# Basketball Statistics Manual 

Definitions<br>Special Situations<br>Role of the Statistician<br>Code of Conduct

# Australian Basketball Statistics Committee 

## BASKETBALL STATISTICS MANUAL

DEFINITIONS<br>SPECIAL SITUATIONS<br>Role of the Statistician

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## Written by

## The Australian Basketball Statistics Committee

The contents of this manual may not be altered or copied after alteration

## TABLE OF CONTENTS

PART 1: DEFINITIONS ..... 3
Field Goals .....  3
Free Throws ..... 5
Rebounds ..... 6
Assists ..... 8
Blocked Shots ..... 9
Turnovers ..... 10
StealsError! Bookmark not defined ..... 1
2
Fouls \& Foul Received ..... 14
Fastbreaks ..... 13
PART 2: SPECIAL SITUATIONS ..... 15
Violations and rebounds after the shot clock siren has sounded: ..... 15
Charges and knockdowns, before and after the shot is released: ..... 16
Blocked shot causing a travel violation ..... 16
Mini Possessions ..... 16
PART 3: ROLE OF THE STATISTICIAN ..... 17
Key Roles ..... 17
Supplementary Roles ..... 17
Computerised Statistics ..... 19
Statistics Bench Setup: ..... 19
Competencies Expected of Accredited Statisticians ..... 20
PART 4: STATISTICIANS CODE OF CONDUCT ..... 22

## PART 1: DEFINITIONS

## Field Goals

A field goal attempt (FGA) is charged to a player any time they shoot, throw or tap a live ball at their opponent's basket in an attempt to score a goal unless the player is fouled in the act of shooting and the goal is missed or not counted.

A field goal attempt (FGA) is not credited to the shooter if the shot is nullified because of illegal interference with the ball (goal tending) by an offensive player.

A field goal made (FGM) is credited to a player any time a FGA by them results in a goal being scored or being awarded because of illegal interference with the ball (goal tending) by a defensive player.

When a player is fouled in the act of shooting and the shot results in a FGM, then a FGA must also be credited.

A FGA is not charged if the player shooting the ball, a teammate or a defensive player commits a violation or foul just prior to the ball being released. The official will call the violation or foul and signal that the score or play following the call is cancelled. This indicates that the ball was not released for the shot prior to the infringement so no FGA is awarded.

When a violation or foul is committed by the shooter or a player from either team, after the ball has been released for a shot, a FGA is credited because the shot would count if successful.
Exception: No FGA is credited if an offensive player nullifies the shot because of illegal interference with the ball (goal tending).

When the defensive team is in the "penalty team foul" situation and a defensive player fouls an offensive player attempting a two-point field goal, it may be difficult to determine if the ball was in flight before the shot was released. This is because the official will award two free throws to the offensive player either because the player was shooting or because of the team foul penalty. The statistician needs to pay careful attention to the official in case the official signals that the shot from the field is cancelled or makes a comment along the lines of "... foul before the shot...". If some doubt remains, the statistician has to make a judgement call, and as a rule of thumb, should presume the foul occurred first so no FGA is awarded to the offensive player.

When a field goal is the result of a defensive player accidentally scoring in his or her team's own basket, the score will be credited to the court captain of the opposition team unless the official indicates that the score should be awarded to the nearest offensive player. The court captain, or the nearest offensive player, will be credited with both a FGA and a FGM. This needs to be confirmed with the Chairperson at the earliest convenience.

A tip-in by an offensive player counts as a FGA (and an offensive rebound) if the player had sufficient control of the tap. If the score is made, then control is assumed.
If there is doubt about an offensive player having control of the tap, presume there was sufficient control if the ball hits either the ring or backboard after coming off the player's hands.

Blocked shots count as attempts if the offensive player was in the act of shooting before the ball was blocked. If there is doubt as to whether the player was intending to shoot, the interpretation shall be that they were not. For our purposes, we define the act of shooting as an upward and/or forward motion toward the basket with the intention of trying for a goal.

An area of difficulty that might arise for the statistician is the question of whether a pass or a shot is being attempted. An offensive player often acts as if to shoot only to pass off to a teammate at the last moment. The ally-oop is the most likely to be controversial, especially if the player meant to be on the receiving end of the pass makes no attempt to catch and shoot the ball. In this case a turnover may need to be awarded instead of a FGA.

Three-point shots are included in the Field Goal totals as well as recorded as a separate item, unless your League/Association directs otherwise.

## Examples

1. Saints 10 shoots but fouls Devils 12 (a) before the ball is in flight or (b) after the ball was is in flight.
a) Since the ball was dead before the ball was in flight, do not charge Saints 10 with a FGA, but an offensive foul 10 Saints and the computer will automatically award 10 Saints a turnover.
b) Charge Saints 10 with a FGA and a personal foul.

