AMERICAN GAMING ASSOCIATION

LEAGUE REVENUE IN A LEGALIZED U.S. SPORTS BETTING MARKET

NIELSEN
JUNE 2018

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OBJECTIVE OF THE PROJECT

Projecting League Revenues due to Legalized Sports Betting in U.S.

Nielsen and AGA have undertaken work to project the potential revenue impact that legalized sports betting in the U.S. will have on major U.S. sports leagues, specifically the NFL, MLB, NBA, and NHL. The work consists of two primary workstreams:

1) Projecting indirect revenue sources, or the revenue generated from an increase in interest and consumption of sports created by betting activity

    Modeled changes in consumption based on custom consumer research, fielded in May 2018.

    Total n = 1032, with quota of 100 current bettors of each of NFL, MLB, and NBA (71 bettors reached for NHL)

2) Projecting direct revenue sources, or the revenue generated directly from betting operator investment in the leagues, via advertising, sponsorship, and data and product fees.

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1 PROFILE OF BETTORS

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DEFINITION OF A BETTOR

For the purposes of this study, we are focusing on people who make bets against formalized betting lines, prop bets, future bets, etc. as established by betting operators.

Bettors are quantified based on responses to the following, "…please indicate whether or not it is something you've done in the past year":

a. Placed a bet at a sportsbook in Las Vegas or another city in Nevada
b. Placed a bet with a sports book or online sportsbook website (does not include ESPN, Yahoo, etc. fantasy leagues, contests, tournament challenges)
c. Placed a bet with a bookie

Those who bet at least once per week on a sport are called 'avid bettors' of such sport; while those who bet monthly or per season are considered 'casual bettors' of a particular sport.

We are **not including** people who responded yes to ***only*** the following options:

a. Placed a bet between myself and a co-worker, family member, or friend
b. Paid to enter a sports pool, squares contest, or similar content done with co-workers, family or friends

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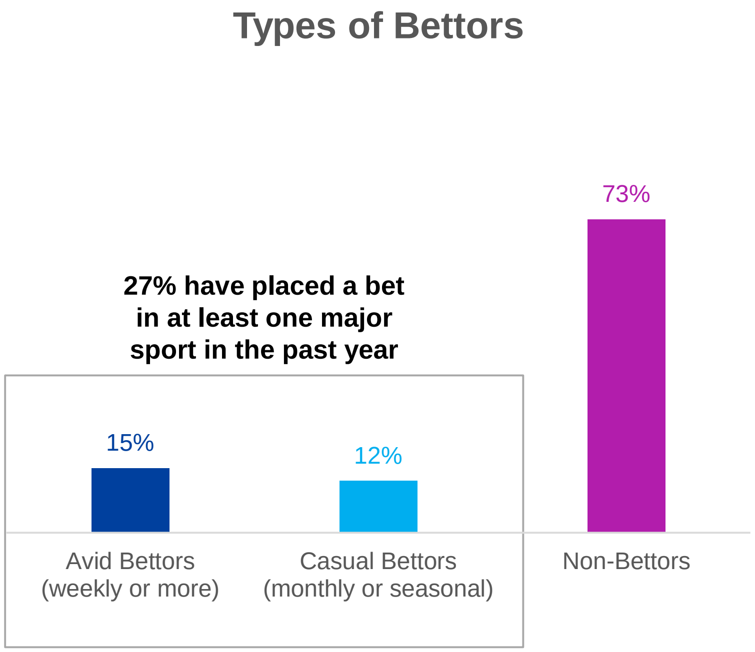
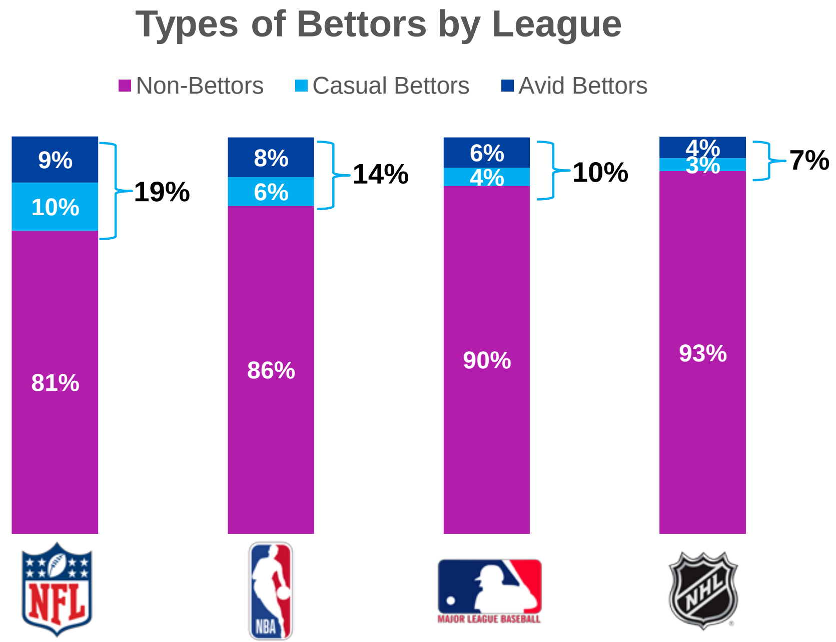
27% OF PEOPLE HAVE PLACED A BET ON A MAJOR SPORT IN THE PAST YEAR

