



What's new in IBM SPSS Statistics 18?

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Agenda

- What's new in IBM SPSS Statistics 18.0
- Demonstration
- Recap
- Q & A



IBM SPSS Statistics 18 themes

- **New Automation and Innovation**
 - Applying innovation and automation to address traditionally manual, time consuming steps in the analytical process
- **New Analysis and Reporting**
 - Introducing new analytical and report creation functionality for statisticians and non-statisticians
- **Improved Technology and Architecture**
 - Improved performance, new platform availability, and changes behind the scenes to enhance usability by IBM SPSS Statistics' broad user base

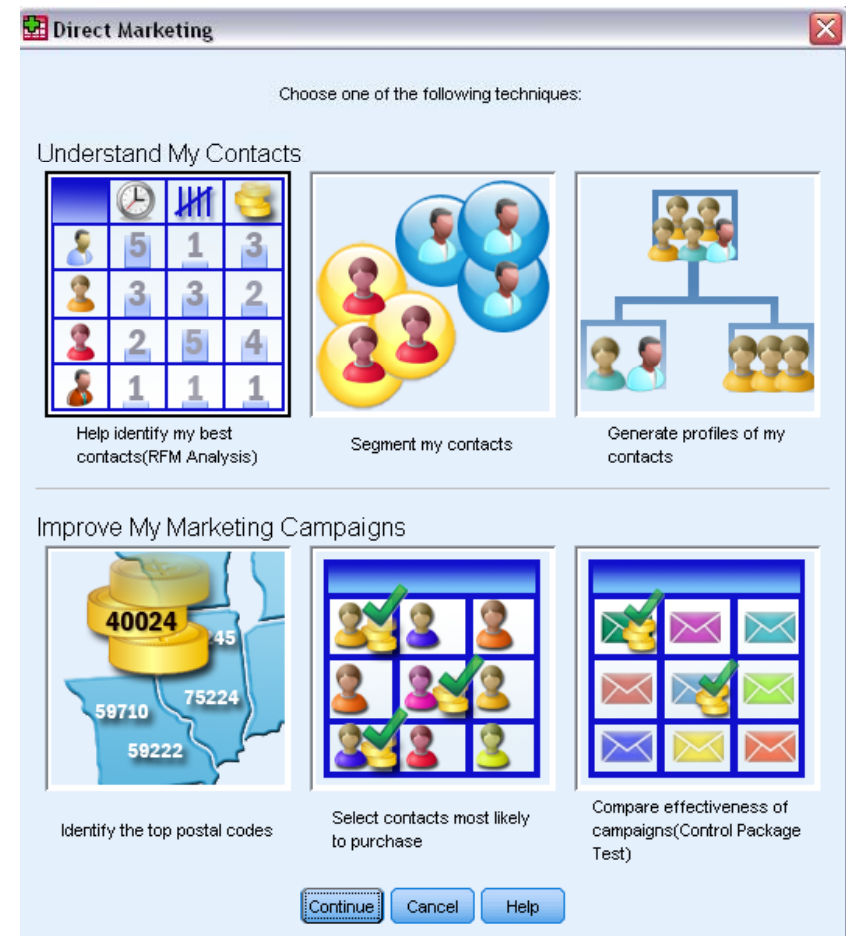


New Automation and Innovation

■ IBM SPSS Direct Marketing

- New interfaces and output for use by Direct Marketing professionals
- PASW EZ RFM moves to IBM SPSS Direct Marketing
- Cluster Analysis for segmenting customers
- Contact Profiles
- Propensity to Purchase
- Control Package Test to see which offer works best
- Postal Code Response to identify top postal codes