If in doubt about whether the foul occurred before or after the ball was in flight, the actions of the officials will indicate the correct ruling. If the foul occurred before the ball was in flight, it will be signalled as a "player control foul". If the foul occurred after the ball was in flight, the official won't indicate player control.
2. When a field goal is accidentally scored for the opposition, after last being touched by a defensive player:
a) If the touch by the defensive team was an attempt to block a shot and did not appreciably alter its flight, then such touching shall be ignored. If the offensive player that shot the ball is credited with the score, no blocked shot can be awarded.
b) If the touch by the defensive team followed a shot that had obviously missed and the defensive team did not gain control, a FGA and FGM is credited to the court captain of the offensive team. If the official indicates that the score should be awarded to the nearest offensive player and not the court captain, a FGA and FG is credited to that player.

In both these situations, the statistician needs to determine to which player the scoretable awarded the points.

Statisticians need to work closely with the scoretable to ensure the accuracy of all player's scores, and therefore, their attempted and made shots. It is recommended that all team scores be checked in every break in play by simply adding all made fields goals and free throws on the boxscores. At half time and full time, all team and player's scores if a summary sheet is used and fouls can be checked.

## FREE THROWS

A free throw attempt (FTA) is charged to a player when that player shoots a free throw unless there is a violation by a defensive player and the shot misses. That is, a player should not be charged for a FTA that is influenced by the illegal actions of an opponent, unless the shot results in a free throw made (FTM).

A FTM is credited to a player any time a free throw attempt by that player results in a score of one point being awarded.

If there is a violation during the free throws, the statistician should very clearly observe what the officials are awarding, who the violation was called on and what the result of the call is. The following statistics apply:

## When a player on the defensive team commits a violation:

If the free throw is successful, the score will count despite the defensive violation, so credit the free throw shooter with a FTA and FTM.

If the free throw misses, do not charge the free throw shooter with a FTA because they will be given a substitute free throw. Ignore the missed free throw on which the violation occurred as it is nullified by the defensive player's violation. Award a FTA (and FTM if successful) for the substitute free throw.

## When the shooter commits a violation:

If the free throw is successful, it will be cancelled.
In all cases, irrespective of whether the free throw is the first, second or third of a series, a FTA is charged to the shooter. Examples of a shooter's violation are:

- The ball fails to hit the ring.
- The shooter takes too long to attempt the shot.
- The shooter steps on or over the free throw line before the ball hits the ring.
- The shooter fakes a free throw.

If the free throw was the last of a series, the defensive team will be awarded possession out-of-bounds.

## When a player on the offensive team (except the free throw shooter) commits a violation:

The officials will not cancel a successful free throw when an offensive player violates so award a FTA and FTM to the free throw shooter.

If the free throw misses, the free throw shooter is still charged with a FTA, because had the shot been made, it would have counted. If the free throw was the last of a series, the defensive team will be awarded possession out-of-bounds.

## In summary,

- If a substitute free throw is awarded for a defensive player's violation, ignore the original, missed, free throw and record the statistics for the substitute free throw.
- If an offensive player (including the shooter) commits a violation, award a FTA.

In all of the above situations, NO turnovers have occurred because the offensive team is considered to have made an attempt at a free throw goal (see the definition of turnovers).

If a technical foul has resulted in free throws being taken immediately before the start of a period, the FTA (and FTM if successful) should be counted in the new period.

## REBOUNDS

A rebound is the controlled recovery of a live ball by a player after a shot has been attempted. Every missed FGA and last FTA is followed by a rebound (with a few exceptions):

- After a missed FTA where the ball will not be live (e.g. Unsportsmanlike Foul)
- At the end of a period (buzzer before a team gains possession)
- After a missed FGA (airball) if a 24 " violation is called before a team gains possession)
Control must be gained before the ball becomes dead. Rebounds are divided into Offensive and Defensive or Team Rebound when there is no control.
The recovery may be accomplished by:
- Being first to gain control of the ball, even if the ball has touched several hands, bounced or rolled along the floor.
- Tipping the ball in an attempt to score a goal.
- Tipping or deflecting the ball, in a controlled manner, to a teammate.
- By retrieving a rebound simultaneously with an opposing player and having their team gain control of the ball through the possession arrow rule.

The shot does not have to leave the shooter's hands or hit the ring or backboard before a rebound can be awarded.

When a player taps the ball that is subsequently recovered by a teammate, a decision needs to be made as to whether the tap was controlled or not, and therefore who receives the rebound. If the tap was obviously intentional, credit the rebound to the player tapping the ball. If the statistician believes the player tapping the ball was just trying to clear the ball out of the "danger area", award the rebound to the teammate recovering the ball.

An offensive player who attempts a tip-in from a missed shot is credited with an offensive rebound and FGA provided the tap was controlled. If the score is made, then control is assumed. If there is doubt about an offensive player having control of the tap, presume there was sufficient control if the ball hits either the ring or backboard after coming off the player's hands.

A shot that is blocked and recovered without the ball going dead will be recorded as a rebound to the player who first recovers the ball immediately after the block.

