Final Report ~ Secondary Teams

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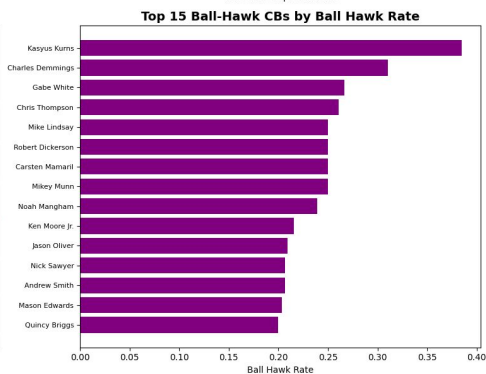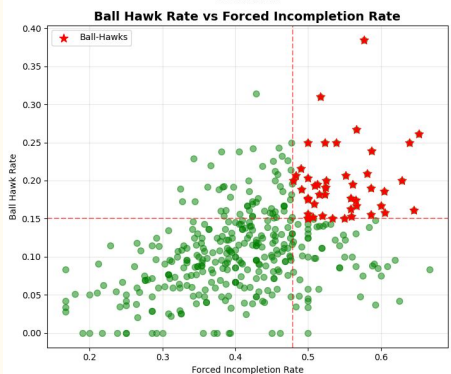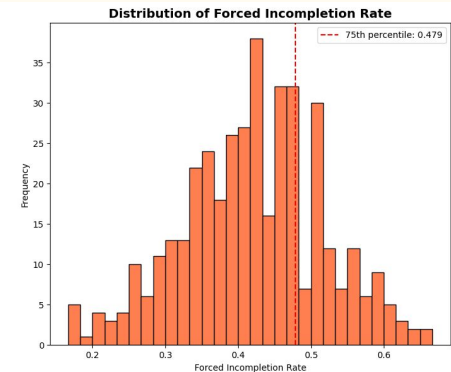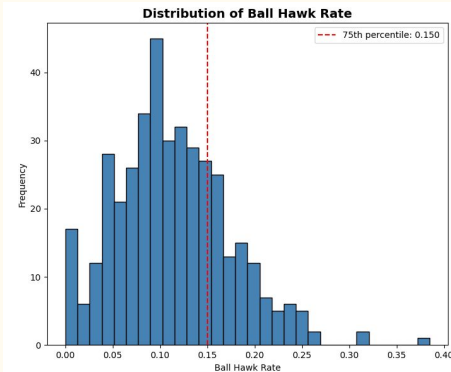
Our Plan

The main goal for our analysis was to identify cornerbacks and safeties of interest, suitable for UVA football.

- Created four archetypes of interest, based off of historical UVA plays:
  - Ball-Hawk Cornerbacks
  - Lockdown Cornerbacks
  - Deep Safeties
  - Box Safeties

- The PFF website provided various metrics suitable for analysis, however to better analyze the data on the basis of archetype advanced metrics were calculated such as:
  - **Coverage Efficiency**
    - Metric: 1-(reception/targets)
  - **Penalties per target**
    - Metric: penalties/targets
  - **Snaps per target**
    - Metric: coverage_snaps/targets
  - **Tackle Efficiency**
    - Metric: solo-tackles/(solo_tackles + missed_tackles)
  - **Ball- Hawk Rate**
    - Metric: (interceptions + pass-breakups)/ targets
  - **Explosiveness**
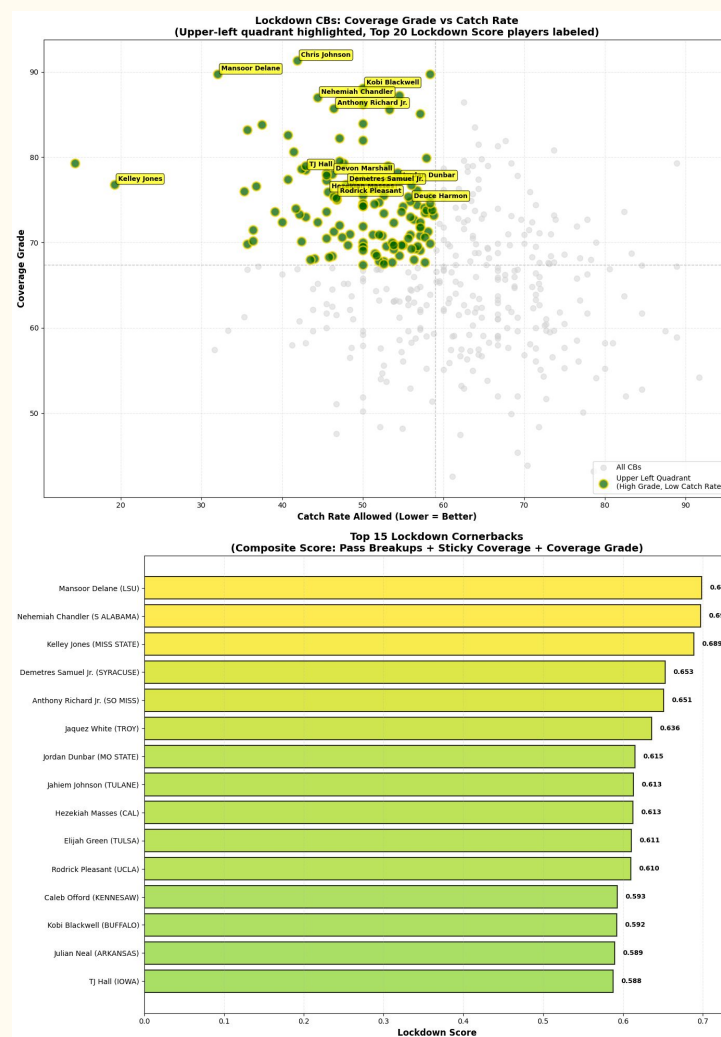   - Metric: yards_allowed/ targets