Understand

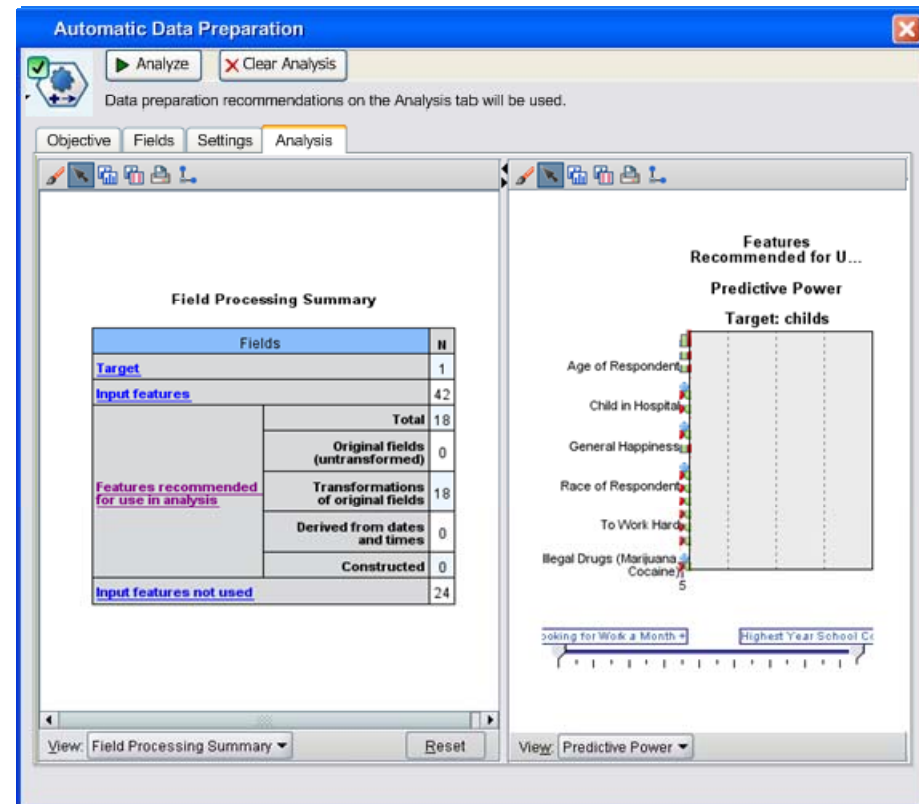


Optimize



New Automation and Innovation

- Automated Data Preparation
 - Automates tedious and repetitive data preparation tasks such as transforming data
 - Delivers recommendations
 - Allow advanced users to drill in for examination and customization of activity undertaken



New Non-Parametric Tests

The screenshot shows the PASW Statistics Data Editor interface. The 'Analyze' menu is open, and 'Nonparametric Tests' is highlighted. The data table shows a 'region' variable with values 'Zone 1' and 'Zone 2'. The 'marital' variable has values 'Married' and 'unmarried'. The 'address' variable has numerical values.

	region	marital	address
1	Zone 2	Married	9
2	Zone 2	unmarried	12
3	Zone 2	unmarried	10
4	Zone 1	Married	8
5	Zone 2	unmarried	3
6	Zone 2	unmarried	3
7	Zone 1		
8	Zone 3		
9	Zone 1		
10	Zone 2		
11	Zone 3	Married	9
12	Zone 2	Married	4
13	Zone 1	Married	3
14	Zone 1	unmarried	6

- One-sample Wilcoxon
- One-sample confidence intervals
- Related-samples
- Hodges-Lehman
- Pairwise step-down multiple comparisons
- Jonckheere-Terpstra

