



**Federal Railroad
Administration**



The Union Pacific Safety Assurance and Compliance Program

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UP SACP Safety Issue 1997

- ⇒ **Original Issue #5** - The reduction of activation failures and false proceed signal failures caused by human factors.

False Proceed Signal

- ⇒ A false proceed signal indication or a false proceed failure is the failure of an appliance, device, method, or system to function or indicate as required by the RS&I that results in either a more favorable aspect than intended or a condition that is hazardous to the movement of a train.

Human Factor (HF) False Proceed Signal Indications

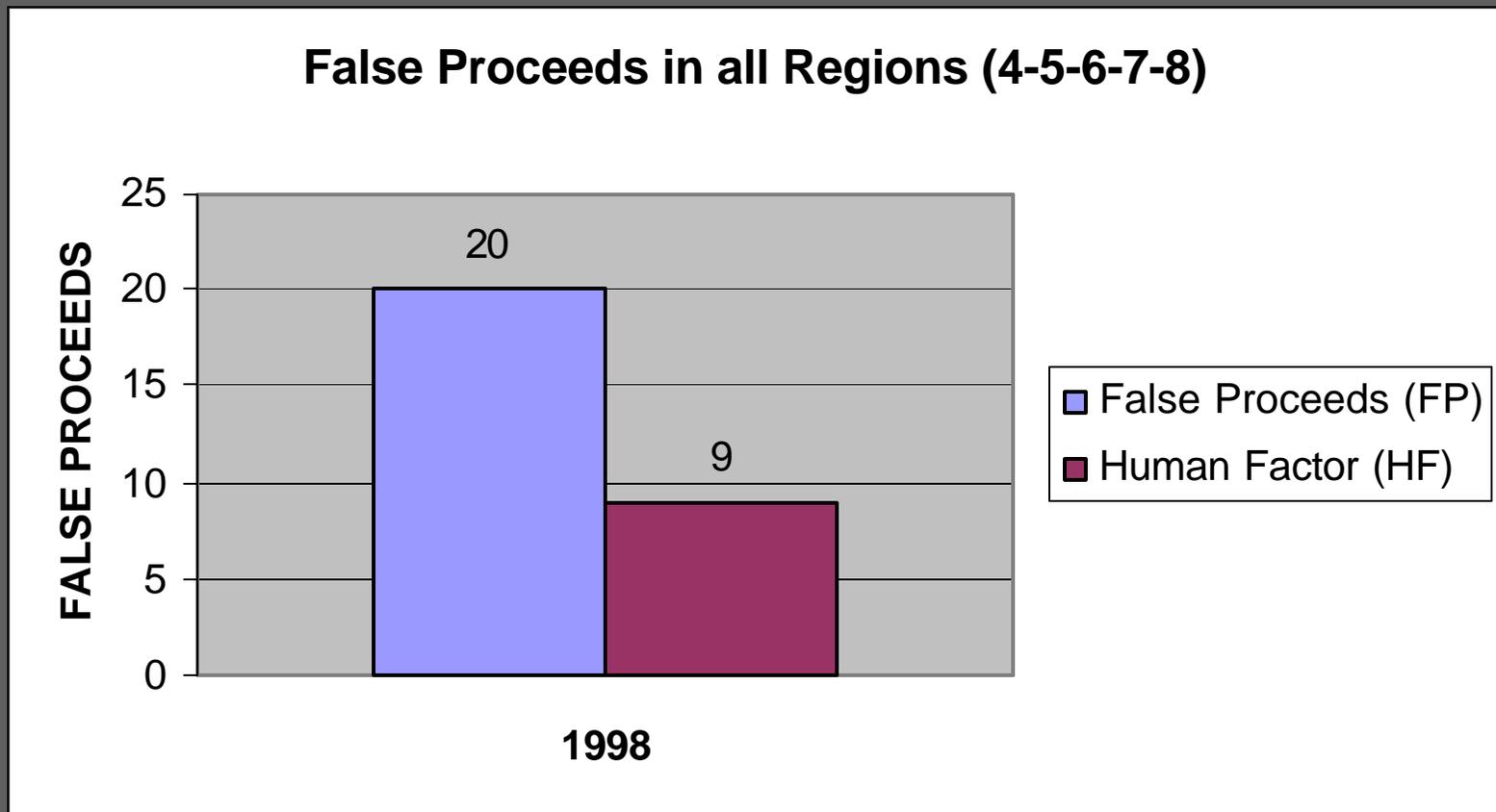
–HF includes: disarrangements/modifications, errors in making connections or adjustments, and errors in circuit design.

