

# Professional Development Committee

National Conference on Weights and  
Measures Annual Meeting

July 2014

# **410 EDUCATION**

- **410-1 Professional Certification Program**

- **OBJECTIVES**

- **Nationally Recognized Certification for Weights and Measures Officials**
    - **Accreditation for Certification**
    - **Possible Nationally Recognized Certification of Service Technicians**

# 410 EDUCATION

- **410-1 Professional Certification Program**
  - Process of Obtaining Objectives
    - Developing a Uniform Body of Knowledge (BOK)
    - Utilization of Subject Matter Experts
    - Incorporation of a sound Training (utilization of NIST, State training, Industry, accredited processes, etc.)
    - Monitor progression, analyze data, make improvement by means of a Certification Coordinator, Ross Andersen
    - Solicit input and feedback

# Exams

- **Retail Motor Fuel Devices (posted)**
- **Small Capacity Scales III (posted)**
- **Package Checking Basic (posted)**
- Vehicle Tank Meters (SME question review)
- Medium Capacity Scales (SME question review)
- Large Capacity Scales (SME question review)
- LPG Liquid Measuring (Seeking SME's)
- Price Verification (start soon to draft BOK)

# SME Involvement Critical

- Work on the exams will improve training staff.
- If you have staff that could contribute, encourage them to volunteer. Please support their work on these projects.
- If you know of recently retired staff that might be willing to contribute, please pass contact information to the Certification Coordinator:
- Ross Andersen [rjandersen12@gmail.com](mailto:rjandersen12@gmail.com)  
1-518-869-7334

# Seeking SME's

- For LPG Anhydrous Ammonia (Immediate)
- For Price Verification (Announcement soon)
- PDC will work this week to set priorities for additional exams:
  - Rack Meters? Precision Scales?
  - Mass Flow Meters? RR Track?
  - Taximeters? Belt Scales?
  - Packaging/Labeling? Method of Sale?

# Statistics: Retail Motor Fuel

RMFD	FY 2011	FY 2012	FY 2013	Total
# of Registrants	76	107	29	212
# of Certificates Issued	45	83	18	146
% certificates per registrants	59%	78%	62%	69%

Small Scales III	FY 2011	FY 2012	FY 2013	Total
# of Registrants	-	17	51	68
# of Certificates Issued	-	6	18	24
% certificates per registrants	-	35%	35%	35%

Package Checking	FY 2011	FY 2012	FY 2013	Total
# of Registrants	-	15	27	42
# of Certificates Issued	-	5	11	16
% certificates per registrants	-	33%	41%	38%

# Small Scales III Exam 2013

	#	%
# Successful	52	
# Pass*	28	54
# Fail	24	46
Avg Score	34	67
Median Score	35	70
Dates	1/18/2013	12/24/2013
Avg pass	38.3	77
Median Pass	38.0	76
Avg fail	28.2	56
Median Fail	29.0	58
Pass Part 1 [1]	19/58	33
Pass Part 2 [1]	28/55	51
Pass Part 3 [1]	32/52	62

\*Passing is 35 or more correct answers. [1] exam time-out settings issue



# Package Checking Exam 2013

	#	%
# Successful	28	
# Pass	11	39
# Fail	17	61
Avg Score	32.6	65
Median Score	35.0	70
Dates	1/18/2013	12/12/2013
Avg pass	40.9	82
Median Pass	41.0	82
Avg fail	27.2	54
Median Fail	30.0	60
Pass Part 1 [1]	15/33	45
Pass Part 2 [1]	12/30	40
Pass Part 3 [1]	10/30	33

\*Passing is 35 or more correct answers. [1] exam time-out settings issue

# Feedback Possibilities

- Can't advise candidates which questions were answered correctly or incorrectly.
- Looking for other avenues to help instructors better prepare candidates (for the job).
- Importance of using the Modules to ensure coverage of the learning objectives!

# SME Team Evaluation Tasks

- Regularly evaluate questions/exam to ask:
  - If test is balanced relative to entire Module and chosen competency level?
  - If individual questions are mechanically flawed?
  - If individual question fails to fit learning objective in the module?
  - If competency level of learning objective is incorrect?
  - If competency level of module is incorrect?
  - If candidates have not been educated to reach learning objectives in the module?

# SME Team Reactions

- Make revisions to existing questions or create new questions to improve the test.
- Improve balance in the exam relative to learning objectives in Module.
- Revise the Module(s) to match competency level (also revise questions or exam balance).
- Advise PDC that team deems exam appropriate.

# PDC Reactions

- Conduct their own parallel evaluation of the exams.
- Provide feedback to SME teams.
- Provide feedback to the membership.
- Publish new modules as they are developed.
- Encourage use of Modules in training efforts.
- Coordinate efforts to improve training across the nation.
- Get candidates comfortable with taking an exam.  
**Please respect NCWM copyright!**

# 410 Education

- 410-2 Training
  - The Board of Directors created a new work group headed by Michael Cleary, former Director of the California Division of Measurement Standards.
    - The function of the work group will be to develop guidance on the scope of field training for weights and measures officials, and will report to the PDC.

# NCWM Field Training Program

- In Service Training Guide
- Overall Concepts
- Objectives
- Benefits
- Conclusions

# Sub Committee Participants

- Mike Cleary, Chair/CA (Retired)
- Craig Harris OH
- Josh Nelson OR
- Debbie Radar AZ
- Julie Quinn MN
- Scott Simmons CO
- Agatha Shields OH
- Paul Jordan CA
- Greg Gholston MO
- Nathan Gardner OR



# Objectives

- Gather subject matter experts to:
- Identify the core competencies necessary to be a successful weights and measures inspector.
- Develop a comprehensive field training guide comprised of those competencies linked to the handbooks.
- Develop a competency based evaluation process.

# Objectives cont.

- Develop selection criteria for the Field Training Inspectors (FTI) those who will manage the field training and their relationship to supervision/management.
- Develop a Routine Observation Form (ROF) that lists basic employee skills during the training period.
- Develop a detailed rating system for performance for the ROF.
- Develop a rating system for the core competencies checklist.

# Objectives Cont.

- Produce the core competencies rating checklist, tied to the handbooks and time frames for completion of each of the four phases of training.
- Compile all of the documents necessary and organize the package so as to provide a standard basic uniform package for the states to use in the implementation of a successful field training program.
- Provide support for the implementation of the program locally, including consideration of local needs.

# Project Status Complete

- Routine Observation Form (ROF)
- Detailed Rating for ROF
- Rating methodology, a competency based evaluation scale
- Field Training Inspector selection criteria interpersonal skills.
- Comprehensive Field Training Guide
- The Project is complete

# Left To Do

- Make the program available
- Training of the trainers and support of local needs.
- Continuous improvement

# Benefits of a Standardized Program

- Ensures all new staff consistency of training under the guidance of a senior inspector.
- Enhances the professionalism of your staff
- Provides solid documentation that training has in fact been provided and the result of the training.
- Provides solid documentation of any deficiencies of the trainee in the event of a negative hire.

# Benefits of a Standardized Program

- Protection of your department from lawsuits based on lack of proper training and vicarious liability issues.
- Provides lateral opportunities for those selected to act as Field Training Inspectors prepares them for supervisor positions.
- Ensures that the public we serve have the most competent well trained government regulators in the marketplace.
- Ensures agencies hiring laterally that the candidates who have been through such a program are competent.