A team rebound is awarded when:

- Ball goes out of bounds before any player gains control
- A foul or violation is called before any player gains control
- Ball lodges on the basket support (depending on possession arrow)
- Own basket


## Examples

1. A missed shot is retrieved simultaneously by Saints 10 and Devils 12

Credit a rebound to the player whose team gains possession of the ball through the possession arrow rule.
2. After a missed shot, Saints 10 jumps and catches the ball but falls and loses control, Devils are awarded possession from the side line.
Credit a team rebound to Devils.
3. After a missed shot, Devils 10 catches the ball simultaneously as Saints 12 fouls him.
The statistician must decide if Devils 10 had control of the ball for a split-second before being fouled. If so, award the rebound to Devils 10.
4. Devils 10 jumps and attempts a shot that is blocked by Saints 12 without the ball leaving Devils 10's hands. Devils 10 lands with the ball and is called for a travel.

Devils 10 attempted a shot so there must be a rebound after the block but before the violation occurs. The statistics that apply in this situation are: FGA Devils 10, Block Saints 12, Offensive Rebound Devils 10, Turnover Travel Devils 10.
5. After a missed shot Devils 5 and Saints 11 go after the rebound getting both hands on the ball in a held ball situation. a) Devils are entitled to the alternating possession on b) Saints are entitled to the alternating possession.
a) Devils 5 charged with an offensive rebound b) Saints 11 charged with a defensive rebound

## ASSISTS

An assist is a pass that leads directly to a teammate scoring. A player is credited with an assist when they make the last pass that is primarily responsible for a field goal being scored. Only one assist can be credited on any score. Even if the "second-to-last" pass set up the play, it is not an assist. An assist is a clean pass where the pass goes directly from one player to the shooter and is not deflected by another player or comes off the head, arms or any other part of a team mate or opposition player.

An assist is credited when a pass is made to a teammate who shoots and scores. It does not prohibit an assist where the shooter takes time to balance or makes a small play to score. An assist is also awarded if a player passes the ball into a player in the paint who then makes a move and scores.

If a player is fouled while attempting a field goal, an assist is awarded to the player who passed to the shooter, provided the pass meets the criteria described in this section and:

- The shot is made and the basket counted or
- The shot is missed but one or more of the resulting free throws is successful. The free throws must be the result of the foul on the shooter and not a team foul penalty.

The distance of the shot, the type of shot and the ease with which the shooter makes the shot are not factors when considering if a pass is an assist. Similarly, the number of dribbles taken by the player who scores is also not a factor, unless their efforts are such that you determine that they did the work to make the basket, rather than the pass. For example, a pass to a player at half court who dribbles directly to the basket for a successful lay-up is an assist. However, if that player has to divert to dribble around a defensive player, no assist is given. Similarly, the player who receives a hand off and drives off the screen, is unguarded and scores, the team mate receives an assist, but if the player driving off the screen is closely defended and they have to make individual moves to score, there is no assist.

The statistician should bear in mind that the more the scoring player has to do in order to score, the less likely it is that the pass is an assist. Consistent with the definition above, an assist is not awarded simply when it is the last pass before a basket or because it was simply a "good pass". The onus for awarding the assist must be on the amount of work the scorer does and the immediacy of the shooter's intention to score.

## Examples

1. After taking a defensive rebound, Saints 10 makes a full court pass to Saints 15 who misses a lay-up but has enough time to easily score from the rebound.
No assist, there having been a FGA and offensive rebound between the pass and the score.
2. Saints 10 passes to Saints 15 who hesitates, looks to pass to Saints 21 , who is cutting, and then takes and makes the shot.
No assist to be awarded
3. Saints 10 passes to Saints 15 who takes one dribble to find balance, and then takes the shot, making it.
Credit an assist to Saints 10, provided Saints 15 maintained an intention to shoot.
4. Saints 15 makes a great full court pass to Saints 7 who only has to hand-off the ball to Saints 4 for an uncontested lay-up that is made.
Even though the pass from Saints 15 created the basket, it was not the last pass before the score. Award the assist to Saints 7 and award a fastbreak.
5. Saints 7 passes to Saints 15 who is posting up on the side of the key, he pump fakes, spins, takes a dribble and dunks the ball.
Assist Saints 7 because Saints 15 received the ball in the paint.

## BLOCKED Shots

A blocked shot is credited to a player any time they appreciably alter the flight of a FGA and the shot is missed. It recognises a clear rejection or deflection of a shot by a defensive player. The ball may or may not have left the hand of the shooter for the block to be counted.

A shot can be considered blocked even if the ball was not in flight before being blocked. As stated previously, the act of shooting, for statistical purposes, shall be an upward and/or forward motion toward the basket with the intention of trying for a goal, it can be a throw or tap of a live ball at the basket.

In some cases where the ball is knocked loose before it is in flight, because the ball is below the offensive player's shoulder, the statistic in question would be a steal, provided the ball ends up in the hands of the defensive team. An aid to making this decision is to ask yourself the question "is the ball above the player's shoulder?" if yes" - award a shot attempt, block and rebound if there is a change of possession. If the ball is below the offensive player's shoulder then a turnover/steal should be awarded, if there is a change in possession.

The statistician needs to determine whether a shot is being attempted and needs to follow closely what happens to the ball after the shot is blocked.

A rebound must follow a blocked shot unless the ball becomes dead before a player gains control.

A blocked shot should be credited only when the shot is deflected enough to prevent it from scoring. As obvious as it may appear, it needs to be noted that when the shot is successful, it can not be counted as a block even though it has been touched.

