

> Annual Fund Growth When You Need It Most

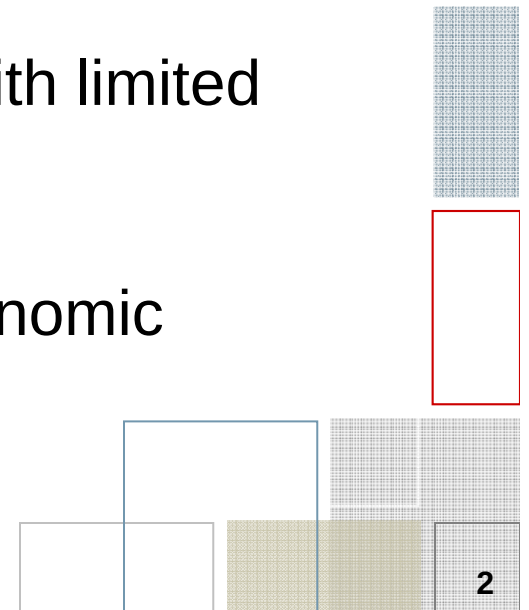
Andrew Sallee
Enrollment and Development Data Analyst
William Jewell College
February 25, 2009



> William Jewell College

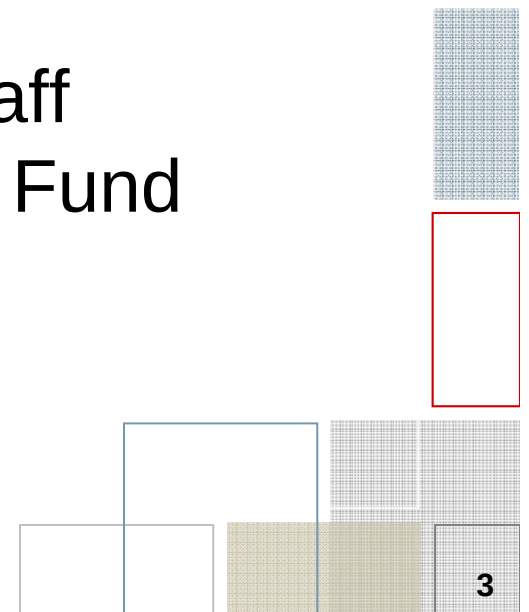


- Private liberal arts college located near Kansas City, MO.
- Approximately 1,200 undergraduate students.
- Just like you:
 - Perpetually balancing aggressive goals with limited resources.
 - Affected quickly by shifts in the larger economic landscape.



> Our Annual Fund

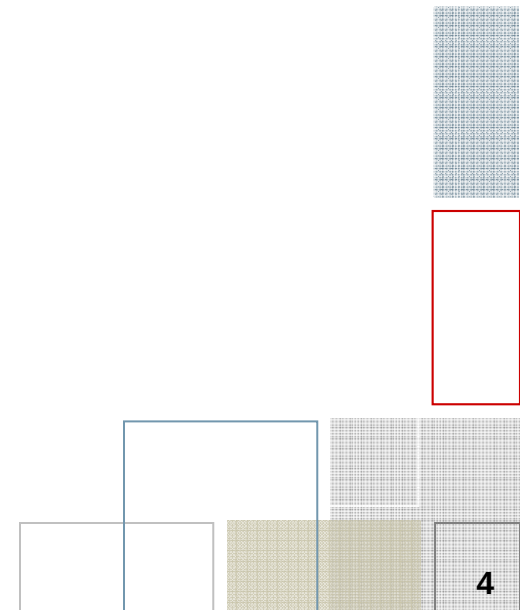
- The Jewell Fund goal for FY09 is \$1.5 million.
- We currently solicit approximately 22,000 constituents for the Jewell Fund.
- We currently have two professional staff members devoted solely to the Jewell Fund solicitation activities.



> Finding Solutions with Predictive Modeling

- The Goals

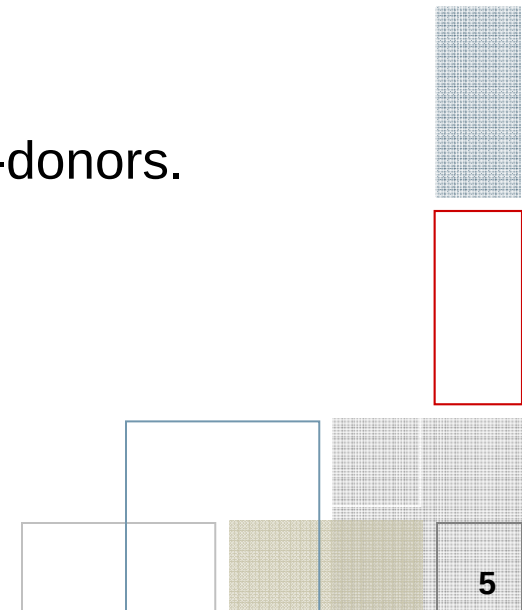
- Decrease unnecessary spending measured in:
 - Financial resources
 - Personnel hours
- Increase giving measured in:
 - Dollars
 - Participation counts



> Finding Solutions with Predictive Modeling



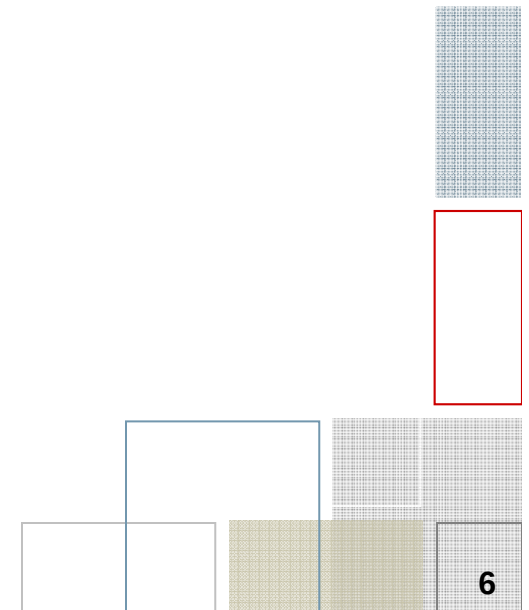
- The Goals – More Specifically
 - February 25, 2009
 - Financial challenges globally
 - No end in sight soon
 - Eight months into the fiscal year
 - Much of the low hanging fruit gone
 - Staring at a sea of long-lapsed donors and non-donors.



