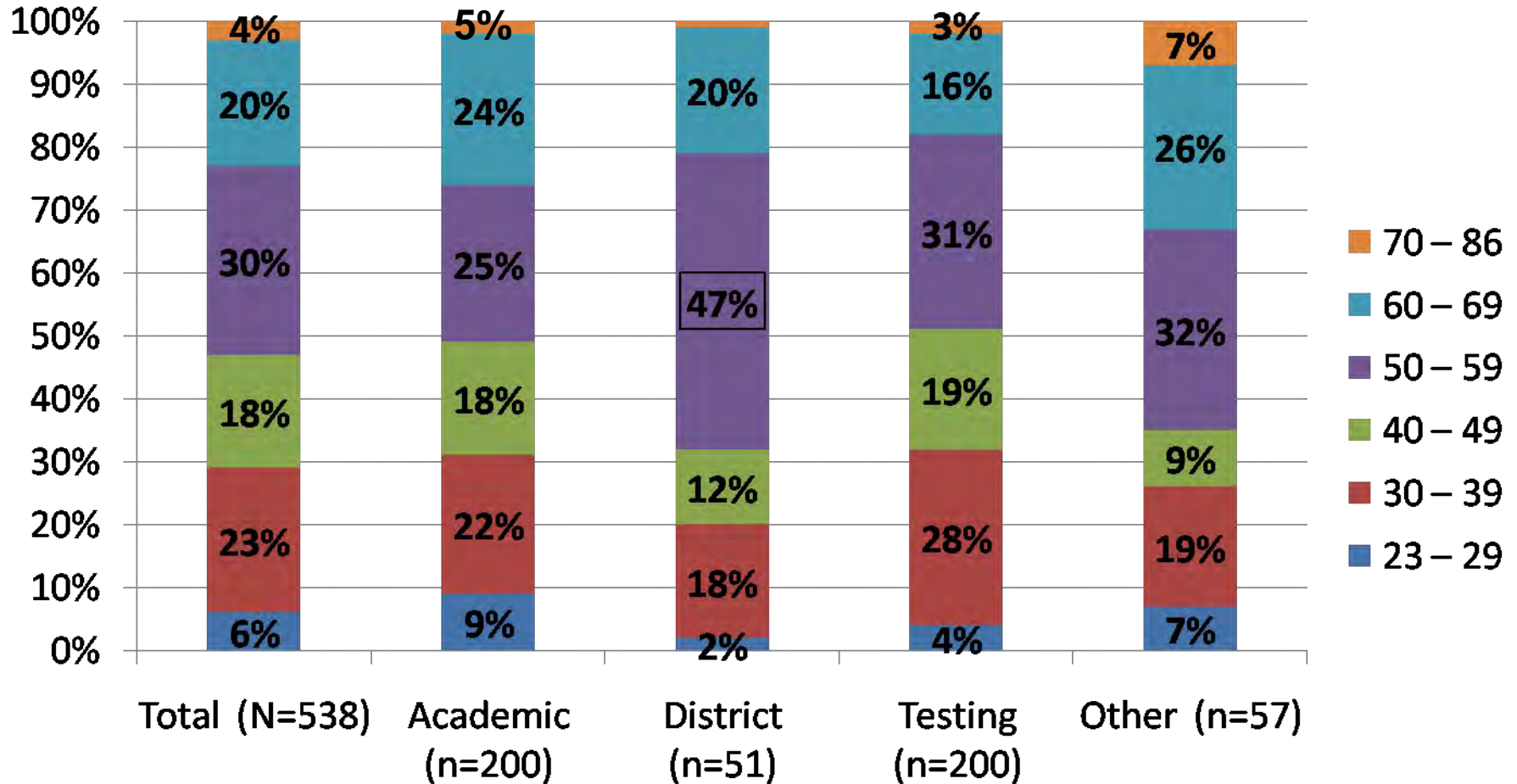


Region



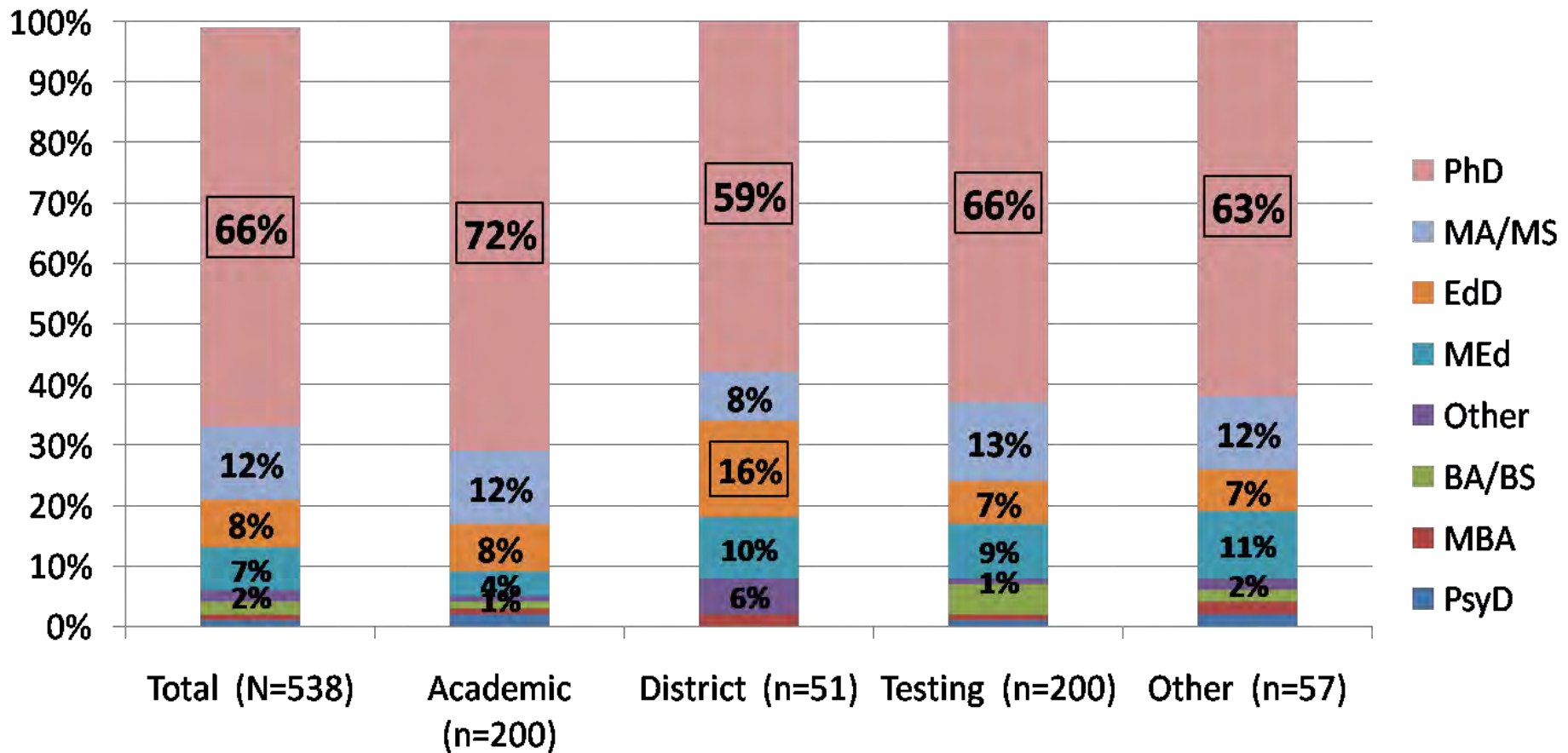
Age Range

Overall, Mean age = 49.5 (12.8)