## Examples

1. Saints 10 shoots and the ball is touched by Devils 7 in an attempt to block the shot. The ball continues into the basket.
Since the ball continued into the basket, Devils 7's touching it did not alter its flight appreciably. Ignore the touching, credit Saints 10 with an FGA and an FGM but do not credit Devils 7 with a blocked shot.
2. Saints 10 goes up for a dunk attempt but the ball is stripped at shoulder-height by Devils 7 before it leaves Saints 10's hands. The ball is recovered by Devils 12. Saints 10 is charged with a shot attempt, Devils 7 receives a block and Devils 12 is credited with a defensive rebound. Despite the fact that the ball had not left the hands this is clearly a shot attempt.
3. Saints 10 is driving through the key and has the ball stripped by Devils 7. The ball ends up with Devils 12.
Credit a ball-handling turnover to Saints 10 and a steal to Devils 7. There is no shot attempt recorded as the ball was below Saints 10 shoulder.
4. Saints 10 shoots a three point jump shot which is blocked by Devils 9 . Saints 10 catches the ball immediately and shoots another three point shot which goes in. Charge a FGA to Saints 10, a block to Devils 9, an offensive rebound to Saints 10 and a three point FGM to Saints 10 .

## TURNOVERS

A turnover is a mistake by an offensive player or the offensive team that results in the defensive team gaining possession of the ball either:

- directly (e.g. intercepting a pass or taking the ball away),
- from a jump ball resulting from that mistake (determined by the alternating possession arrow)
- out-of-bounds.

A turnover can occur irrespective of whether the ball remains alive or becomes dead and can be awarded to the offensive team or a player on the offensive team at the time of the incident.

A turnover occurs when the team in control of the ball makes an error that causes possession to be turned over to the opposition before attempting a field goal or free throw.

A team is in control of the ball when:

- A player of that team is holding or dribbling a live ball.
- The ball is at its disposal for a throw-in during an out-of-bounds situation.
- The ball is at its disposal for a free throw by one of its players.
- The ball is being passed between teammates.

If the offensive team is forced into a jump ball by the actions of a defensive player the direction of the possession arrow will determine the statistics to be awarded.

- If the offensive team gains possession - NO statistics are awarded.
- If the defensive team gains possession - award a turnover to the offensive player at fault and a steal to the defensive player that initiated the turnover.

Turnovers are recorded as one of the following types:

## Ball-handling:

An offensive player loses possession while holding or dribbling the ball.

## Violation:

There are sub categories under violations which may include: 3 second, 5 second, 8 second, 24 sec Shot Clock, Travel, Double Dribble, Back Court, Out of Bounds, Goal Tending.
A violation by an offensive player causes the turnover e.g. travel, three seconds in the key, stepping out of court when in control of the ball.

When the offensive team as a whole contributes to causing a turnover a team turnover is awarded. There are four types of violations:

- failing to get the ball into the front court within 8 seconds and
- failing to attempt a shot before the shot clock expires ( 24 second shot clock)


## Offensive Foul:

When an offensive player, with or without the ball, commits a foul before a shot is attempted, a turnover will be awarded against the player.

## Player Technical / Unsportsmanlike Foul:

A technical or unsportsmanlike foul resulting in the offensive team losing possession of the ball, a turnover will be awarded against the player.

## Coach/ Bench Technical Foul:

A technical foul by the coach or bench resulting in the offensive team losing possession of the ball, a turnover will be awarded against the team.

## Bad Pass:

The turnover is the result of a bad pass.

It can sometimes be difficult to decide if the passer or receiver is responsible for a turnover when the receiver fumbles a pass. If the statistician considers the pass should have been caught, award the turnover to the receiver, but the general rule is that the passer is responsible for the pass.

In some situations, a turnover could be classified as more than one type, for example, when a bad pass causes a teammate to commit a violation by stepping out of court to retrieve the ball. The statistician must recognise how the turnover was originally caused. In this example, the bad pass caused the violation so credit the player that passed the ball with a passing turnover.

There are situations when a violation by a player causes possession to be awarded to the opposition or allows them an extra free throw(s). However, this is not a turnover unless that player's team was in possession of the ball. For example, a violation by a defensive player during free throws that gives the shooter a substitute free throw is not a turnover. Another example is a violation at the jump ball to start a period. A turnover hasn't been committed because neither team was in control, so possession hasn't been turned over.

## Examples

1. Saints 10 has the ball stolen from her as she is dribbling down the court. Saints 10 is charged with a ball-handling turnover.
2. Saints 10 makes a good pass but Saints 15 drops the ball, resulting in Devils 7 chasing the ball down and recovering it.
Saints 15 is awarded a ball-handling turnover, Devils 7 steal.
3. Saints 10 commits a violation (travels, double dribbles, etc.) that results in the other team receiving the ball.
A Turnover (identify the actual violation) is credited to Saints 10.
4. Saints 10 fouls whilst his team is in offence (either charges a player or fouls without the ball).
An offensive foul turnover is charged to Saints 10. (the computer software Livestats automatically awards a turnover)
5. Saints 10 is in possession of the ball when Saints 9 and Devils 8 simultaneously commit double fouls.
As the penalties cancel each other, Saints 10 is awarded the ball out of bounds. No statistics recorded.
6. Saints 10 is contesting the opening tip against Devils 9. Devils 9 catches the ball and the referee awards possession from the sideline.
Jump Ball won by Saints 10, jump ball lost by Devils 9.
7. Saints 7 sees the shot clock is down to 3 seconds and attempts to penetrate the Devils defense. Devils 6 stays close to Saints 7 and forces the pass to Saints 11 who is also heavily guarded by Devils 4 . Saints 11 cannot get a shot off and the shot clocks expires.

