

**The SAS System****FERTILISER=0**

<b>Obs</b>	<b>PROTEIN_YIELD</b>
<b>1</b>	0.03938
<b>2</b>	0.06860
<b>3</b>	0.02643
<b>4</b>	0.06810
<b>5</b>	0.07548
<b>6</b>	0.01696
<b>7</b>	0.01151
<b>8</b>	0.10036
<b>9</b>	0.08607
<b>10</b>	0.14781
<b>11</b>	0.12592
<b>12</b>	0.10402
<b>13</b>	0.09892
<b>14</b>	0.17802
<b>15</b>	0.12479
<b>16</b>	0.05720
<b>17</b>	0.05795
<b>18</b>	0.14180
<b>19</b>	0.10602
<b>20</b>	0.05048
<b>21</b>	0.04489
<b>22</b>	0.20585
<b>23</b>	0.11093
<b>24</b>	0.04815
<b>25</b>	0.03945
<b>26</b>	0.08598
<b>27</b>	0.07189
<b>28</b>	0.05851
<b>29</b>	0.06020
<b>30</b>	0.09479
<b>31</b>	0.09407

<b>32</b>	0.05532
<b>33</b>	0.07372
<b>34</b>	0.03357
<b>35</b>	0.04113
<b>36</b>	0.03330
<b>37</b>	0.07432
<b>38</b>	0.02051
<b>39</b>	0.04182
<b>FERTILISER</b>	<b>2.97424</b>

**FERTILISER=64**

<b>Obs</b>	<b>PROTEIN_YIELD</b>
<b>40</b>	0.05879
<b>41</b>	0.07062
<b>42</b>	0.05851
<b>43</b>	0.03830
<b>44</b>	0.05750
<b>45</b>	0.06962
<b>46</b>	0.05180
<b>47</b>	0.03679
<b>48</b>	0.15138
<b>49</b>	0.11112
<b>50</b>	0.17195
<b>51</b>	0.12158
<b>52</b>	0.14114
<b>53</b>	0.12836
<b>54</b>	0.17328
<b>55</b>	0.11213
<b>56</b>	0.12985
<b>57</b>	0.08102
<b>58</b>	0.16414
<b>59</b>	0.12655
<b>60</b>	0.08876
<b>61</b>	0.08355
<b>62</b>	0.13436

<b>63</b>	0.09824
<b>64</b>	0.08666
<b>65</b>	0.07364
<b>66</b>	0.12054
<b>67</b>	0.08210
<b>68</b>	0.07541
<b>69</b>	0.06412
<b>70</b>	0.07482
<b>71</b>	0.07401
<b>72</b>	0.07907
<b>73</b>	0.09038
<b>74</b>	0.06193
<b>75</b>	0.05948
<b>76</b>	0.05361
<b>77</b>	0.08199
<b>78</b>	0.06533
<b>79</b>	0.05949
<b>FERTILISER</b>	<b>3.66193</b>

**FERTILISER=100**

<b>Obs</b>	<b>PROTEIN_YIELD</b>
<b>80</b>	0.05733
<b>81</b>	0.05445
<b>82</b>	0.13489
<b>83</b>	0.13866
<b>84</b>	0.12416
<b>85</b>	0.09652
<b>86</b>	0.09904
<b>87</b>	0.08308
<b>88</b>	0.05474
<b>89</b>	0.07932
<b>FERTILISER</b>	<b>0.92219</b>
	<b>7.55837</b>

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1	0.03938
2	0.06860
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8	0.10036
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<b>33</b>	0.07372
<b>34</b>	0.03357
<b>35</b>	0.04113
<b>36</b>	0.03330
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<b>76</b>	0.05361
<b>77</b>	0.08199
<b>78</b>	0.06533
<b>79</b>	0.05949
<b>FERTILISER</b>	<b>3.66193</b>

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<b>Obs</b>	<b>PROTEIN_YIELD</b>
<b>80</b>	0.05733
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<b>88</b>	0.05474
<b>89</b>	0.07932
<b>FERTILISER</b>	<b>0.92219</b>
	<b>7.55837</b>



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**Protein Yield of each fertilisers****FERTILISER=0**

<b>Obs</b>	<b>PROTEIN_YIELD</b>
<b>1</b>	0.03938
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<b>36</b>	0.03330
<b>37</b>	0.07432
<b>38</b>	0.02051
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<b>FERTILISER</b>	<b>2.97424</b>

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<b>88</b>	0.05474
<b>89</b>	0.07932
<b>FERTILISER</b>	<b>0.92219</b>
	<b>7.55837</b>



**The UNIVARIATE Procedure**  
**Variable: AGE**

Moments			
<b>N</b>	7288	<b>Sum Weights</b>	7288
<b>Mean</b>	22.4173338	<b>Sum Observations</b>	163377.529
<b>Std Deviation</b>	9.40501778	<b>Variance</b>	88.4543594
<b>Skewness</b>	0.87970087	<b>Kurtosis</b>	0.94503535
<b>Uncorrected SS</b>	4307055.52	<b>Corrected SS</b>	644566.917
<b>Coeff Variation</b>	41.9542211	<b>Std Error Mean</b>	0.11016799

Basic Statistical Measures			
Location		Variability	
<b>Mean</b>	22.41733	<b>Std Deviation</b>	9.40502
<b>Median</b>	20.94658	<b>Variance</b>	88.45436
<b>Mode</b>	13.53973	<b>Range</b>	58.72329
		<b>Interquartile Range</b>	13.29178