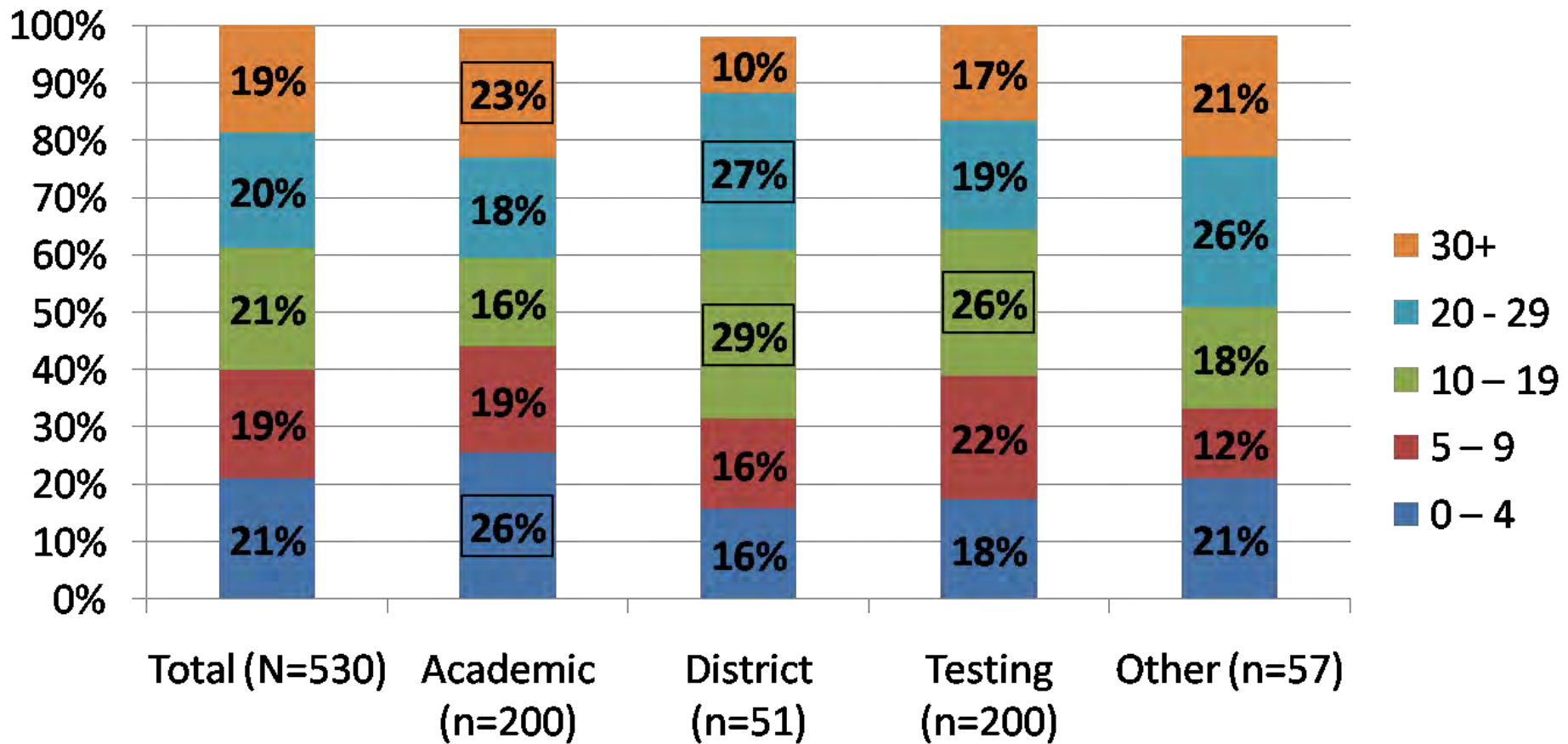
Highest Degree Attained

Overall, 15% currently enrolled in PhD program



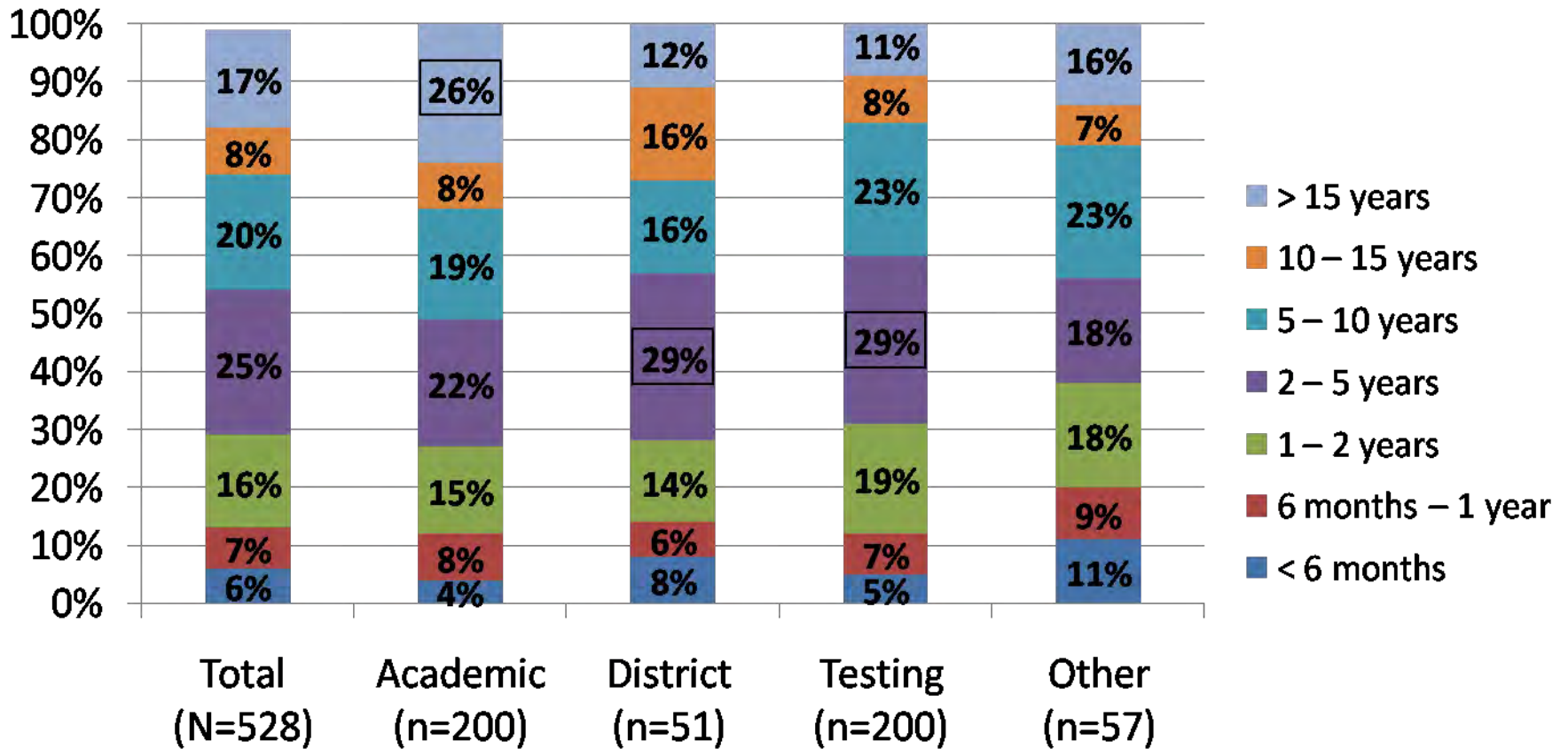
Years Since Highest Degree

Overall, Mean years = 16.4 (12.3)