> Finding Solutions with Predictive Modeling

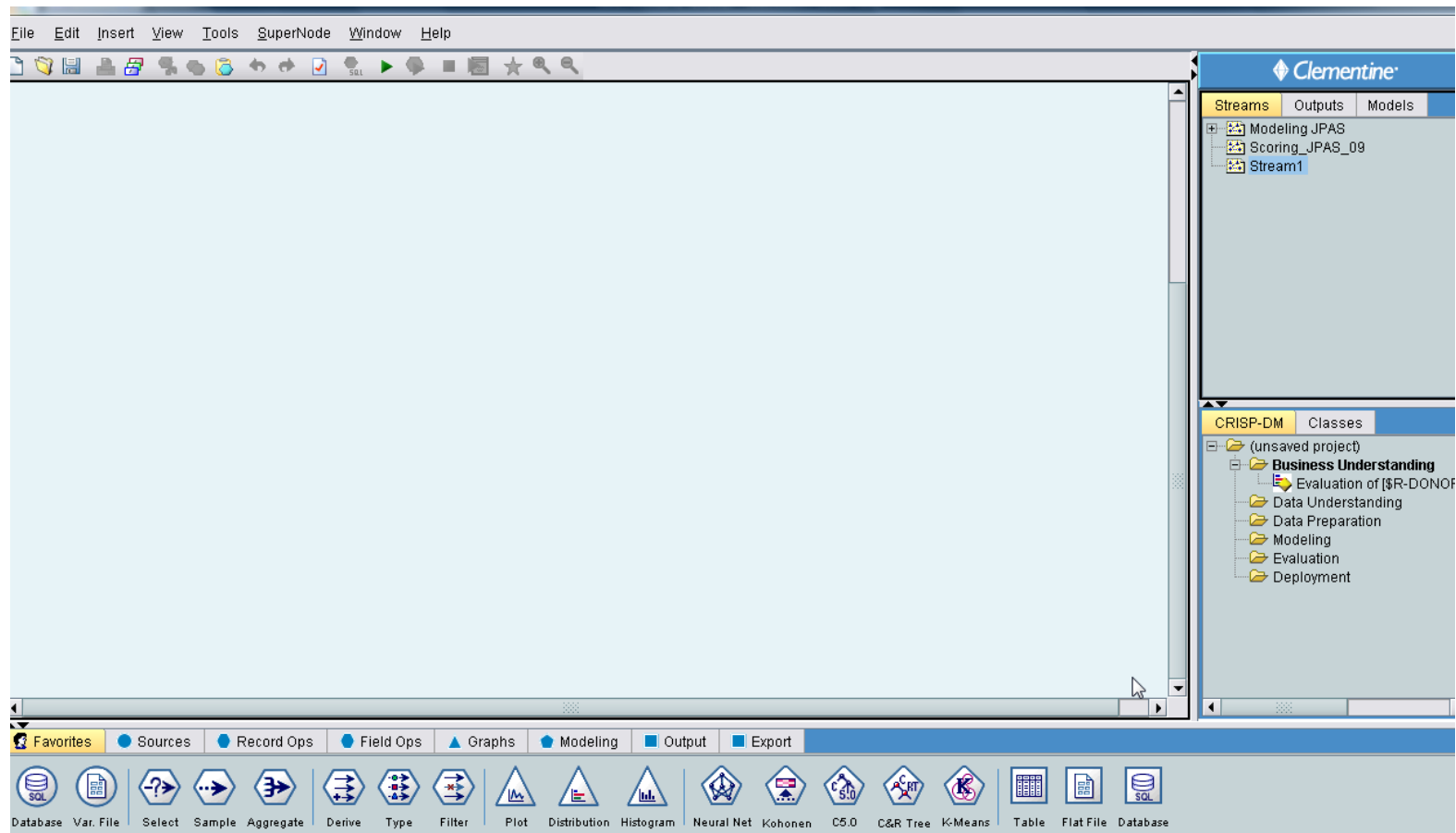


- Clementine as solution platform
 - Work space for all analysis and modeling
 - Stream of consciousness operation
 - Repeatable work streams
 - Flexible outputs
 - Data visualization
 - New actionable data for implementation