Action Taken.....

- ⇒ This issue was originally addressed and considered successfully completed in late 1997 with FRA to continue to monitor the number of occurrences.
- ⇒ *The status of completion* was based on UP signal management directing significant emphasis to the field signal personnel on the importance of adhering to the UP's existing standards and instructions of proper testing procedures following any new signal installations and/or any type of signal disarrangements.

Safety Statistics 1998

False Proceed Signals

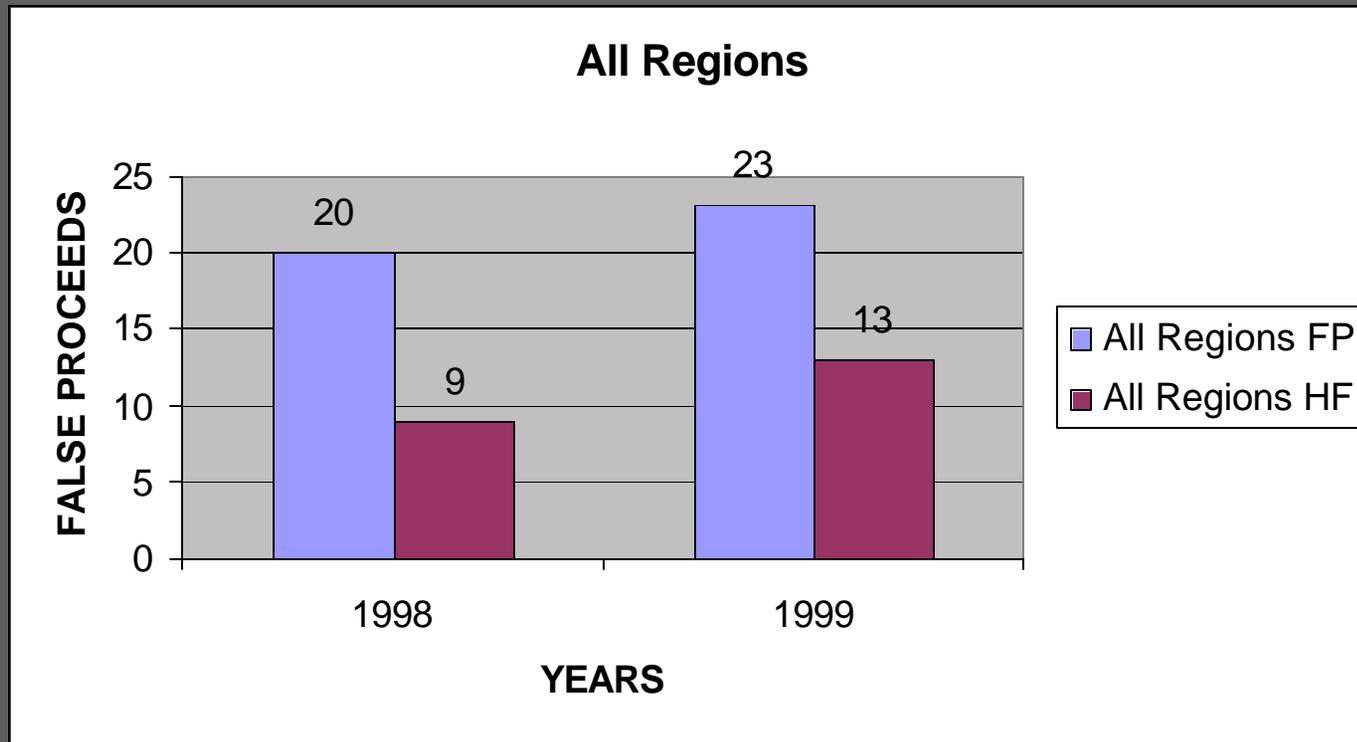


Action Taken in 1998.....