Improved Display of Large Pivot Tables

Pivot Table Age in years

File Edit View Insert Pivot Format Help

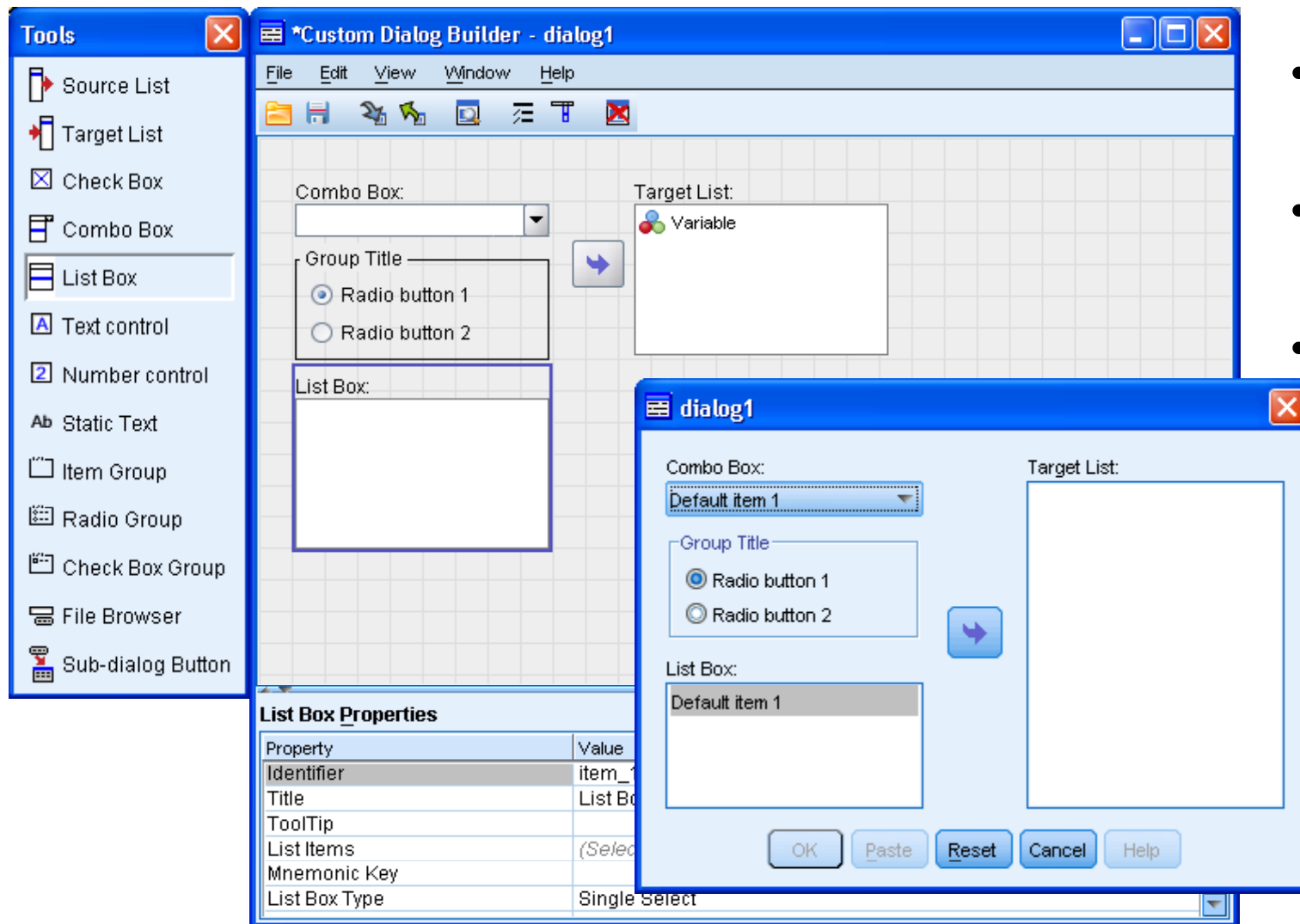
Age in years

	Frequency	Percent	Valid Percent	Cumulative Percent	Bootstrap for Percent ^a			
					Bias	Std. Error	95% Confidence Interval	
							Lower	Upper
36	25	2.5	2.5	39.2	.0	.5	1.0	
37	31	3.1	3.1	42.3	.0	.6	2.0	
38	21	2.1	2.1	44.4	.0	.4	1.3	
39	35	3.5	3.5	47.9	.0	.6	2.4	
40	28	2.8	2.8	50.7	.0	.5	1.8	
41	24	2.4	2.4	53.1	.0	.5	1.5	
42	28	2.8	2.8	55.9	.0	.5	1.8	
43	24	2.4	2.4	58.3	.0	.5	1.5	
44	20	2.0	2.0	60.3	.0	.4	1.2	
45	24	2.4	2.4	62.7	.0	.5	1.4	
46	24	2.4	2.4	65.1	.0	.5	1.5	
47	21	2.1	2.1	67.2	.0	.4	1.3	
48	24	2.4	2.4	69.6	.0	.5	1.5	
49	18	1.8	1.8	71.4	.0	.4	1.1	
50	23	2.3	2.3	73.7	.0	.5	1.4	
51	23	2.3	2.3	76.0	.0	.5	1.4	
52	25	2.5	2.5	78.5	.0	.5	1.6	
53	19	1.9	1.9	80.4	.0	.4	1.1	