NFL has highest proportion of bettors, followed by NBA, MLB and NHL





Source: Custom Nielsen Research May 2018. Survey Respondents: Panel Sample Total n=1032

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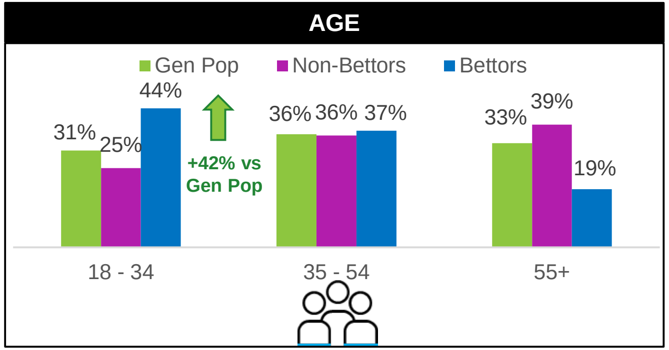
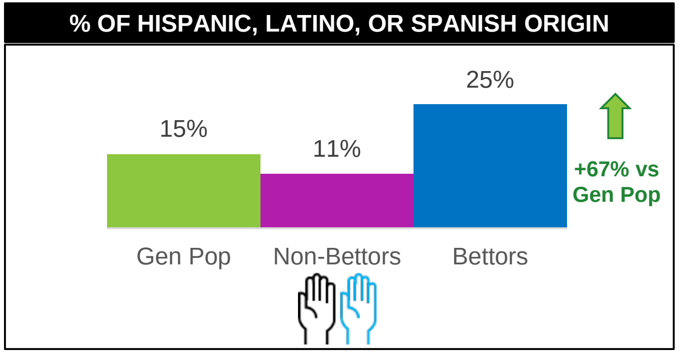
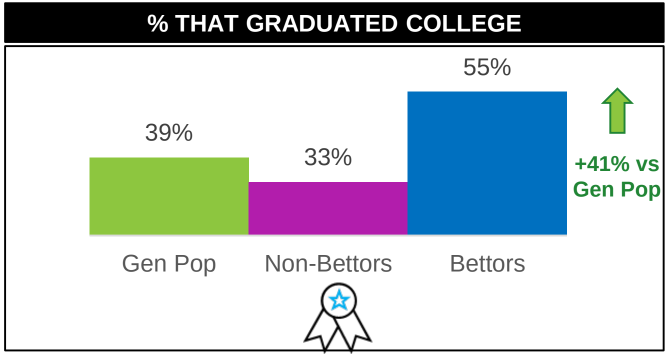
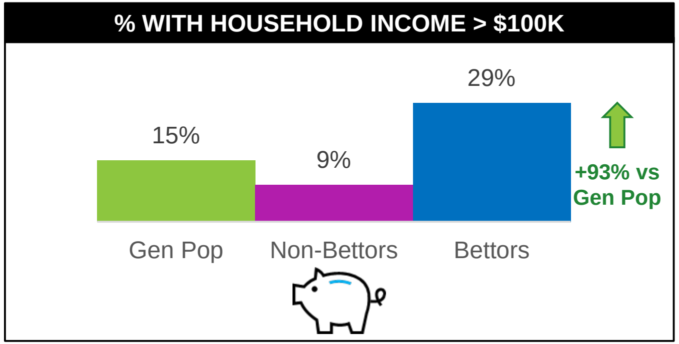
BETTORS DEMOGRAPHIC PROFILE

Tend to be younger, more educated, diverse and wealthier than Gen Pop









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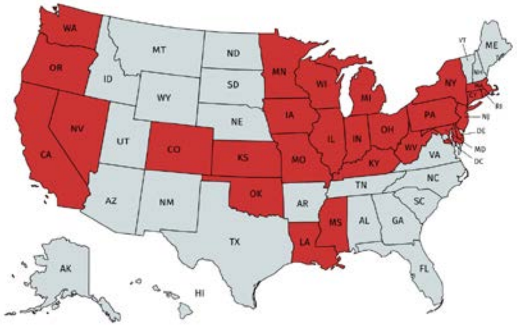
IMPACT OF STATES INTRODUCING GAMBLING LEGISLATION

Over half of bettors live in one of the 27 states that have either legalized betting or could introduce legislation in the coming years

SAMPLE FROM STATES INTRODUCING LEGISLATION

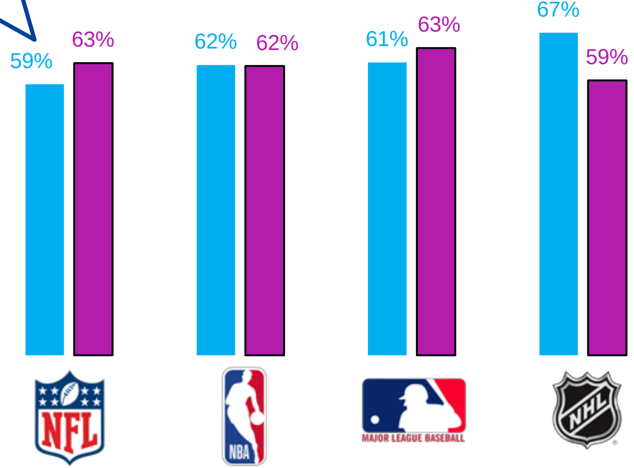
64% *of bettors are from states that have either legalized betting or could introduce legislation in the coming years*