# Conclusion

- We all will benefit from staff that is uniformly and properly trained and screened for any potential negative tendencies or lack of ability.
- We just need the enthusiasm to Implement this program and we can all benefit from the results.



# Mike Cleary

- Contact Information
- [mcleary55@sbcglobal.net](mailto:mcleary55@sbcglobal.net)
- (916) 483-8498

# 410 EDUCATION

- **410-3 Instructor Improvement**
  - **Incorporation of NIST Training Programs**
    - **Specialized Training , Train the Trainer, Fundamental Training**
    - **Materials on converting technical material to training**
    - **Tie-in the NCWM Modules for learning objectives**
  - **Training Materials on NCWM Website**
    - **Certification Exam Announcements with links to associated Body of Knowledge (Modules)**
    - **Curriculum Outlines**
    - **New links directly to Body of Knowledge**
    - **California Training Course**

# 410 EDUCATION

- **410-4 Recommended Topics for Conference Training**
  - **Proposed Topic**
    - Making Sense of Electronic Receipts;
    - Train the Trainer on Adult Learning Techniques;
    - Ethics for weights & measures officials;
    - Data privacy issues faced by weights & measures officials

# 420 PROGRAM MANAGEMENT

- **420-1 Safety Awareness**

- Identify safety issues in the weights and measures field and included efforts to increase safety awareness.
- Jurisdictions are encouraged to send their safety reports and issues to their regional safety liaison, who in turn will forward them to the PDC.

# 420 PROGRAM MANAGEMENT

- **420-1 Safety Awareness (cont.)**
  - List of the Regional Safety Liaisons.
    - **Central Weights and Measures Association (CWMA):**  
Ms. Julie Quinn, Minnesota Weights and Measures Division
    - **Northeastern Weights and Measures Association (NEWMA):**  
Mr. Michael Sikula, New York Bureau of Weights and Measures
    - **Southern Weights and Measures Association (SWMA):**  
Mr. Matthew Curran, Florida Department of Agriculture and Consumer Services
    - **Western Weights and Measures Association (WWMA):**  
Mr. Douglas Deiman, Alaska Division of Measurement Standards/CVE

# 420 PROGRAM MANAGEMENT

- **420-1 Safety Awareness (cont.)**

Region	Issue	Article Deadline	Published
CWMA	2014 Issue 2	16 Apr. 2014	May
NEWMA	2014 Issue 3	17 July 2014	September
SWMA	2015 Issue1	18 Jan 2015	February
WWMA	2015 Issue 2	16 Apr 2015	May

# **420 PROGRAM MANAGEMENT**

## **PDC Publications Open to All**

- **Links to Certification Exams and associated BOK documents**
- **Links to Body of Knowledge Documents**  
**Please check back periodically as documents are regularly added or revised.**
- **Link to Program FAQ's**