**Note:** The mode displayed is the smallest of 4 modes with a count of 6.

Tests for Location: Mu0=0				
Test	Statistic		p Value	
<b>Student's t</b>	<b>t</b>	203.4832	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	3644	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	13280558	<b>Pr &gt;=  S </b>	<.0001

Quantiles (Definition 5)	
Level	Quantile
<b>100% Max</b>	63.79452
<b>99%</b>	48.83288
<b>95%</b>	39.87671
<b>90%</b>	35.19178
<b>75% Q3</b>	28.41918
<b>50% Median</b>	20.94658
<b>25% Q1</b>	15.12740
<b>10%</b>	11.76164



<b>5%</b>	10.01370
<b>1%</b>	7.47123
<b>0% Min</b>	5.07123

<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
5.07123	7278	63.2411	3415
5.27397	6973	63.4712	3416
5.42466	6993	63.6247	3417
5.54247	6974	63.6466	3418
5.57808	7011	63.7945	3419

**The UNIVARIATE Procedure**  
**Variable: BMI**

<b>Moments</b>			
<b>N</b>	7288	<b>Sum Weights</b>	7288
<b>Mean</b>	21.208503	<b>Sum Observations</b>	154567.57
<b>Std Deviation</b>	23.9779226	<b>Variance</b>	574.940773
<b>Skewness</b>	60.2934498	<b>Kurtosis</b>	3794.92531
<b>Uncorrected SS</b>	7467740.19	<b>Corrected SS</b>	4189593.42
<b>Coeff Variation</b>	113.058063	<b>Std Error Mean</b>	0.28087131

<b>Basic Statistical Measures</b>			
<b>Location</b>		<b>Variability</b>	
<b>Mean</b>	21.20850	<b>Std Deviation</b>	23.97792
<b>Median</b>	20.49000	<b>Variance</b>	574.94077
<b>Mode</b>	20.30000	<b>Range</b>	1642
		<b>Interquartile Range</b>	4.41000

<b>Tests for Location: Mu0=0</b>				
<b>Test</b>	<b>Statistic</b>		<b>p Value</b>	
<b>Student's t</b>	<b>t</b>	75.50968	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	3644	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	13280558	<b>Pr &gt;=  S </b>	<.0001

<b>Quantiles (Definition 5)</b>	
<b>Level</b>	<b>Quantile</b>
<b>100% Max</b>	1654.38
<b>99%</b>	32.10
<b>95%</b>	27.10
<b>90%</b>	25.40
<b>75% Q3</b>	22.71
<b>50% Median</b>	20.49
<b>25% Q1</b>	18.30
<b>10%</b>	16.58
<b>5%</b>	15.85
<b>1%</b>	14.80

<b>0% Min</b>	12.20
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<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
12.20	6472	45.50	1257
12.70	4379	63.20	696
12.70	4378	99.90	1616
12.80	4382	1214.34	1042
13.06	3430	1654.38	3937

**The UNIVARIATE Procedure**  
**Variable: FEV**

<b>Moments</b>			
<b>N</b>	7288	<b>Sum Weights</b>	7288
<b>Mean</b>	68.7238296	<b>Sum Observations</b>	500859.27
<b>Std Deviation</b>	26.2083653	<b>Variance</b>	686.878413
<b>Skewness</b>	1.00865886	<b>Kurtosis</b>	19.1335034
<b>Uncorrected SS</b>	39426250.1	<b>Corrected SS</b>	5005282.99
<b>Coeff Variation</b>	38.1357754	<b>Std Error Mean</b>	0.30699815

<b>Basic Statistical Measures</b>			
<b>Location</b>		<b>Variability</b>	
<b>Mean</b>	68.72383	<b>Std Deviation</b>	26.20837
<b>Median</b>	70.00000	<b>Variance</b>	686.87841
<b>Mode</b>	74.00000	<b>Range</b>	576.57000
		<b>Interquartile Range</b>	40.00000

<b>Tests for Location: Mu0=0</b>				
<b>Test</b>	<b>Statistic</b>		<b>p Value</b>	
<b>Student's t</b>	<b>t</b>	223.8575	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	3644	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	13280558	<b>Pr &gt;=  S </b>	<.0001

<b>Quantiles (Definition 5)</b>	
<b>Level</b>	<b>Quantile</b>
<b>100% Max</b>	581.00
<b>99%</b>	122.00
<b>95%</b>	108.00
<b>90%</b>	101.00
<b>75% Q3</b>	89.00
<b>50% Median</b>	70.00
<b>25% Q1</b>	49.00
<b>10%</b>	33.00
<b>5%</b>	27.00
<b>1%</b>	18.00

<b>0% Min</b>	4.43
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<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
4.43	7099	157	1777
10.00	7124	158	1775
11.00	5901	165	1773
11.78	3806	165	1776
13.00	5254	581	6191

**The UNIVARIATE Procedure**  
**Variable: AGE**

<b>Moments</b>			
<b>N</b>	7288	<b>Sum Weights</b>	7288
<b>Mean</b>	22.4173338	<b>Sum Observations</b>	163377.529
<b>Std Deviation</b>	9.40501778	<b>Variance</b>	88.4543594
<b>Skewness</b>	0.87970087	<b>Kurtosis</b>	0.94503535
<b>Uncorrected SS</b>	4307055.52	<b>Corrected SS</b>	644566.917
<b>Coeff Variation</b>	41.9542211	<b>Std Error Mean</b>	0.11016799