States that have either legalized betting or could introduce legislation in the coming years

Read as: 59% of Casual NFL Bettors live in one the states that have either legalized betting or could introduce legislation

% of Bettors that live in the 27 'Betting States'



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DEMOGRAPHICS OF FANS VS BETTORS

Stark differences in demographics exist between bettors and fans of each league

NFL

	Fans	Bettors	↑ / ↓
% Age 18-34	34%	40%	↑ 18%
% Male	59%	69%	↑ 17%
% College Grad	58%	62%	↑ 7%
% HHLD Income > $100K	23%	31%	↑ 35%
% of Hispanic, Latino Or Spanish Origin	13%	23%	↑ 77%

NBA

	Fans	Bettors	↑ / ↓
% Age 18-34	40%	54%	↑ 35%
% Male	60%	73%	↑ 22%
% College Grad	63%	61%	↓ -3%
% HHLD Income > $100K	26%	30%	↑ 15%
% of Hispanic, Latino Or Spanish Origin	16%	32%	↑ 100%

MAJOR LEAGUE BASEBALL

	Fans	Bettors	↑ / ↓
% Age 18-34	35%	46%	↑ 31%
% Male	62%	75%	↑ 21%
% College Grad	62%	61%	↓ -2%
% HHLD Income > $100K	26%	36%	↑ 38%
% of Hispanic, Latino Or Spanish Origin	14%	31%	↑ 121%

NHL

	Fans	Bettors	↑ / ↓
% Age 18-34	41%	49%	↑ 20%
% Male	64%	83%	↑ 30%
% College Grad	66%	69%	↑ 5%
% HHLD Income > $100K	29%	46%	↑ 59%
% of Hispanic, Latino Or Spanish Origin	15%	27%	↑ 80%

Sources: Sponsorlink Nov 2017; Custom Nielsen Research May 2018. Survey Respondents: Panel Sample Total n=1032

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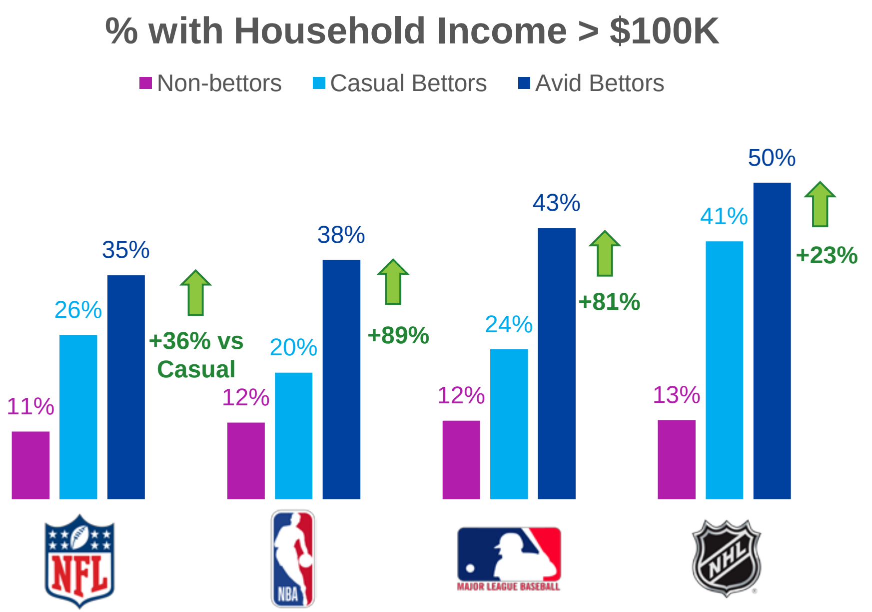
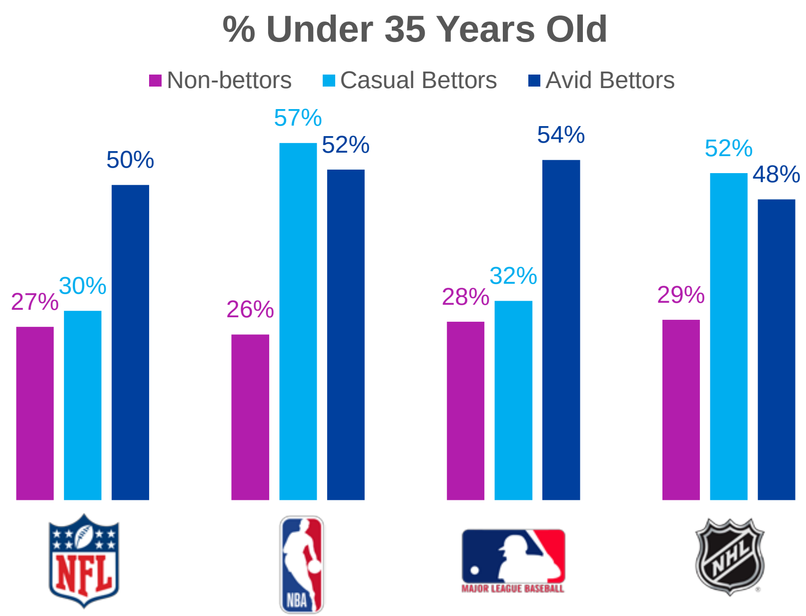
AVID BETTORS ARE MORE AFFLUENT AND YOUNGER THAN CASUAL BETTORS