# **420 PROGRAM MANAGEMENT**

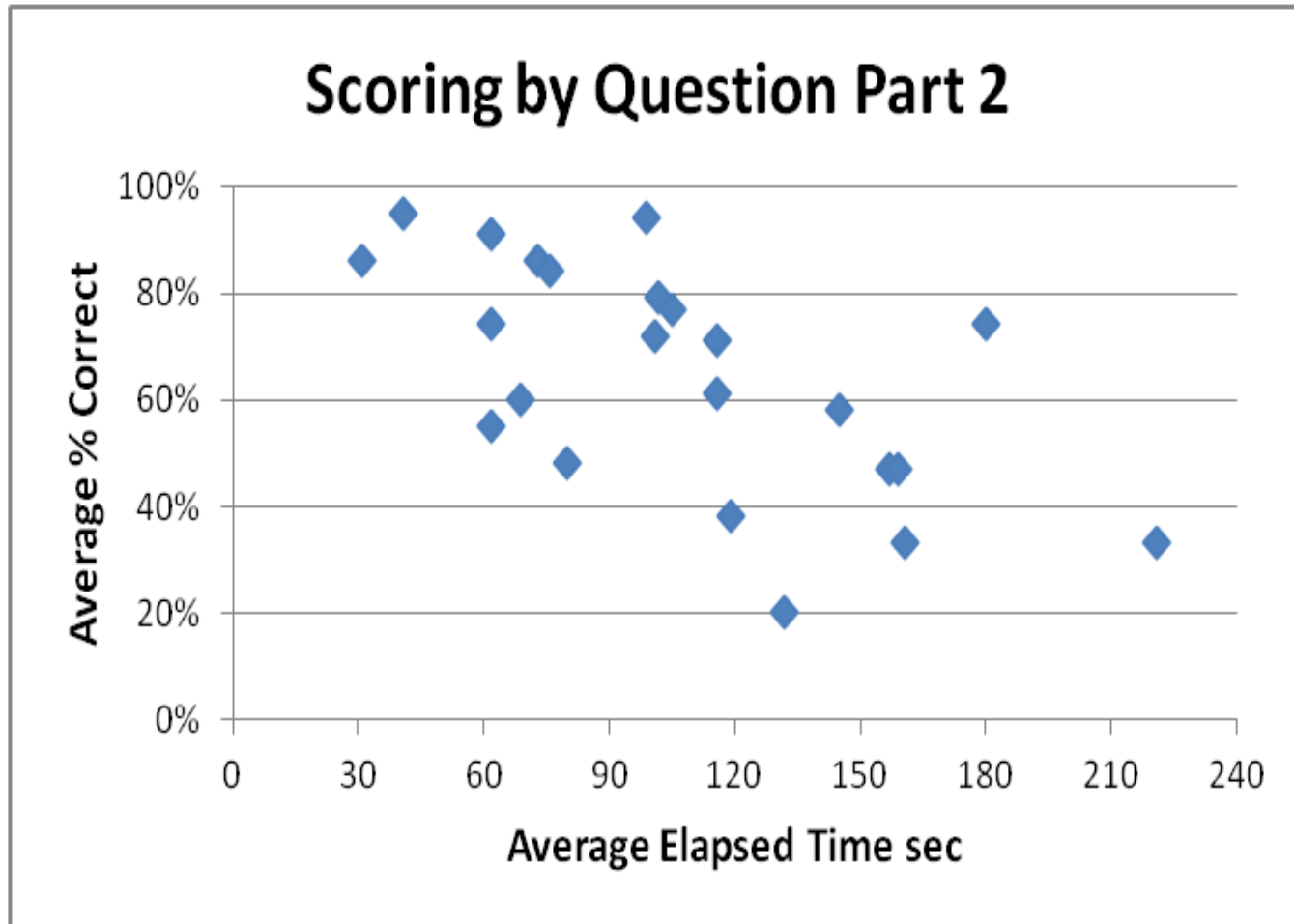
## **PDC Publications Open to Members**

- **Program Administration documents**
- **Committee archives**

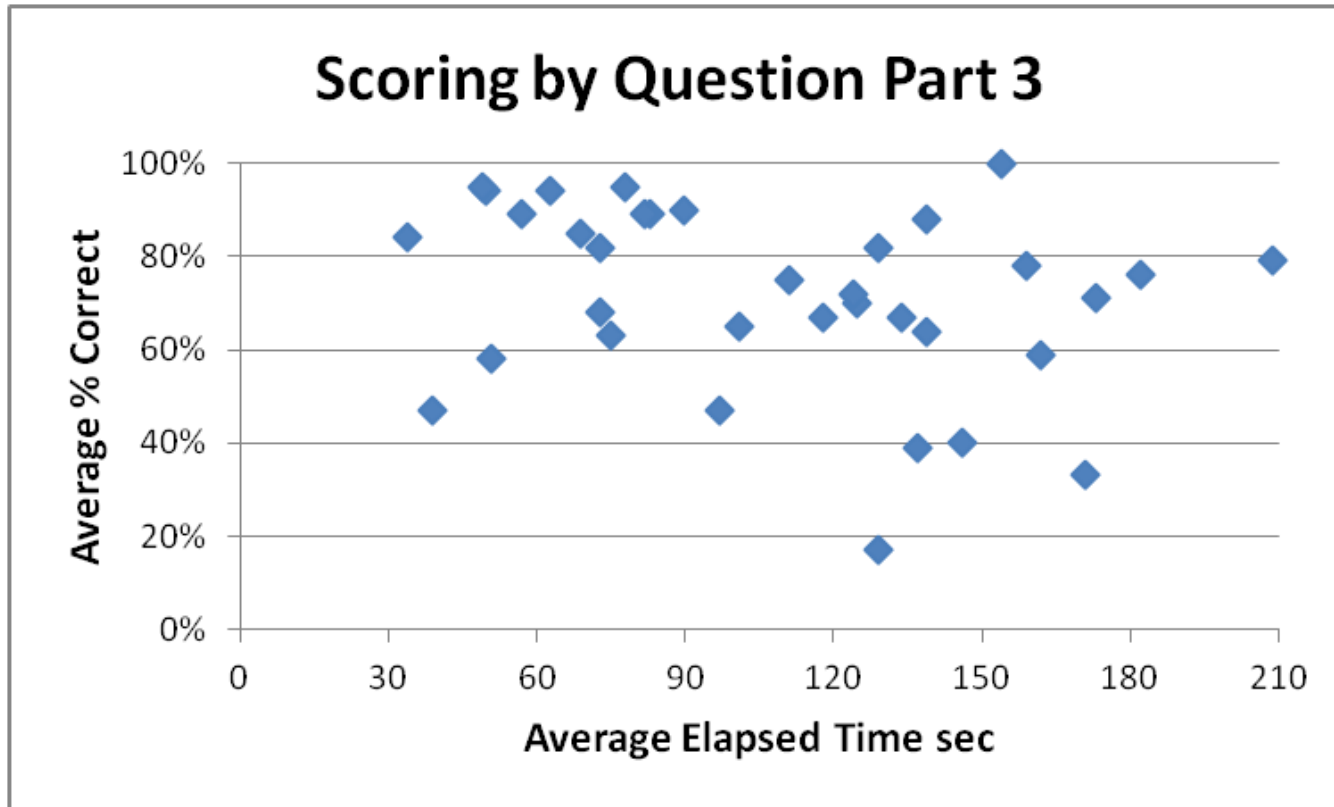


- Thank you
- We appreciate your comments.