<b>Basic Statistical Measures</b>			
<b>Location</b>		<b>Variability</b>	
<b>Mean</b>	22.41733	<b>Std Deviation</b>	9.40502
<b>Median</b>	20.94658	<b>Variance</b>	88.45436
<b>Mode</b>	13.53973	<b>Range</b>	58.72329
		<b>Interquartile Range</b>	13.29178

**Note:** The mode displayed is the smallest of 4 modes with a count of 6.

<b>Tests for Location: Mu0=0</b>				
<b>Test</b>	<b>Statistic</b>		<b>p Value</b>	
<b>Student's t</b>	<b>t</b>	203.4832	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	3644	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	13280558	<b>Pr &gt;=  S </b>	<.0001

<b>Quantiles (Definition 5)</b>	
<b>Level</b>	<b>Quantile</b>
<b>100% Max</b>	63.79452
<b>99%</b>	48.83288
<b>95%</b>	39.87671
<b>90%</b>	35.19178
<b>75% Q3</b>	28.41918
<b>50% Median</b>	20.94658
<b>25% Q1</b>	15.12740
<b>10%</b>	11.76164

<b>5%</b>	10.01370
<b>1%</b>	7.47123
<b>0% Min</b>	5.07123

<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
5.07123	7278	63.2411	3415
5.27397	6973	63.4712	3416
5.42466	6993	63.6247	3417
5.54247	6974	63.6466	3418
5.57808	7011	63.7945	3419

**The UNIVARIATE Procedure**  
**Variable: BMI**

<b>Moments</b>			
<b>N</b>	7288	<b>Sum Weights</b>	7288
<b>Mean</b>	21.208503	<b>Sum Observations</b>	154567.57
<b>Std Deviation</b>	23.9779226	<b>Variance</b>	574.940773
<b>Skewness</b>	60.2934498	<b>Kurtosis</b>	3794.92531
<b>Uncorrected SS</b>	7467740.19	<b>Corrected SS</b>	4189593.42
<b>Coeff Variation</b>	113.058063	<b>Std Error Mean</b>	0.28087131

<b>Basic Statistical Measures</b>			
<b>Location</b>		<b>Variability</b>	
<b>Mean</b>	21.20850	<b>Std Deviation</b>	23.97792
<b>Median</b>	20.49000	<b>Variance</b>	574.94077
<b>Mode</b>	20.30000	<b>Range</b>	1642
		<b>Interquartile Range</b>	4.41000

<b>Tests for Location: Mu0=0</b>				
<b>Test</b>	<b>Statistic</b>		<b>p Value</b>	
<b>Student's t</b>	<b>t</b>	75.50968	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	3644	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	13280558	<b>Pr &gt;=  S </b>	<.0001

<b>Quantiles (Definition 5)</b>	
<b>Level</b>	<b>Quantile</b>
<b>100% Max</b>	1654.38
<b>99%</b>	32.10
<b>95%</b>	27.10
<b>90%</b>	25.40
<b>75% Q3</b>	22.71
<b>50% Median</b>	20.49
<b>25% Q1</b>	18.30
<b>10%</b>	16.58
<b>5%</b>	15.85
<b>1%</b>	14.80



<b>0% Min</b>	12.20
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<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
12.20	6472	45.50	1257
12.70	4379	63.20	696
12.70	4378	99.90	1616
12.80	4382	1214.34	1042
13.06	3430	1654.38	3937

**The UNIVARIATE Procedure**  
**Variable: FEV**

<b>Moments</b>			
<b>N</b>	7288	<b>Sum Weights</b>	7288
<b>Mean</b>	68.7238296	<b>Sum Observations</b>	500859.27
<b>Std Deviation</b>	26.2083653	<b>Variance</b>	686.878413
<b>Skewness</b>	1.00865886	<b>Kurtosis</b>	19.1335034
<b>Uncorrected SS</b>	39426250.1	<b>Corrected SS</b>	5005282.99
<b>Coeff Variation</b>	38.1357754	<b>Std Error Mean</b>	0.30699815

<b>Basic Statistical Measures</b>			
<b>Location</b>		<b>Variability</b>	
<b>Mean</b>	68.72383	<b>Std Deviation</b>	26.20837
<b>Median</b>	70.00000	<b>Variance</b>	686.87841
<b>Mode</b>	74.00000	<b>Range</b>	576.57000
		<b>Interquartile Range</b>	40.00000

<b>Tests for Location: Mu0=0</b>				
<b>Test</b>	<b>Statistic</b>		<b>p Value</b>	
<b>Student's t</b>	<b>t</b>	223.8575	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	3644	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	13280558	<b>Pr &gt;=  S </b>	<.0001

<b>Quantiles (Definition 5)</b>	
<b>Level</b>	<b>Quantile</b>
<b>100% Max</b>	581.00
<b>99%</b>	122.00
<b>95%</b>	108.00
<b>90%</b>	101.00
<b>75% Q3</b>	89.00
<b>50% Median</b>	70.00
<b>25% Q1</b>	49.00
<b>10%</b>	33.00
<b>5%</b>	27.00
<b>1%</b>	18.00

<b>0% Min</b>	4.43
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<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
4.43	7099	157	1777
10.00	7124	158	1775
11.00	5901	165	1773
11.78	3806	165	1776
13.00	5254	581	6191