Turnover awarded to Saints, shot clock violation

## STEALS

A steal is credited to a defensive player when their positive, aggressive action causes a turnover by an opponent. To earn a steal, the defensive player should be the initiator of the turnover and must be the first player who deflected the ball. The defensive player that caused the turnover and the offensive player at fault may not necessarily be the players involved in the initial situation.

The statistician must recognise when a defensive player has used initiative, good vision or anticipation to cause a turnover. For example, a defensive player anticipates a pass and has already moved into position to catch the ball when the pass is made. Their anticipation created the turnover so they should be awarded the steal.

As a "rule of thumb" - if in doubt, award the steal.
If a steal is credited to a defensive player, there must be a corresponding turnover awarded to an offensive player. (The opposite doesn't apply - a turnover doesn't always mean a steal has occurred, it may have been a violation, bad pass or offensive foul). The statistician must realise that the ball must actually be turned over for a steal to be awarded.

A defensive player can achieve a steal in a number of ways:

- Taking the ball away from an opponent holding or dribbling the ball.
- Intercepting an opponent's pass.
- Moving to pick up a loose ball
- Tapping the ball away from an offensive player in control of the ball or deflecting an opponent's pass either,
- directly to a teammate,
- such that the ball is loose and a teammate retrieves the ball or
- such that the ball is loose and a teammate and an opponent grab the ball simultaneously, a jump ball is called and the "defensive" team gains control from the alternating possession rule.
- A steal can be awarded when the ball goes dead when the actions of a defensive player causes a jump ball and their team wins possession as a result of the alternating possession rule.
The tapping or deflection of the ball to a teammate does not have to be controlled.
In all these situations, the player who first deflected the ball initiated the turnover so is credited with the steal, not the teammate who recovered the loose ball.

A player taking a charge is not to be credited with a steal please refer to "Foul Received".

## Examples

1. Saints 10 is dribbling when she mishandles the ball and it bounces out of bounds. Charge Saints 10 with a ball-handling turnover.
2. Saints 6 is being double-teamed on the opposite wing to Devils 7 who anticipates a pass from Saints 6 to Saints 4 at the point. Devils 7 has left his player and moved into a position that enables him to easily intercept the pass.
Award Saints 6 a Bad pass turnover and Devils 7 a steal.
3. Saints 10 is dribbling the ball when Devils 7 knocks it away to Devils 12.

Charge Saints 10 with a ball-handling turnover and award Devils 7 with a steal.
4. Devils 7 applies vigorous defensive pressure, causing Saints 9 to commit a turnover by deflecting the ball and Devils 10 recovers the ball.
Charge Saints 9 with a turnover and credit Devils 7 with a steal.
5. Devils 7 deflects a pass from Saints 4 intended for Saints 6 who, in a reflex action, tries to catch the ball but can only deflect it over the sideline. Devils ball on the side.
Charge Saints 4 with a bad pass turnover but do not credit Devils 7 with a steal.
6. Devils 7 deflects a pass from Saints 4, intended for Saints 6, into the open court where Saints 6 and Devils 14 both grab the ball and a jump ball is called. Devils are awarded the ball due to the alternating possession rule.
Charge Saints 4 with a bad pass turnover and award Devils 7 a steal. Saints 6 and Devils 14 receive no statistics for their part.

## FOULS \& FOUL RECEIVED

A foul is called on a player following a decision by a referee. Personal, shooting, technical, unsportsmanlike and disqualifying fouls can be called on a player. Coach and bench technical fouls can be called on a team. It is important to differentiate between the types of fouls for the computer program.

A foul received is called on a player who receives a foul.
The Caller will call first the actual foul "Personal Foul 24".
Then the foul received "Foul received 13 ".
Some things to remember is that most times the call is obvious.
Often the "Foul Received" will be on the shooter or the ball carrier however, there are occasions where the caller will seek the assistance of the Spotter to determine who received the foul.

## Examples

1. Saints 10 is dribbling the ball and commits a charge on Devils 4.

Offensive Foul Saints 10 and the Live Stats program automatically record a turnover. Devils 4 is charged with a foul received.
2. Saints 10 is holding the ball when she is fouled by Devils 13.

Devils 13 is charged with a personal foul and Saints 10 is given a foul received.

## FASTBREAKS

All points scored before the opponent has time to set their defense is recorded as a fastbreak through the computer software Livestats. The decision to award a fastbreak is not dependent on the previous action, it could be from an inbounds pass, off a defensive rebound or a turnover.

A fastbreak can also come after an offensive rebound, if the first shot is missed and a team mate gets the rebound and puts it back in and the opposition has not come back and set up their defense.