- ⇒ False proceed signal failures increased during 1998
- ⇒ Signal Subgroup (SSG) once again discussed the issue, including the particulars of each individual occurrence;
- ⇒ UP signal management then directed even more focused re-emphasis on the necessity of following existing guidelines of the UP and requirements of FRA regulations.
- ⇒ FRA representatives also attended several UP signal management meetings and discussed the issue as well as expressing their concerns

Safety Statistics 1999

False Proceed Signals



Action Taken in 1999 Spring/Summer

- ⇒ FRA reinstates the Human Factor False Proceed Signal issue as an active SACP issue;
- ⇒ The FRA representatives from each Region led thorough discussion of the particular details of each *false proceed* occurrence within their respective Region;
- ⇒ Effort was focused on trying to identify possible root causes, circumstances, or conditions leading to the incidents;
- ⇒ Several things were identified through this effort but, no single root cause stood out.

Action Taken in 1999 Fall / Winter

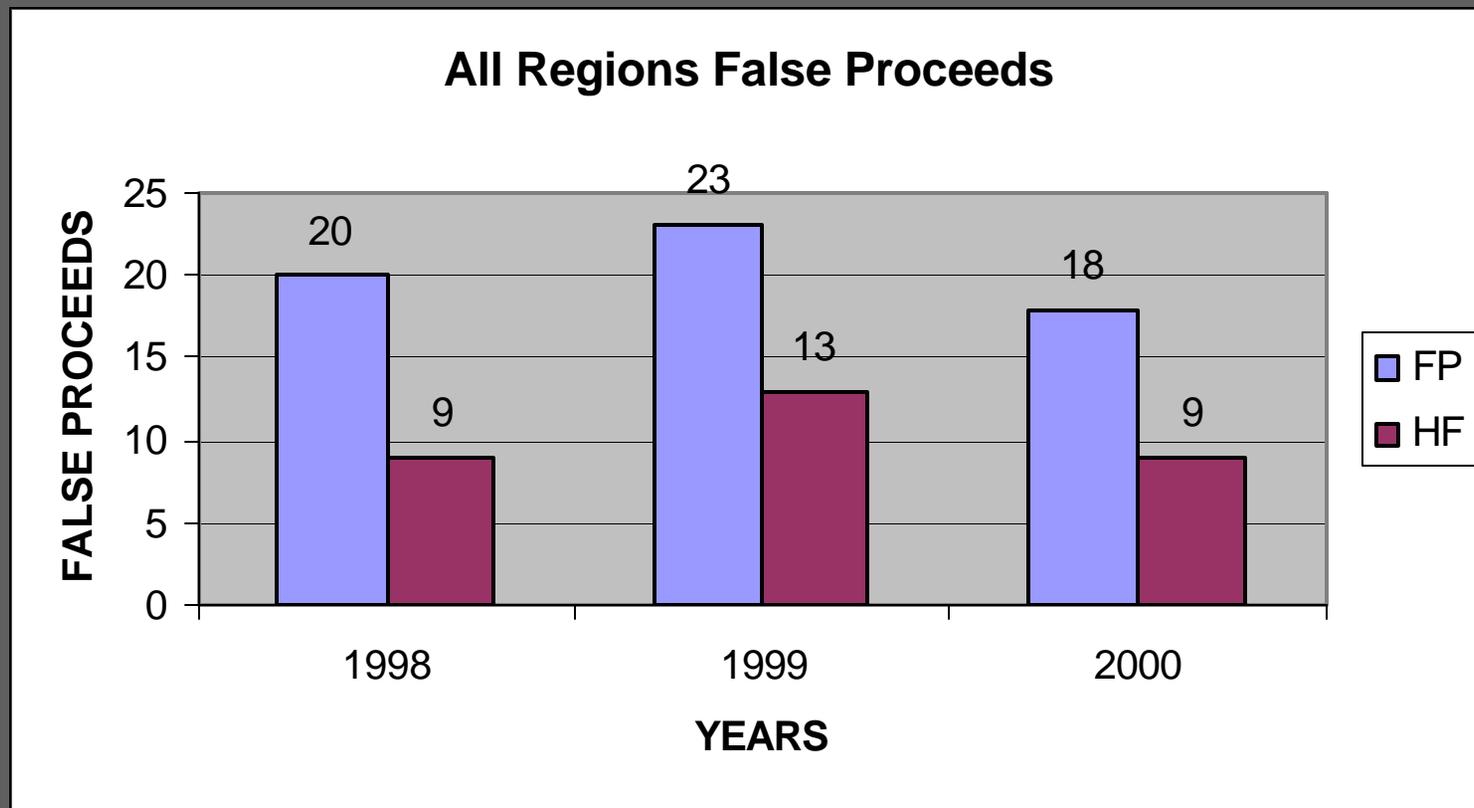
- ⇒ *Through the work of the UP SACP SSG;*
- ⇒ UP changed their signal call desk “trouble ticket” procedures to include two new questions to be asked of each field employee involved in closing each trouble ticket with the call desk personnel (trouble tickets are generated both outside and within normally assigned work shift hours). These are actually boxes to be checked on the trouble ticket electronic format. They are:
 - **Was any signal device or signal system disabled or disarranged? and,**
 - **Were proper tests performed to ensure signal device or signal system is working properly?**
- ⇒ ***New Trouble Ticket procedures implemented February 2000***