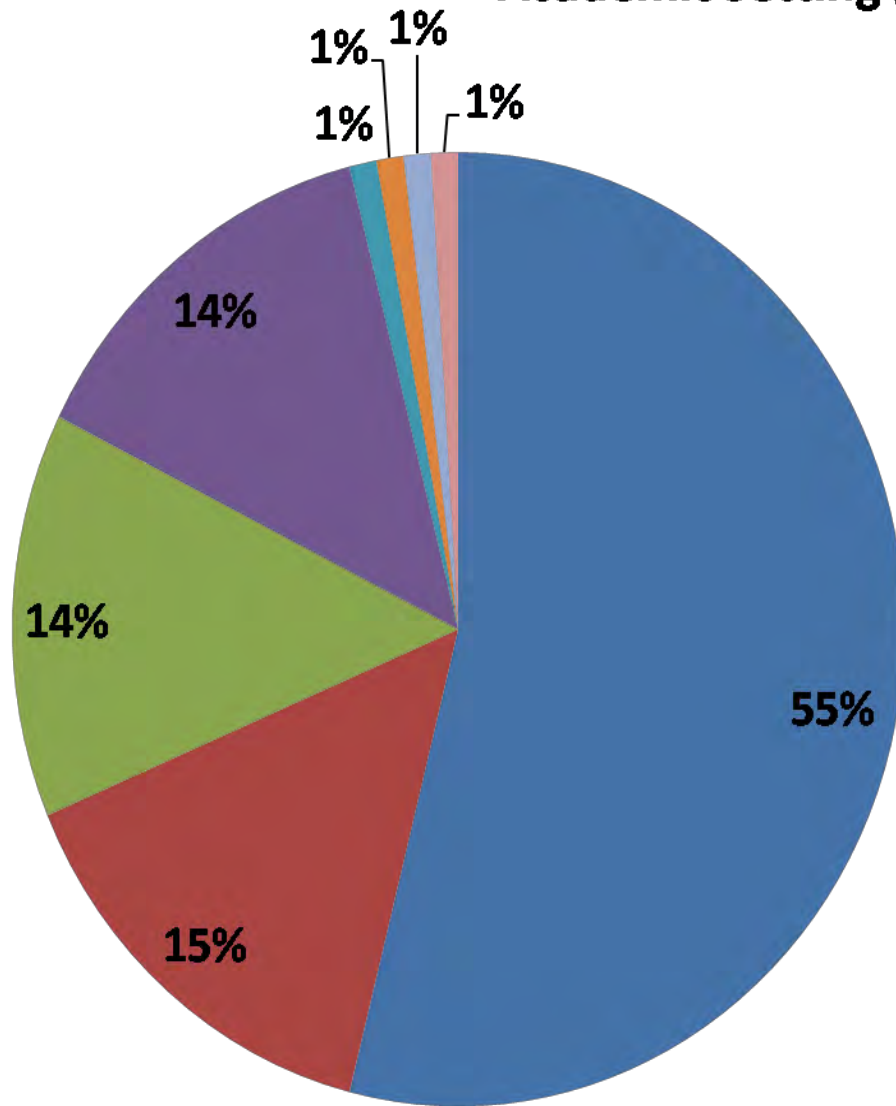


Primary Job Tenure

Overall, 83% work Full-Time (≥ 30 hours) & 15% hold a second job

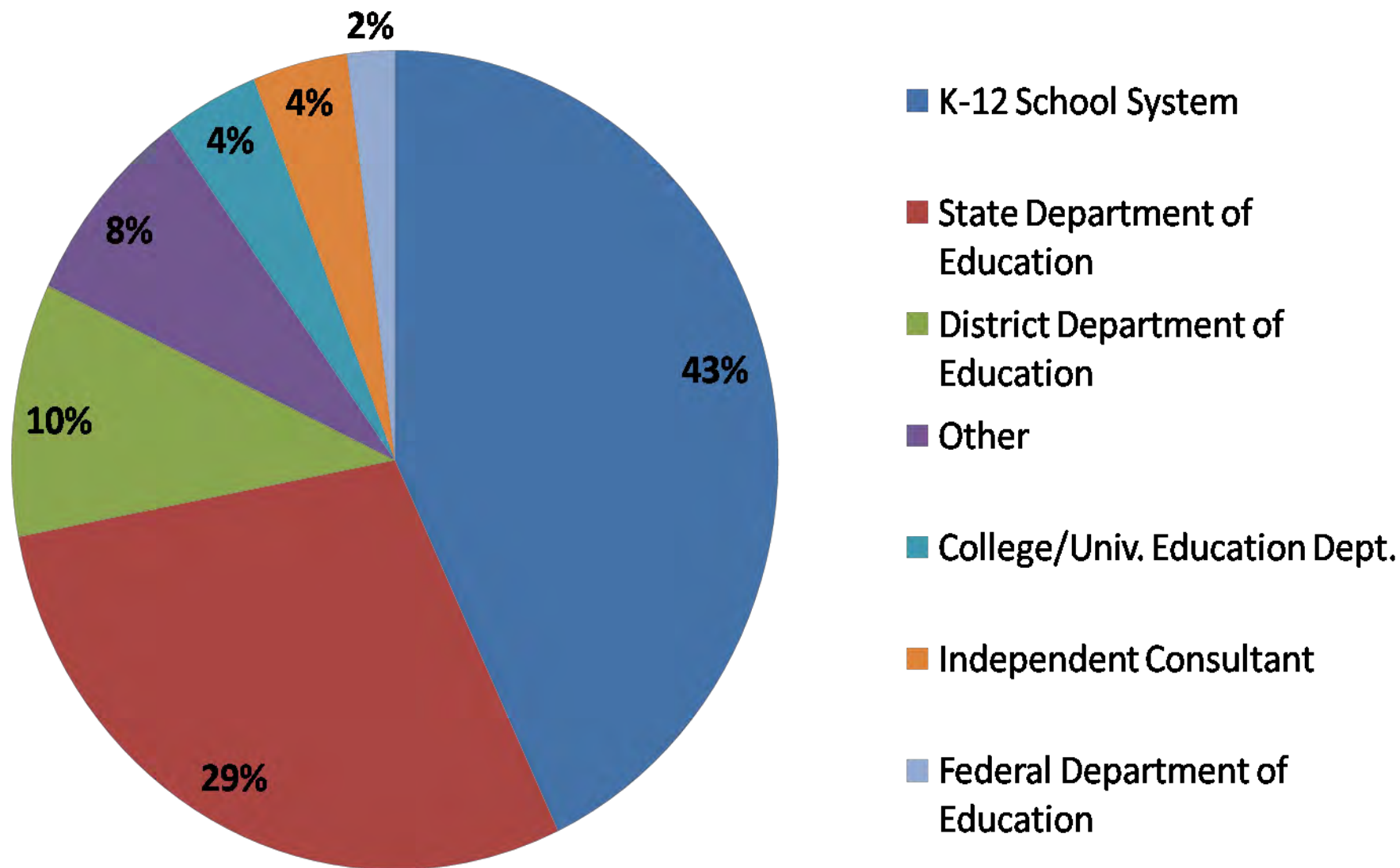


Academic Setting (n=200)

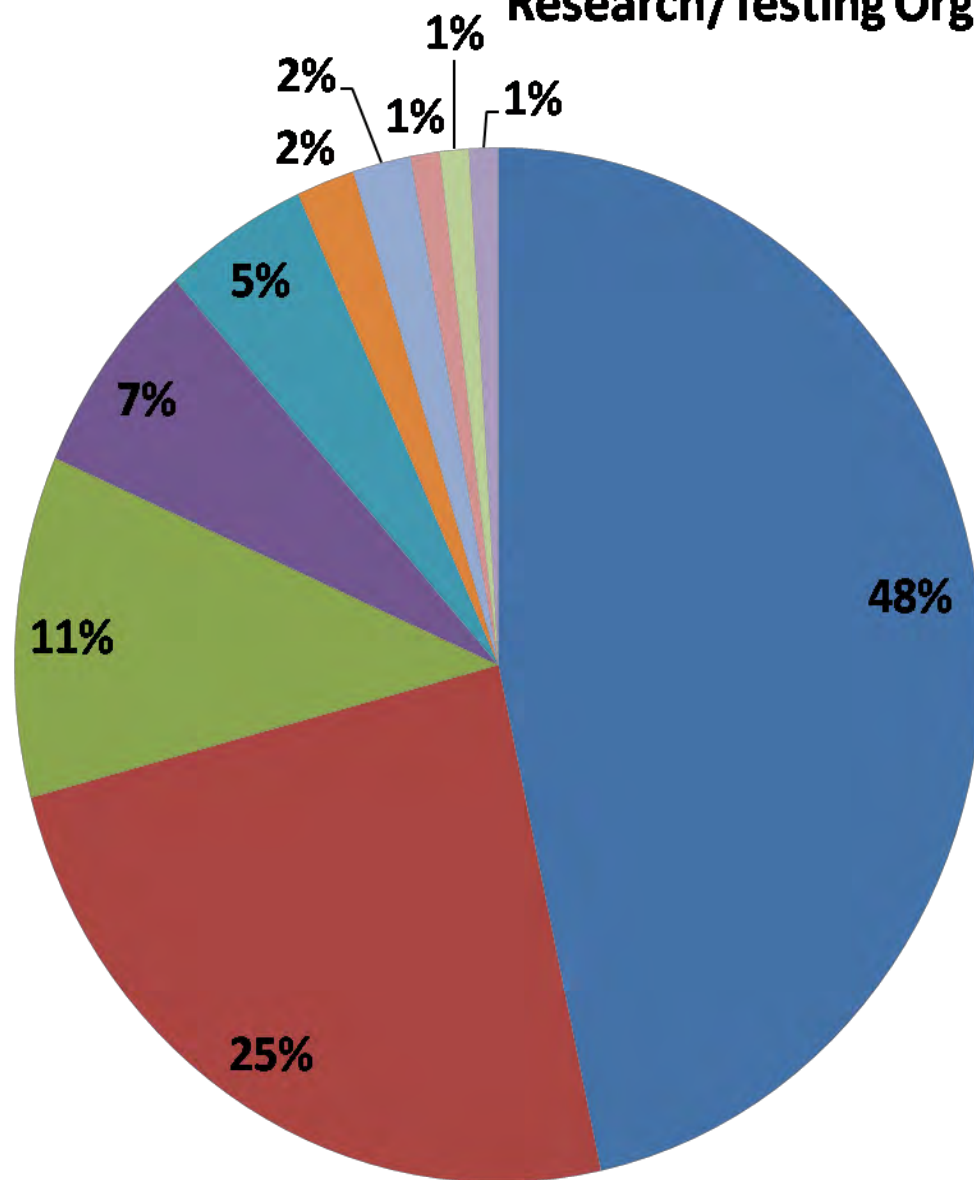


- College/Univ. Education Dept.
- College/Univ. Other Dept.
- College/Univ. Psychology Dept.
- College/Univ. Research Ctr./Inst.
- K-12 School System
- Prof. Licensing/Certification Org.
- Independent Consultant
- Other

District, State, Federal Setting (n=51)

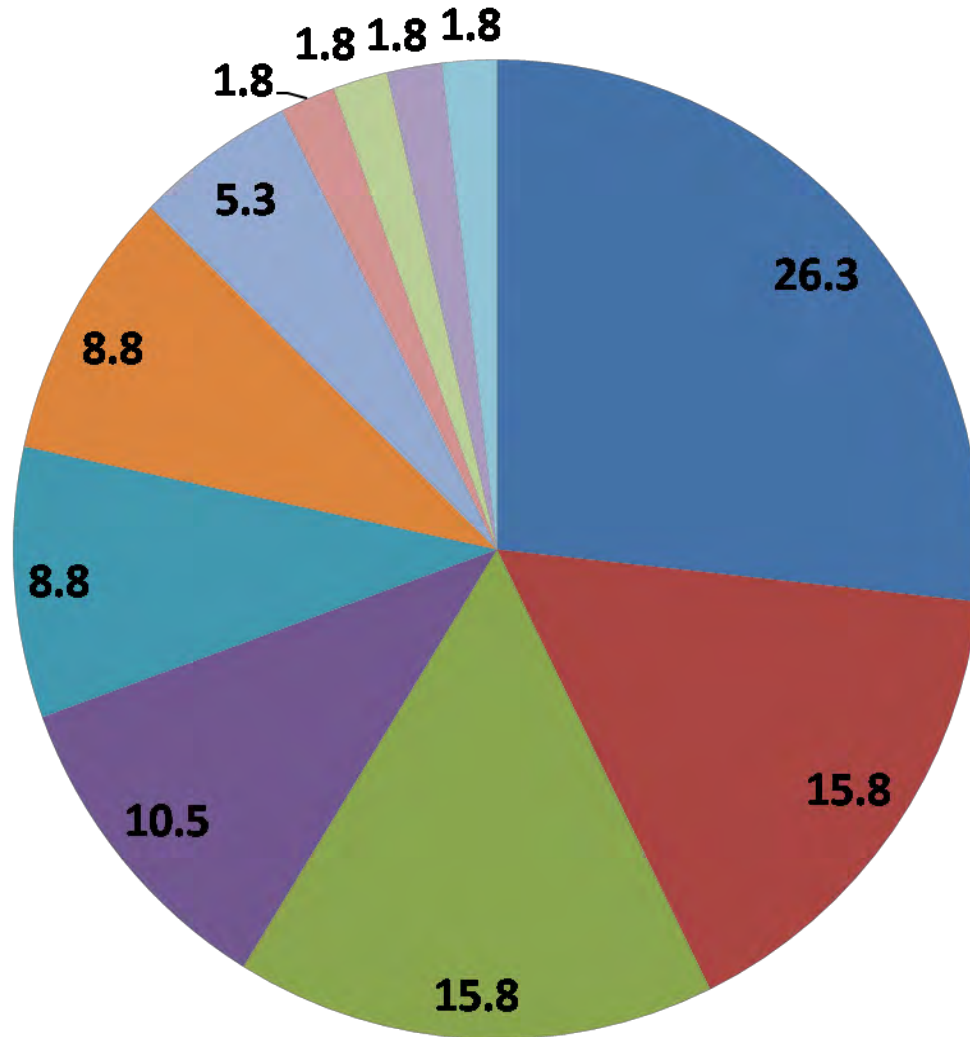


Research/Testing Org (n=200)