**The UNIVARIATE Procedure**  
**Variable: AGE**

<b>Moments</b>			
<b>N</b>	7285	<b>Sum Weights</b>	7285
<b>Mean</b>	22.4209769	<b>Sum Observations</b>	163336.816
<b>Std Deviation</b>	9.40523679	<b>Variance</b>	88.4584791
<b>Skewness</b>	0.87918438	<b>Kurtosis</b>	0.94460334
<b>Uncorrected SS</b>	4306502.54	<b>Corrected SS</b>	644331.562
<b>Coeff Variation</b>	41.948381	<b>Std Error Mean</b>	0.11019324

<b>Basic Statistical Measures</b>			
<b>Location</b>		<b>Variability</b>	
<b>Mean</b>	22.42098	<b>Std Deviation</b>	9.40524
<b>Median</b>	20.95068	<b>Variance</b>	88.45848
<b>Mode</b>	13.53973	<b>Range</b>	58.72329
		<b>Interquartile Range</b>	13.29041

**Note:** The mode displayed is the smallest of 4 modes with a count of 6.

<b>Tests for Location: Mu0=0</b>				
<b>Test</b>	<b>Statistic</b>		<b>p Value</b>	
<b>Student's t</b>	<b>t</b>	203.4696	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	3642.5	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	13269628	<b>Pr &gt;=  S </b>	<.0001

<b>Quantiles (Definition 5)</b>	
<b>Level</b>	<b>Quantile</b>
<b>100% Max</b>	63.79452
<b>99%</b>	48.83288
<b>95%</b>	39.87671
<b>90%</b>	35.19178
<b>75% Q3</b>	28.42192
<b>50% Median</b>	20.95068
<b>25% Q1</b>	15.13151
<b>10%</b>	11.76164

<b>5%</b>	10.01370
<b>1%</b>	7.47123
<b>0% Min</b>	5.07123

<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
5.07123	7275	63.2411	3414
5.27397	6970	63.4712	3415
5.42466	6990	63.6247	3416
5.54247	6971	63.6466	3417
5.57808	7008	63.7945	3418

**The UNIVARIATE Procedure**  
**Variable: BMI**

<b>Moments</b>			
<b>N</b>	7285	<b>Sum Weights</b>	7285
<b>Mean</b>	20.8208099	<b>Sum Observations</b>	151679.6
<b>Std Deviation</b>	3.66204641	<b>Variance</b>	13.4105839
<b>Skewness</b>	2.30171322	<b>Kurtosis</b>	32.9055887
<b>Uncorrected SS</b>	3255774.81	<b>Corrected SS</b>	97682.6932
<b>Coeff Variation</b>	17.5883956	<b>Std Error Mean</b>	0.04290511

<b>Basic Statistical Measures</b>			
<b>Location</b>		<b>Variability</b>	
<b>Mean</b>	20.82081	<b>Std Deviation</b>	3.66205
<b>Median</b>	20.49000	<b>Variance</b>	13.41058
<b>Mode</b>	20.30000	<b>Range</b>	87.70000
		<b>Interquartile Range</b>	4.41000

<b>Tests for Location: Mu0=0</b>				
<b>Test</b>	<b>Statistic</b>		<b>p Value</b>	
<b>Student's t</b>	<b>t</b>	485.2757	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	3642.5	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	13269628	<b>Pr &gt;=  S </b>	<.0001

<b>Quantiles (Definition 5)</b>	
<b>Level</b>	<b>Quantile</b>
<b>100% Max</b>	99.90
<b>99%</b>	32.08
<b>95%</b>	27.04
<b>90%</b>	25.40
<b>75% Q3</b>	22.71
<b>50% Median</b>	20.49
<b>25% Q1</b>	18.30
<b>10%</b>	16.58
<b>5%</b>	15.85
<b>1%</b>	14.80

<b>0% Min</b>	12.20
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<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
12.20	6469	35.17	1529
12.70	4377	36.95	3409
12.70	4376	45.50	1256
12.80	4380	63.20	696
13.06	3429	99.90	1615

**The UNIVARIATE Procedure**  
**Variable: FEV**

<b>Moments</b>			
<b>N</b>	7285	<b>Sum Weights</b>	7285
<b>Mean</b>	68.6438257	<b>Sum Observations</b>	500070.27
<b>Std Deviation</b>	25.5103609	<b>Variance</b>	650.778511
<b>Skewness</b>	-0.0091862	<b>Kurtosis</b>	-0.6766326
<b>Uncorrected SS</b>	39067007.1	<b>Corrected SS</b>	4740270.67
<b>Coeff Variation</b>	37.1633728	<b>Std Error Mean</b>	0.29888342

<b>Basic Statistical Measures</b>			
<b>Location</b>		<b>Variability</b>	
<b>Mean</b>	68.64383	<b>Std Deviation</b>	25.51036
<b>Median</b>	70.00000	<b>Variance</b>	650.77851
<b>Mode</b>	74.00000	<b>Range</b>	160.57000
		<b>Interquartile Range</b>	40.00000

<b>Tests for Location: Mu0=0</b>				
<b>Test</b>	<b>Statistic</b>		<b>p Value</b>	
<b>Student's t</b>	<b>t</b>	229.6676	<b>Pr &gt;  t </b>	<.0001
<b>Sign</b>	<b>M</b>	3642.5	<b>Pr &gt;=  M </b>	<.0001
<b>Signed Rank</b>	<b>S</b>	13269628	<b>Pr &gt;=  S </b>	<.0001