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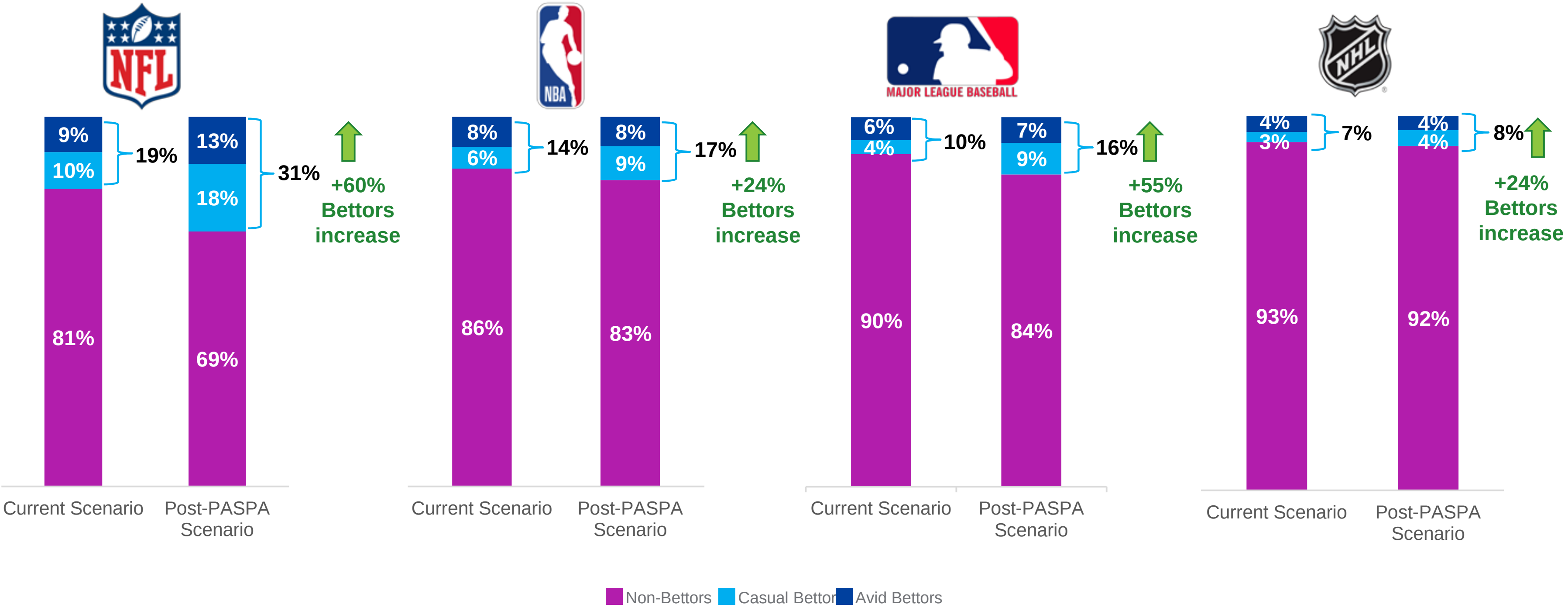
PROJECTED CHANGE IN BETTING HABITS AFTER LEGALIZATION OF GAMBLING

Based on reported behavior from survey conducted



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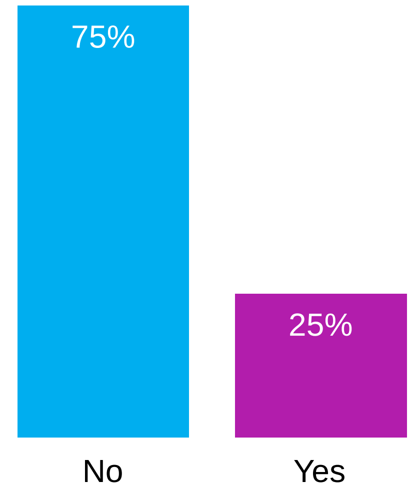
38% WHO USE BOOKIE WOULD SWITCH TO LEGAL PLATFORM COMPLETELY