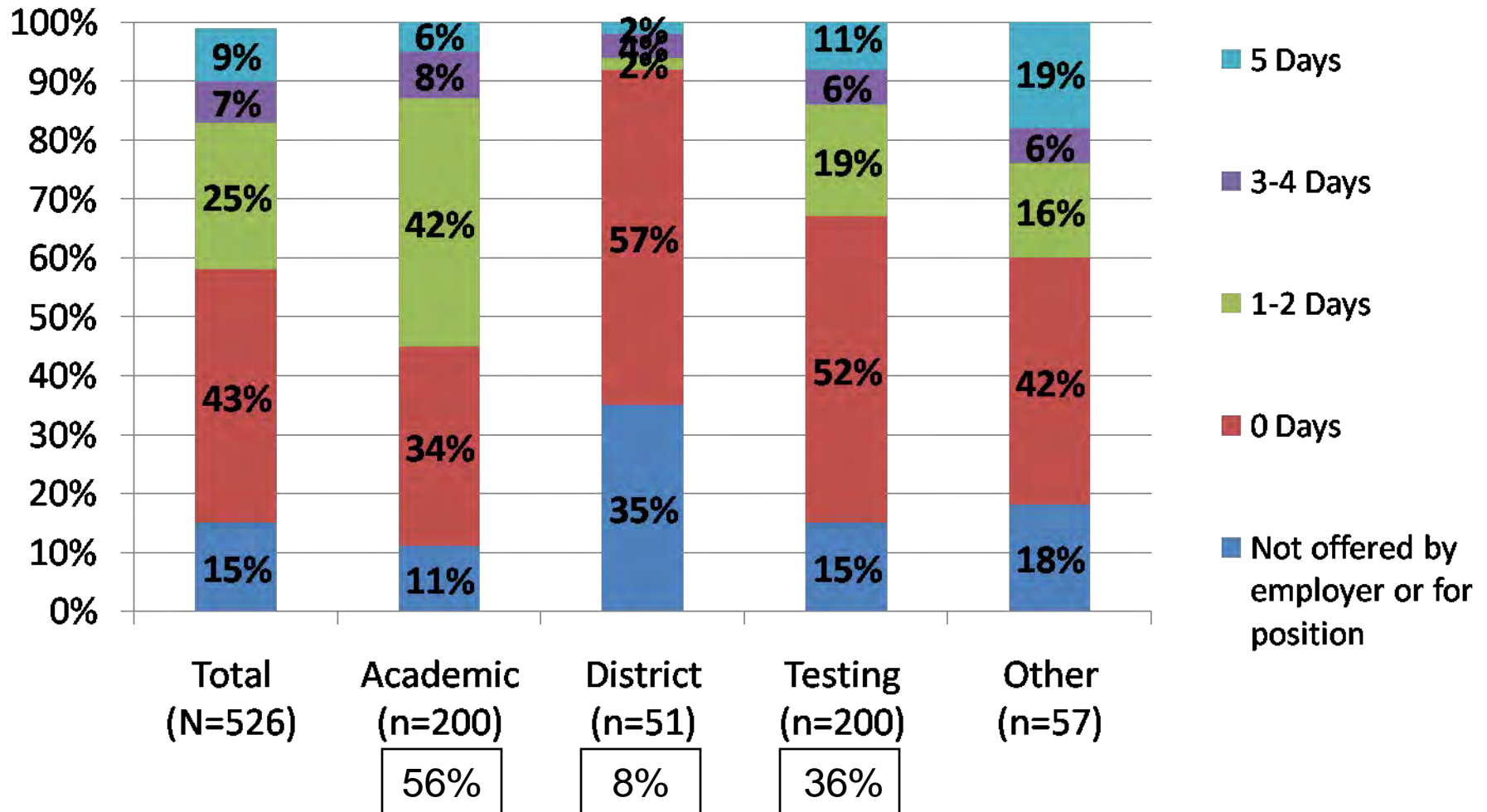
- Not-for-profit Research/Testing
- Commercial Research/Testing
- Prof. Licensing/Certification Org.
- College/Univ. Research Ctr./Inst.
- Consulting Firm
- College/Univ. Education Dept.
- Independent Consultant
- College/Univ. Other Dept.
- Commercial Textbook Publisher/Provider
- Other

Other (n=57)

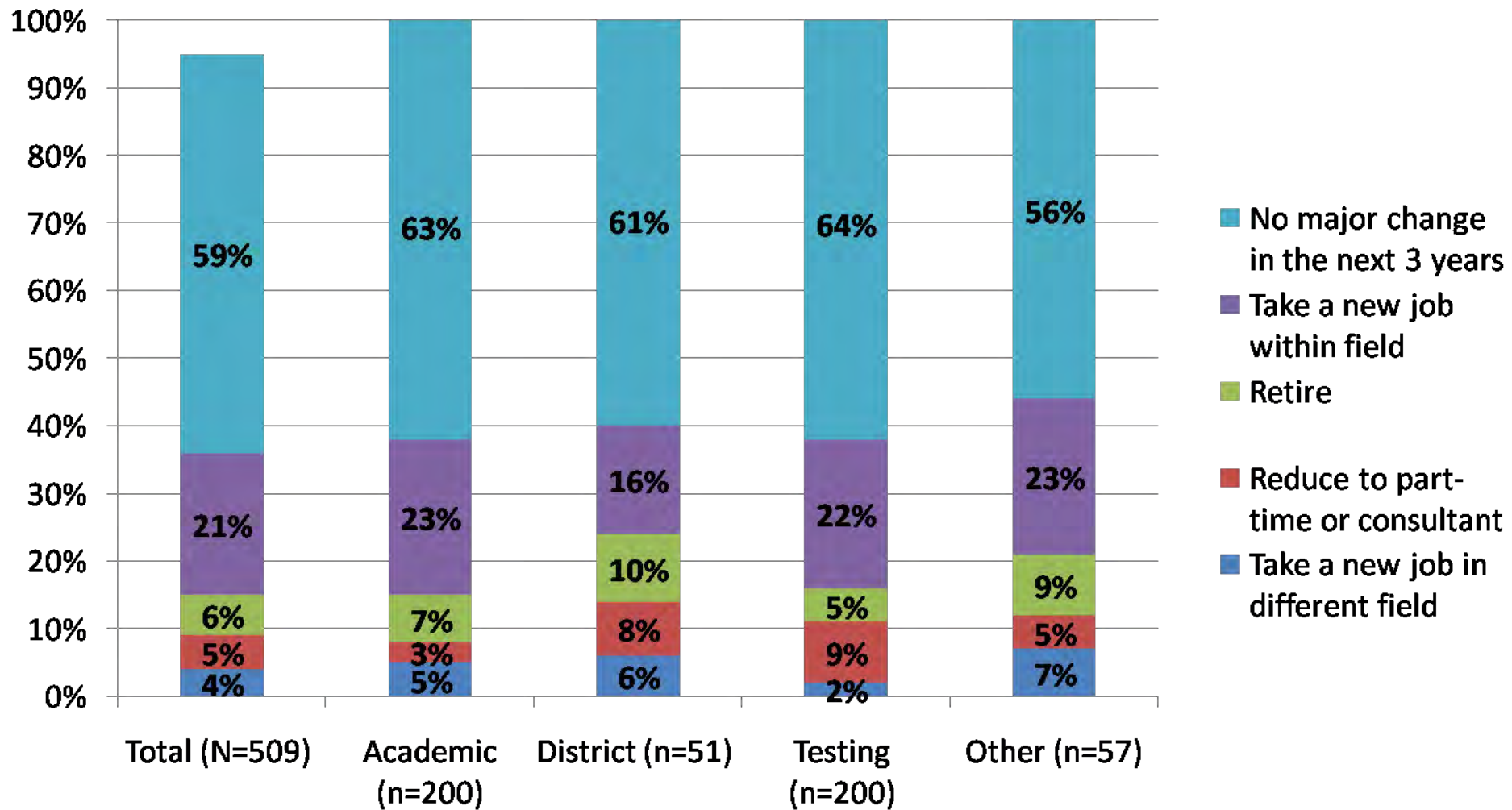


- Independent Consultant
- Consulting Firm
- K-12 School System
- Other (please specify)
- College or University: Research Center / Institute
- Professional Licensing or Certification Organization
- College or University: Other Department
- College or University: Education Department
- Commercial Research or Testing Organization
- Commercial Textbook Publisher / Provider
- Not-for-profit Research or Testing Organization

Primary Job Telecommuting



Plans to Change Job



Professional Experiences

- 20 Yes/No questions about typical experiences within our field
- **More than 50%** of respondents:
 - Developed, validated, or evaluated an instrument or the policies/procedures for utilizing an instrument
 - Participated in a research grant or contract
 - Conducted workshop training in education or measurement
 - Published an article in a journal
 - Served as an editorial consultant or reviewer in a journal