<b>Quantiles (Definition 5)</b>	
<b>Level</b>	<b>Quantile</b>
<b>100% Max</b>	165.00
<b>99%</b>	122.00
<b>95%</b>	108.00
<b>90%</b>	101.00
<b>75% Q3</b>	89.00
<b>50% Median</b>	70.00
<b>25% Q1</b>	49.00
<b>10%</b>	33.00
<b>5%</b>	27.00
<b>1%</b>	18.00



<b>0% Min</b>	4.43
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<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
4.43	7096	150	1768
10.00	7121	157	1776
11.00	5899	158	1774
11.78	3805	165	1772
13.00	5252	165	1775

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**The UNIVARIATE Procedure**  
**Variable: AGE**

<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
5.07123	7275	63.2411	3414
5.27397	6970	63.4712	3415
5.42466	6990	63.6247	3416
5.54247	6971	63.6466	3417
5.57808	7008	63.7945	3418

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**The UNIVARIATE Procedure**  
**Variable: BMI**

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
12.20	6469	35.17	1529
12.70	4377	36.95	3409
12.70	4376	45.50	1256
12.80	4380	63.20	696
13.06	3429	99.90	1615

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**The UNIVARIATE Procedure**  
**Variable: FEV**

Extreme Observations			
Lowest		Highest	
Value	Obs	Value	Obs
4.43	7096	150	1768
10.00	7121	157	1776
11.00	5899	158	1774
11.78	3805	165	1772
13.00	5252	165	1775

**The UNIVARIATE Procedure**  
**Variable: AGE**

<b>Moments</b>			
<b>N</b>	7285	<b>Sum Weights</b>	7285
<b>Mean</b>	22.4209769	<b>Sum Observations</b>	163336.816
<b>Std Deviation</b>	9.40523679	<b>Variance</b>	88.4584791
<b>Skewness</b>	0.87918438	<b>Kurtosis</b>	0.94460334
<b>Uncorrected SS</b>	4306502.54	<b>Corrected SS</b>	644331.562
<b>Coeff Variation</b>	41.948381	<b>Std Error Mean</b>	0.11019324

<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
5.07123	7275	63.2411	3414
5.27397	6970	63.4712	3415
5.42466	6990	63.6247	3416
5.54247	6971	63.6466	3417
5.57808	7008	63.7945	3418

**The UNIVARIATE Procedure**  
**Variable: BMI**

<b>Moments</b>			
<b>N</b>	7285	<b>Sum Weights</b>	7285
<b>Mean</b>	20.8208099	<b>Sum Observations</b>	151679.6
<b>Std Deviation</b>	3.66204641	<b>Variance</b>	13.4105839
<b>Skewness</b>	2.30171322	<b>Kurtosis</b>	32.9055887
<b>Uncorrected SS</b>	3255774.81	<b>Corrected SS</b>	97682.6932
<b>Coeff Variation</b>	17.5883956	<b>Std Error Mean</b>	0.04290511

<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
12.20	6469	35.17	1529
12.70	4377	36.95	3409
12.70	4376	45.50	1256
12.80	4380	63.20	696
13.06	3429	99.90	1615

**The UNIVARIATE Procedure**  
**Variable: FEV**

<b>Moments</b>			
<b>N</b>	7285	<b>Sum Weights</b>	7285
<b>Mean</b>	68.6438257	<b>Sum Observations</b>	500070.27
<b>Std Deviation</b>	25.5103609	<b>Variance</b>	650.778511
<b>Skewness</b>	-0.0091862	<b>Kurtosis</b>	-0.6766326
<b>Uncorrected SS</b>	39067007.1	<b>Corrected SS</b>	4740270.67
<b>Coeff Variation</b>	37.1633728	<b>Std Error Mean</b>	0.29888342

<b>Extreme Observations</b>			
<b>Lowest</b>		<b>Highest</b>	
<b>Value</b>	<b>Obs</b>	<b>Value</b>	<b>Obs</b>
4.43	7096	150	1768
10.00	7121	157	1776
11.00	5899	158	1774
11.78	3805	165	1772
13.00	5252	165	1775

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### The CORR Procedure

<b>3 Variables:</b>	AGE BMI FEV
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
AGE	7285	22.42098	9.40524	163337	5.07123	63.79452
BMI	7285	20.82081	3.66205	151680	12.20000	99.90000
FEV	7285	68.64383	25.51036	500070	4.43000	165.00000

#### Pearson Correlation Coefficients, N = 7285

Prob > |r| under H0: Rho=0

	AGE	BMI	FEV
AGE	1.00000	0.43860 <.0001	-0.33714 <.0001
BMI	0.43860 <.0001	1.00000	0.05135 <.0001
FEV	-0.33714 <.0001	0.05135 <.0001	1.00000



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**The CORR Procedure**

<b>Pearson Partial Correlation Coefficients, N = 7285</b>		
<b>Prob &gt;  r  under H0: Partial Rho=0</b>		
	<b>BMI</b>	<b>FEV</b>
<b>BMI</b>	1.00000	0.23547 <.0001
<b>FEV</b>	0.23547 <.0001	1.00000

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### The CORR Procedure

<b>3 Variables:</b>	AGE BMI FEV
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
AGE	7285	22.42098	9.40524	163337	5.07123	63.79452
BMI	7285	20.82081	3.66205	151680	12.20000	99.90000
FEV	7285	68.64383	25.51036	500070	4.43000	165.00000