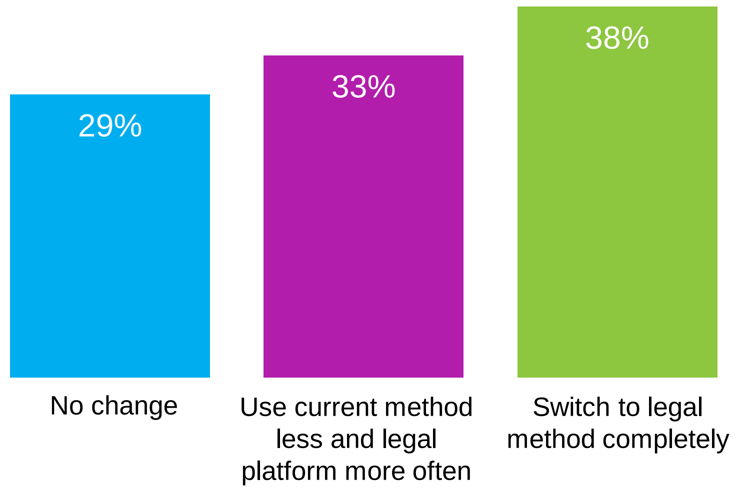
And 71% of those using a bookie would use a legal platform in some way

Placed a bet with a bookie
(within past year)



Of those who placed a bet with a bookie…

Will they change how they go about placing bets if sports betting were legalized?



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REVENUE IMPACT PROJECTION

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REVENUE SOURCES AND MEASUREMENT

Indirect Revenues[1]:

Revenue not incurred directly from betting operators, but rather as a result of increased consumption and engagement with the league and its content / products

Direct Revenues:
Revenue paid directly from betting operators, in the form of sponsorship, advertising, and product fees

Overall Revenues Impact

1. Assumes full impact / transfer of consumption habits as people shift bettor segments (non-, casual, avid bettors; i.e. non-bettors who say they will become casual bettors will adopt 'casual bettor' consumption / involvement with the leagues once they start betting).

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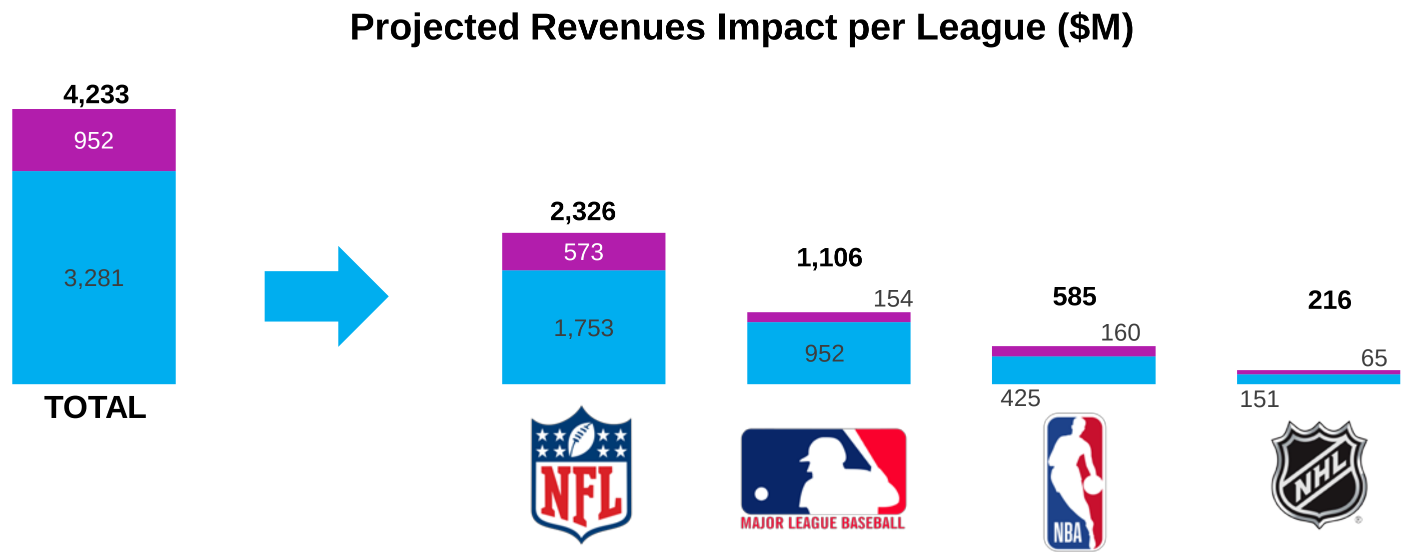
PROJECT REVENUES IMPACT OF $4.23B FOR THE 4 MAJOR LEAGUES

Between approx. 70%-86% increase coming from indirect sources



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INDIRECT REVENUES CALCULATION

Nielsen is projecting the impact on indirect revenues (consumption) based upon the behaviors of the betting groups observed in the custom survey

Step 1: How do consumption habits of the MLB differ among non-bettors, casual bettors, and avid bettors?