a. Unless otherwise noted, bootstrap results are based on 1000 bootstrap samples

- Navigate huge pivot tables
- Scroll smoothly

Improved Custom Dialog Builder



- List box control
- Dynamically populated
- New radio buttons

<http://www.spss.com/devcentral/>

Custom Tables Enhancements

The screenshot shows the SPSS Custom Tables dialog box with the 'Categories and Totals' tab selected. The 'Define Computed Category' dialog is open, showing the expression '[1] + [2]' for the computed category 'Zone12'. The 'Categories' list includes Zone 1 (1), Zone 2 (2), Zone 3 (3), Zone 4 (4), Zone 5 (5), and Other values found when data are missing. The 'Totals and Subtotals' section is empty.

- Computed Categories
- Integrated significance

/PCOMPUTE &cat1 = EXPR([1]+[2])

		Geographic indicator		
		Zone 1	Zone12 ¹	Zone 2
Years at current address	Mean	11.36 _a	23.03	11.67 _a
Household income in thousands	Mean	73.44 _a	152.66	79.22 _a
Years with current employer	Mean	11 _a	22	11 _a
Number of people in household	Mean	2 _a	5	2 _a

Note: Values in the same row and subtable not sharing the same subscript are significantly different at $p < 0.05$ in the two-sided test of equality for column means. Tests assume equal variances.²

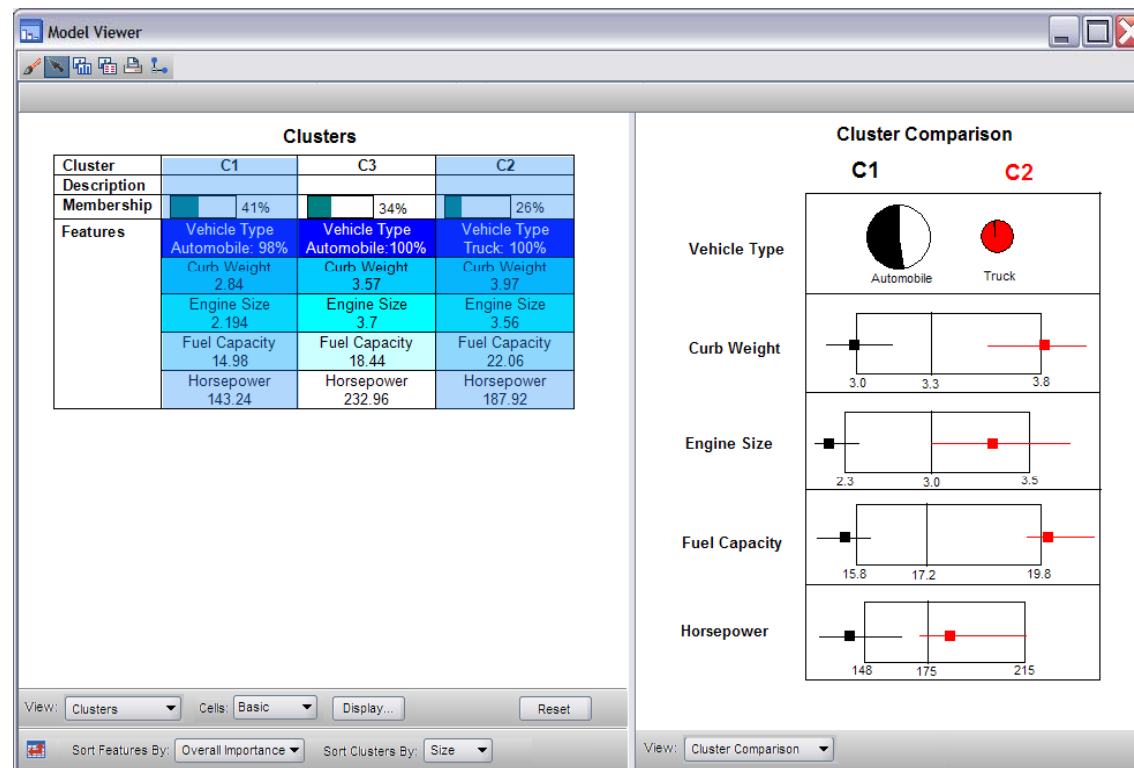
1. This computed category is not used in comparisons
2. Tests are adjusted for all pairwise comparisons within a row of each innermost subtable using the Bonferroni correction.