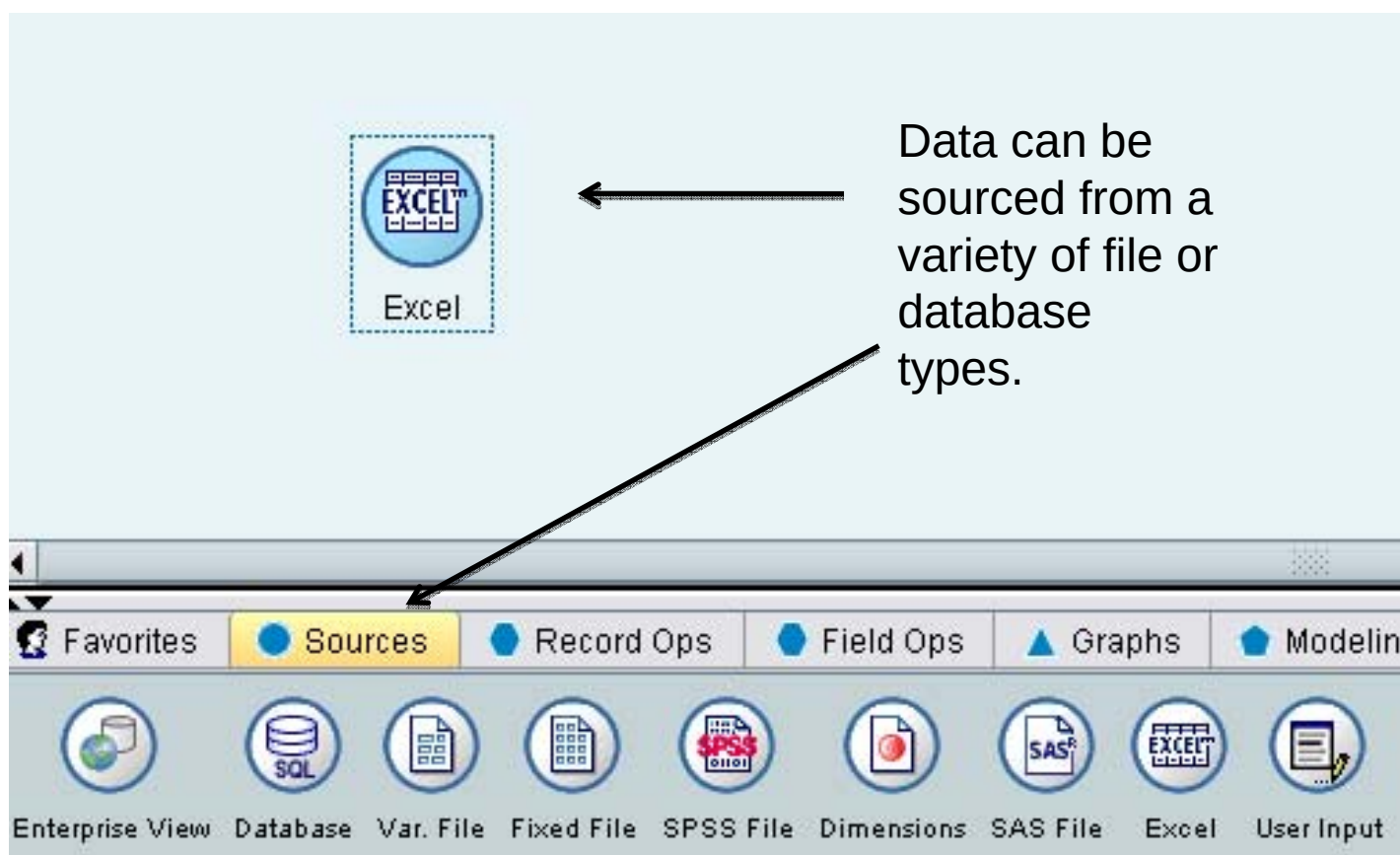


> Clementine – The Blank Canvas

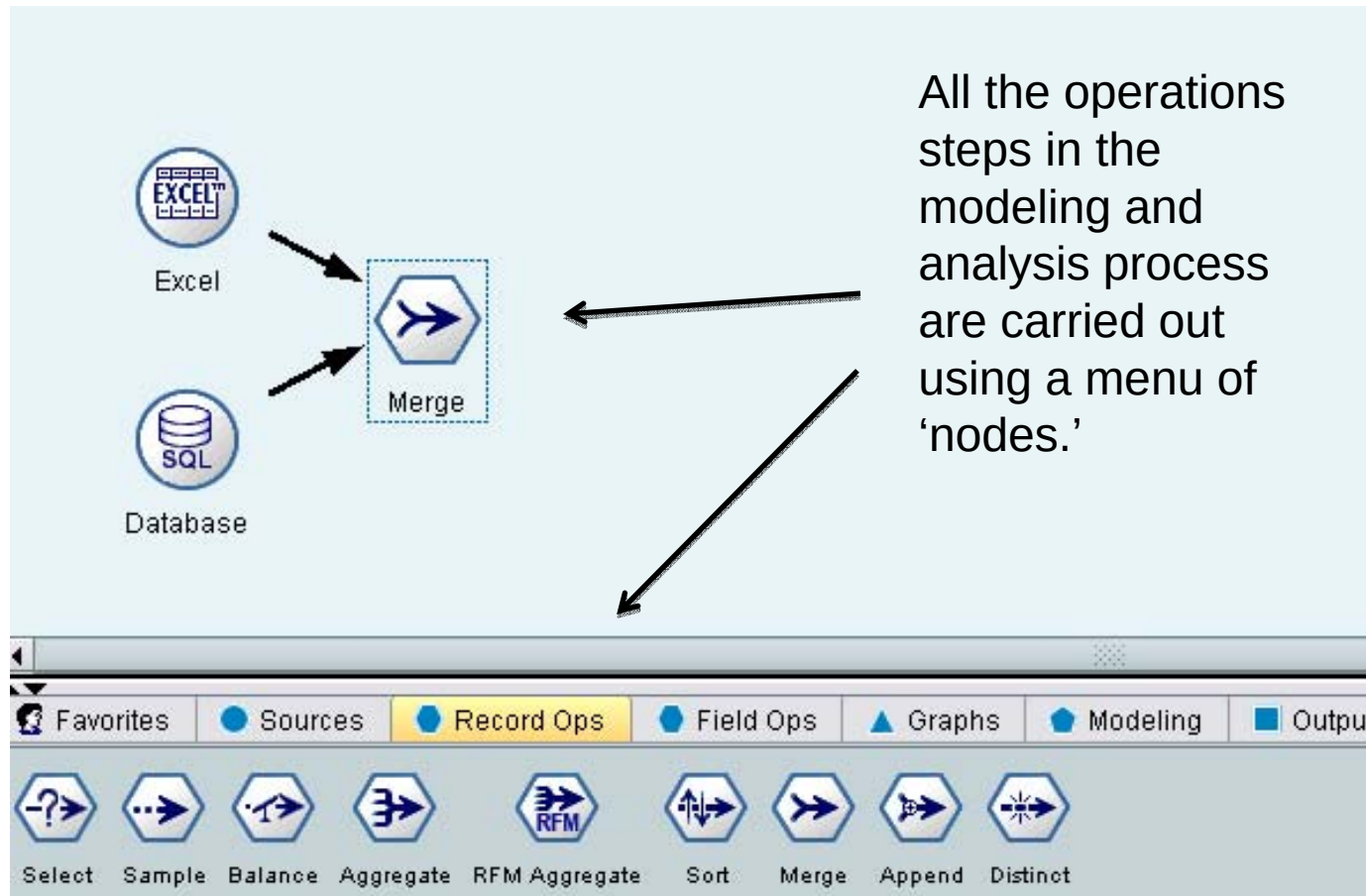
SPSS



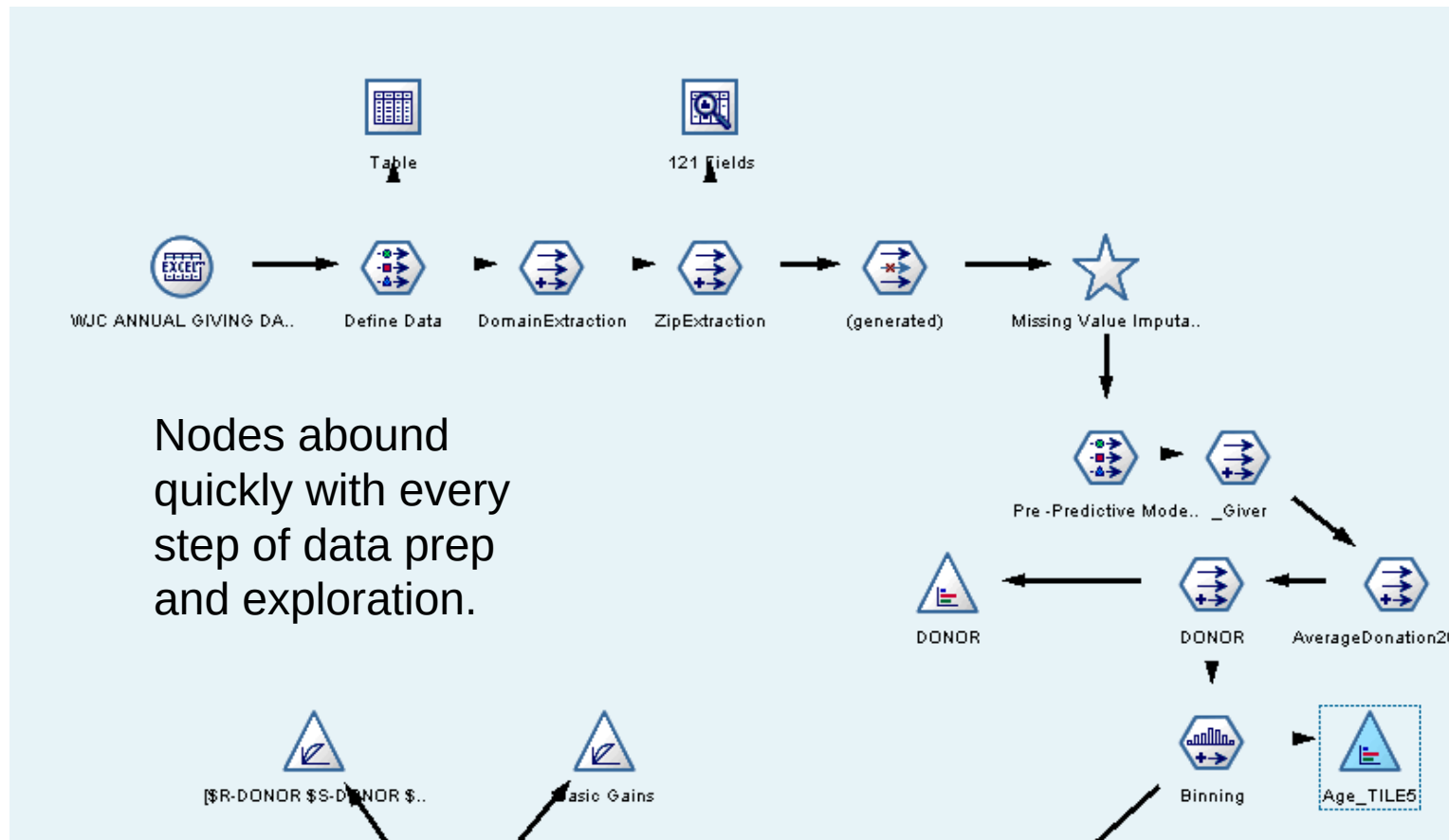
> Getting The Data



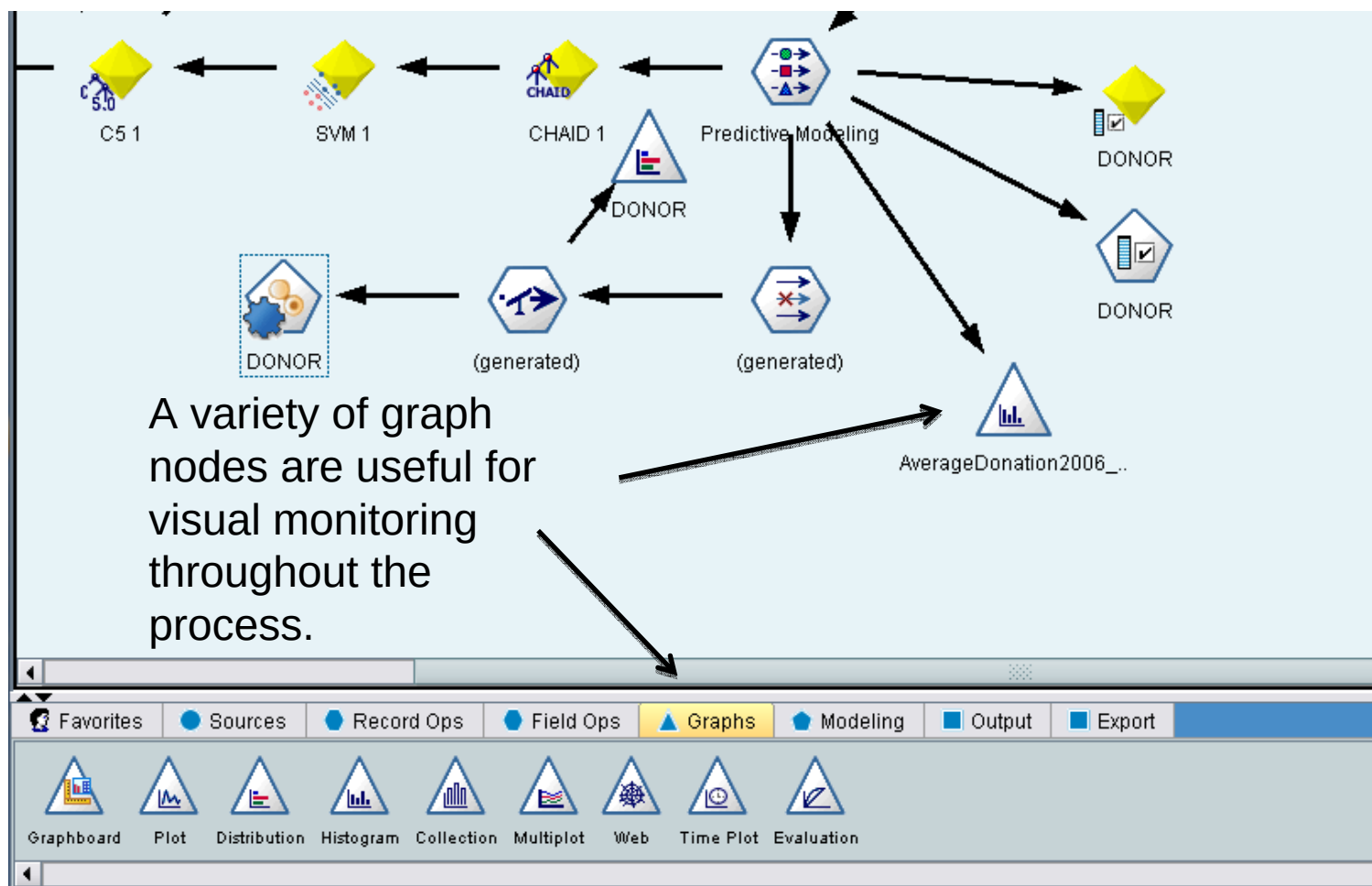
> Getting More Data



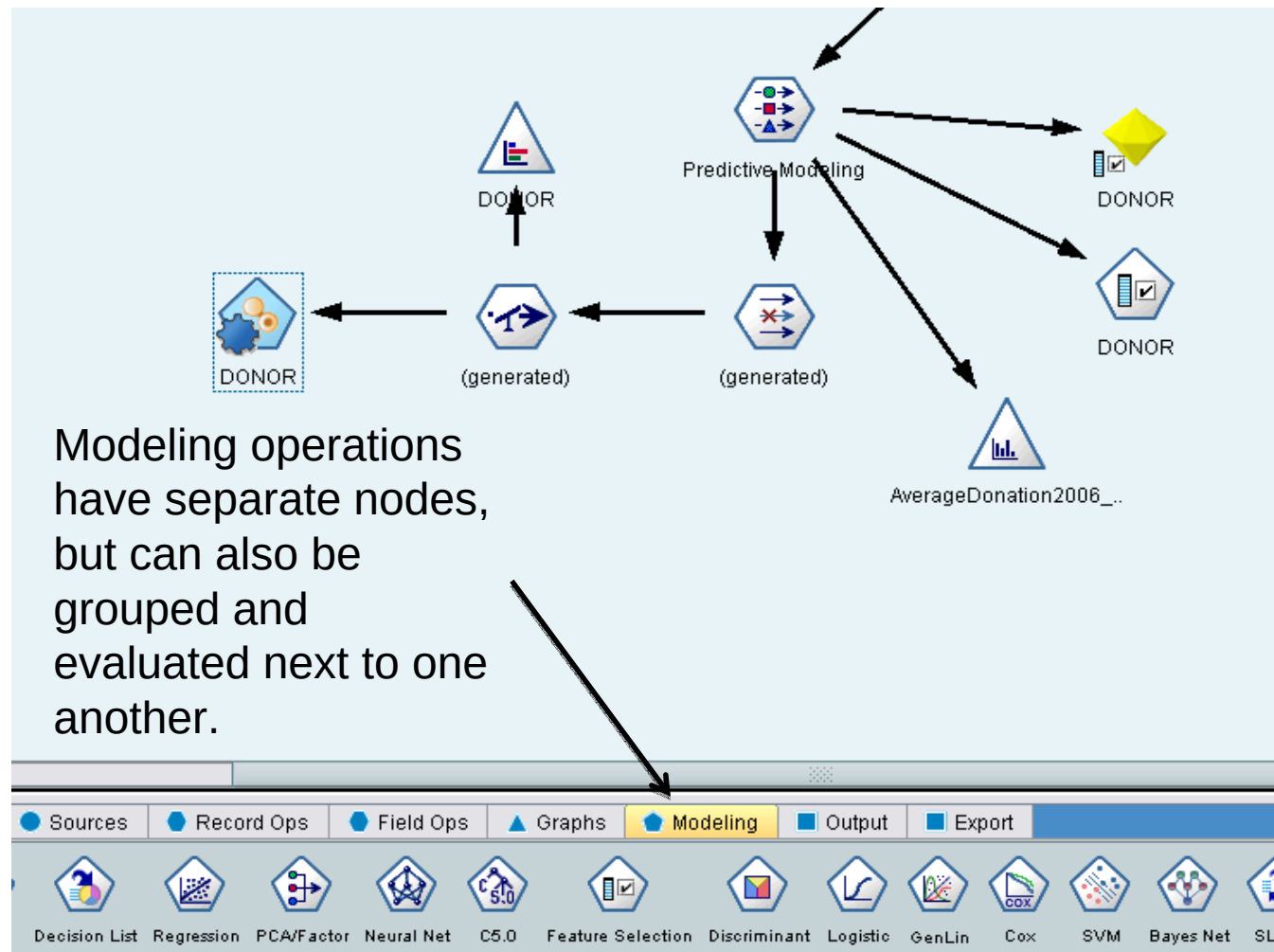
> Jumping Into A Full Stream



> Constant Visual Assessment



> The Really Fund Part: Modeling



