

DOT Attributes Prediction

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This document describes the performance of our predictive model on the task of predicting the following job attributes for jobs in the 1965 and 1991 DOT.

- **GED Math** general ability to learn, reason, and make judgements
- **Eye-Hand-Foot Coordination** motor responsiveness to visual stimuli
- **Finger Dexterity** ability to finger and manipulate small objects
- **Direction, Control, Planning** directing, controlling or planning activities of others
- **Set limits, tolerances, and standards** attaining precise et limits, tolerances, and standards

Note: the GED Math labels are different in 1965 and 1991. Mainly, the 1965 data contains "half points", (e.g. 4.5, 5.5, etc) whereas the 1991 data contains only integers. This accounts for the low accuracy but high correlation on that specific task.

Table 1: Performance on 1965 Data

Model	Attribute	Accuracy	Correlation	Rank Correlation
1965	GED Math	75%	.90	.88
1965	Eye-Hand-Foot Coordination	85%	.62	.66
1965	Finger Dexterity	88%	.74	.73
1965	Direction, Control, Planning	98%	.92	.92
1965	Set limits, tolerances, and standards	88%	.74	.74
1991	GED Math	22%	.79	.81
1991	Eye-Hand-Foot Coordination	23%	.20	.16
1991	Finger Dexterity	11%	.42	.40
1991	Direction, Control, Planning	96%	.84	.84
1991	Set limits, tolerances, and standards	81%	.59	.59

Table 2: Performance on 1991 Data

Model	Attribute	Accuracy	Correlation	Rank Correlation
1965	GED Math	20%	.78	.79
1965	Eye-Hand-Foot Coordination	23%	.20	.17
1965	Finger Dexterity	12%	.42	.39
1965	Direction, Control, Planning	96%	.87	.87
1965	Set limits, tolerances, and standards	75%	.49	.49
1991	GED Math	68%	.85	.84
1991	Eye-Hand-Foot Coordination	78%	.5	.47
1991	Finger Dexterity	72%	.57	.55
1991	Direction, Control, Planning	97%	.90	.90
1991	Set limits, tolerances, and standards	77%	.54	.54