Step 2: Apply current consumption habits to each betting group (e.g. number of games watched)

Step 3: Determine what impact a future distribution will have on overall consumption habits[1]

Step 4: How will change of consumption translate to change of revenue

Example

Bettors	(Non)	Casual	Avid
$ Spend on MLB merchandise	$79	$130	$142
Betting Group Distribution	x	x	x
Current	90.0%	3.8%	6.2%
Post-PASPA	84.5%	8.6%	7.0%

Average Spend	
Current	$85.36
Post-PASPA	$88.29
% Change	3.4%[1]
Impact on Merchandise Revenue	
Current	$660M
Post-PASPA	$683M

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IMPACT ON REVENUE OF NFL

NFL revenue impacted by consumption is projected to increase 13.4%

($M)	Current[1]	% Change	Post-PASPA
Media Rights	$7,915	17.9%	$9,335
Sponsorship	$1,320	7.6%	$1,420
Merchandise	$420	2.1%	$429
Ticket Sales	$3,424	6.5%	$3,648
TOTAL Revenues Impacted*	$13,079	13.4%	$14,832

- Casual bettors are attending more games and watching more games on TV, but avid bettors more often read sports websites, watch sports generally, and engage more on social media
- % uplift of media rights and sponsorship is the highest across the 4 major leagues

1. Current league revenues projected based on public sources

***$1,697M of current NFL revenue will not be impacted by change in consumption; thus total current and Post-PASPA revenue projection is $14,776M and $16,529M respectively**

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IMPACT ON REVENUE OF MLB

MLB revenue impacted by consumption is projected to increase 10.6%

($M)	Current[1]	% Change	Post-PASPA
Media Rights	$3,780	11.1%	$4,201
Sponsorship	$892	6.8%	$952
Merchandise	$660	3.4%	$683
Ticket Sales	$3,661	12.2%	$4,109
TOTAL Revenues Impacted*	$8,993	10.6%	$9,945

- Generally, 'casual bettors' appear to engage with the actual sport (i.e. attending games, watching games on TV) more frequently than avid bettors, but avid bettors do more activity surrounding the event (i.e. read more sports websites, follow and engage with MLB on social media)
- Generally, bettors of MLB engage in more consumption of sports (#1 in reading in newspapers, #2 in reading websites and watching on TV) than other bettors

1. Current league revenues projected based on public sources

***$467M of current MLB revenue will not be impacted by change in consumption; thus total current and Post-PASPA revenue projection is $9,460M and $10,412M respectively**

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IMPACT ON REVENUE OF NBA

NBA revenue impacted by consumption is projected to increase 5.8%

($M)	Current[1]	% Change	Post-PASPA
Media Rights	$3,750	8.1%	$4,055
Sponsorship	$1,120	4.0%	$1,165
Merchandise	$384	1.0%	$388
Ticket Sales	$2,024	3.5%	$2,095
TOTAL Revenues Impacted*	$7,278	5.8%	$7,703

- Like other sports, casual bettors engage directly with the sport more frequently than avid bettors
- Bettors of the NBA appear to engage with team/personnel/news accounts on social media more often than bettors of other leagues (among non-bettors, NFL has highest engagement)

1. Current league revenues projected based on public sources

***$92M of current NBA revenue will not be impacted by change in consumption; thus total current and Post-PASPA revenue projection is $7,370M and $7,795M respectively**

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IMPACT ON REVENUE OF NHL

NHL revenue impacted by consumption is projected to increase 3.5%

($M)	Current[1]	% Change	Post-PASPA
Media Rights	$1,570	4.3%	$1,637
Sponsorship	$505	2.0%	$515
Merchandise	$156	0.7%	$157
Ticket Sales	$2,038	3.6%	$2,110
TOTAL Revenues Impacted*	$4,269	3.5%	$4,420

- NHL appears to be the only league for which avid bettors watch more games per week than casual bettors
- Uplift in media rights, sponsorship, and merchandise in the Post-PASPA environment is lower for the NHL than for other leagues

1. Current league revenues projected based on public sources

***$161M of current NHL revenue will not be impacted by change in consumption; thus total current and Post-PASPA revenue projection is $4,430M and $4,581M respectively**

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DIRECT REVENUES

Methodology and Process of Analysis

Estimated values for 'direct revenue':

Advertising Revenue*:

1. Total advertising spend across all TV media in the US
2. Applied proportion of TV advertising spend from the gambling services category in the UK and Australia (Avg.)
3. Generated an estimated value of TV advertising spend from the gambling services in the US
4. Determined proportion of TV advertising spent on 'sports' based on share of spend on 'sports' by DraftKings and FanDuel (combined avg. of 2014-17)
5. Applied current share of spend per league (Ad Intel) to projected betting operator spend on sports

Sponsorship Revenue:

1. Identified the proportion of sponsorship spend from the gambling services category in the UK and Australia (Avg.)
2. Identified total sponsorship revenue across 4 major sports properties in the US
3. Generated an estimated value of sponsorship revenue from the gambling services in the US, applying the average proportion spend found in the matured UK and Australia markets (7%)

Data and Product Revenue:

1. Reviewed current marketplace and identified market value of such data
2. Isolated and identified potential market value as it pertains to 4 major leagues, based on overall consumption of league and likelihood to attract betting marketplace

*Note, approach specifically projects incremental TV advertising revenue, which would be gained by TV networks. In model, we assume a 1:1, linear distribution between ad revenue and rights fees, (basically stating that a dollar gained in advertising transfers to a dollar gained in rights fee), as means to project gains in terms of league revenue

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TV ADVERTISING REVENUE PROJECTION

Major leagues could generate $596M in incremental revenue through gambling services TV advertising spend

$103.9B
US TV Advertising Spend
(All Programming)

$1.3B (1.25%*)
Projected US TV Advertising Spend from Gambling Services
*Based on average gambling services spend SOV in UK and Australia