> Exploring Several Models At Once

Binary Classifier Results

File Edit Generate

Sort by: Max profit Ascending Descending View: Training set

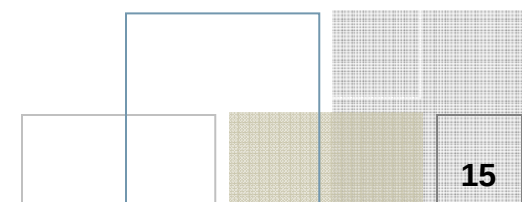
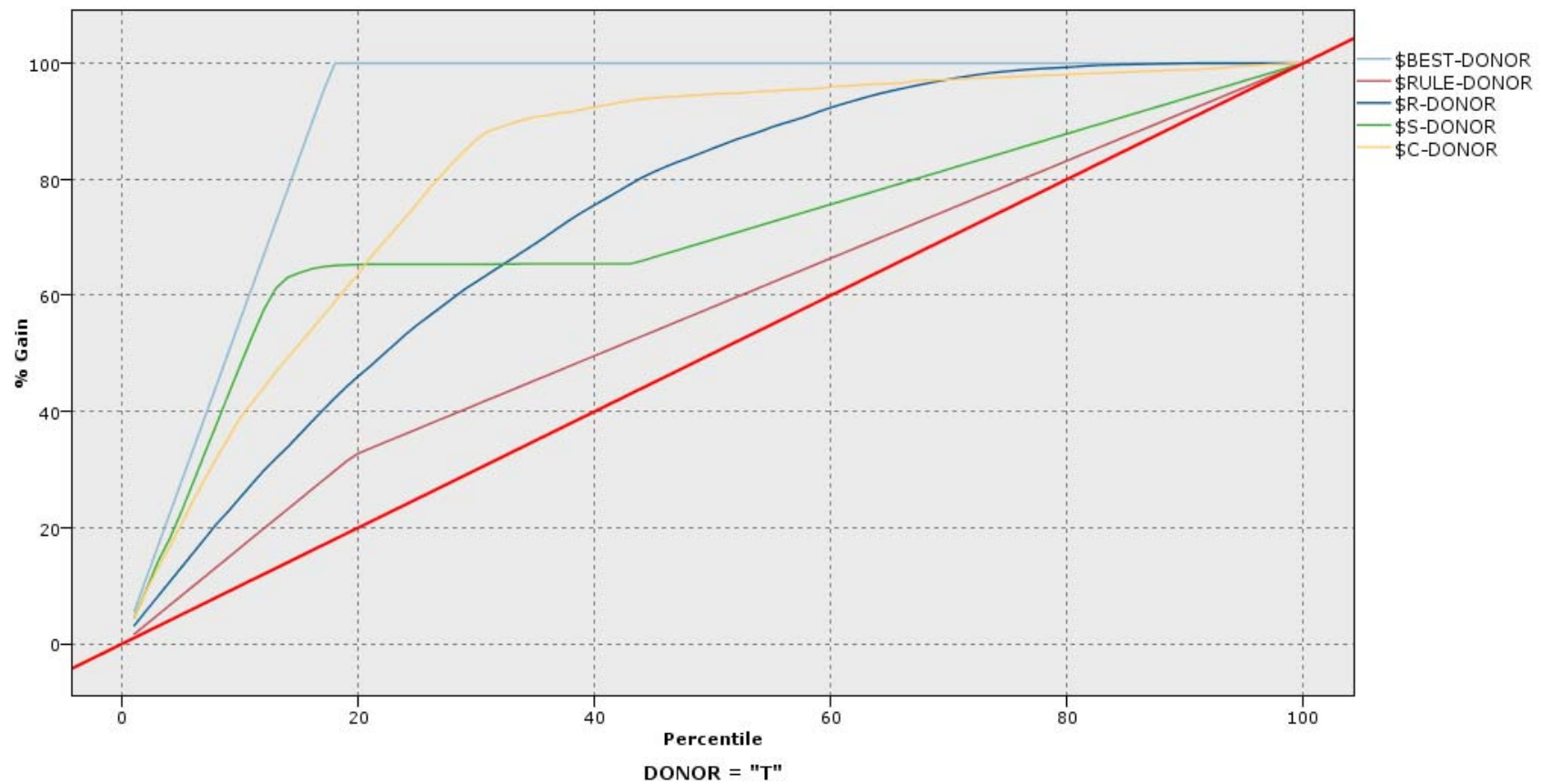
Generate	Graph	Model	Build Time (mins)	Max Profit	Max Profit Occurs in (%)	Lift {Top 30%}	Overall Accuracy (%)	No. Fields Used	Area Under Curve
☒		C5 1	< 1	49,135	55	1.798	87.49	14	0.918
☒		SVM 1	6	40,706.667	34	1.94	50.164	14	0.873
☐		Neural net 1	< 1	28,875	61	1.514	72.023	12	0.777
☒		CHAID 1	< 1	27,879.455	53	1.538	71.284	11	0.788
☐		QUEST 1	< 1	25,601.506	56	1.455	68.037	10	0.741
☐		Bayesian Netwo...	< 1	24,353	37	1.571	37.62	14	0.717
☐		Logistic regress...	< 1	22,935	41	1.509	36.485	14	0.702
☐		C&R Tree 1	< 1	14,260.089	87	1.126	60.956	3	0.61
☐		Decision List 1	< 1	9,952.152	14	1.206	57.671	7	0.577