Ball-Hawk CBs

- Generate turnovers through instincts, risk-taking, and reading QB eyes. Often thrive in off-zone or Cover-3.
- Ball-Hawk cornerbacks:
  - High ball hawk rate (interceptions + pass break ups)
  - High incompletion rates (targets - receptions)
  - Positive playmaking metrics (interceptions, pass break ups, forced incompletions)
  - Think Trevon Diggs
- Ball hawk rate in top 25%, incompletion rate in top 25%, at least one interception + PBU
  - Identified 47 players that are top 25 in both categories (FCS)
- Kasyus Kurns - Highest Ball Hawk rate (5 interceptions and 5 PBU over 26 targets)
- Carsten Mamaril - Highest overall defensive rating on the list, highest coverage grade in FCS

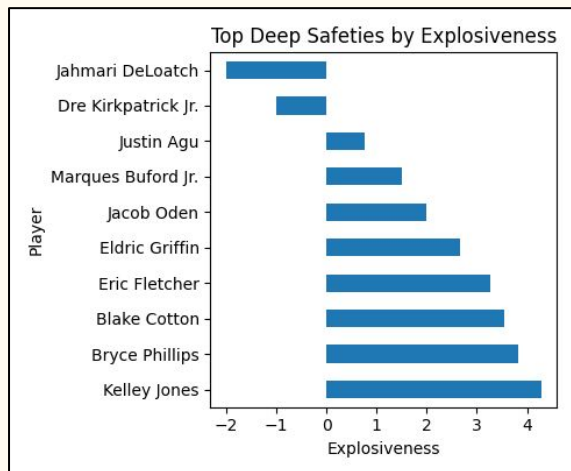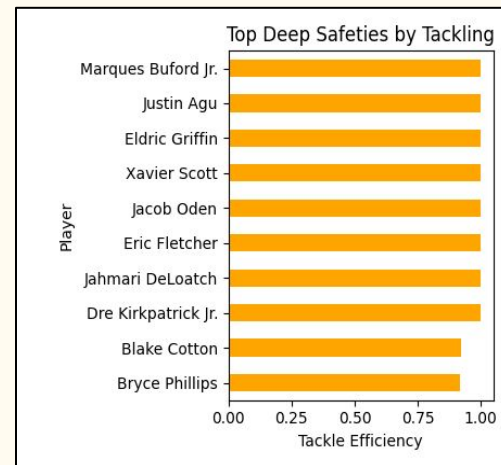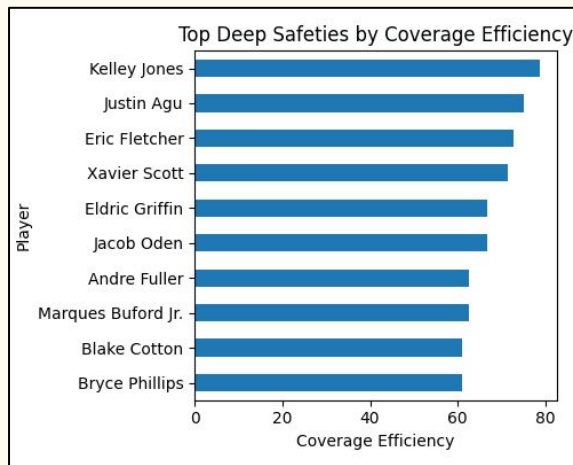| player	team_name	player_game_count	targets	interceptions	pass_break_ups	FIC	ball_hawk_rate	forced_incompletion_rate	catch_rate	qb_rating_against	grades_defense
Kasyus Kurns	TARLETON	10	26	5	5	15	0.384615	0.576923	42.3	38.9	78.5
Charles Demmings	STF AUSTIN	11	29	3	6	15	0.310345	0.517241	48.3	42.0	78.1
Gabe White	BETH COOK	11	30	2	6	17	0.266667	0.566667	43.3	54.2	83.9
Chris Thompson	MERCYHURST	12	23	3	3	15	0.260870	0.652174	34.8	22.8	83.0
Mike Lindsay	IDAHO ST	10	20	1	4	10	0.250000	0.500000	50.0	52.7	67.2
Robert Dickerson	ROB MORRIS	10	36	2	7	23	0.250000	0.638889	36.1	41.9	68.8
Carsten Mamaril	PORTLAND	12	44	3	8	23	0.250000	0.522727	47.7	59.6	89.9
Mikey Munn	S DAKOTA	13	52	3	10	28	0.250000	0.538462	46.2	52.2	81.3
Noah Mangham	ABILENE CH	11	46	2	9	27	0.239130	0.586957	41.3	75.2	81.0
Ken Moore Jr.	W CAROLINA	12	51	3	8	25	0.215686	0.490196	51.0	87.3	82.7
Jason Oliver	SACRAMENTO	11	43	2	7	25	0.209302	0.581395	41.9	37.2	81.4
Nick Sawyer	CHARLES SO	10	29	1	5	14	0.206897	0.482759	51.7	64.9	69.8
Andrew Smith	TENN TECH	13	29	3	3	16	0.206897	0.551724	44.8	46.0	85.4
Mason Edwards	MCNEESE	12	54	1	10	27	0.203704	0.500000	50.0	84.9	73.9
Quincy Briggs	GEORGETOWN	11	40	5	3	21	0.200000	0.525000	47.5	60.8	76.8