### Pearson Correlation Coefficients, N = 7285

Prob > |r| under H0: Rho=0

	AGE	BMI	FEV
AGE	1.00000	0.43860 <.0001	-0.33714 <.0001
BMI	0.43860 <.0001	1.00000	0.05135 <.0001
FEV	-0.33714 <.0001	0.05135 <.0001	1.00000

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### The CORR Procedure

<b>3 Variables:</b>	avg_AGE avg_BMI avg_FEV
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
avg_AGE	589	23.36214	9.57835	13760	6.20335	62.57765
avg_BMI	589	20.94219	3.36889	12335	13.06400	33.33500
avg_FEV	589	68.41724	24.58641	40298	15.00000	150.85714

Pearson Correlation Coefficients, N = 589			
Prob >  r  under H0: Rho=0			
	avg_AGE	avg_BMI	avg_FEV
avg_AGE	1.00000	0.48185 <.0001	-0.38027 <.0001
avg_BMI	0.48185 <.0001	1.00000	0.05972 0.1477
avg_FEV	-0.38027 <.0001	0.05972 0.1477	1.00000

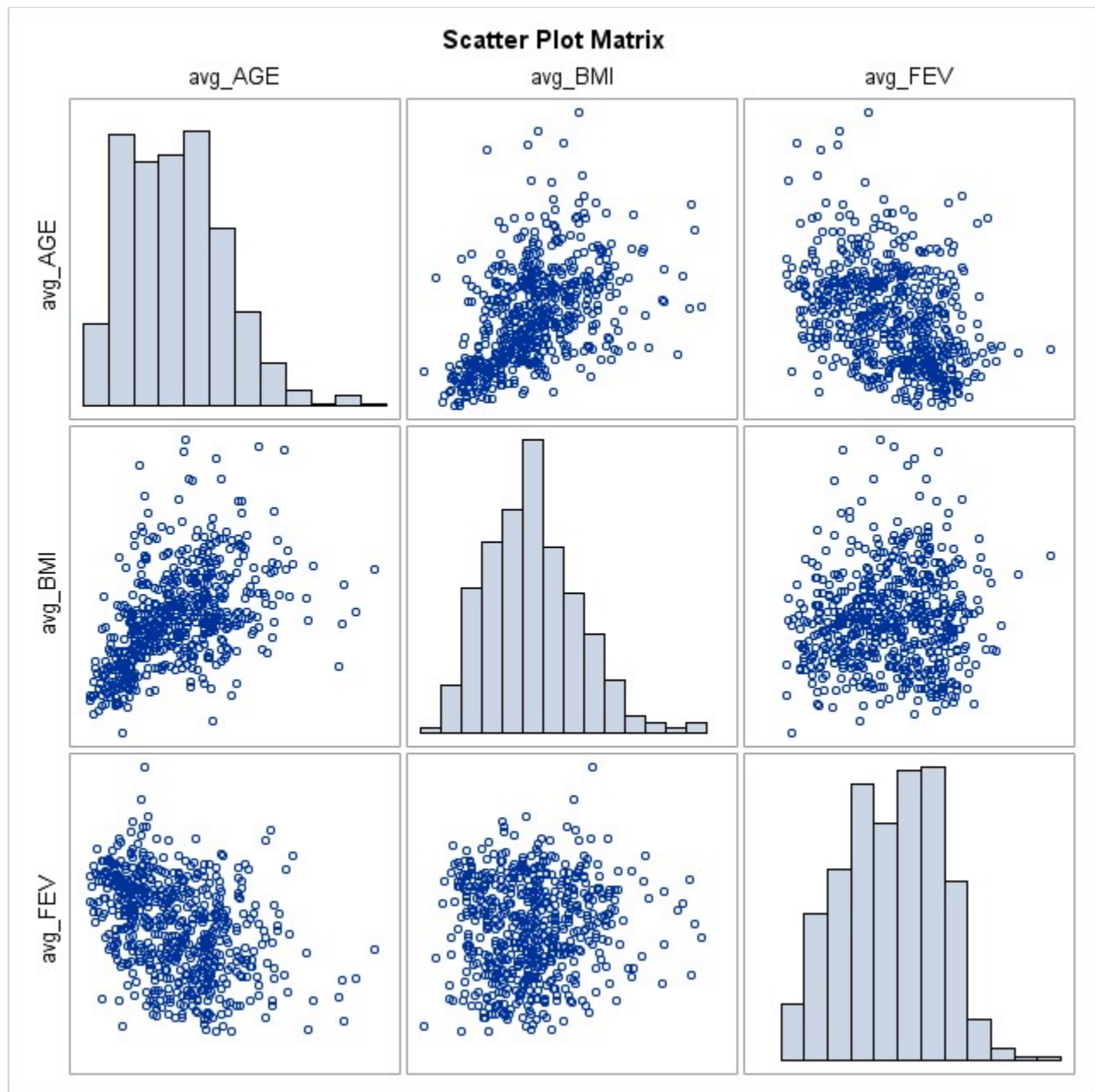
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### The CORR Procedure

<b>3 Variables:</b>	avg_AGE avg_BMI avg_FEV
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
avg_AGE	589	23.36214	9.57835	13760	6.20335	62.57765
avg_BMI	589	20.94219	3.36889	12335	13.06400	33.33500
avg_FEV	589	68.41724	24.58641	40298	15.00000	150.85714

Pearson Correlation Coefficients, N = 589			
Prob >  r  under H0: Rho=0			
	avg_AGE	avg_BMI	avg_FEV
avg_AGE	1.00000	0.48185 <.0001	-0.38027 <.0001
avg_BMI	0.48185 <.0001	1.00000	0.05972 0.1477
avg_FEV	-0.38027 <.0001	0.05972 0.1477	1.00000