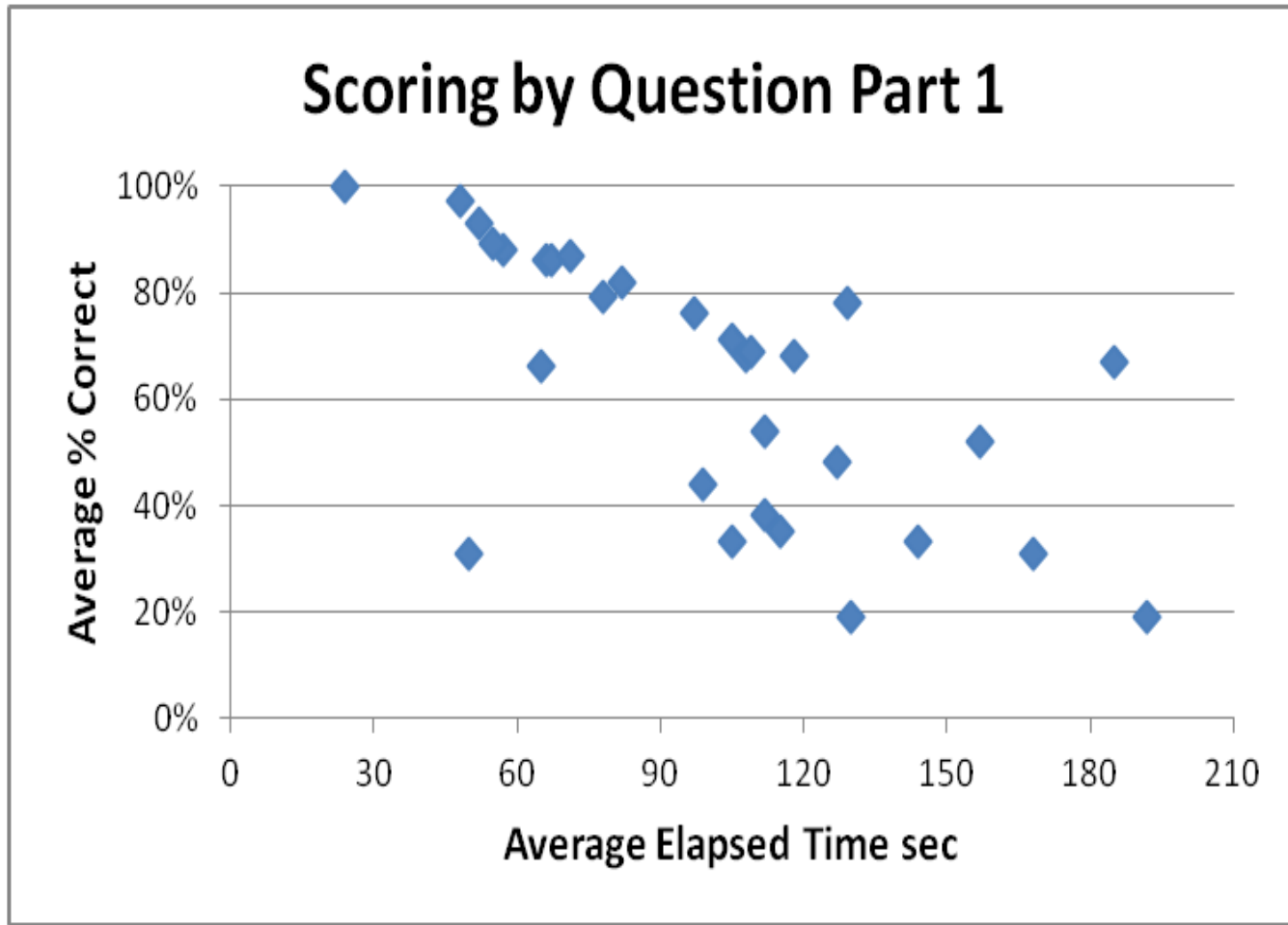
# RMFD Exam 2013



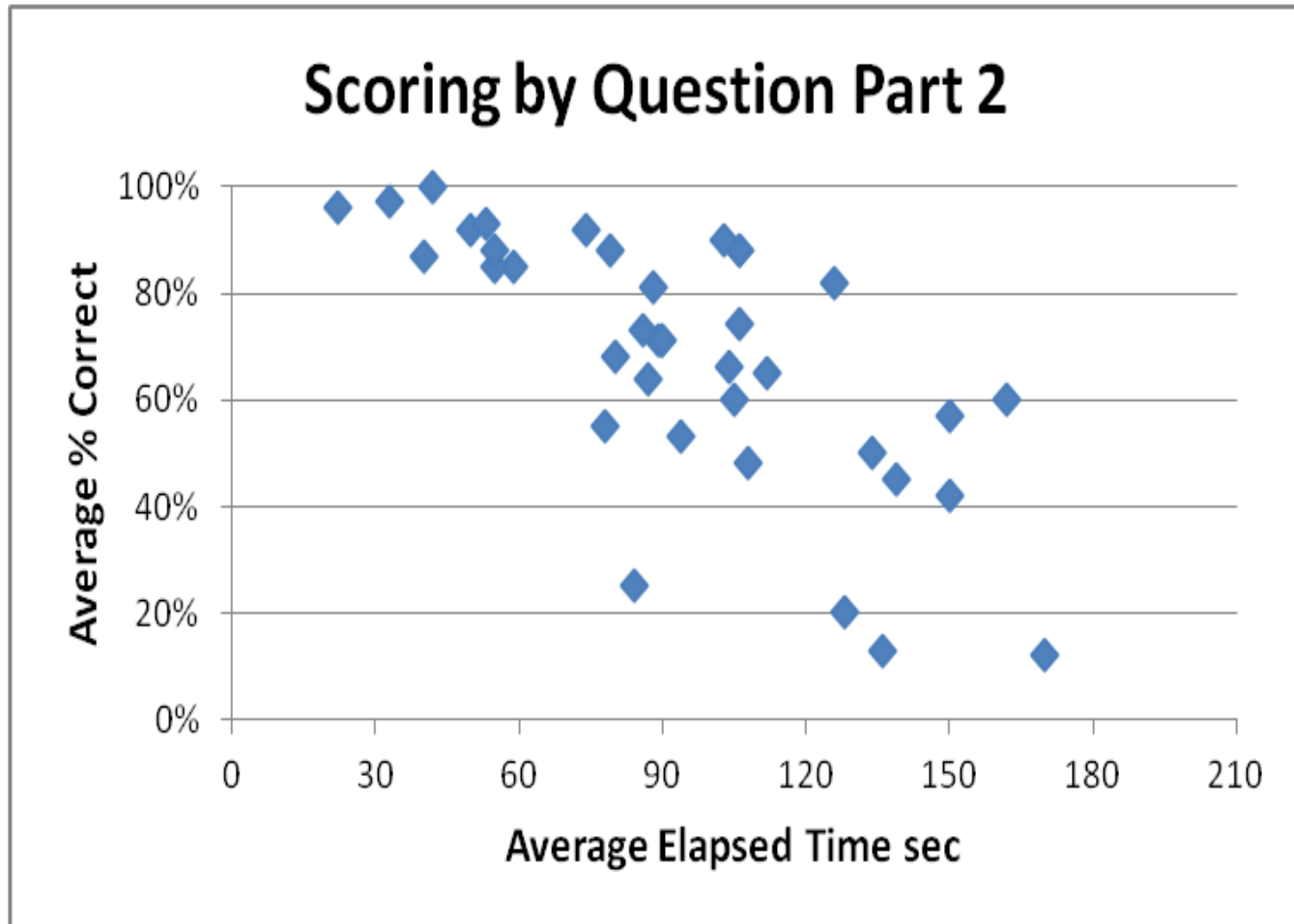
# RMFD Exam 2013



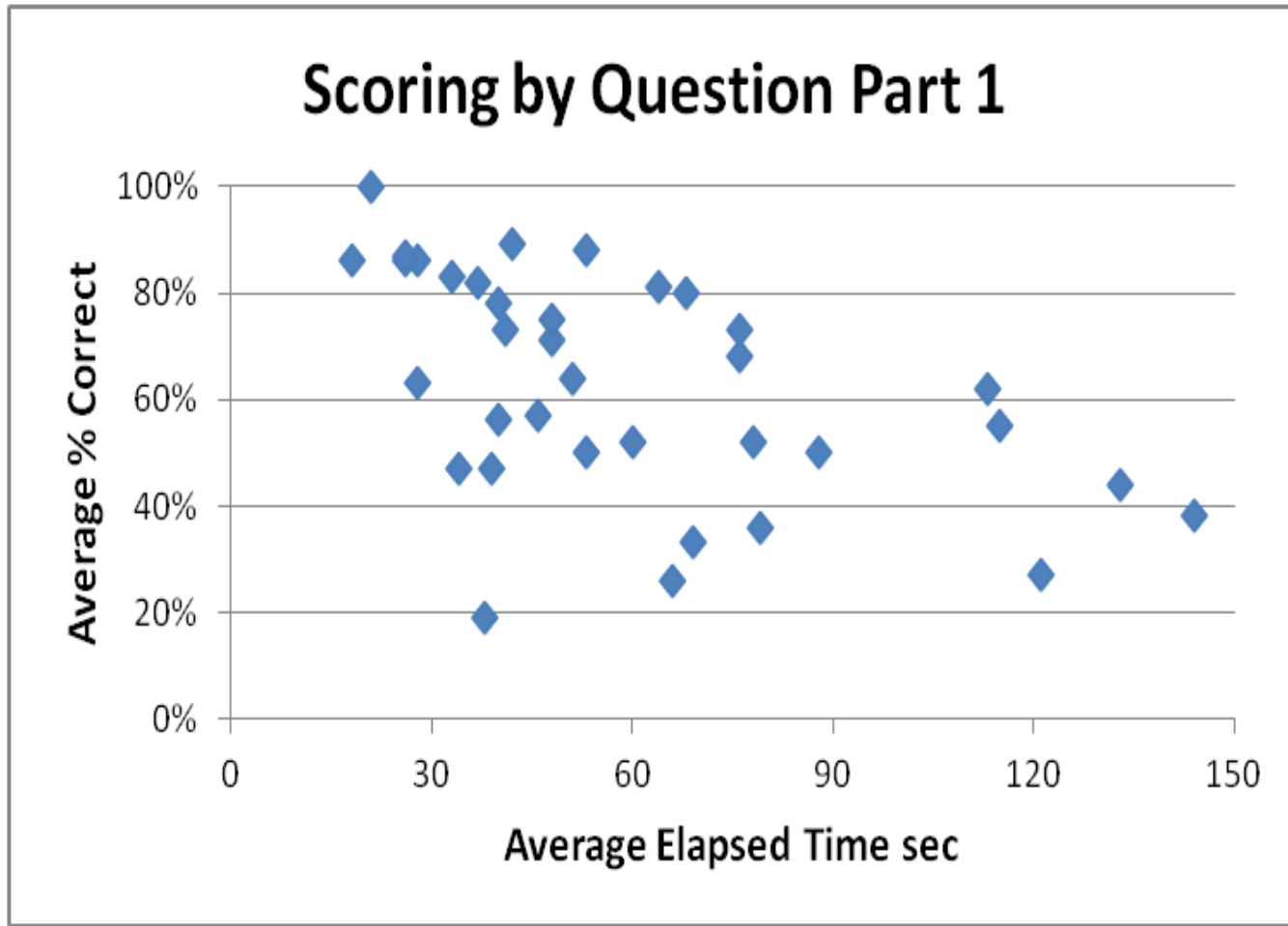
# Small Scales III Exam 2013



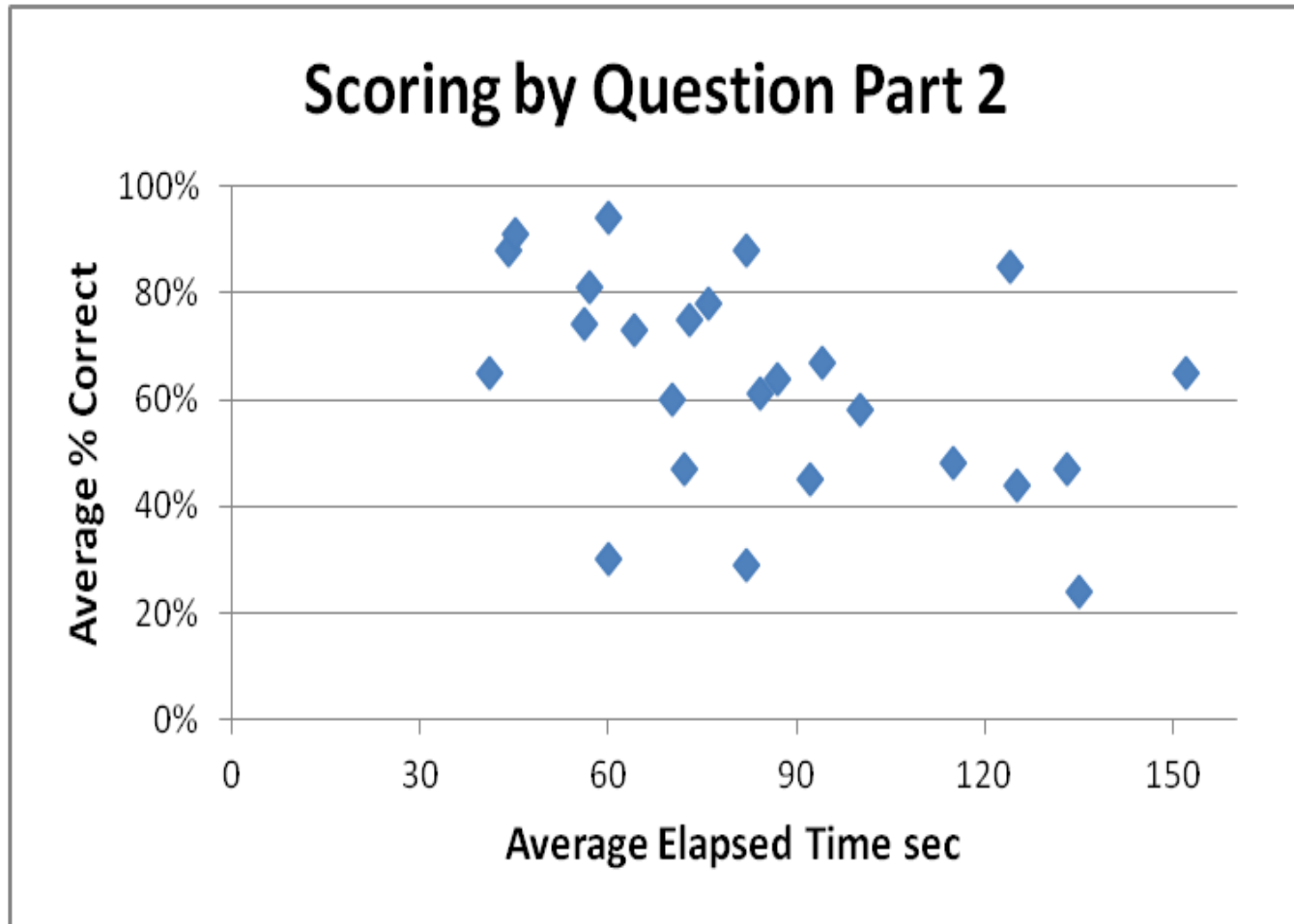