A fastbreak can also come from a range of shot types, in fact the type of shot doesn't matter because a fastbreak can come from a free throw made, because the player is going to the free throw line because they have been fouled in the act of shooting.
Fastbreak has previously not been identified before and therefore it may take a person new to statistics some time to adjust and remember to look for a basket being scored quickly and whether the defense has set up.

## Examples

1. Saints 10 receives a long pass from Saints 5 , she then scores an uncontested layup. FCM Saints 10 layup fastbreak and an assist to Saints 5.
2. Saints 10 drives towards the basket in a 3 on 2 situation, he then passes to Saints 5 who scores a layup.
FGM Saints 5 layup fastbreak and an assist to Saints 10.

## Part 2: SPECIAL SITUATIONS

The following situations warrant special discussion because they occur regularly in basketball games and involve the recording of several types of statistics.

## VIOLATIONS AND REBOUNDS AFTER THE SHOT CLOCK SIREN HAS SOUNDED:

The rules regarding the shot clock changed following the 2000 Olympic Games and again in 2003. The ball must now hit the ring before the shot clock expires and each team now has 24 seconds to have a shot or second chance shots with a 14 second shot clock

The rule now states:
If the 24 -second signal sounds in error while a team has control of the ball or neither team has control of the ball, the signal shall be disregarded and the game shall continue.
When a shot for a field goal is attempted near the end of the 24-second period and the signal sounds while the ball is in the air:
(i) If the ball enters the basket, the goal shall count
(ii) If the ball touches the ring but does not enter the basket the ball remains alive. No violation has occurred and play shall continue without interruption.
(iii) If the ball misses the ring, a violation has occurred unless the opponent has gained a clear and immediate control of the ball. In this case the signal shall be disregarded and the game shall continue

## Implications for statisticians:

The definition of a shot attempt from a statistics point of view now differs with the definition of the shot clock operator.
It is now possible for two or more shots to be taken before the 24 -second shot clock expires - provided the ball doesn't hit the ring on the early shot(s) and the defensive team does not gain control. Statisticians should call the same stats irrespective of whether there was 10 seconds or 1 second between the shots.

There are four situations when the shot clock buzzer sounds after a FGA that require clarification from a statistics point of view. The statistics to be awarded in these situations are described:

1: The buzzer sounds while the ball is in the air and the shot hits the ring but is unsuccessful.
Call the FGA and credit any rebound taken as no violation has occurred and play should continue. If the shot is made, naturally a FGA/FGM is awarded.

2: The ball misses the ring, an offensive player rebounds the ball, then the buzzer sounds. (The official will call a violation and award the ball to the defensive team). Call the FGA on the shooter.

If the buzzer sounded just prior to, or simultaneously with, the offensive player catching the ball, do not award anything. Call "Team Defensive Rebound". Shot clock still on the ground, no control - 24 second shot clock off.

However, if the offensive player took the rebound before the buzzer sounded and had an opportunity to shoot the ball, award the team with a turnover (shot clock violation).

3: The ball misses the ring, a defensive player rebounds the ball, then the buzzer sounds. Theoretically, the shot clock should have been reset so the buzzer should not sound in this situation. If it does, the officials should ignore the buzzer and allow play to continue with the team that rebounded the ball in possession. Call the FGA and award the defensive rebound

4: The buzzer sounds in error after the ball has hit the ring.

Call the FGA and credit any rebound that occurs because the official should ignore the buzzer.

## Charges and knockdowns, before and after the shot is released:

This discussion applies to the following situation: An offensive player drives to the basket and takes a shot but simultaneously collides with a defensive player who is in a legal position (i.e. takes a charge). The offensive player is called for a foul and the shot is successful.

Statisticians should carefully watch the official's calls and signals as there are two possible outcomes:

1: The official deems the ball to have been released from the shooter's hands before contact was made:

The official will signal "two points" or "three points" ("basket counts") and a "pushing foul" on the offensive player.

The statistics to award are: FGM and personal foul on the offensive player. The defensive player is awarded a foul received.

The foul occurred after the shot was taken so no turnover is committed.
2: The official deems the ball to have been released from the shooter's hands after contact was made:

The official will signal "cancel score", "foul by team in control of the ball" and a "charging with the ball foul" on the offensive player.

The stats to award are: personal foul and offensive foul turnover on the offensive player.

The foul occurred before the shot was taken so it becomes an offensive foul and a turnover is committed. The defensive player is awarded a foul received.

## BLOCKED SHOT CAUSING A TRAVEL VIOLATION:

This is a common scenario. An offensive player takes a jump shot but the shot is blocked before the ball leaves the shooter's hands. The shooter lands while still holding the ball and is called for a travel violation.

The statistics for this situation are: FGA to the offensive player, block to the defensive player, offensive rebound and violation turnover to the offensive player.

As there was a shot and a block, there has to be a rebound before the violation occurred. The offensive player was in control of the ball after the block so is credited with that rebound.

In the situation where the referee awards a jump ball the possession arrow will determine which team gains the rebound.