$596M (46%*)
Projected US TV Advertising Spend from Gambling Services in Major 4 Leagues
*Based on the portion of advertising spend DraftKings and FanDuel (combined avg. of 2014-17) dedicated in TV advertising spend to each of the 4 major leagues

Sources: Ad Intel 2014-2017

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SPONSORSHIP REVENUE PROJECTION

Additionally, Major Leagues could earn $269M through sponsorship revenue created by gambling services

$3.837B
US Sponsorship Spend
(Major 4 Leagues)
*Current league revenues based on public sources

7%
Projected US Sponsorship Spend from Gambling Services
*Based on average gambling services spend SOV in UK and Australia

$269M
Projected US Sponsorship Spend from Gambling Services in Major 4 Leagues
*Average gambling services spend SOV in UK and Australia (combined) applied against current US Sponsorship Spend in the Major 4 Leagues

Sources: Sponsorglobe 2017

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3RD PARTY DATA AND PRODUCT REVENUE PROJECTION

Leagues can sell rights to stats, video and fraud protection to 3rd-party services (Sportradar), which Nielsen projects to net the 4 Major Leagues $93M/year

Sportradar Deals		Partnership Details			Betting
League	Terms	Live Stats	Audio & Video Feeds	Fraud Protect	Allowed to re-sell to Betting Operators?
NBA	6 year, $250M (2017-8)	✓	✓	✓	Yes
ITF (tennis)	5 years, $70M (2016)	✓	✓	✓	Yes
NFL	4 years, $20M & equity stake (2015)	✓			No
NHL	5 years (2015)	✓		✓	Yes

Sportradar Business

- $236M revenue (2016, global)
- ~60% of revenue related to betting

Assumed Share of Value Created		
Betting Related Clients (60% total)		
Data	**Video**	**Fraud**
15%	30%	15%
Non-Betting Related Clients (40% total)		
Data	**Video**	**Fraud**
10%	20%	10%

NBA example: $41.67M/year * 60% = **$25M** of revenue driven by betting market

Sources: Industry Sources

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3RD PARTY DATA AND PRODUCT REVENUE PROJECTION

Using NBA's $25M contribution as a base, Nielsen projects the following values of league data and product fees, based upon betting activity per league:

Read as: Assuming the NBA fee from betting is $25M per year and they compose 28% of betting revenue among major leagues, then the NFL's 34% share projects to drive $30M per year from betting

2017 Nevada Betting Activity Per League			
League	**$B Betting***	**% Share of Majors Leagues**	**Post-PASPA Data and Product Revenue**
NFL	$1.23	34%	$30M
MLB	$1.15	31%	$28M
NBA	$1.04	28%	$25M
NHL	$0.24	7%	$6M

= $89M across 4 Major Leagues

*Taken from Nevada Gaming Control Board spend by sport; assuming NFL and NBA account for 70% of bets on their respective sports, MLB accounts for 100%, and NHL is 55% of the 'Other' bets accounted for

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INCREMENTAL VALUE TO MAJOR LEAGUES

The 4 major leagues are projected to generate a combined incremental revenue of $952M per year through TV advertising, sponsorship, and data / product revenue created by gambling services

Major League TV Advertising Revenue from Gambling Services

$596M

Major League Sponsorship Revenue from Gambling Services

$267M

Major League Data and Product Revenue for 3rd Party Gambling Services

$89M

Direct Incremental Revenues Impact

$952M

Sources: Ad Intel, Sponsorglobe

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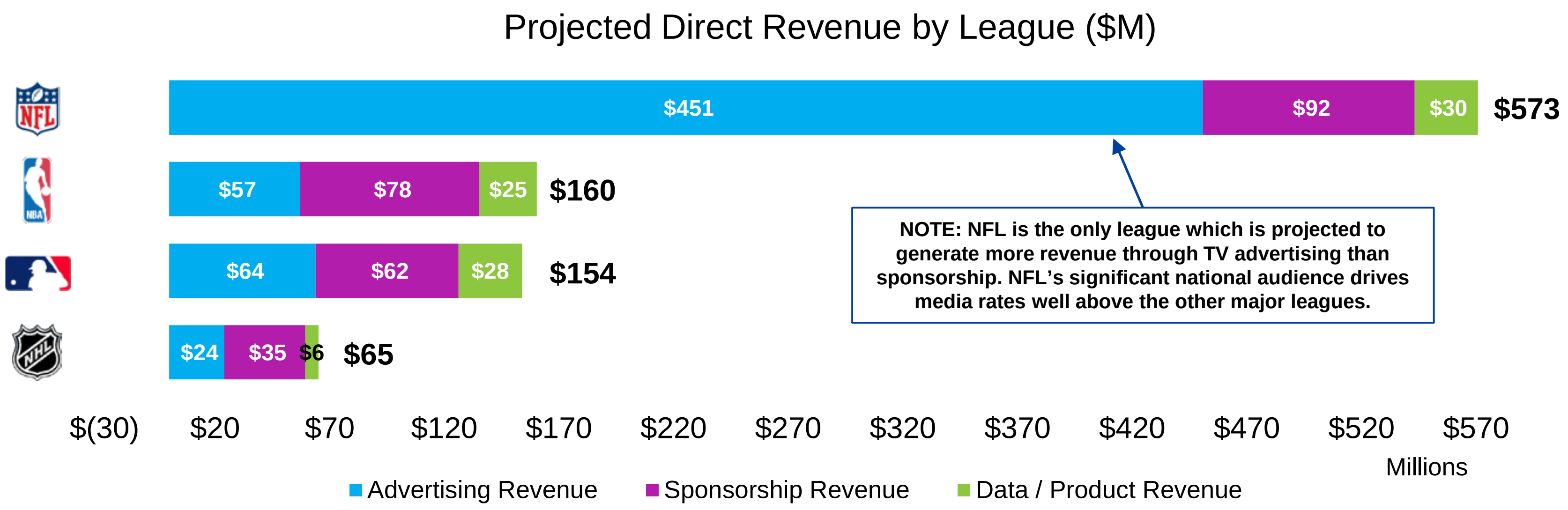
PROJECTED REVENUE BY LEAGUE