# Small Scales III Exam 2013



# Package Checking Exam 2013



# Package Checking Exam 2013



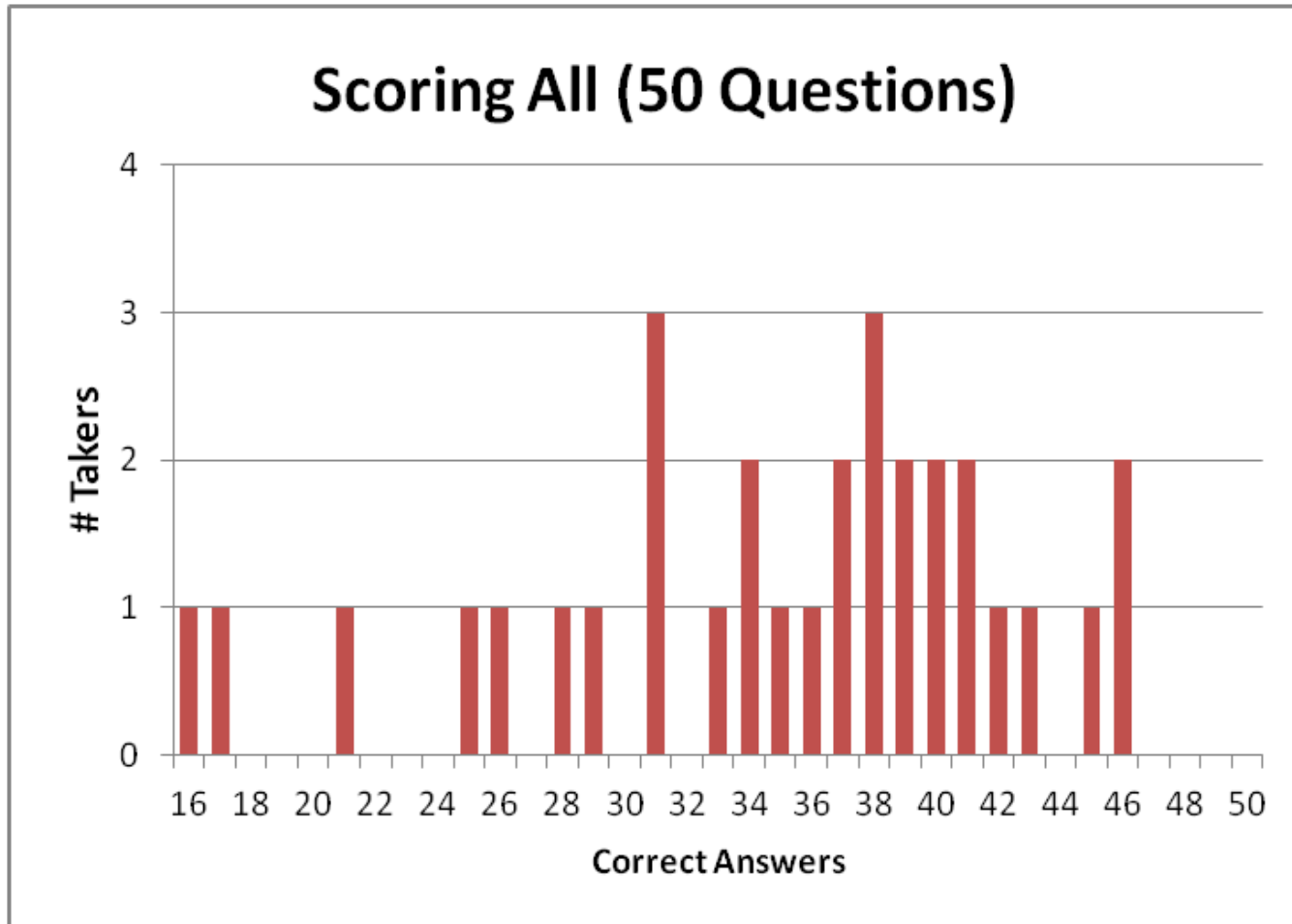
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Avg fail	27.4	55
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Pass Part 1	20	65
Pass Part 2	19	61
Pass Part 3	21	68