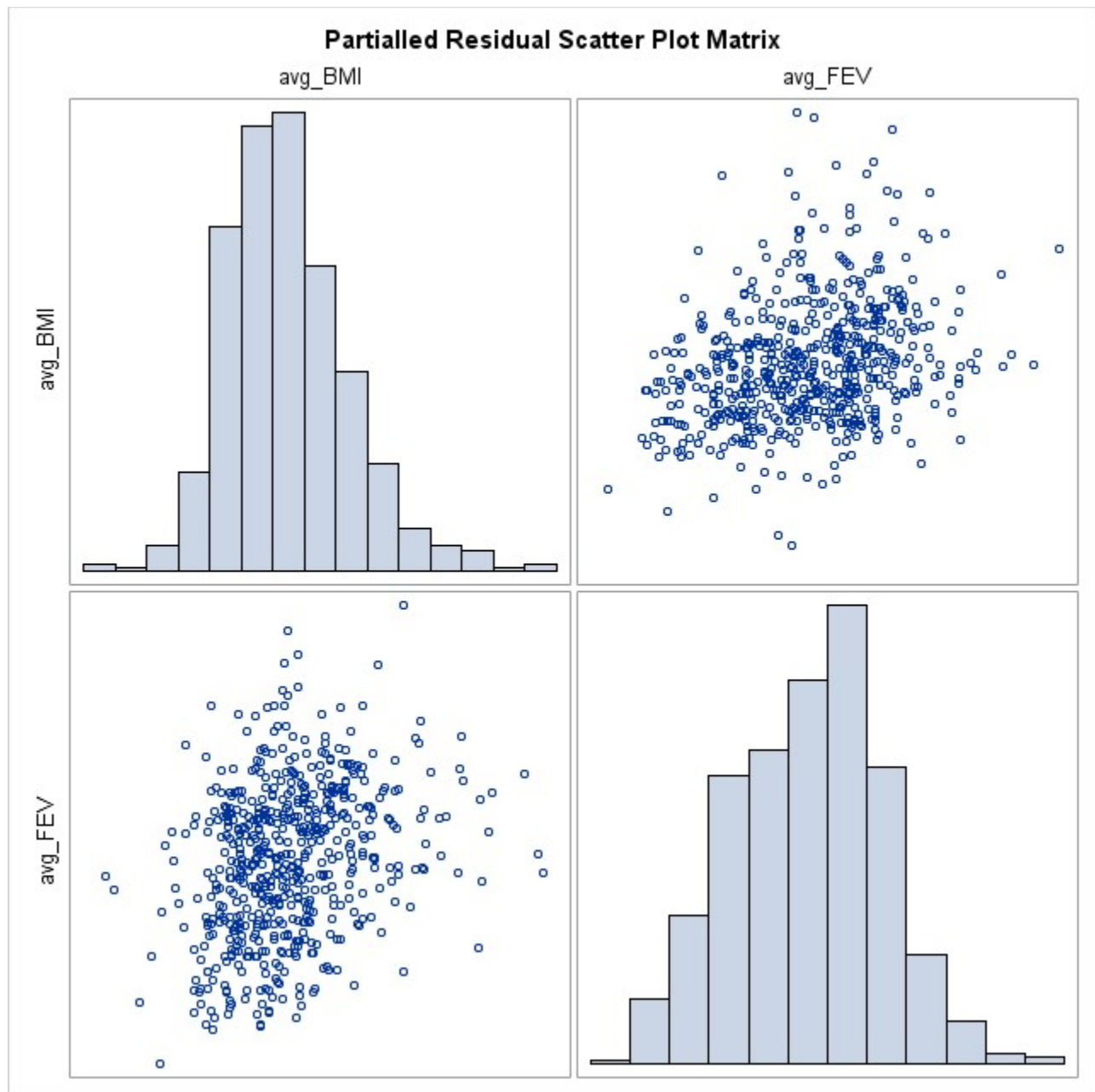
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**The CORR Procedure**

<b>1 Partial Variables:</b>	avg_AGE
<b>2 Variables:</b>	avg_BMI avg_FEV

<b>Simple Statistics</b>								
<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>Std Dev</b>	<b>Sum</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Partial Variance</b>	<b>Partial Std Dev</b>
<b>avg_AGE</b>	589	23.36214	9.57835	13760	6.20335	62.57765		
<b>avg_BMI</b>	589	20.94219	3.36889	12335	13.06400	33.33500	8.72914	2.95451
<b>avg_FEV</b>	589	68.41724	24.58641	40298	15.00000	150.85714	517.95880	22.75871

<b>Pearson Partial Correlation Coefficients, N = 589</b>		
<b>Prob &gt;  r  under H0: Partial Rho=0</b>		
	<b>avg_BMI</b>	<b>avg_FEV</b>
<b>avg_BMI</b>	1.00000	0.29979 <.0001
<b>avg_FEV</b>	0.29979 <.0001	1.00000



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**The GLM Procedure**

<b>Number of Observations Read</b>	7285
<b>Number of Observations Used</b>	7285



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**The GLM Procedure**
**Dependent Variable: FEV**

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
<b>Model</b>	2	771743.237	385871.619	708.05	<.0001
<b>Error</b>	7282	3968527.436	544.978		
<b>Corrected Total</b>	7284	4740270.673			

