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Geospatially Forecasting Disorder

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What to forecast?

- Depends on your goal.
 - Goal- Show area where, if the conditions are right, increases the likelihood or probability of victimization, disorder and criminal behavior.
- Other examples
 - Violent crime
 - Property crime
 - Crimes involving guns

Specific goals

1. TAAG - Areas to be worked for 12 months

- 30 % crime
- 20- 25 areas
- 20- 25 Sq Miles

2. Weekly hot spots

- no specific area or size
- 56 days.... This year minus 28 days last year plus 28 days

City of Dallas

- Population 1,197,816
- Square Miles 385
- Crime EOY 2012

	Count	% of Total	% Change	Crime Rate
- Violent	8267	13.32%	-.48%	6.9
- Property	53799	86.68%	-12.77%	45.0
- Total	62066		-11.31	
- Arrest EOY 2012

- Violent	1618
- Part 1	5537
- All	46985
- Calls EOY 2012

- Dispatched calls	591727
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Geography

– Divisions	7
– Sectors	35
– Beats	234
– Report Areas (RA's)	1152
– Council Districts	14
– Census Blocks	22112
– Grids	6838

Indicators

Persons, Places, Behaviors

- Arrests
- Calls
- Gang members
- Arrestees
- Parolees
- Sex Offenders
- Offenses

Arrests

Location of arrest

- **Drug**
- **Prostitution**
- **Weapon**

Calls

Location of call

- Shootings
- Cutting/ Stabbing
- Robbery
- Drug House & Open Air drug sales
- Prostitution
- Random gunfire
- Suspicious person & prowler
- Panhandler
- “in-progress” calls

Gangs

Home address

- **Gang members**
- **Associates**

Arrestees

Home address

- **Burglary**
- **Robbery**
- **BMV (Burglary Motor Vehicle)**
- **UUMV (Auto theft)**