Action Taken in 1999 Fall / Winter

- ⇒ UP has assembled and dispersed a new “Cut-In Procedure Manual” primarily for all construction type work but, with principles to be followed by all personnel involved in any and all disarrangement type in-service testing;
- ⇒ This manual implements various detailed procedures/instructions that assists in the assurance that proper and complete testing is to be performed when conditions are warranted.
- ⇒ ***Cut-In Procedure Manual implemented March 2000***

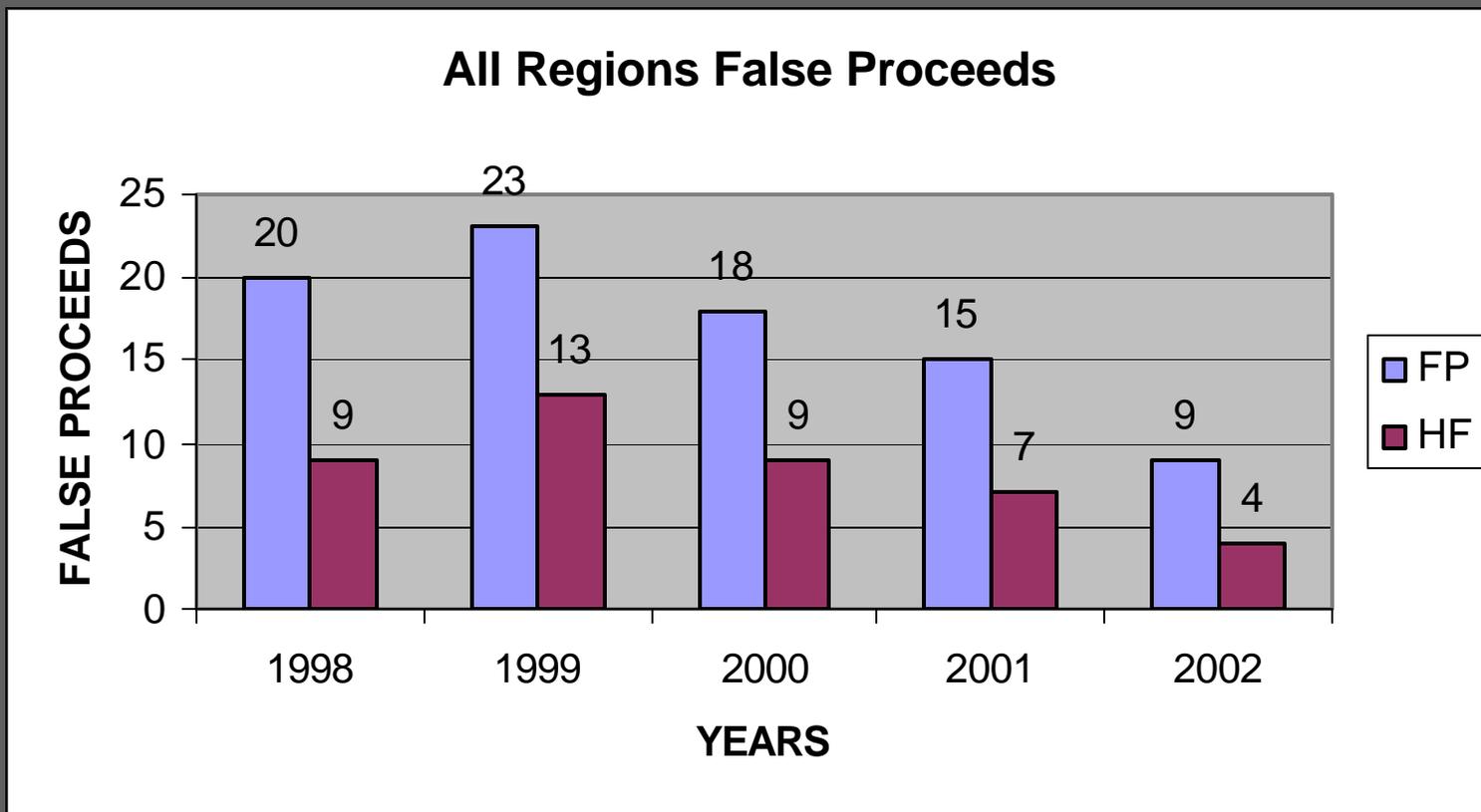
Safety Statistics 2000

False Proceed Signals



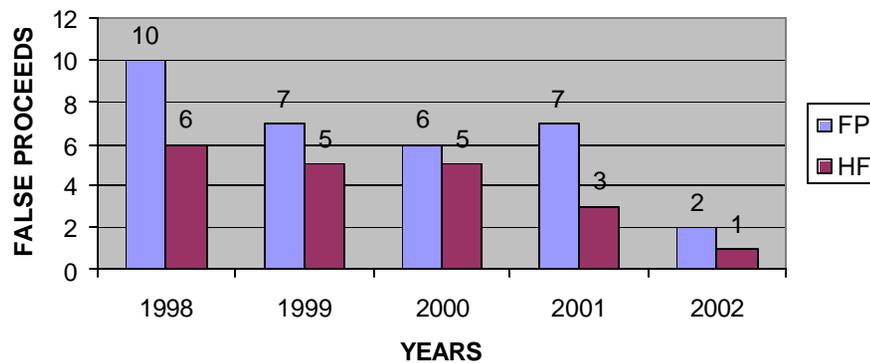
Safety Statistics 1998-2002

False Proceed Signals

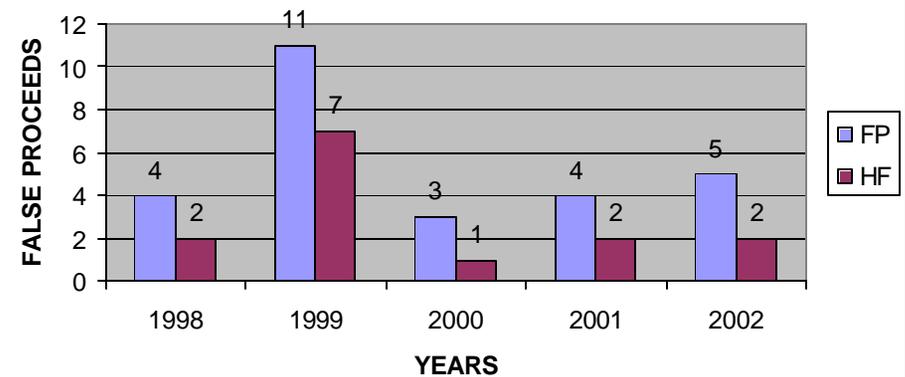


Regional Breakdown

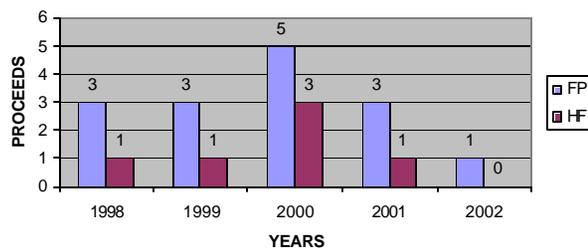
