

# Are GEDs and High School Diplomas Equivalent?



Michael Aamodt, Dina Coppola, Becky Garvida,  
Erin Leveque, & Lona Stanley  
Radford University

Paper presented at the annual meeting of the International Public Management  
Association Assessment Council (IPMAAC), June 2003, Baltimore, MD

# Why the Study?

- Audience question from last year
- Local police chief who despises the GED
- Client trying to expand recruitment base

# Reminder from Last Year

## Summary of Meta-Analyses

Meta-analysis	Occupation	K	N	r
Aamodt (2002)	Police	43	8,403	.33
Vineberg & Joyner (1982)	Military	35		.25
Hunter (1980) Hunter & Hunter (1984) Schmidt & Hunter (1998)	USES data base	425	32,124	.10
Dunnette (1972)	Entry level petroleum	15		.00

# Validity of Education for Police Meta-Analysis Results

	Academy Grades	Supervisor Ratings	Discipline Problems
Number of studies	231	43	40
Sample Size	5,993	8,403	14,980
Uncorrected validity	.27	.18	- .07
Corrected validity	.41	.33	- .12

# Meta-Analysis (Cont.)

Education level	Academy Grades		Patrol Performance	
	N	Score	N	Score
GED/HS Diploma	376	-.23 <sup>a</sup>	915	-.12 <sup>a</sup>
12-64 college hours	100	-.05 <sup>ab</sup>	391	.02 <sup>b</sup>
AAS	98	.16 <sup>bc</sup>	139	.07 <sup>bc</sup>
64 college hours	62	.01 <sup>b</sup>	45	.29 <sup>bc</sup>
Bachelor's	255	.32 <sup>c</sup>	441	.18 <sup>c</sup>

# The General Education Development (GED) Program

- Developed for the Army during WWII to help qualify vets for the GI bill
- 750,000 people take the GED annually – about 70% pass
- States determine passing scores
- Tests five subject areas
  - Reading
  - Writing
  - Math
  - Science
  - Social science

# Previous Research - Work

	GED vs. High School Grads	GED vs. Dropouts
Cognitive ability	Lower	Higher
Employed*	Less likely	5% More likely
Tenure	Lower	Mixed
Wages*	12% Lower	8% Higher
Military attrition*	Twice as high	A little lower

\* Review by Boesel (1998)

# Previous Research - Academics

	GED v. HS Grads
Degree Completion	
Vo tech	Similar
2-year	Lower
4-year	Much lower
College Grades	
Vo-Tech	Similar
2-year	Similar
4-year	Lower



# Our New Data

## ■ Three Samples

- Warehouse order selector
- Machine operator
- Police officers (data from 9 studies)

## ■ Performance Measures

- Tenure
- Performance ratings
- Discipline problems
- Involuntary termination

# Percent Fired

Degree Type	Warehouse	Machine
No degree	16.1 <sup>ab</sup> (n=34)	44 <sup>a</sup> (n=9)
G.E.D.	26.5 <sup>a</sup> (n=35)	33 <sup>a</sup> (n=12)
H.S. Diploma	12.0 <sup>b</sup> (n=75)	26 <sup>a</sup> (n=43)

# Reprimands

	Reprimands per Month		% Rule violators <sup>1</sup>
Degree Type	Warehouse	Machine	Police
No degree	.18 <sup>a</sup> (n=25)	.28 <sup>ab</sup> (n=7)	
G.E.D.	.19 <sup>a</sup> (n=19)	.73 <sup>b</sup> (n=10)	.27 <sup>b</sup>
H.S. Diploma	.17 <sup>a</sup> (n=38)	.29 <sup>a</sup> (n=36)	.05 <sup>a</sup>

<sup>1</sup> Boes, Chandler, & Timm (1997)

# Performance Ratings

	Position		
Degree Type	Warehouse	Machine	Police
No degree	73.6 <sup>a</sup> (n=7)	38.6 <sup>a</sup> (n=5)	
G.E.D.	75.9 <sup>a</sup> (n=4)	39.0 <sup>a</sup> (n=3)	-.11 <sup>a</sup> (n=82)
H.S. Diploma	74.1 <sup>a</sup> (n=22)	36.7 <sup>a</sup> (n=26)	-.12 <sup>a</sup> (n=842)

# Tenure (months)

Degree Type	Warehouse	Machine
No degree	15.5 <sup>a</sup> (n=39)	28.0 <sup>a</sup> (n=8)
G.E.D.	3.6 <sup>b</sup> (n=38)	16.3 <sup>b</sup> (n=12)
H.S. Diploma	8.2 <sup>b</sup> (n=79)	31.8 <sup>a</sup> (n=40)

# Average Tenure of Previous 3 Jobs (months)

Degree Type	Warehouse	Machine
No degree	15.43 <sup>ab</sup> (n=14)	14.31 <sup>a</sup> (n=8)
G.E.D.	13.85 <sup>b</sup> (n=24)	14.20 <sup>a</sup> (n=12)
H.S. Diploma	21.37 <sup>a</sup> (n=46)	43.39 <sup>b</sup> (n=39)

# Effect Sizes (d)

## HS Diploma - GED

	Criterion			
	Tenure	Fired?	Performance	Discipline
Machine	.36	- .15	- .30	- .74
Warehouse	.17	- .38	- .36	- .06
Police			- .01	
Total				
d	.23	-.30	-.02	-.36
N	171	175	970	103

# Effect Sizes (d)

## GED – No Degree

	Criterion			
	Tenure	Fired?	Performance	Discipline
Machine	- .27	- .24	.05	.78
Warehouse	- .45	.30	.47	.13
Total				
d	- .41	.17	.29	.31
N	97	90	19	61



# Conclusion

- No differences for performance ratings
- GEDs may have lower tenure
- GEDs may have more discipline problems
  - Reprimands
  - Being terminated
- Much more research is necessary
  - Larger samples and different jobs
  - When the GED was earned
  - Where the GED was earned

# Questions about this Presentation?

Michael G. Aamodt, Ph.D.  
Department of Psychology  
Radford University  
Radford, VA 24142-6946  
(540) 831-5513  
[maamodt@radford.edu](mailto:maamodt@radford.edu)