Report Summary Annotations

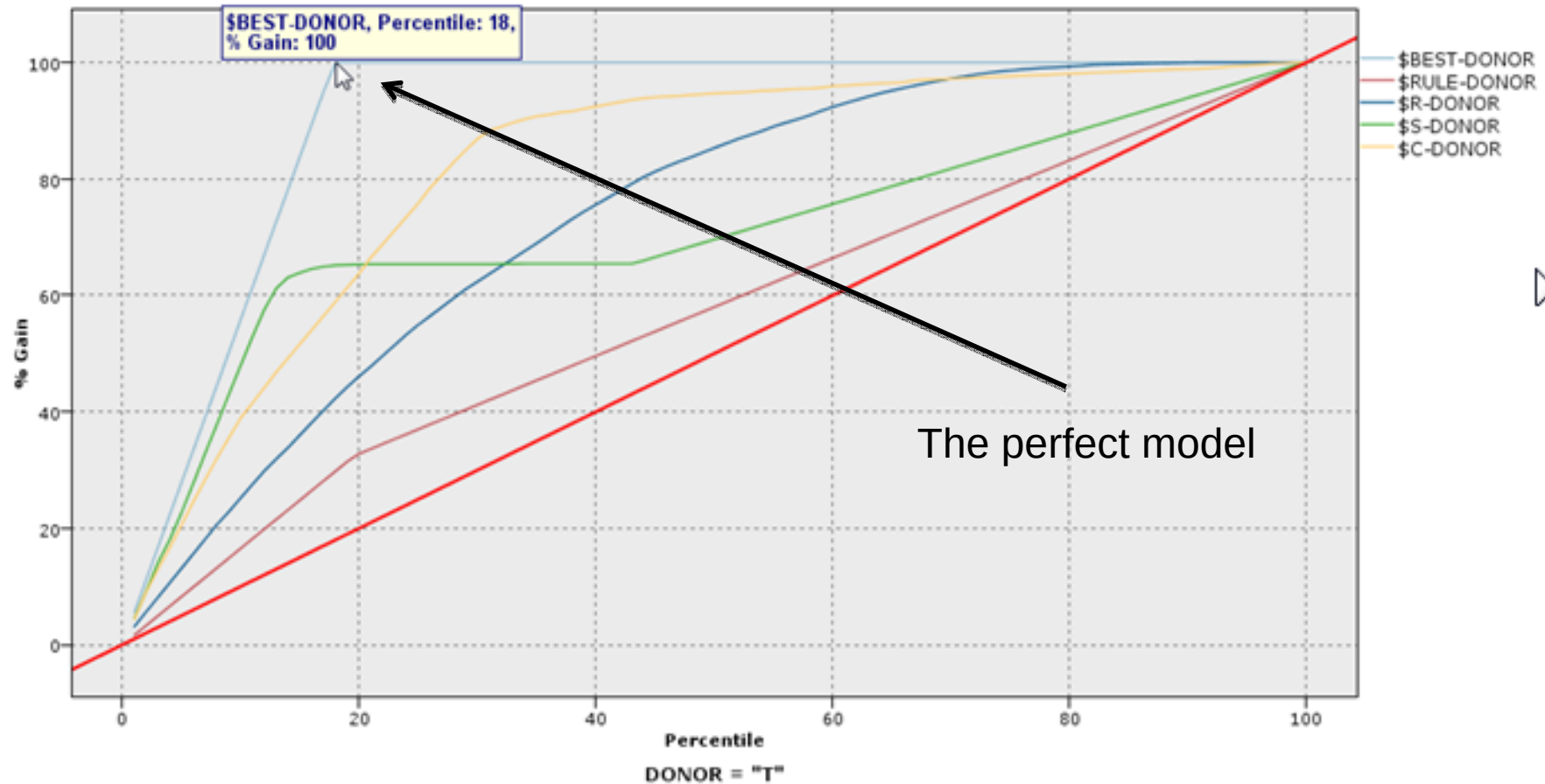
OK



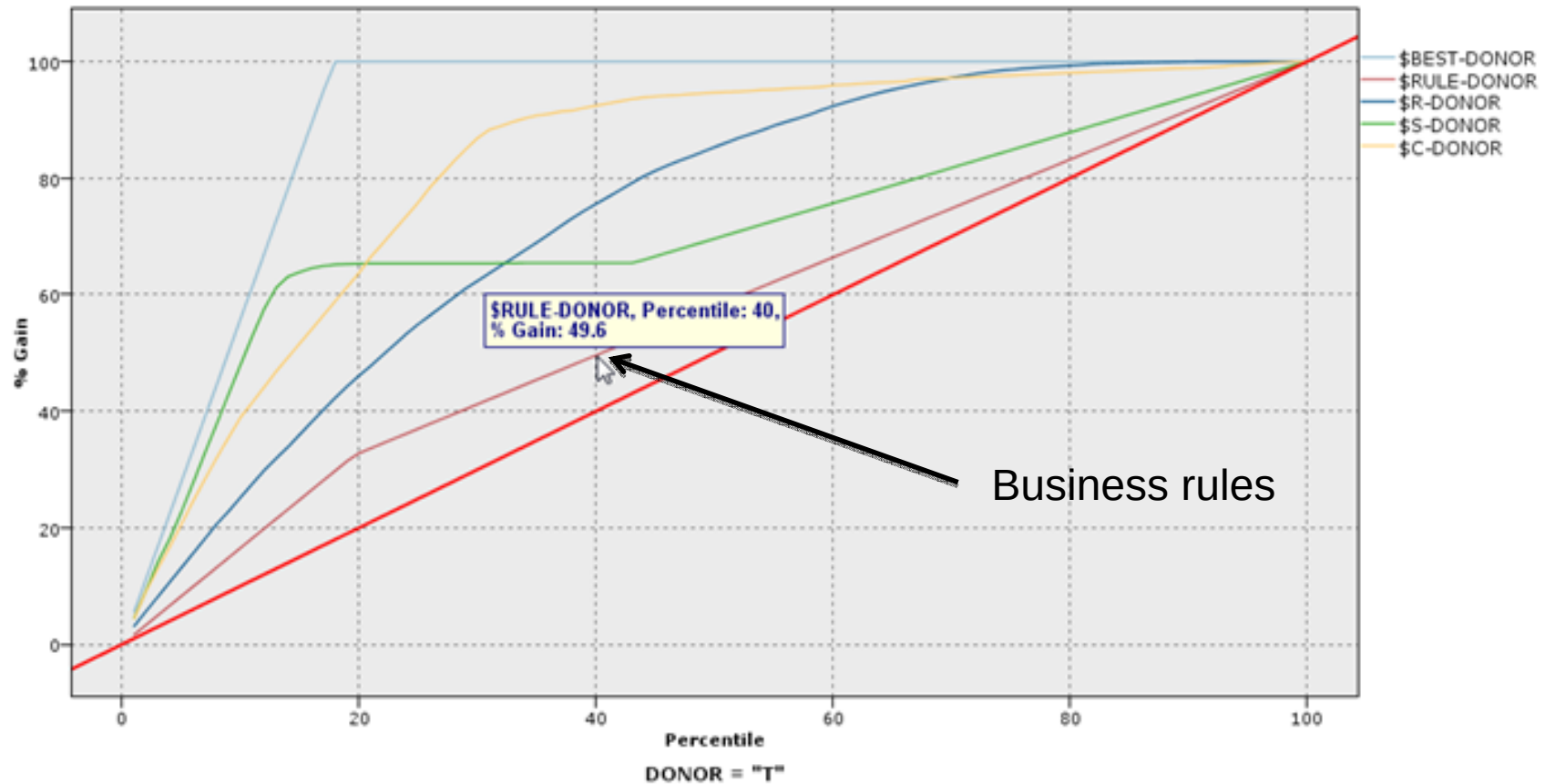
> Measuring Lift



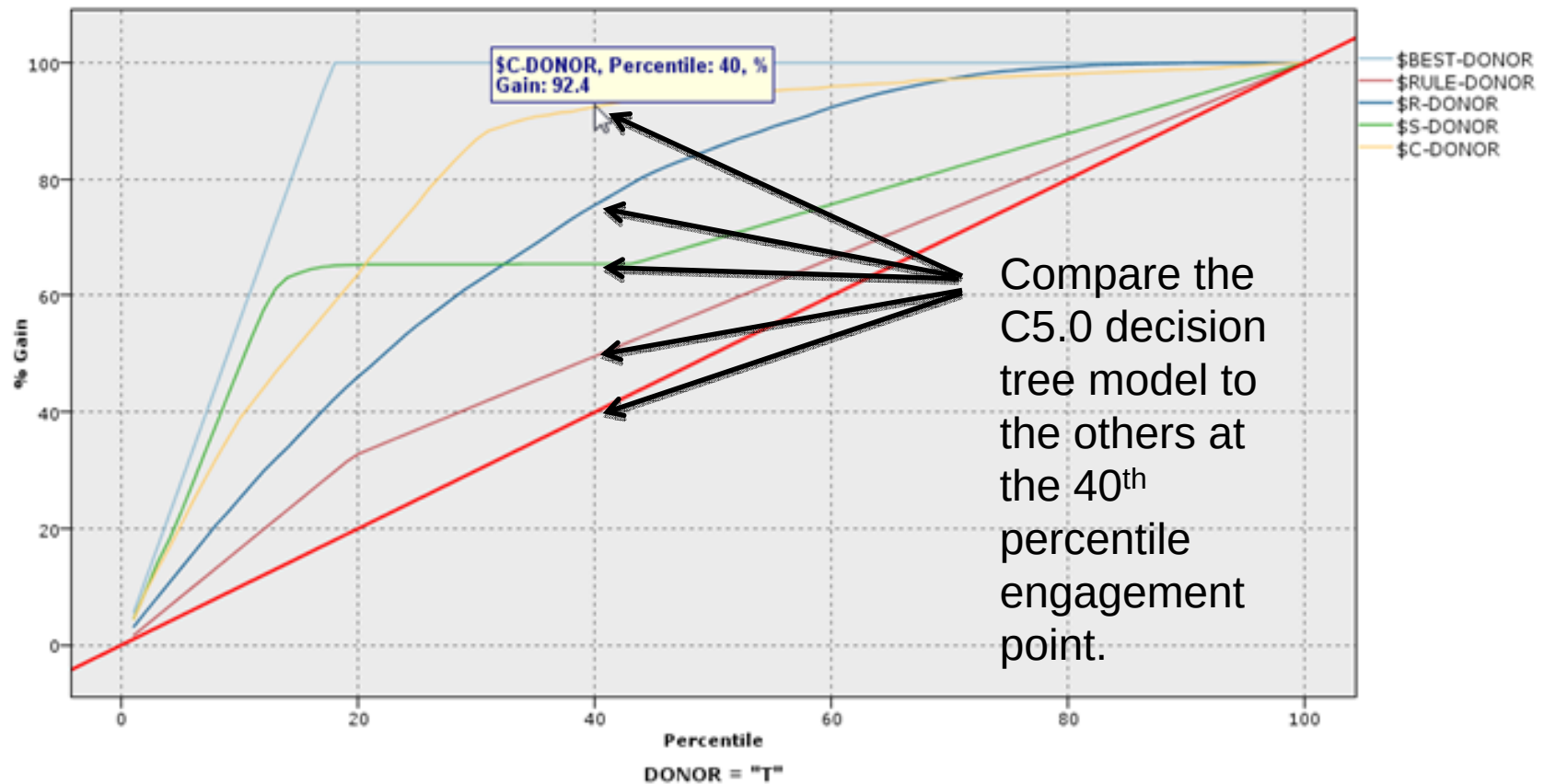
> The Perfect Model Doesn't Exist, But . . .