Improved Technology and Architecture

■ Enhanced Model Viewer

Interactive visualizations for Two-Step Cluster

- Viewers for Automated Data Preparation results
- Viewers for Nonparametric Statistics



New Analysis and Reporting

■ IBM SPSS Bootstrapping

- Estimates the sampling distribution of an estimator by re-sampling *with replacement*.
- Derives estimates of standard errors and confidence intervals of a population parameter like a mean, median, proportion, odds ratio, correlation coefficient or regression coefficient.

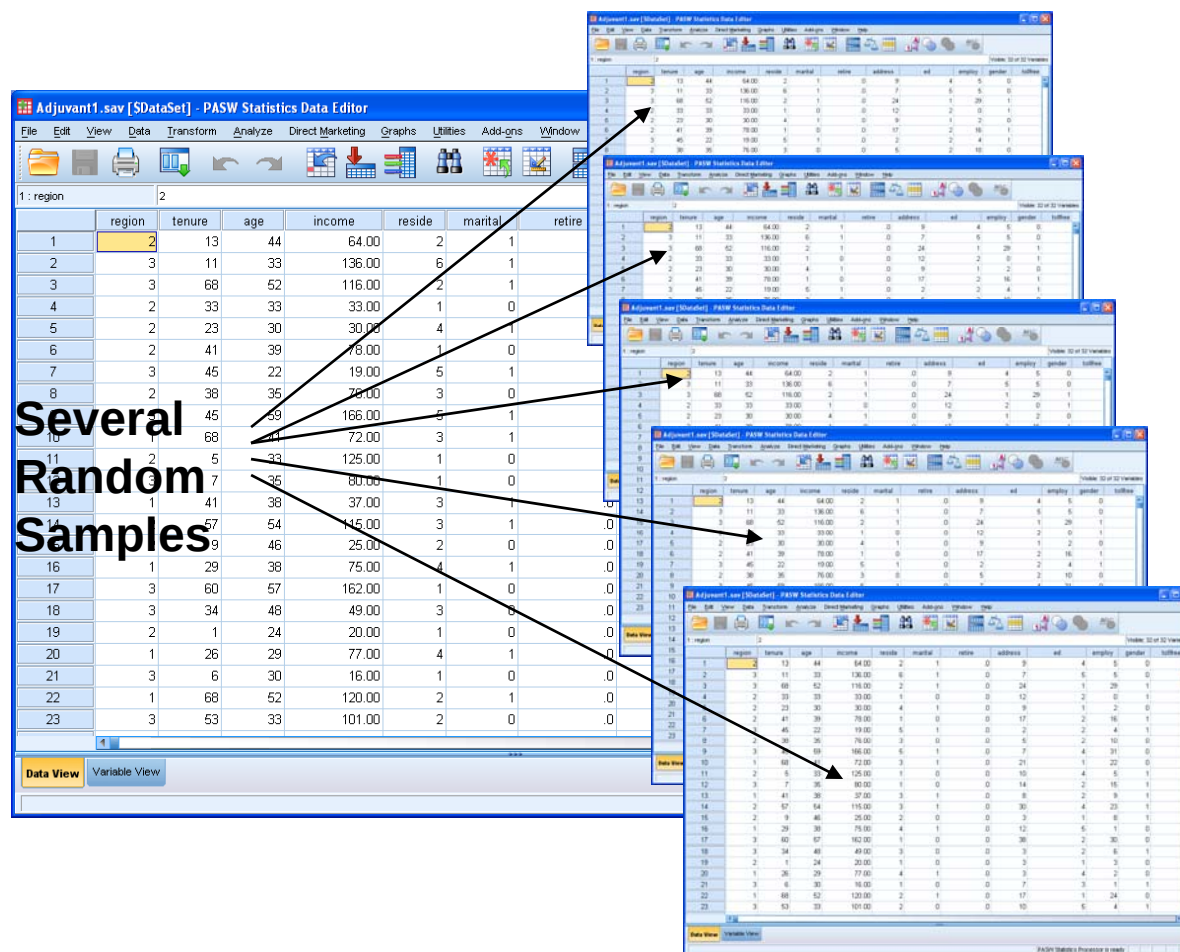
Descriptive Statistics						
		Statistic	Bootstrap			
			Bias	Std. Error	95% Confidence Interval	
					Lower	Upper
Current Salary	N	474	0	0	474	474
	Minimum	\$15,750				
	Maximum	\$135,000				
	Mean	\$34,419.57	\$13.56	\$773.20	\$32,972.86	\$35,998.47
	Std. Deviation	\$17,075.661	\$-12.170	\$1,073.562	\$15,038.602	\$19,153.873
Beginning Salary	N	474	0	0	474	474
	Minimum	\$9,000				
	Maximum	\$79,980				
	Mean	\$17,016.09	\$-2.48	\$354.37	\$16,361.44	\$17,731.55
	Std. Deviation	\$7,870.638	\$-50.279	\$685.428	\$6,614.208	\$9,233.726
Months since Hire	N	474	0	0	474	474
	Minimum	63				
	Maximum	98				
	Mean	81.11	-.01	.46	80.18	81.96
	Std. Deviation	10.061	-.004	.215	9.623	10.459
Previous Experience (months)	N	474	0	0	474	474
	Minimum	0				
	Maximum	476				
	Mean	95.86	-.07	4.68	87.37	105.42
	Std. Deviation	104.586	-.458	4.439	95.406	112.756
Valid N (listwise)	N	474	0	0	474	474