Lockdown CBs

- What is a "*Lockdown Cornerback*"?
  - A lockdown cornerback is one that succeeds in one-on-one man coverage situations, maintaining tight coverage and breaking up passes consistently
- **Lockdown Score**:
  - **Pass Breakup Rate** (40% weight)
    - Pass breakups divided by targets
  - **Coverage Grade** (25% weight)
    - PFF's comprehensive evaluation of coverage quality
  - **Catch Rate Allowed** (20% weight)
    - Percentage of targets that result in a completion for the receiver
  - **Total Pass Breakups** (10% weight)
    - Raw number of pass breakups
  - **Yards Per Coverage Snap** (5% weight)
    - Average yards allowed per snap in coverage

Lockdown CBs: Coverage Grade vs Catch Rate
(Upper-left quadrant highlighted, Top 20 Lockdown Score players labeled)

Labeled players: Chris Johnson, Mansoor Delane, Kobi Blackwell, Nehemiah Chandler, Anthony Richard Jr., TJ Hall, Devon Marshall, Demetres Samuel Jr., Dunbar, Kelley Jones, Rodrick Pleasant, Deuce Harmon

Y-axis: Coverage Grade
X-axis: Catch Rate Allowed (Lower = Better)

Legend: All CBs; Upper Left Quadrant (High Grade, Low Catch Rate)

Top 15 Lockdown Cornerbacks
(Composite Score: Pass Breakups + Sticky Coverage + Coverage Grade)

Player	Lockdown Score
Mansoor Delane (LSU)	0.699
Nehemiah Chandler (S ALABAMA)	0.698
Kelley Jones (MISS STATE)	0.689
Demetres Samuel Jr. (SYRACUSE)	0.653
Anthony Richard Jr. (SO MISS)	0.651
Jaquez White (TROY)	0.636
Jordan Dunbar (MO STATE)	0.615
Jahiem Johnson (TULANE)	0.613
Hezekiah Masses (CAL)	0.613
Elijah Green (TULSA)	0.611
Rodrick Pleasant (UCLA)	0.610
Caleb Offord (KENNESAW)	0.593
Kobi Blackwell (BUFFALO)	0.592
Julian Neal (ARKANSAS)	0.589
TJ Hall (IOWA)	0.588

X-axis: Lockdown Score

Deep Safeties

- Able to cover the entire field and minimize big plays through limiting explosive receivers and strong tackling.
- Often thrive in zone, specifically Cover 2 or Prevent
- Qualities of Deep Safeties:
  - High Coverage Efficiency
  - Low Explosiveness
  - Solid Tackling Efficiency
- Explosiveness in bottom 25%, coverage efficiency in top 25%, tackling in top 40%. Must have average depth of target > 15.