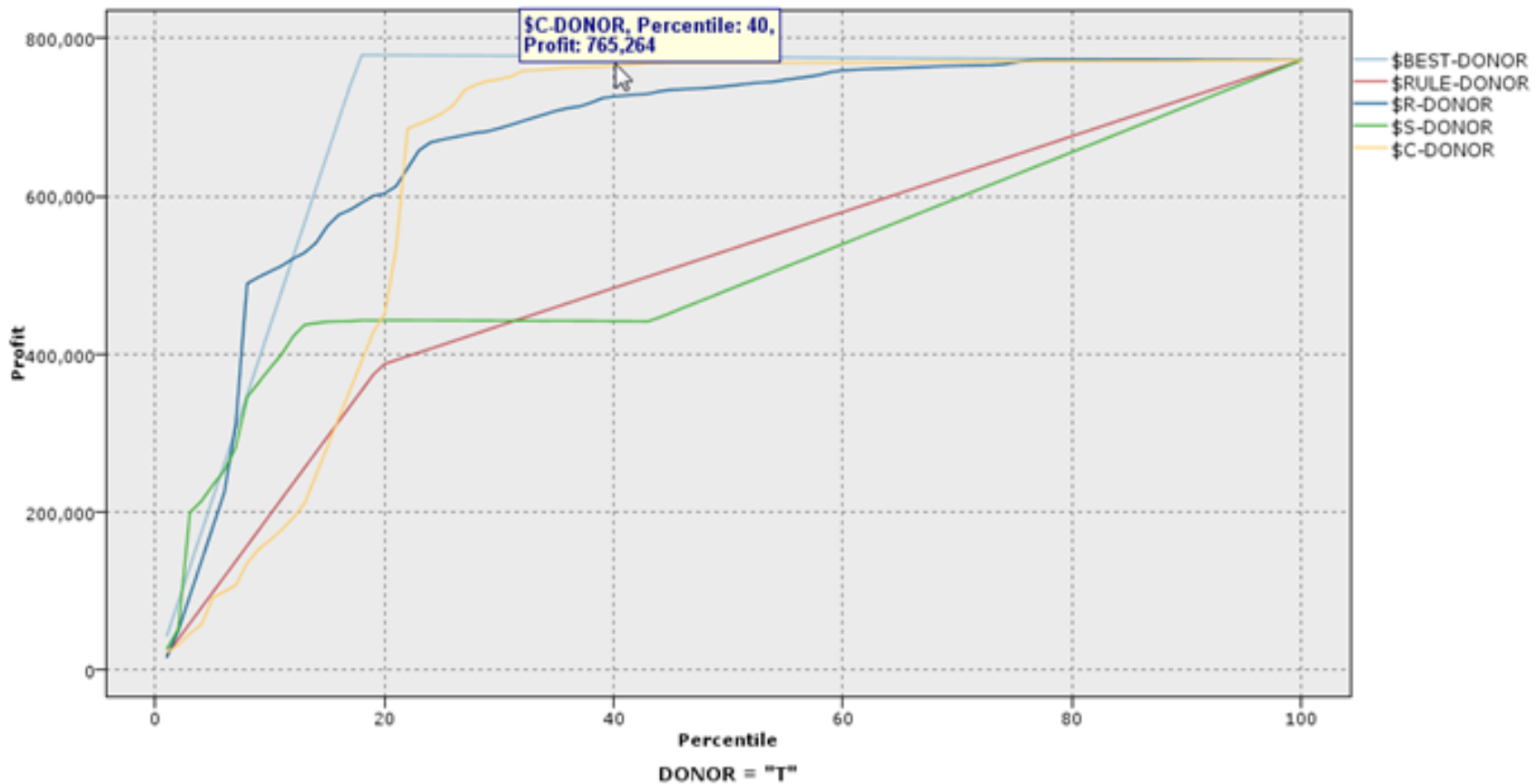
> Further Comparison – Business Rules



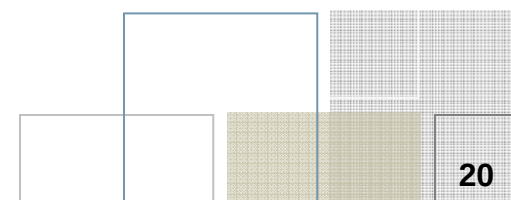
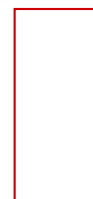
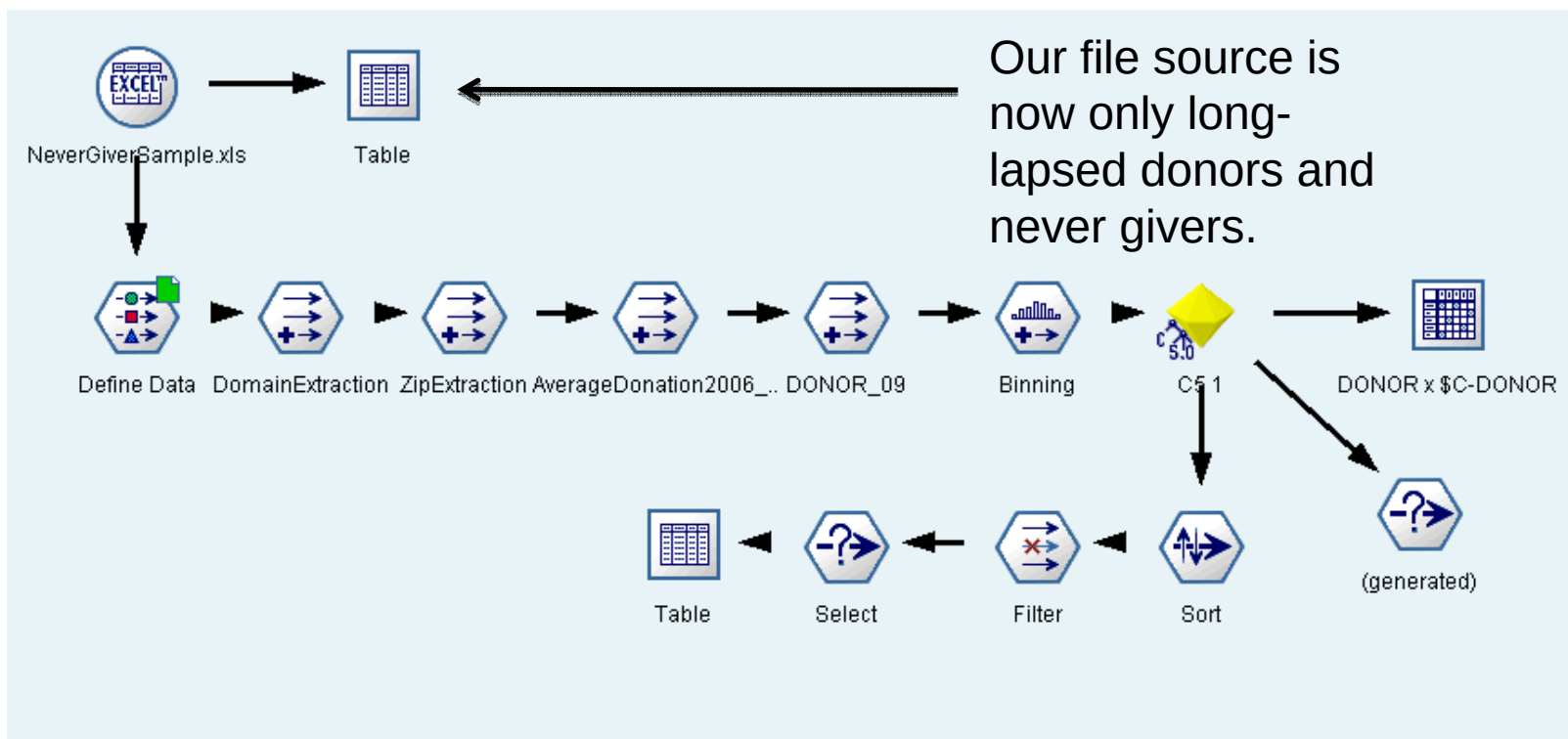
> Picking Our Model



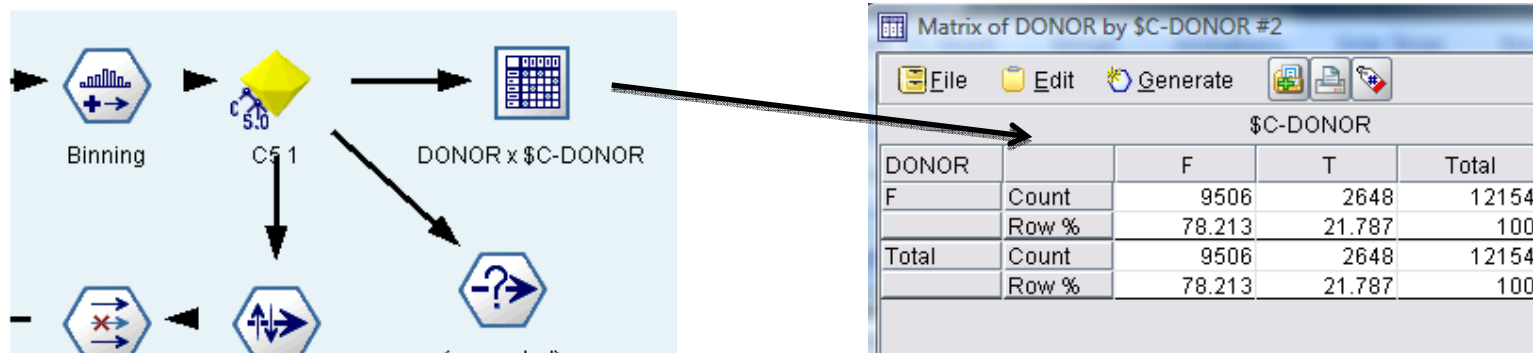
> Further Comparisons of Lift



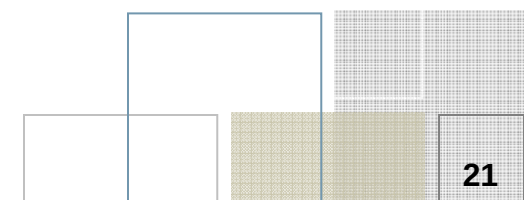
> Applying the Model Right Now



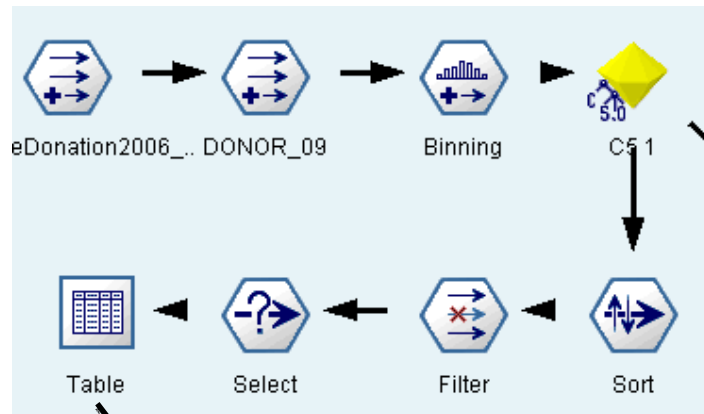
> Making The Never-Givers Manageable



The model points to 2,648 constituents out of 12,154 long-lapsed donors and never-givers who score as the potential donors.

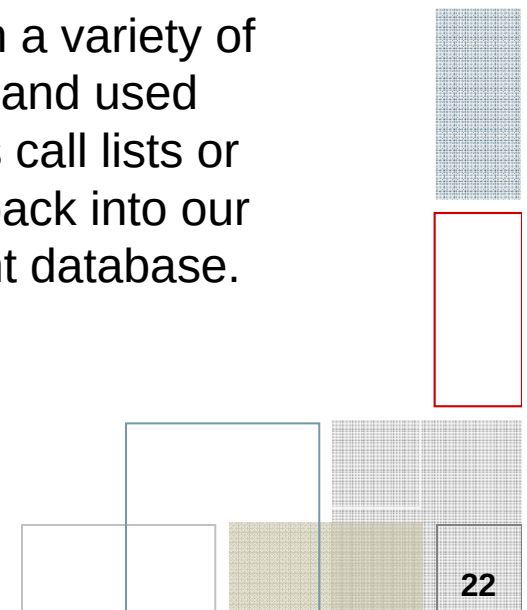


> Making The Never-Givers Manageable



ID	Gender	\$C-DONOR	\$CC-DONOR
13945	Male	T	0.948
57944	Male	T	0.931
11416	Female	T	0.928
58744	Male	T	0.922
47663	Male	T	0.914
31158	Male	T	0.910
37034	Male	T	0.910
4454	Male	T	0.910
53157	Male	T	0.910
50099	Female	T	0.904
66251	Male	T	0.888

Once the desired population is classified using the model, resulting scores can be generated in the form of tables that can be exported in a variety of formats and used directly as call lists or imported back into our constituent database.



> William Jewell College – Next Steps

- In using these analyses, modeling, and implementation tools at this critical time, we hope to see a strong finish to the fiscal year.
- Of course, the end of one fiscal year is only the beginning of the next:
 - More analysis.
 - More efficiency.
 - Greater gain.