Professional Experiences

- **50 - 20%** of respondents:
 - Participated in a measurement workshop or formal continuing education activities in education or measurement
 - Taught graduate or undergraduate courses
 - Principal investigator or formally reviewed a research grant/contract
 - Appeared on radio/TV or within print media for education or measurement issues
 - Served as an editor, associate editor, or consulting editor in a journal
- **Less than 10%** served as an expert witness in a court proceeding or served on a licensing or certification board

Professional Memberships

	#	%
National Council on Measurement in Education (NCME)	422	78.4
American Educational Research Association (AERA)	384	71.4
American Psychological Association (APA)	120	22.3
Psychometric Society (PS)	70	13.0
AERA – Regional Affiliate	69	12.8
American Statistical Association (ASA)	46	8.6
Association for Test Publishers (ATP)	46	8.6
Association for Psychological Science (APS)	36	6.7
National Association of Test Directors (NATD)	35	6.5
Council of Chief State School Officers (CCSSO)	26	4.8
Society for Industrial and Organizational Psychology (SIOP)	19	3.5
International Association for Educational Assessment (IAEA)	5	0.9

Conference Attendance /Presentations

	Attended		Presented last 3 yrs	
	N	(%)	N	(%)
American Educational Research Association (AERA)	259	48	192	36
National Council on Measurement in Education (NCME)	242	45	143	27
Council of Chief State School Officers (CCSSO)	52	10	53	10
AERA – Regional Affiliate	42	8	52	10
Association for Test Publishers (ATP)	38	7	38	7
American Psychological Association (APA)	28	5	42	8
National Association of Test Directors (NATD)	21	4	11	2
Psychometric Society (PS)	19	4	23	4
Society for Industrial & Organizational Psychology (SIOP)	15	3	12	2
Association for Psychological Science (APS)	5	1	11	2
American Statistical Association (ASA)	5	1	6	1
International Association for Educational Assessment (IAEA)	2	0	6	1

Part II: Where We Work & What We Do

Data Sources

(1) 5-point Likert-type scale on how time is spent in typical work week on specific tasks

- 1 = Very little time, 5 = Most of my time
- Rank order of tasks based on frequency of response in categories 4 + 5

Data Sources

(2) Percentage of time spent in typical work week in four categories of tasks

- Teaching & Working with Students
- Conducting Research
- Professional Development & Service
- Administrative Tasks
- Other (additional tasks not included in the above categories)

Job Setting

	#	%
Academic Setting	200	37.2
Research or Testing Organization	200	37.2
Other	57	10.6
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Missing	30	5.6
Total	538	100.0

Academic Setting Primary Job Titles n = 200

	%
Assist, Assoc, Full, or Emeritus Prof	68.0
Graduate Student/TA	10.5
Adjunct Instructor	8.5
Administration/Director/Dean	8.0
Other	4.0

Academic

	n	Average %
Conducting Research	184	33.2
Teaching & Working with Students	183	31.3
Administrative Tasks	177	20.0
Professional Development & Service	175	12.1
Other	105	10.7

Academic (n = 186)

Conducting Research (33%)

- Data Analysis (37%)
- Preparing Manuscripts for Presentation/Publications (37%)

Teaching (31%)

- Teaching/Lecturing (28%)

Admin Tasks (20%)

- Attending Meetings (22%)

Professional Development/Service (12%)

- Editing/Reviewing Proposals/Manuscripts (18%)

Testing/Research Organization Primary Job Titles n = 200

	%
VP/ED/Dir of Psychometrics, Research or TD	28.5
Research Scientist	17.0
Psychometrician	16.0
Research Associate/Analyst	12.5
Program Manager	10.5
Other	6.5
CEO or President	5.5
Test Developer	3.5

Testing/Research Organization

	n	Average %
Operational Testing Procedures	189	30.9
Management/Admin	186	27.7
Conducting Research	191	27.5
Professional Development	181	10.3
Other	134	9.7

Testing/Research Org (n = 193)

Operational Testing Procedures (31%)

- Psychometrics (44%)

Management/Admin (28%)

- Project management (55%)

Conducting Research (28%)

- Data analysis (40%)

Professional Development (10%)

- Conference attendance/presentation (16%)

District, State, Federal Primary Job Titles n = 51

	%
Director or Executive Director	31.4
Research Specialist or Coordinator	15.7
Other	15.7
Consultant	11.8
Assessment Specialist or Coordinator	9.8
Psychometrician	9.8
Psychologist	5.9

District, State, Federal

	n	Average %
Assessment/Accountability	50	32.2
Policy	49	19.8
Conducting Research	50	19.9
Management/Admin	49	17.6
Other	37	15.2

District, State, Federal (n = 50)

Assessment/Accountability (32%)

- Managing Operational Testing Program (40%)

Policy (20%)

- Accountability Requirements (50%)
- Evaluating Policy related to Accountability (48%)

Conducting Research (20%)

- Data analysis (50%)

Management/Admin (18%)

- Consultation w/ Stakeholders (46%)

Next Steps

Additional analyses

- Relationship of time-on-tasks with interesting variables...
 - Salary
 - Plans for changing jobs or retirement, etc.
 - Degree
 - Years since degree

Future research

- Are graduate programs providing appropriate training?
- What training is needed for new professionals? Not-so-new professionals?

Part III: Show Me the Money

Does our profession need a compensation survey?

- Benchmark compensation by setting, experience, degree and region
- Inform prospective students and graduates
- Inform organizations who recruit and retain testing professionals
- Other related professions monitoring hiring and compensation practices every 3-5 yrs:
 - APA, SIOP, ASA, AFT, AAMC, Chronicle of Higher Ed

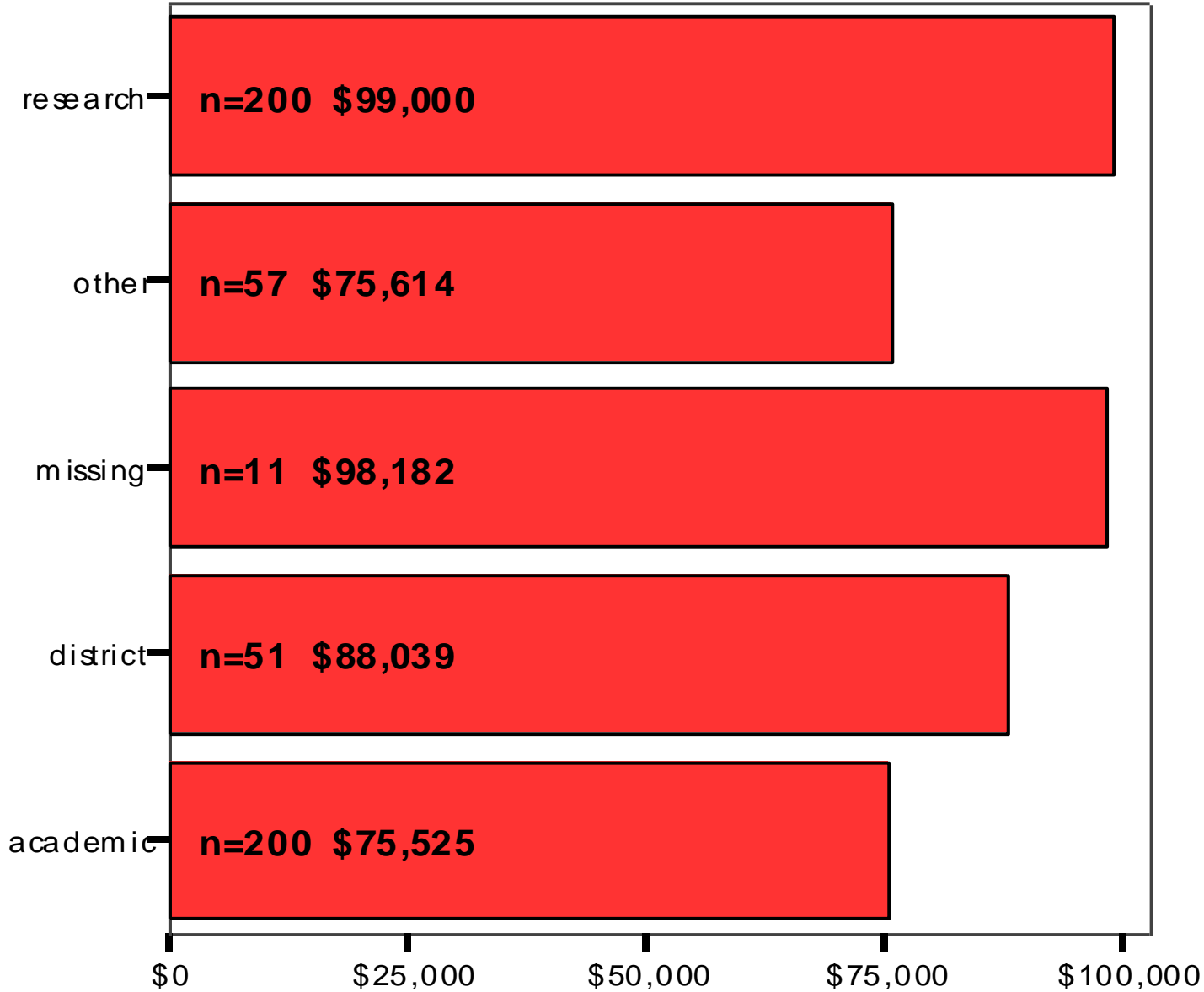
Compensation Survey

- Cooperation from NCME and NATD, but not officially sanctioned.
- Concern about competitive advantages among at least one corporate entity
- Confidentiality – individuals, organizations – not much different than test score issues (student, school).
- Benefits to field (profession, data based decisions)