Top Deep Safeties by Coverage Efficiency

Top Deep Safeties by Tackling

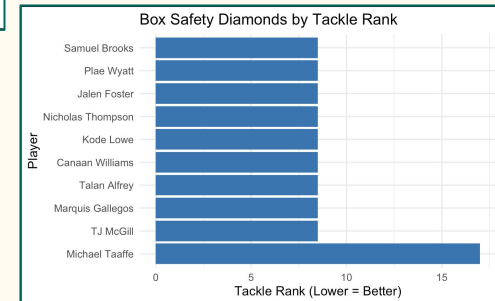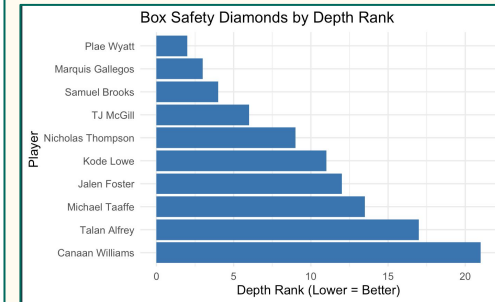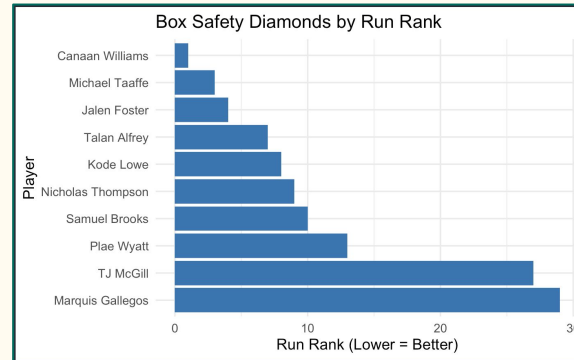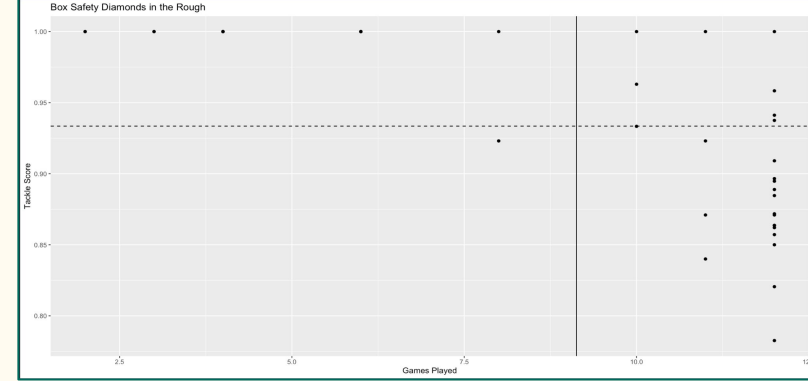Top Deep Safeties by Explosiveness

Top Across all Categories
Justin Agu
Marques Buford jr.
Jacob Oden
Eric Fletcher
Eldric Griffin

Box Safeties

We categorized the Box Safety archetype by the players that had the highest run support, the lowest average depth rank, and high run defense.

- Run Defense Rate (Top 33%)
    - Those that had the highest tackle efficiency in comparison to other metrics
- Depth Rank Rate (Bottom 33%)
    - PFF provided average depth of target – recalculated to use rank metric
- Run Support Rate (Top 33%)
    - PFF provided run support – recalculated to use rank metric

Inevitably, main goal is to look for box defenders who provide help coverage and run support, and rank low across all metrics

Box Safety Diamonds in the Rough

Box Safety Diamonds by Run Rank

Box Safety Diamonds by Depth Rank

Box Safety Diamonds by Tackle Rank

Diamonds in the Rough
Marquis Gallegos - USC
TJ McGill - JMU
Plae Wyatt -Rice
Samuel Brooks - Boise State
Nicholas Thompson - Toledo

Final Target List per Archetype

Lockdown CBs:

1. Nehemia Chandler - Southern Alabama
2. Kelley Jones - Mississippi State
3. Demetres Samuel Jr. - Syracuse
4. Anthony Richard Jr. - Southern Mississippi
5. Jaquez White - Troy

Deep Safeties:

1. Justin Agu - Louisville
2. Marques Buford jr. - Nebraska
3. Jacob Oden - Michigan
4. Eric Fletcher - Oklahoma State
5. Eldric Griffin - Liberty

Ball-hawk CBs:

1. Kasyus Kurns - Tarleton State
2. Carsten Mamaril - Portland State

Box Safeties:

1. Marquis Gallegos - USC
2. TJ McGill - JMU
3. Plae Wyatt -Rice
4. Samuel Brooks - Boise State
5. Nicholas Thompson - Toledo

Q & A