NFL would be the leading beneficiary among the four major leagues, with 61% of the projected incremental spend from gambling services going to football



NOTE: NFL is the only league which is projected to generate more revenue through TV advertising than sponsorship. NFL's significant national audience drives media rates well above the other major leagues.

Sources: Ad Intel, Sponsorglobe

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APPENDIX

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PROJECTED INDIRECT REVENUE DETAILED

	MLB	NBA	NFL	NHL
Current State ($M)				
Media Rights	3,780	3,750	7,915	1,570
TV/Broadcast Rights	3,280	3,350	6,115	1,270
League-owned subscription service	250	200	1,500	200
Digital	250	200	300	100
Sponsorship	892	1120	1320	505
Onsite	27	34	53	15
TV	294	370	264	167
TV earned	27	34	26	15
Social	54	67	106	30
Social Earned	232	291	396	131
Digital	27	34	53	15
Digital Earned	116	146	211	66
Print Earned	27	34	40	15
Other (non-impacted)	89	112	172	51
Merchandise	660	384	420	156
Ticket Sales	3,661	2,024	3,424	2,038
Total Revenues Impacted	8,993	7,278	13,079	4,269

	MLB	NBA	NFL	NHL
Post-PASPA State ($M)				
Media Rights	4,201	4,055	9,335	1,637
TV/Broadcast Rights	3,667	3,623	7,150	1,328
League-owned subscription service	278	226	1,865	208
Digital	256	205	320	101
Sponsorship	952	1,165	1,420	515
Onsite	30	35	56	16
TV	329	400	309	174
TV earned	28	35	29	15
Social	60	72	122	32
Social Earned	242	294	409	131
Digital	27	34	56	15
Digital Earned	119	149	225	66
Print Earned	28	34	42	15
Other (non-impacted)	89	112	198	51
Merchandise	683	388	429	157
Ticket Sales	4,109	2,095	3,648	2,110
Total Revenues Impacted	9,945	7,703	14,832	4,420

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“MODELED” SURVEY QUESTIONS

The following reveals that questions from the survey that were used to quantify the impact on betting and league revenues:

<u>Media Rights</u>

TV/Broadcast

- During each leagues season, how many games/events/tournaments do you typically watch on TV each week? Via live stream each week? X On average, how much of each game/event/tournament did you typically watch?

League-owned Subscription Service

- Which of the following sports and entertainment services or apps do you or anyone in your household currently subscribe to?

Digital

- How often do you do each of the following activities (Read sports websites or blogs – fans of each league)

<u>Sponsorship</u>

On-site

- How many games/events have you attended for each league in the past 12 months?

TV/Broadcast

- During each leagues season, how many games/events/tournaments do you typically watch on TV each week? Via live stream each week? X On average, how much of each game/event/tournament did you typically watch

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“MODELED” SURVEY QUESTIONS

The following reveals that questions from the survey that were used to quantify the impact on betting and league revenues:

<u>Sponsorship (cont.)</u>

TV Earned Media

- How often do you do each of the following activities? (Stream sports online, watch sports on TV by myself, watch sports on TV in a group, go to bars to watch sports – fans of each league)

Social

- Which of the following sports do you follow directly through social media accounts? How often do you engage with the official page of these sports leagues on each of these social media platforms (Facebook, Twitter, Instagram)

Social Earned

- For each league, roughly how many teams/personnel/news accounts do you follow (by Facebook, Twitter, Instagram)? How often do you engage with the teams/personnel/news sources within these leagues (by Facebook, Twitter, Instagram)?

Digital/Digital Earned

- How often do you do each of the following activities (Read sports websites or blogs – fans of each league)

Print

- How often do you do each of the following activities? (Read about sports in newspapers / magazines – by fans of the league)

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“MODELED” SURVEY QUESTIONS

The following reveals that questions from the survey that were used to quantify the impact on betting and league revenues:

Merchandise

- How much did you spend on merchandise (e.g. apparel, toys, other memorabilia, etc.) for each league in the past 12 months?

Ticket Sales

- How many games/events have you attended for each league in the past 12 months? On average, how much did you spend on a ticket to attend a game/event for each of these leagues?

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