Region 5 False Proceeds



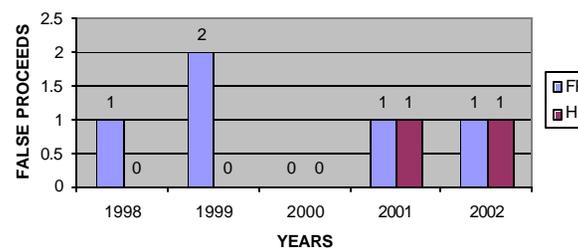
Region 7 False Proceeds



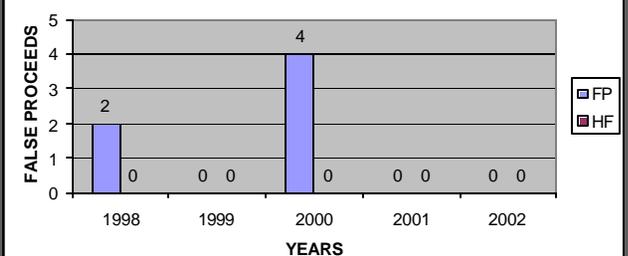
Region 6 False Proceeds



Region 4 False Proceeds

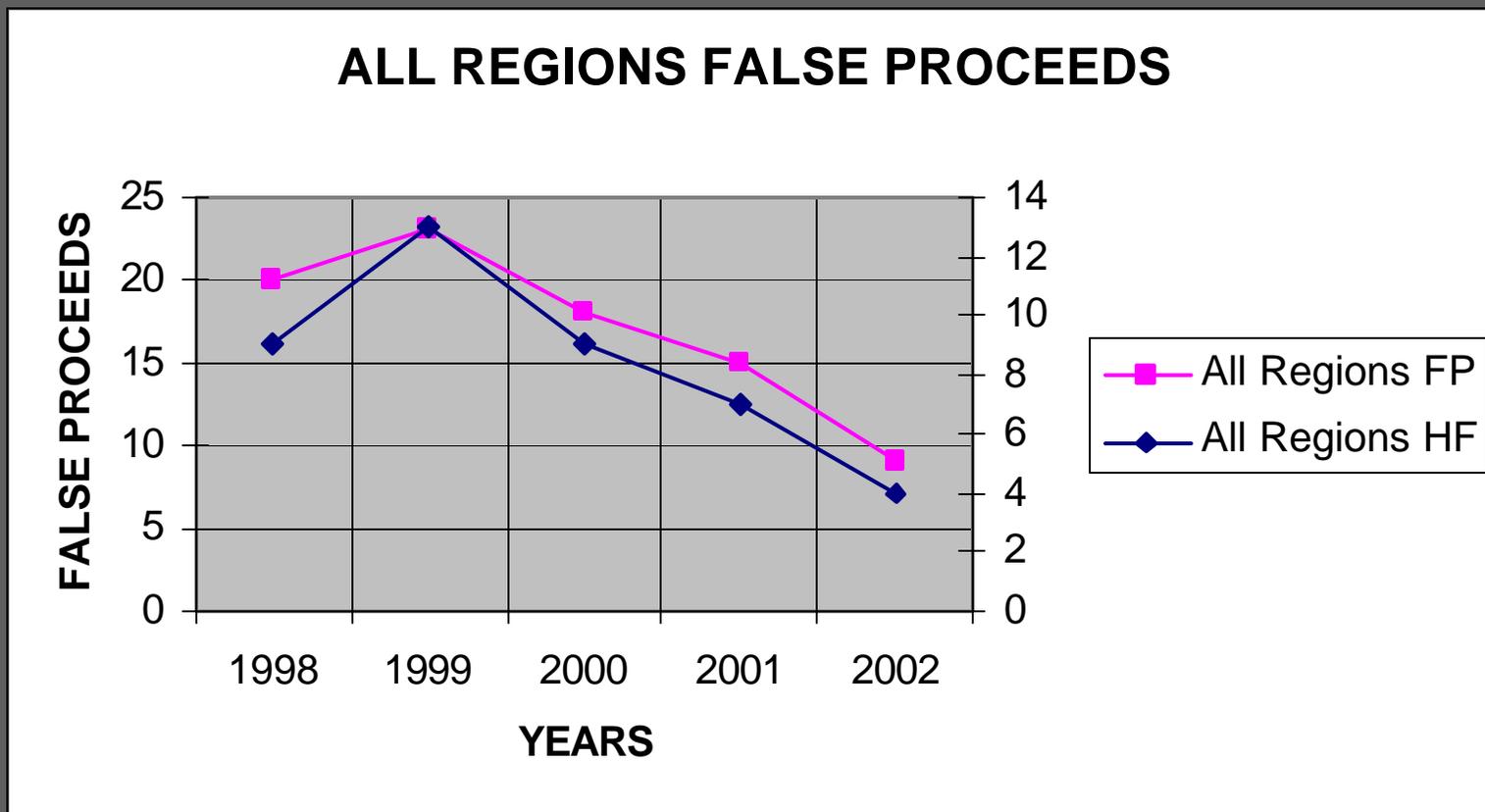


Region 8 False Proceeds



Safety Statistics 1998-2002

False Proceed Trend Lines



Thank You

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