## MINI POSSESSIONS:

The Caller must ensure that when there is a passage of play where there are multiple changes of possession of the ball that statistics are only awarded if there has been a clear change in possession of the ball and a team has gained control of the ball before losing it.

It is important that the Caller also recognises when referring to control that it is not just control of the ball but also control of the body. So, if a player grabs a rebound and is unbalanced and then steps out of bounds. Do not award a missed shot, rebound and then a turnover. Instead record a missed shot and team rebound. There needs to be a conscious effort not to call "mini possessions" (that is a positive statistic immediately followed by a negative one). This logic should also be applied in a multiple turnover, steal situation - is it simply a mini possession or has the ball been controlled and then lost by the offensive team.

## PART 3: ROLE OF THE STATISTICIAN

## Key Roles

## Head Statistician:

The responsibility for the management of a statistics bench during a game falls squarely on the Head Statistician. The allocation of personnel to the bench may not be the role of the Head Statistician. However, the Head Statistician assumes full responsibility once the statistics bench is "operational", at least 60 minutes prior to the start of a game, until the statistical reports have been distributed after the game and the bench has been cleared. The Head Statistician for a particular game is accountable to the Statistics Coordinator and the game authority (League, Association, Tournament Director) for that game. The Head Statistician must:

- Liaise with the Statistics Coordinator to ensure the statistics bench is suitably equipped and functional.
- Maintain the code of conduct on the statistics bench.
- Deal with all queries, regarding the statistics, from the scoretable and referees, during and immediately after the game.
- Oversee the preparation and collation of the statistical reports immediately after the game.
- Respond to queries about the statistics from any clients immediately after the game until the bench has been cleared.

On any international game and at elite level of competition including the NBL and WNBL, the Head Statistician would be the caller on the bench.

## CAller:

The caller interprets all statistics in a game and calls them to the Inputter(s). The caller should be suitably qualified and experienced.
The caller must:

- Call the statistics for both teams.
- Understand and know all definitions of the statistical categories.
- Understand the official's signals.
- Check with the scoretable chairperson on any doubtful situations, particularly when there is confusion as to which player scored a basket.
- Write down, in shorthand, the statistics during a hectic passage of play and then call them back to the inputter(s) when possible.
- Assist in checking that each player's half- and full-time points and personal fouls and the team's score agree with the official scoresheet and summary sheet if used.


## INPUTTER /COMPUTER OPERATOR:

The Inputter must:

- Record all statistics for the game
- Understand the definitions of all statistical categories so the caller \& recorder can work as a team.
- So the Inputter can anticipate what they will be recording,
- To ease the pressure during a hectic passage of play,
- To prompt the caller if something is missed, remembering that the Callers decision is final.
- Understand the referee's signals.


## SUPPLEMENTARY ROLES

A fourth or fifth seat may be added to the statistics bench to accommodate one or two of the following personnel. The extra member of the statistics bench may assume a combination of two or three of these supplementary roles; for example, an evaluator might also act as the assistant.

## ASSISTANT/SPOTTER:

This role is to provide general assistance to the statistics bench. It can take the form of "spotting" for a recorder, which involves checking the accuracy of the statistics recorded, noting any that are missed or making any notes that the recorder requests. Assistants are able to leave the statistics bench during the game to help solve any problems that arise. They can assist in setting-up the bench, editing and distributing the statistics after the game and the dismantling of the statistics bench.

## INSTRUCTOR / EVALUATOR:

An instructor or evaluator might sit on a statistics bench while teaching or assessing one or more of the statisticians. Teaching on the back-up computer is the only situation where a member of the bench might receive some instruction during the course of the game. No other training of statisticians would occur on the official bench. The instructor could also fill the role of the assistant.

AS AN ALTERNATIVE, THE EVALUATOR COULD SIT BEHIND THE STATISTICS BENCH IF POSSIBLE. IT MAY BE EASIER TO HEAR THE CALLER FROM BEHIND THAN FROM TWO OR THREE PLACES AWAY ALONG THE BENCH.

Note that each competition/league may have separate requirements of the Head Statistician.

## COMPUTERISED STATISTICS

With the advent of computerised statistical programs, these roles have evolved accordingly. Statisticians inexperienced with computers should not be fearful because basketball statistics will always be able to be done manually. Computers merely make the work easier (as calculators do) once the statistician is familiar with the software.

There have been several statistical programs used in Australia over the years, and they have gradually become more user-friendly as the quality of the hardware and software has increased. LiveStats is now widely used and has been adopted by Basketball Australia. Your State Association will be able to put you in touch with the Co-ordinator.

The statistics bench using LiveStats should have one caller (level 2) calling the entire game statistics (i.e. for both teams) to two computer recorders, one seated either side. Each computer recorder enters the statistics for both teams as called by the caller, with one being the "official" computer and the other the "back-up" computer.

## STATISTICS BENCH SETUP:

COMPUTER Statisticians on a three or four-person bench would be seated as in this arrangement:

The positions of the computers can be swapped, depending on circumstances.

|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Assistant | "Official" | Head Statistician | "Back-up/TV" |
|  | Computer | Caller | Computer |

## COMPETENCIES EXPECTED OF ACCREDITED StATISTICIANS

These are only broad guidelines to give statisticians an idea of what is expected of them if they intend to become accredited level 1 or 2 statisticians. The Australian Basketball Statistics Committee has devised level 1 and 2 training courses that have been endorsed by Basketball Australia. Contact your State Statistics Co-ordinator for further information on these courses.