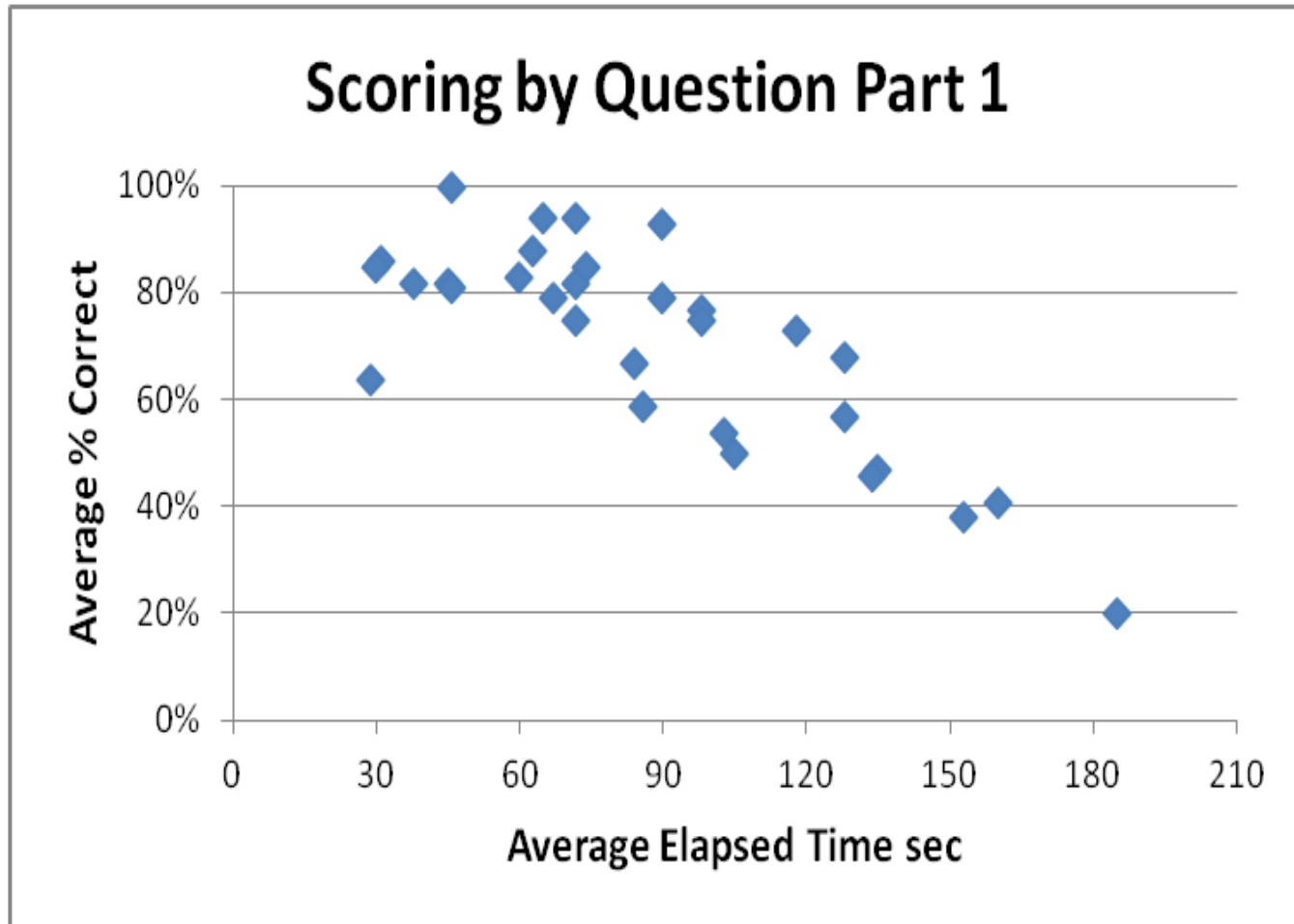
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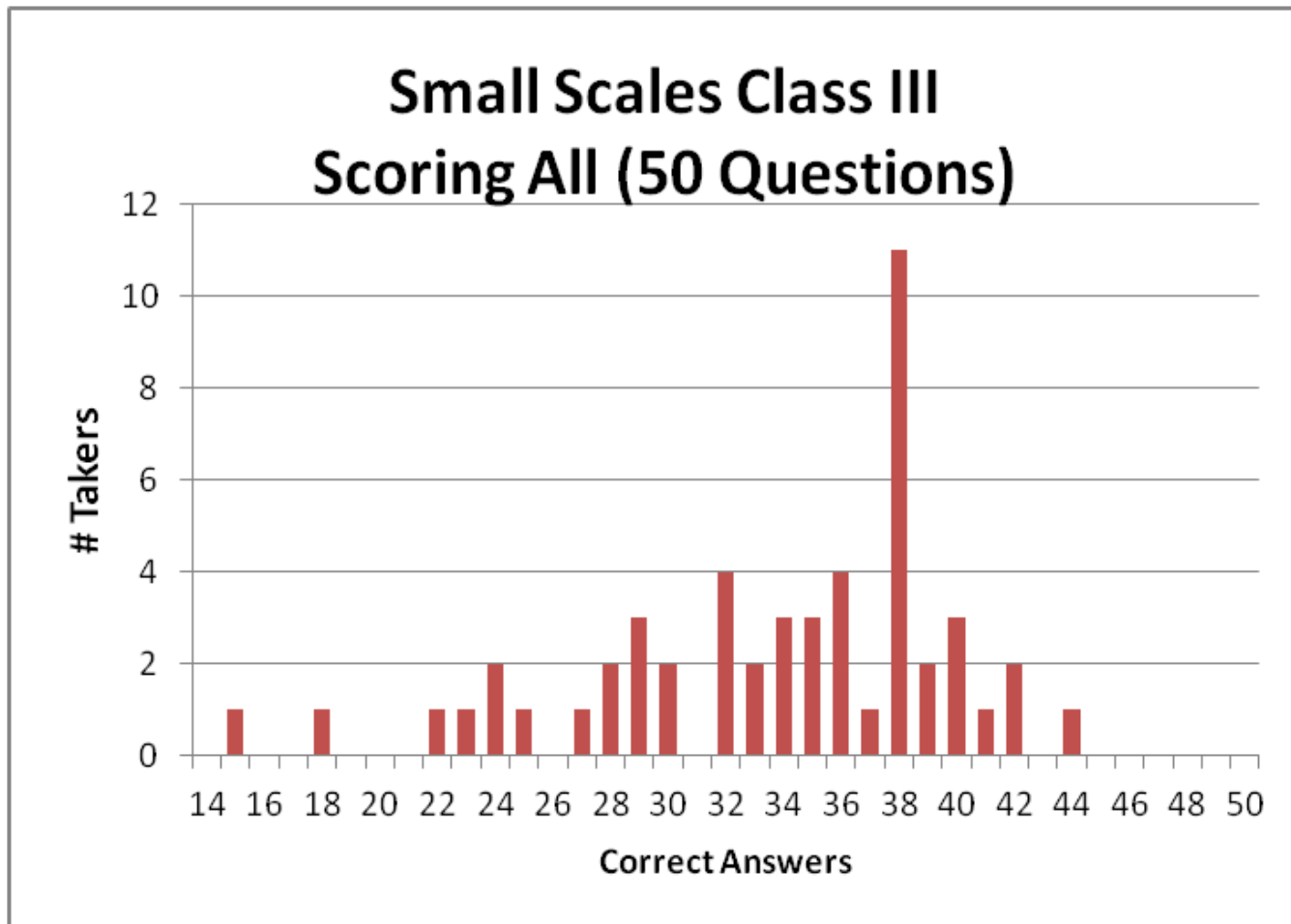
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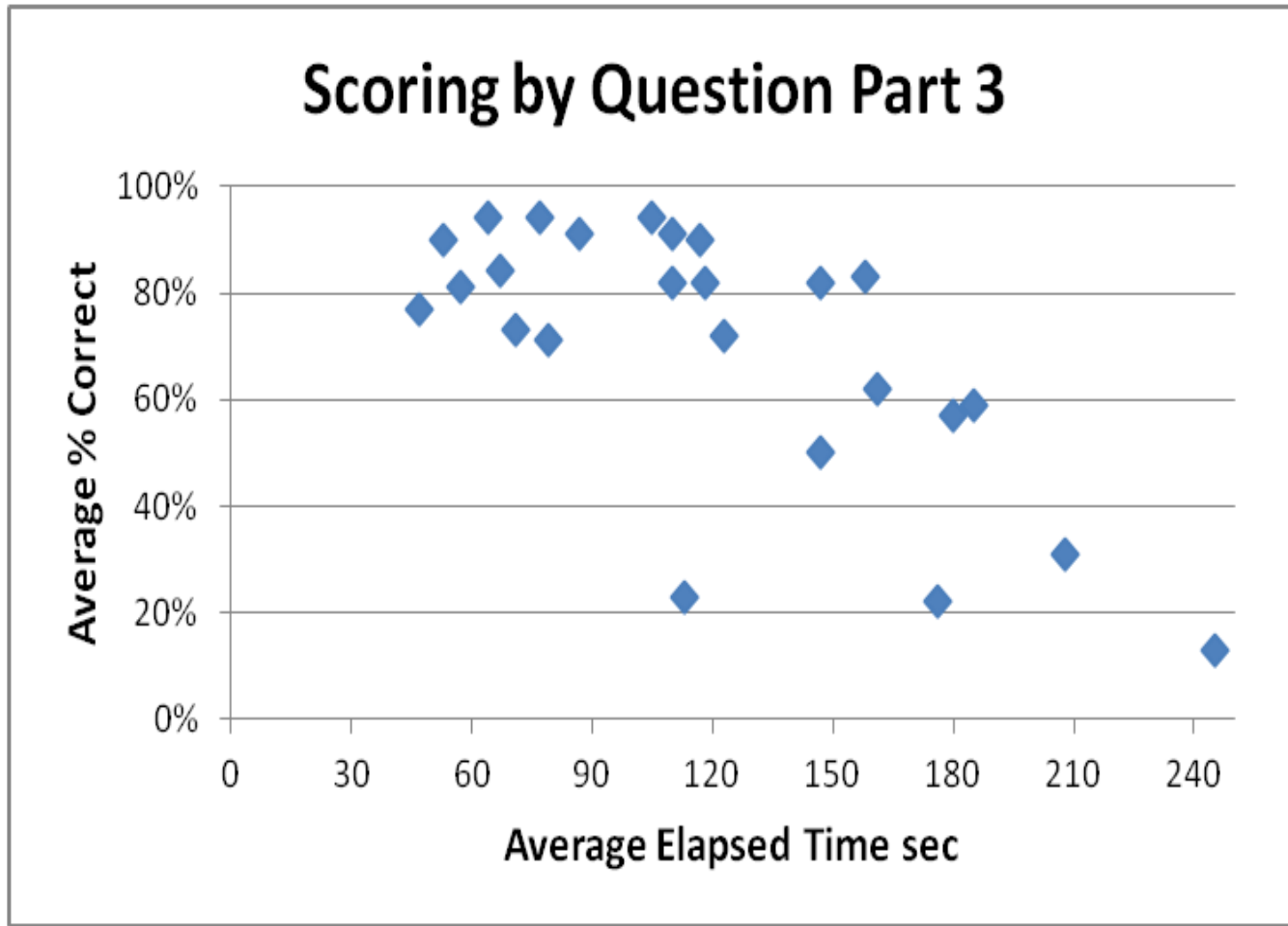
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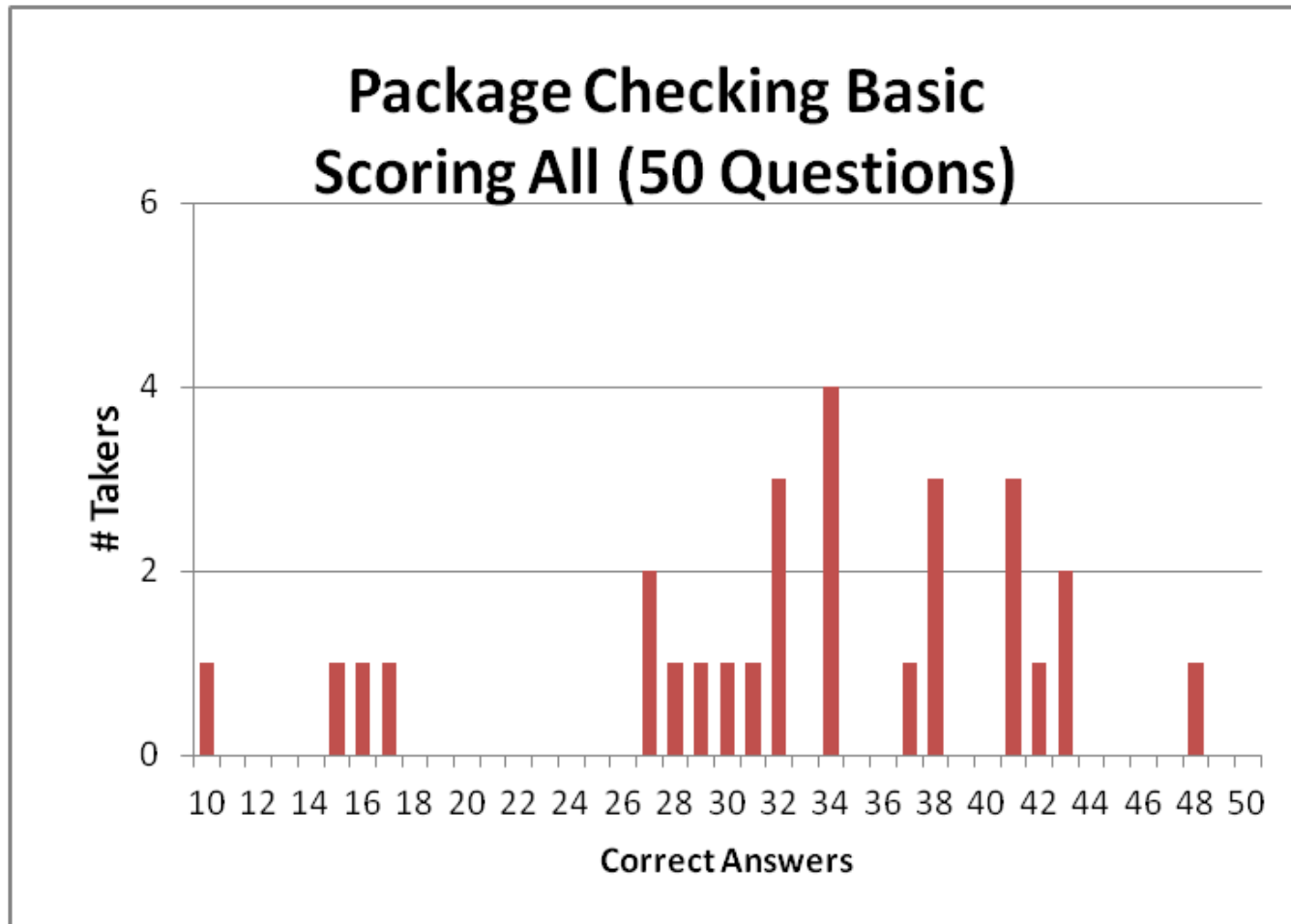
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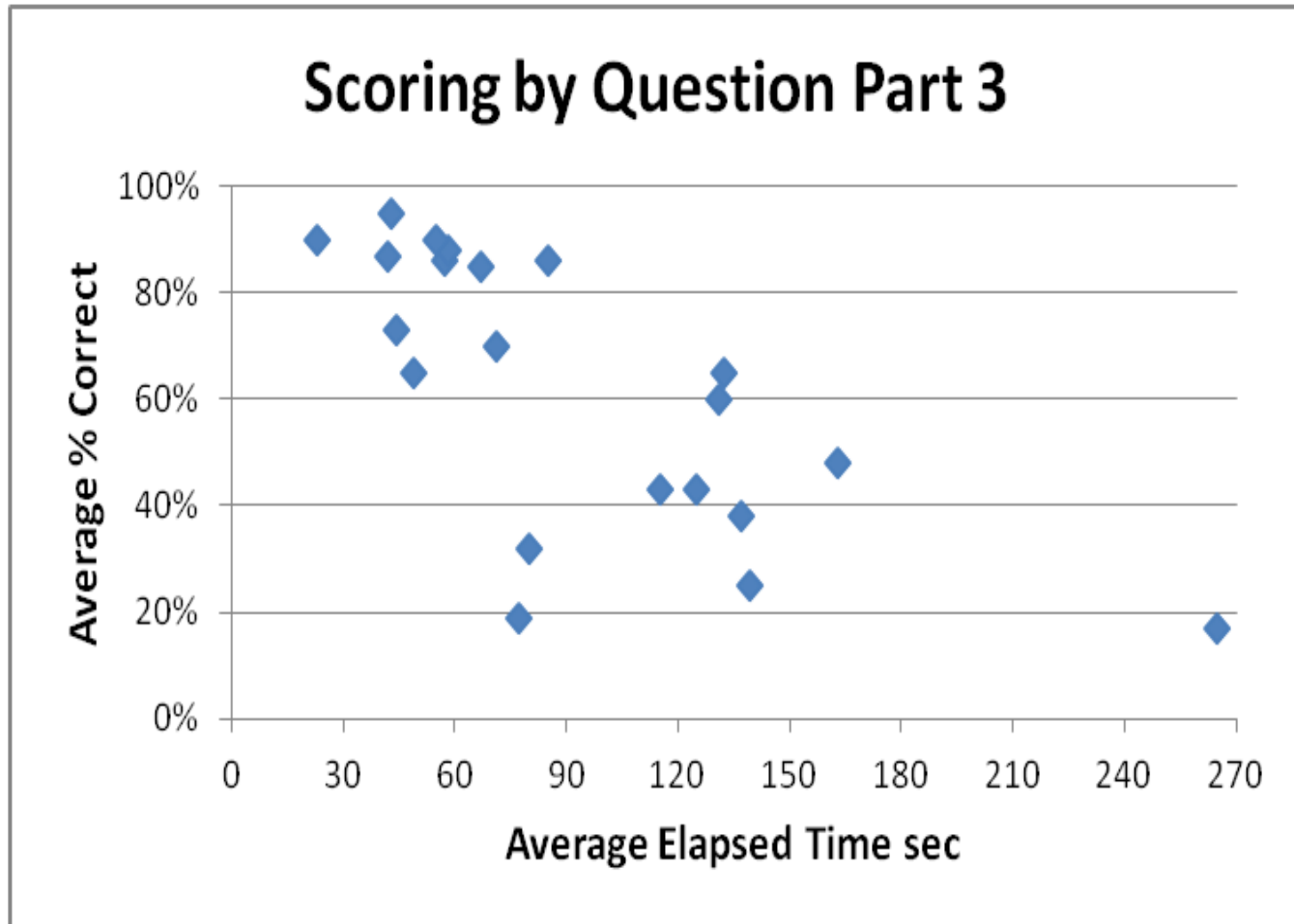
# Small Scales III Exam 2013



# Package Checking Exam 2013



# Package Checking Exam 2013



# 420 PROGRAM MANAGEMENT

- **420-2 PDC Publications**

- **Committee Active Working Documents** – includes active documents describing the developing professional certification program, the curriculum plan, BOK documents currently under development and open for comment, i.e. prior to release of a certification exam, program guidelines and administrative procedures;
- **Professional Certification Documents** – includes the certification exam shopping page, exam descriptions, related BOK documents, aids to taking the certification exams; and PDC 2014 Interim Agenda PDC - 12
- **Committee Archives** – includes archive of historical documents that provide insight into the evolution of the Committee since inception and evolution of the Professional Certification Program. Interested parties should also refer to meeting archives at [www.ncwm.net/meetings/annual/archive](http://www.ncwm.net/meetings/annual/archive).