R-Square	Coeff Var	Root MSE	FEV Mean
0.162806	34.00853	23.34476	68.64383

Source	DF	Type I SS	Mean Square	F Value	Pr > F
<b>AGE</b>	1	538787.8896	538787.8896	988.64	<.0001
<b>BMI</b>	1	232955.3478	232955.3478	427.46	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
<b>AGE</b>	1	759242.0433	759242.0433	1393.16	<.0001
<b>BMI</b>	1	232955.3478	232955.3478	427.46	<.0001

Parameter	Estimate	Standard Error	t Value	Pr >  t
<b>Intercept</b>	59.94776481	1.57939307	37.96	<.0001
<b>AGE</b>	-1.20789665	0.03236153	-37.33	<.0001
<b>BMI</b>	1.71839059	0.08311414	20.68	<.0001

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**The GLM Procedure**

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**The GLM Procedure**

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**The GLM Procedure**
**Dependent Variable: FEV**

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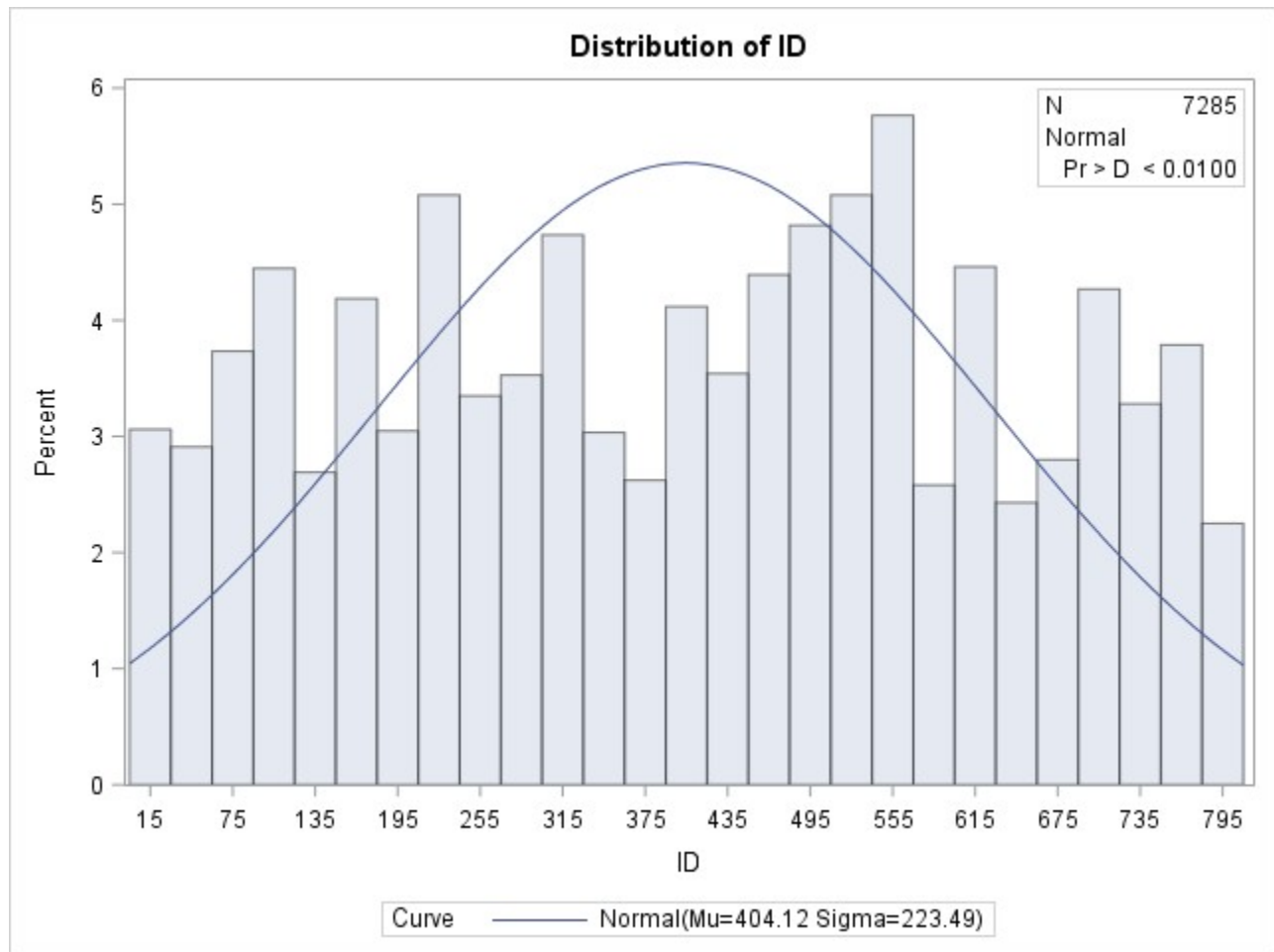
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**The UNIVARIATE Procedure**

**The UNIVARIATE Procedure**  
**Fitted Normal Distribution for ID**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	404.1224
Std Dev	Sigma	223.4859

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0615588	Pr > D	<0.010
Cramer-von Mises	W-Sq	10.0453836	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	70.7802925	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	15.0000	-115.7835
5.0	49.0000	36.5208
10.0	92.0000	117.7137
25.0	218.0000	253.3835
50.0	413.0000	404.1224
75.0	582.0000	554.8614
90.0	712.0000	690.5312
95.0	754.0000	771.7241
99.0	793.0000	924.0284

## The UNIVARIATE Procedure