Sex Offenders

- Registered address
- Active

Offenses

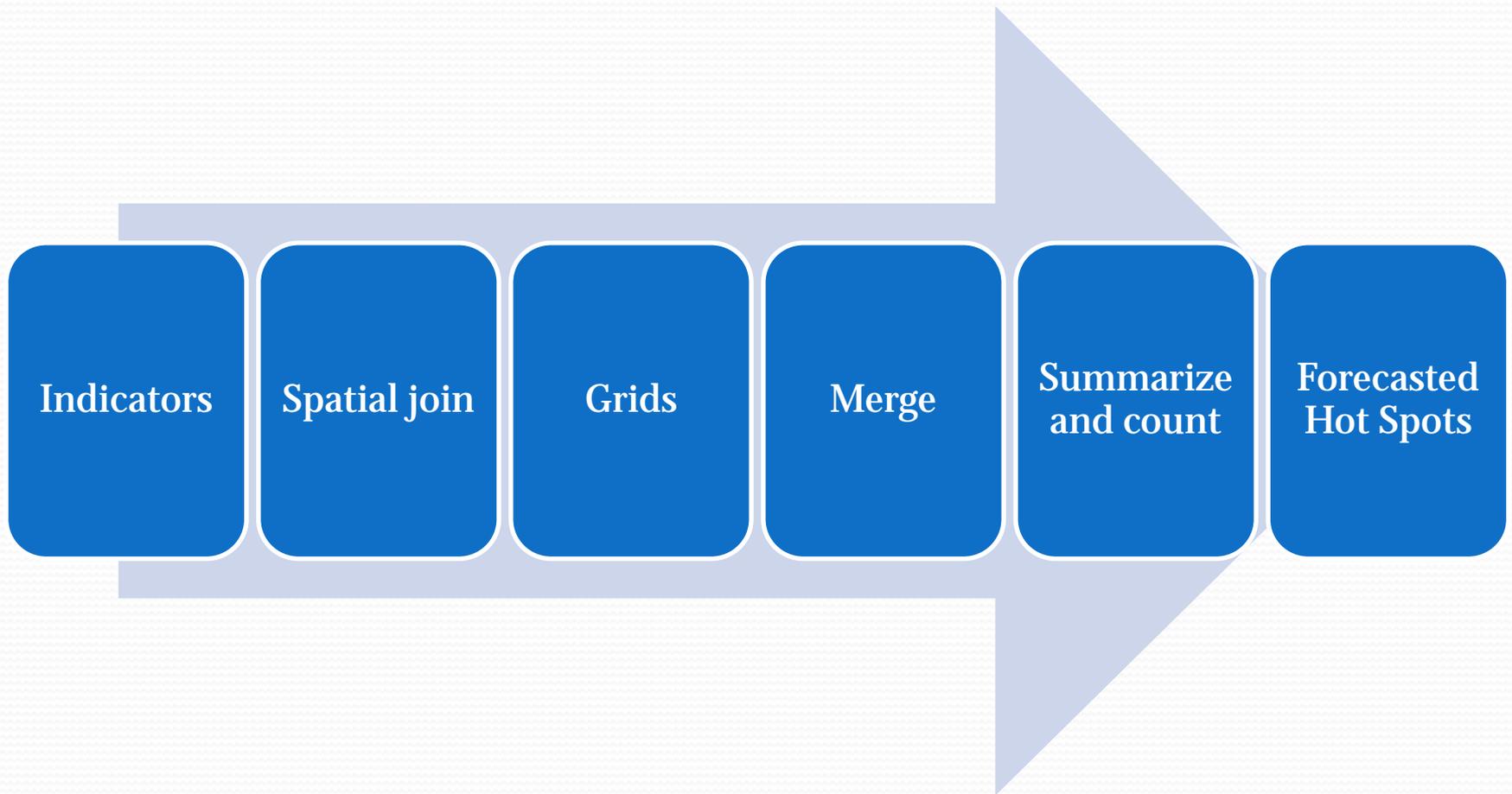
Location of offense

- **Part 1 Violent**
 - Murder, Rape, Aggravated Assault, and Robbery
- **Part 1 Property**
 - Burglary, Theft (BMV, Other) and , Auto theft
 - Exclude shoplifting

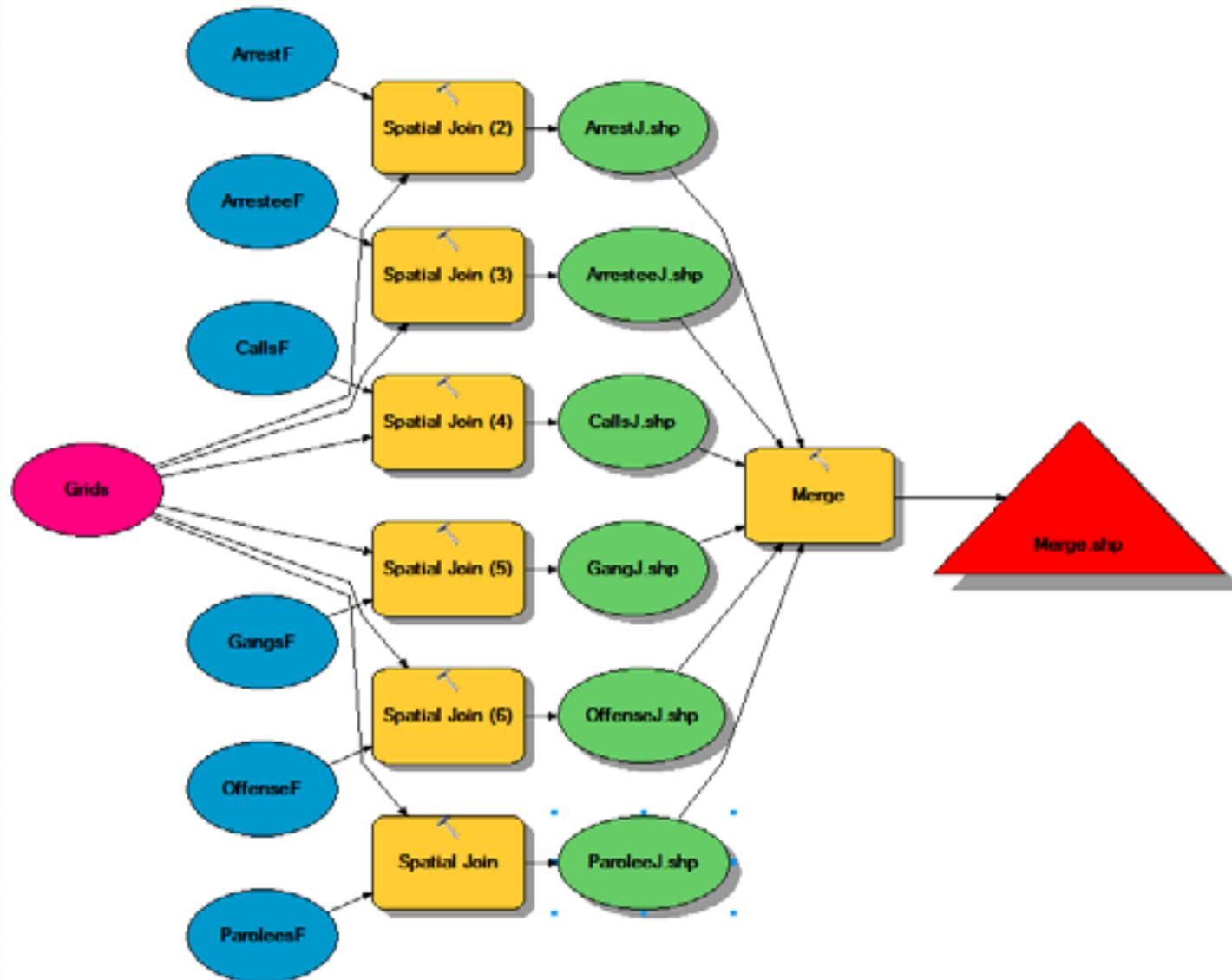
Time span (Calls, Arrests, and Offenses)

- TAAG (Chronic-Strategic Hotspots)
 - 12 months worth of data
 - All gang data
- Weekly hotspots (Acute-Tactical)
 - Current year, today back 28 days
 - Last year, today forward 28 days
 - All data from gang
 - 12 months data from parolee and arrestee
- Date of Occurrence

Process



Model using ArcMap 10.1





Thank you

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