A level 1 statistician must be able to:

- Understand basketball rules and statistical definitions,
- Understand the sequencing of statistical events,
- A basic understanding of the calling protocol,
- Use the computer and the current software program
- Read and understand a FIBA score sheet

A level 2 statistician must have held level 1 accreditation and be able to:

- Liaise with the Statistics Coordinator and game authority on any matters relating to the statistics bench.
- Prepare and set up the statistics bench and/or computer hardware and software,
- Consistently and accurately apply the philosophy of the statistical definitions,
- Accurately call, using the correct calling protocol.
- Manage a statistics bench and maintain the code of conduct,
- Effectively communicate with personnel on the scoretable and statistics bench and with clients,
- Reconcile boxscore with official score sheets,
- Prepare and distribute reports to clients.
- Email reports and game files to league

A level 3 statistician must have held level 2 accreditation and have:

- Extensive experience calling and recording statistics at an elite level
- Managed statistics benches at an elite level including maintaining the code of conduct,
- Experience working with and assisting (mentoring) level 1 and level 2 statisticians,
- Actively worked as a level 2 statistician for a minimum of 3 years (out of the last five years) at an elite level
and meet at least 1 of the following criteria:
- Capability to fulfil the role of Statistics Coordinator for National Junior Championships, Leagues and/ or Tournaments,
- Capability to evaluate, select and roster statisticians for leagues, championships and/ or tournaments for developmental purposes,
- Hold a position in statistics at a State level,
- Fulfil the role of Results Coordinator
- Evaluate statistics programs and be competent with computers,


## Appointment

Demonstrate ability through performance with Level 3 statisticians being appointed by the Australian Basketball Statistics Committee following a recommendation from the relevant State Coordinator.

A level 4 statistician must have held level 3 accreditation and be able to:

- Deliver the Basketball Australian Statistics Committee education program for Level 1 and Level 2 statisticians. This includes holding the necessary educator accreditation,
- Evaluate, select and roster statisticians for leagues, championships and/ or tournaments for developmental purposes,
- Fulfil the role of Statistics Coordinator for National Junior Championships, Leagues and/ or Tournaments,
- Fulfil the role of Results Coordinator,
- Have actively worked as a level 3 statistician for a minimum of 3 years (out of the last five years) at an elite level
and meet at least 2 of the following criteria:
- Hold a position in statistics at a State level,
- Evaluate statistics programs,
- Provide advice on statistics to State and National bodies, leagues and events,
- Able to recruit, manage and co-ordinate statistics personnel within a region or state, which includes maintaining a database of accredited statisticians,


## Appointment:

Demonstrate ability through performance with Level 4 statisticians being appointed by the Australian Basketball Statistics Committee following an application by the statistician to the ABSC.

A level 5 statistician must:

- hold a position in statistics at a National level, such as the State Coordinator
- provide advice on statistics to State and National bodies, leagues and events,
- be able to recruit, manage and co-ordinate statistics personnel within a region or state, which includes maintaining a database of accredited statisticians,
- implement the policy and strategies of the Basketball Australia Statistics Committee
- be able to evaluate statistics programs


## Appointment:

Demonstrate ability through performance with Level 5 statisticians being appointed by the Australian Basketball Statistics Committee on recommendation from the appropriate State Body.

## PART 4: STATISTICIANS CODE OF CONDUCT

Statisticians accredited by the Australian Basketball Statistics Committee ARE EXPECTED TO ABIDE BY THE FOLLOWING CODE:

1. Level 2 Statisticians must be accredited with the Australian Basketball Statistics Committee.
2. Statisticians must wear any uniform, provided by the game authority, specifically for the stats bench. The game authority can be a Club, Association, League or tournament director at a local, district, regional, state, national or international level.
3. All stats bench personnel must be seated at the bench thirty minutes before tip-off and shall not leave until all stats reports have been checked, edited and distributed after the game and the bench has been cleared. The Head Statistician should be at the venue at least 1 hour before tip off.
4. Food or drink should be discretely stored underneath or away from the bench.
5. Statisticians should carry their own pens to games.
6. Mobile phones must be switched to silent and not used while on duty unless required by Head Statistician to contact Games Commissioner, Match Day Manager or specified league technicians.
7. The statistician is expected to behave in a professional manner. They are not to barrack, offer verbal opinions on any aspect of the game or become involved in loud discussions with spectators or officials.
8. It is the role of the Head Statistician to respond to all queries, from game officials and the scoretable during and immediately after the game about the statistics.
9. No statistician who is affected by drugs or alcohol will be allowed onto a stats bench.
10. A statistician must not engage in any conduct that is unbecoming of an official or prejudicial to the interest, image, reputation or welfare of Basketball Australia, its affiliated state bodies or of basketball in general.
11. A statistician must no make statements in a public forum (twitter, facebook, website etc) which would in the reasonable opinion of Basketball Australia bring basketball into disrepute.
