



























subject	decis	unexec decis	duas	unexec duas	failure rate	test set	number test sets
Version1	1175	353	\$255	1437	0.0001	200	105
Version3	1175	353	5255	1437	0.0001	206	105
Version7	1171	353	5235	1437	0.0150	20	105
Version8	1171	353	\$235	1437	0.0094	20	105
Version12	1175	353	5256	1437	0.0185	100	10*
Version18	1175	353	5256	1437	0.0014	.50	10°
Version22	1169	352	5198	1411	0.0036	50	105
Venion32	1175	353	5256	1437	0.0001	100	109

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		1.13 -								1	22
? - Decision coverage	1	8.1 *								İ	•
 - All-use coverage 	Conceptions.	1.0 -									2
	â	1.3 *								I	
Vertical bars - 95% confidence intervals		3.N *								ł	

















Mostly, effectiveness higher with higher coverage levels.

Results

- In one version, effectiveness falls at highest
 In previous work², also observed
- Results outside confidence interva
- Or other factor ?
- Guaranteed/ dependable/Cost effective?

In some , at high coverage, decision coverage better - Is this conclusive?

.. Results

✓ Decision/dua coverage perform similarly. - Sharp contrast to earlier work with smaller subject programs³



- Effectiveness found to be lower than our adequacy criteria



Conclusions

- Tests cases satisfying high decision dua coverage more effective than randomly sampled test cases
- Decision/All-use comparison not conclusive
- ✓ Small step towards answering question of effectiveness of testing criteria
- Scope for further testing and more work