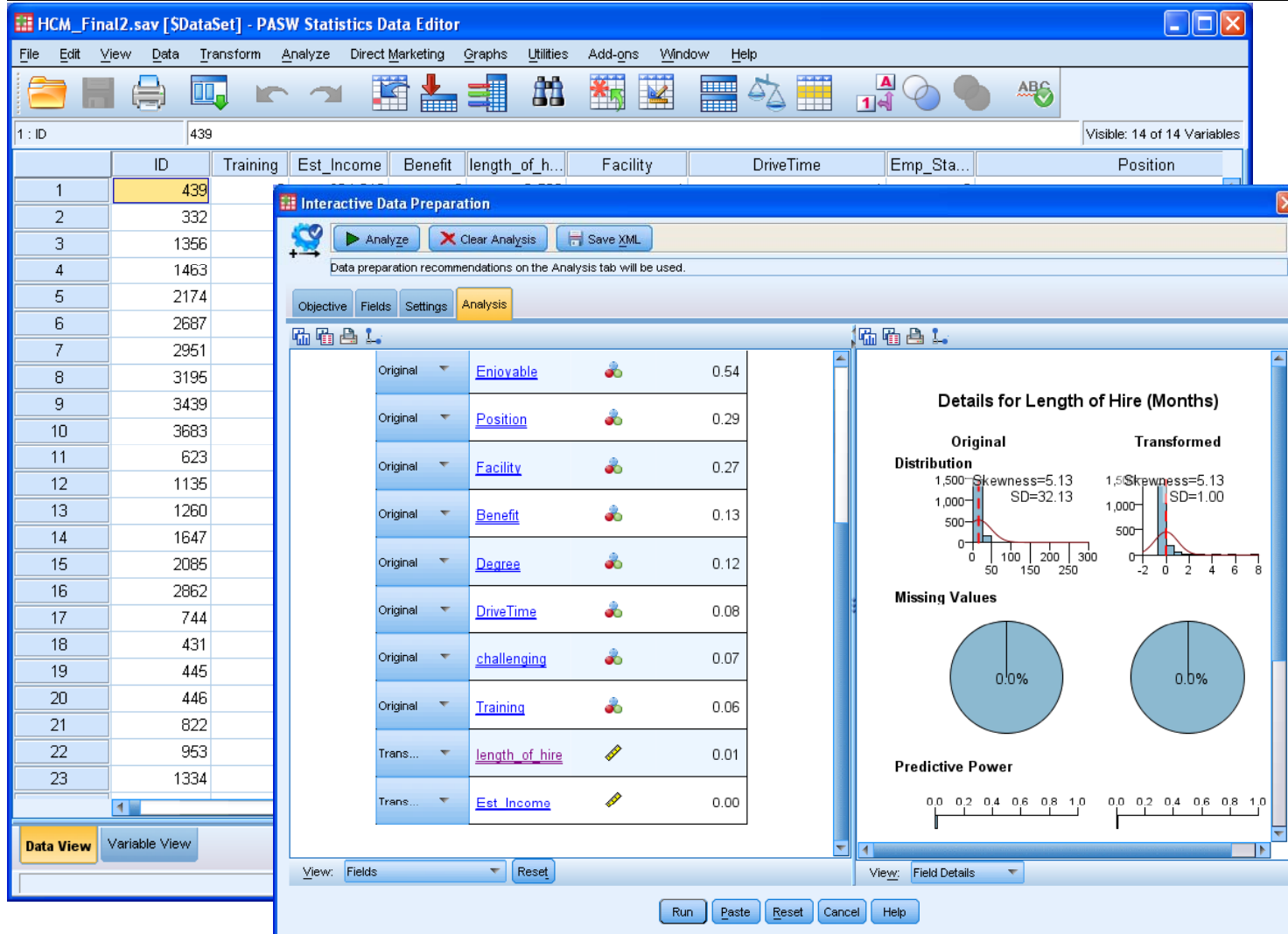
Bootstrapping Procedures

IBM SPSS Statistics Base	IBM SPSS Advanced Statistics	IBM SPSS Regression
Frequencies Descriptives Crosstabs Means One-Sample T Test Independent-Samples T Test Paired-Samples T Test One-Way ANOVA GLM Univariate Bivariate Correlations Partial Correlations Linear Regression Ordinal Regression Discriminant Analysis	GLM Multivariate Linear Mixed Models Generalized Linear Models and Generalized Estimating Equations Cox Regression	Binary Logistic Regression Multinomial Logistic Regression



Bootstrapping Procedures





Let's see the Demo!!

Recap

- **What you'll find in the new IBM SPSS Statistics 18**
 - New Automation and Innovation
 - Auto Data Preparation
 - New Analysis and Reporting
 - Bootstrapping and Enhanced Tables
 - Improved Technology and Architecture



SPSS, an IBM Company

- **SPSS Inc. became a part of IBM Corporation on October 2, 2009.**
- **Account management and support infrastructure will be at the forefront of our focus and we will continue to honor our outstanding commitments and contracts.**
- **We are firmly committed to:**
 - Growing our long standing relationship with academia and the universities, professors, students and researchers who rely on our technology to help create a better future.
 - Making the best technology tools and resources available to the academic community.
- **We will continue to communicate with you as new information becomes available.**
- **We want to hear from you: We are looking for innovative ideas to grow our relationship with you, both in use of technology and the ease of use in using our software.**
- **Please visit <http://www.spss.com/ibm-announce/> for updates and FAQs or contact your account representative to discuss any concerns you may have.**



Thank you

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- **IBM SPSS Statistics 18 available for direct purchase and download from <https://store.spss.co.uk>**
- **Online training available for new features available at <http://training.spss.co.uk/>**