Sources of Income

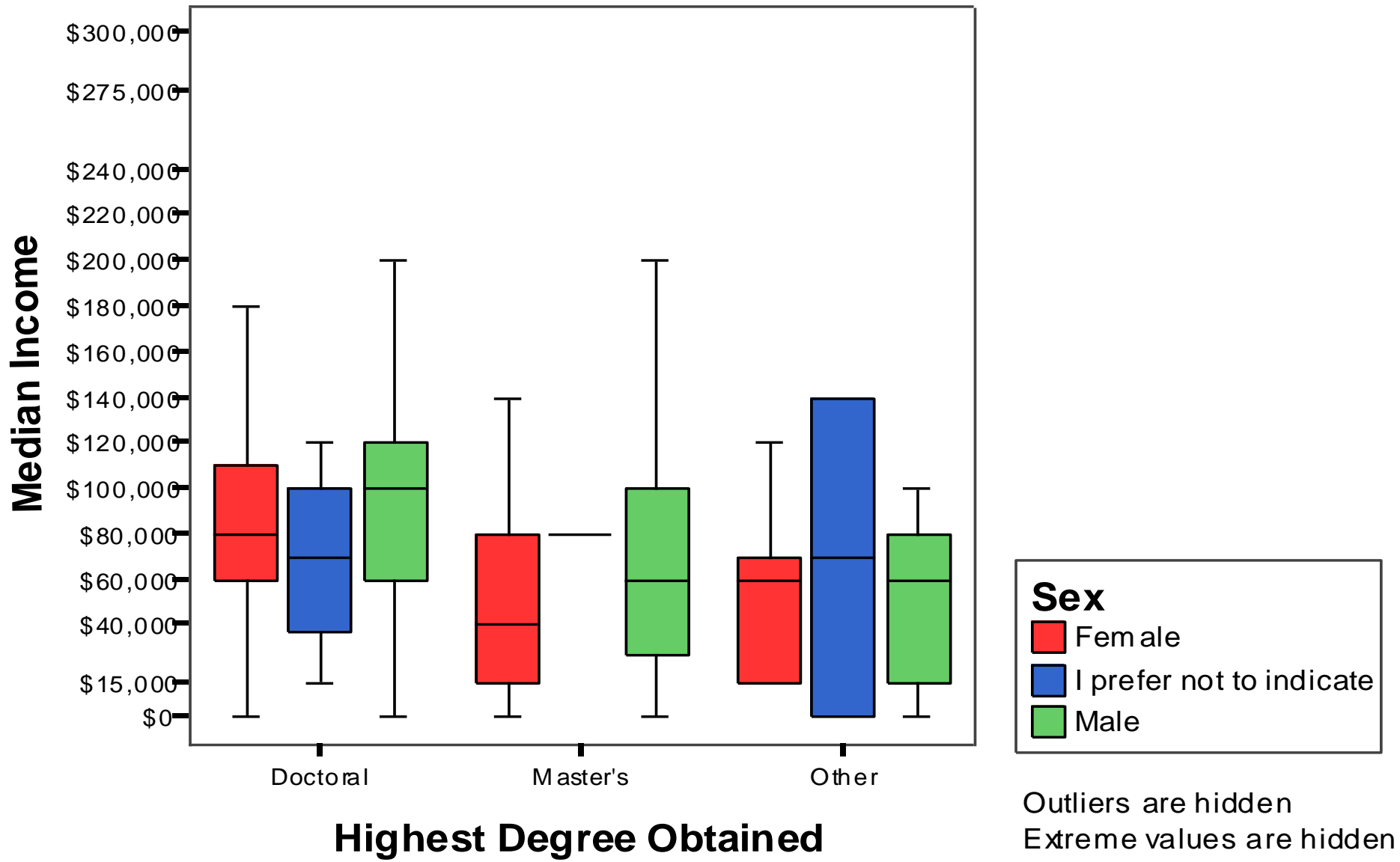
- Primary Occupation
 - Academics (primarily faculty, some centers)
 - Research/Testing Organization (profit/non-profit, sponsor)
 - State/District/School/US DOE (and other gov.)
 - Other (private consultants, human services, other)
- Secondary Occupation (same 4 settings)
- Consulting
- Technical (or Research) Advisory Panels

Primary Job Setting

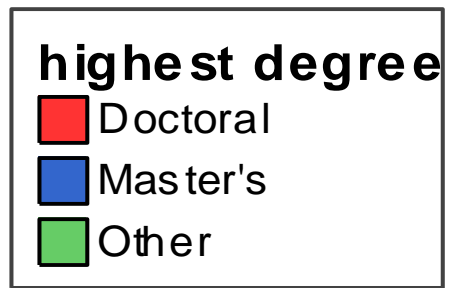
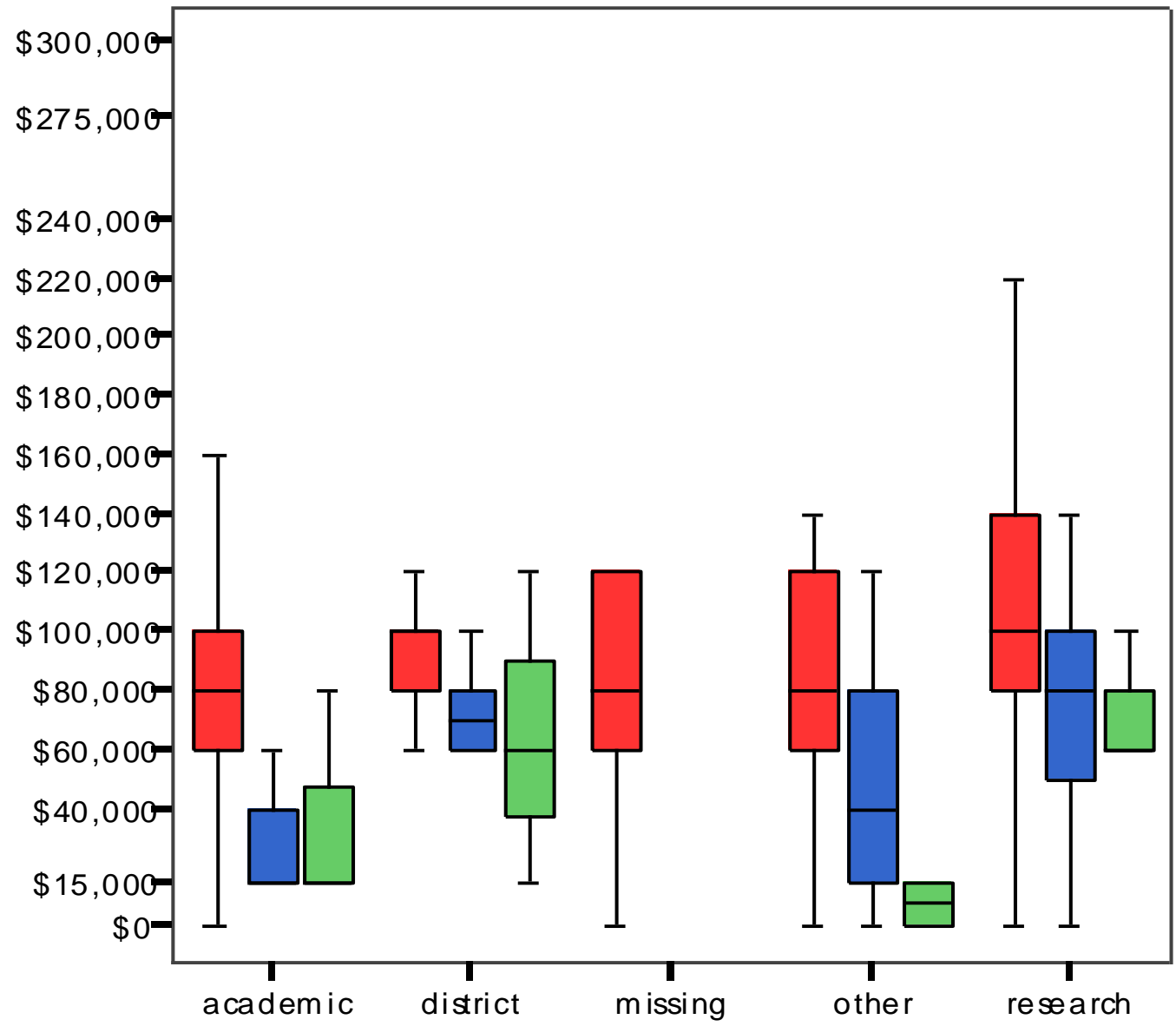


Bars show Mean

Median Primary Income



Salary for Primary Job x Highest Degree and Gender

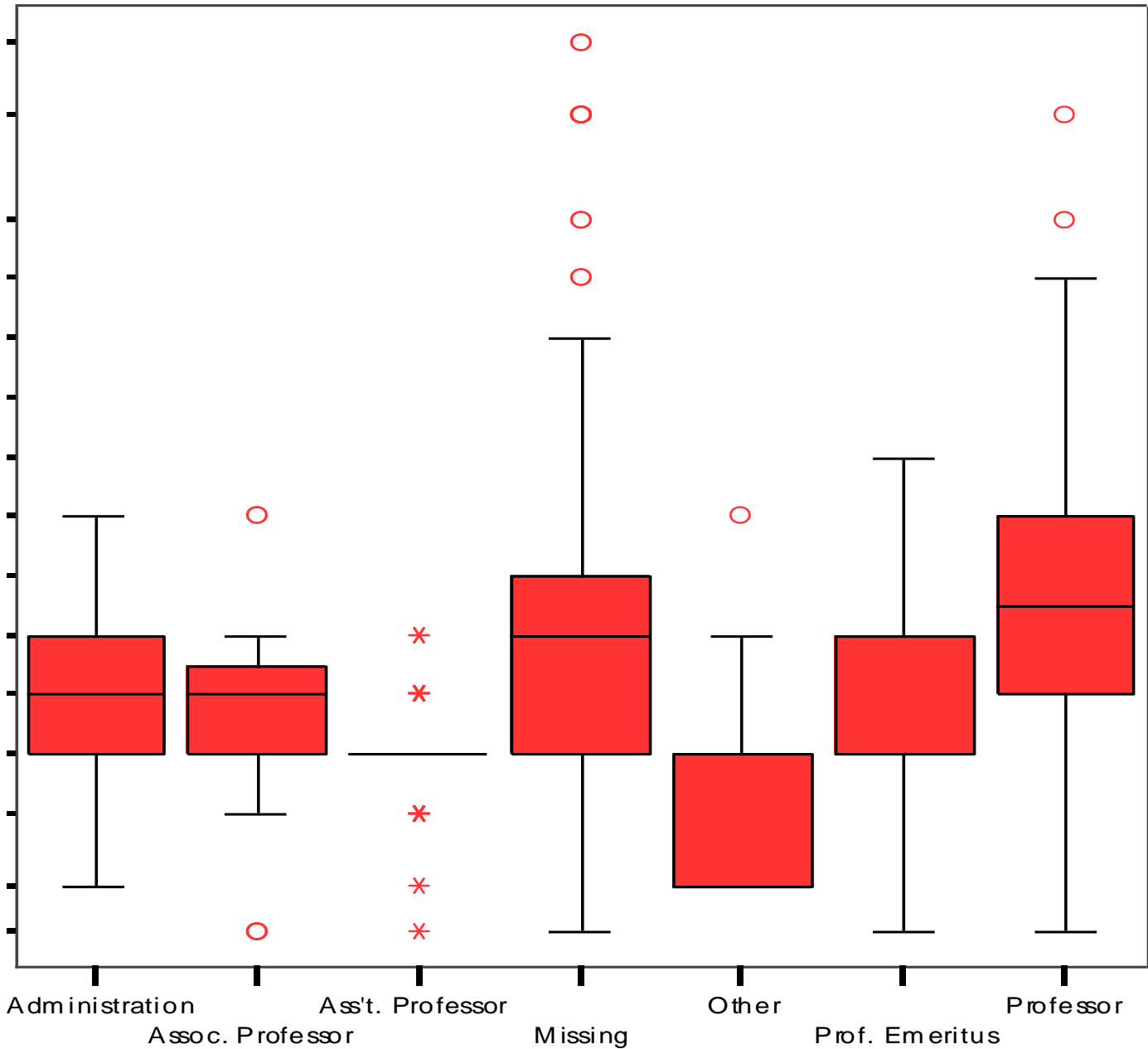


Outliers are hidden
 Extreme values are hidden

Salary for Primary Job x Work Setting

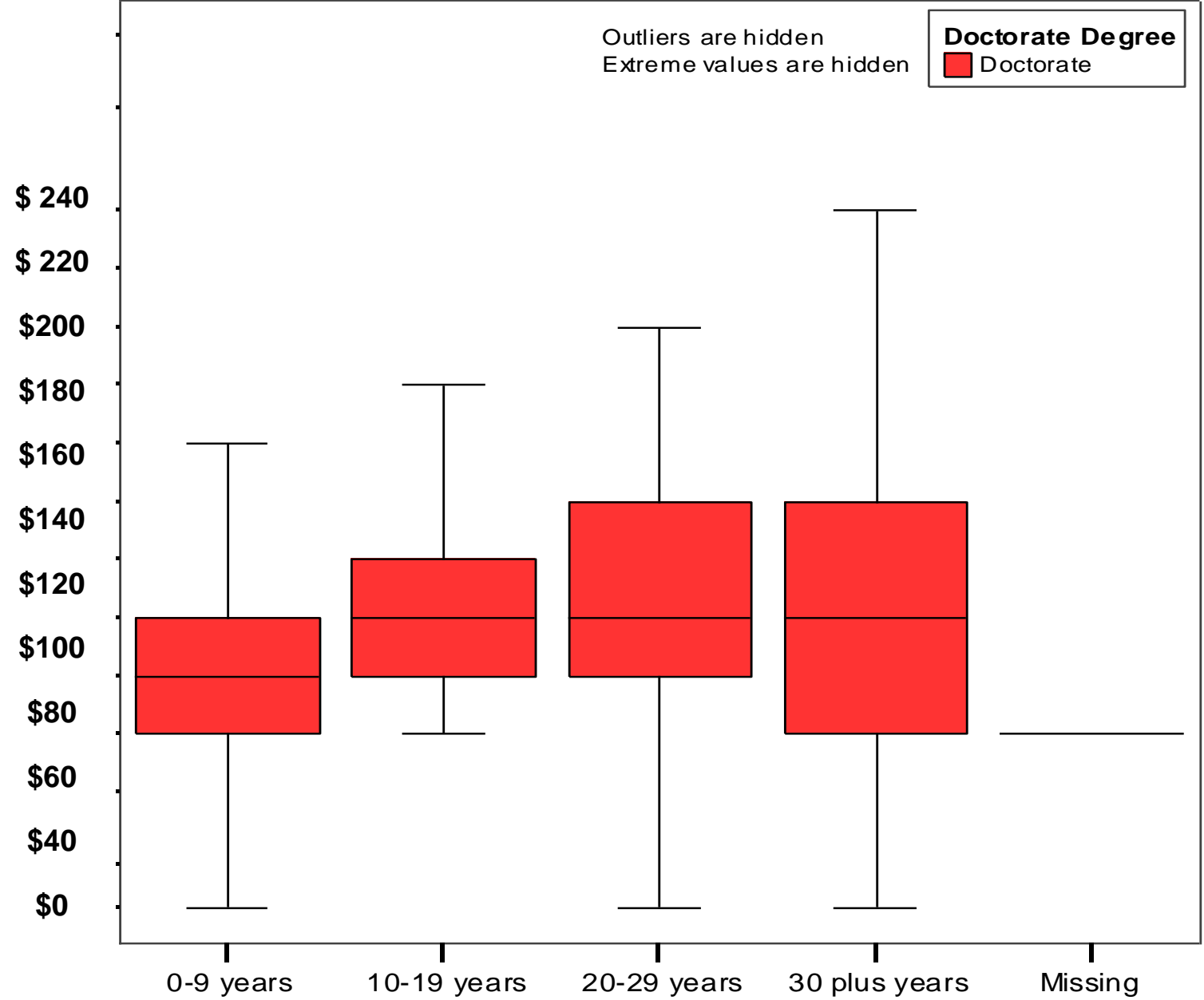
Median Primary Income

\$ 240
\$ 220
\$ 200
\$ 180
\$ 160
\$ 140
\$ 120
\$ 100
\$ 80
\$ 60
\$ 40
\$ 0



Salary for Academics by Job Title

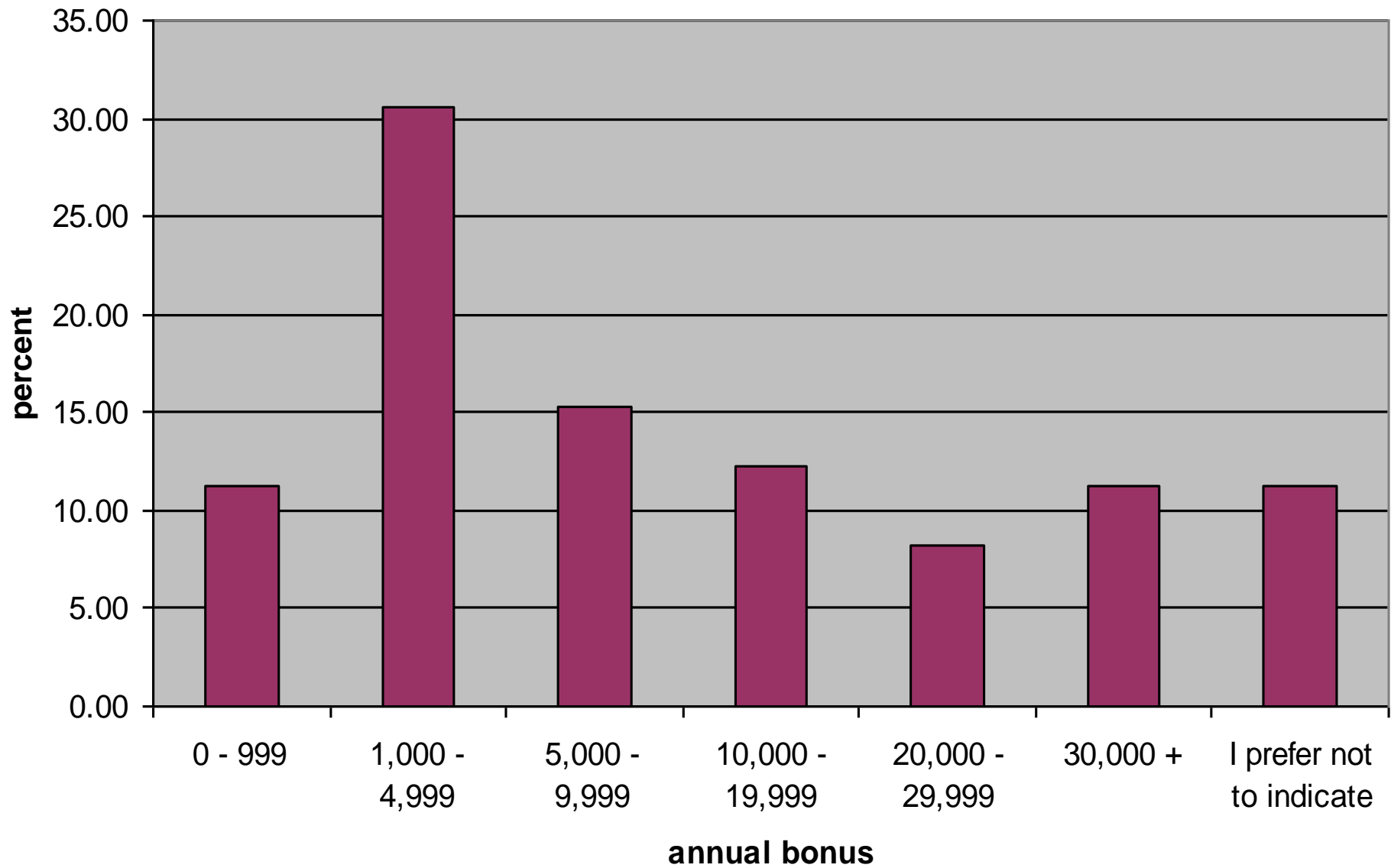
Median Primary Income



Salary for Primary Job x Yrs Since Doctoral Degree

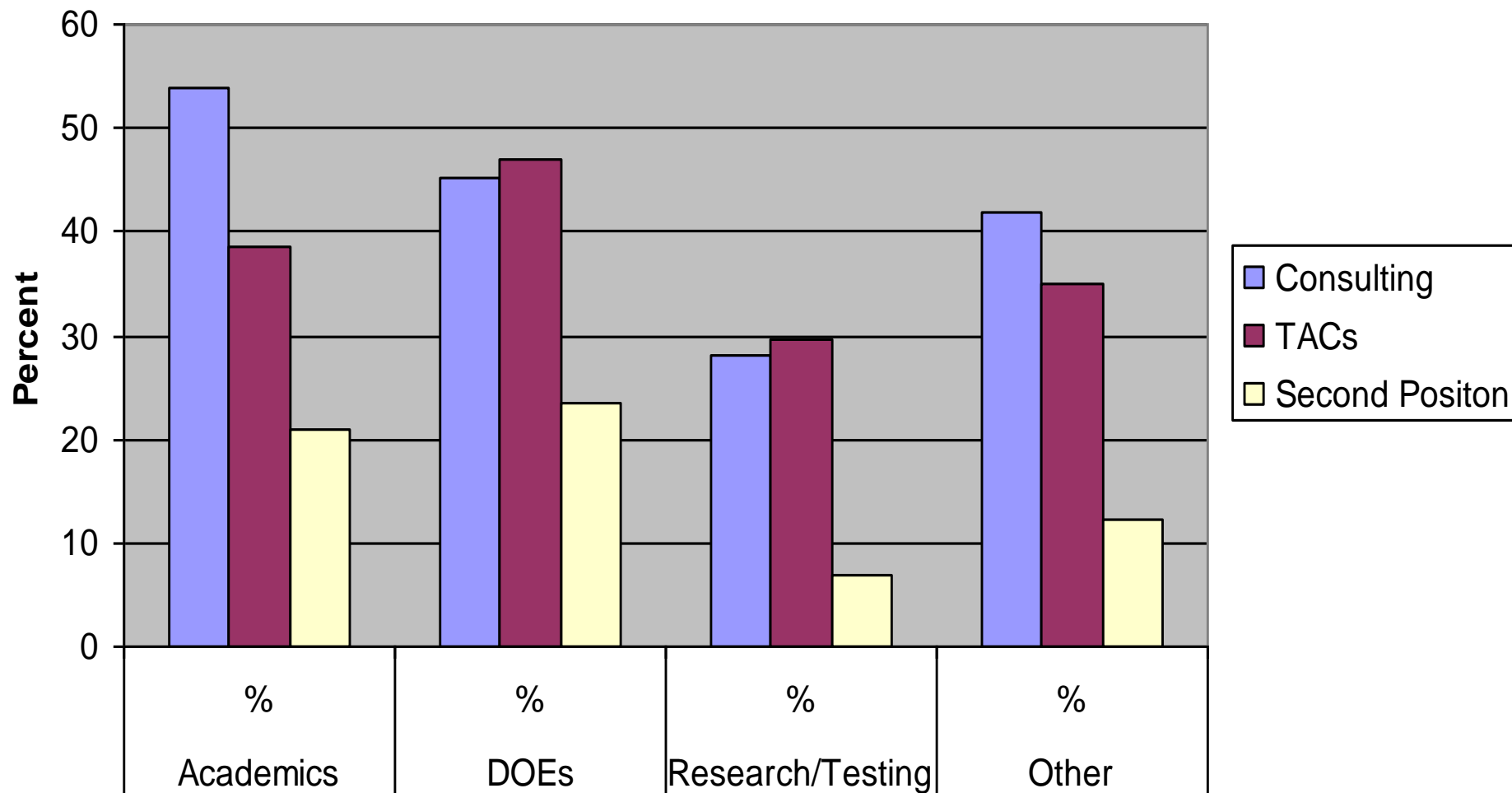
Pearson correlations for Yrs. Since Degree, Yrs in Current Position and Salary from Primary Position(*P<.01)

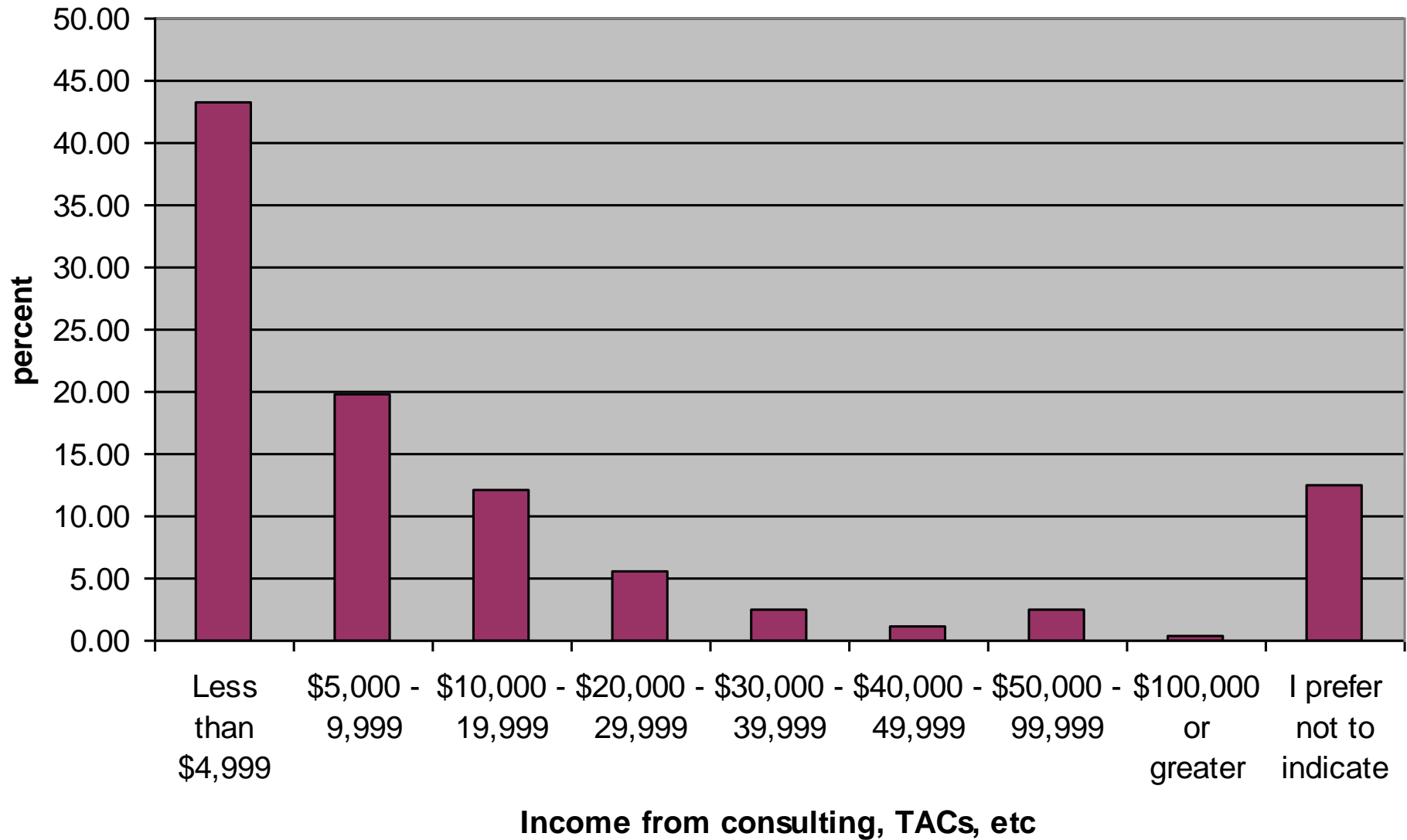
	Yrs Since Degree (N=525)	Yrs in Current Position (N=528)
Male	343*	181*
Female	498*	321*
Doctorate	348*	167*
Masters	491*	323*
Academic	565*	363*
Res/Testing Org	410*	277*
DOE	494*	205*
Total	421*	260*



Bonus from Primary Job (n = 98)

Percent Consulting, Serving on TACs and Holding a Second Position x Work Setting





Income from TACs and Independent Consulting (n=247)

Next steps

- Additional analyses
 - Compensation by region
 - Compensation by location (proximity to lg city)
 - Competencies
 - Significance tests
- Submit manuscript to NCME for web (monograph with descriptives, cross tabs, table data) No access to individual data to prevent any identification of individuals/organizations.
- Submit 2 papers to EMIP (compensation, job analysis)
- Propose comprehensive compensation and job analysis practices survey to NCME Board with member directory

For more information,
e-mail spackman@collegeboard.org