

Worldcon 75: 2017 Hugo report #4

The impact of EPH and the potential impact of EPH+

The 2016 WSFS Business Meeting requested that the 2017 Hugo Administrators provide comparative results of the nomination stage under both EPH and the old tallying system. Given the continuing debate around voting systems, we have gone a bit further and have examined both the actual impact of EPH on the 2017 final ballot, and the theoretical impact of EPH+. We also examine the impact of the “5 and 6” amendment.

This document is purely a mathematical exercise. We do not make any judgement here about how individuals or groups may adjust their behaviour based on changes to nomination rules. No matter what the rules are, determined groups will look for the best way to exploit those rules.

1) Definitions

EPH is a system for tallying nomination votes as follows:

- First, the total **number of nominations** from all ballots is tallied for each nominee.
- Next, a single **point** is assigned to each individual voter’s nomination ballot. That **point** is divided equally among all nominees on that ballot. (After the first round of calculation, it is divided equally between **remaining** nominees.)
- Next, all **points** from all nomination ballots are totalled for each nominee in that category.
- Next, the two nominees with the **lowest point totals** are compared. If there is a tie of more than two nominees with the lowest or second lowest point total, all of them are compared.
- Whichever of the nominees being compared has the fewer or fewest **number of nominations** is eliminated and removed from all subsequent calculations. If two or more nominees are tied for the fewest **number of nominations**, the nominee with the lowest **point total** at that round is eliminated. If two or more nominees are tied for **both fewest number of nominations and lowest point total**, then **all** such nominees tied at that round shall be eliminated, **unless** that would leave fewer than six in play, in which case they all get onto the final ballot.
- Back to step 1 with the remaining nominees after the elimination.

EPH+ is a variant of EPH where points are divided by 3 if between 2 nominees, by 5 if between 3 nominees, by 7 if between 4 nominees, and by 9 if between 5.

5 and 6 refers to the new rule that voters make five nominations, but there are six finalists, in each category.

Nominee diversity refers to the new rule that no more than two works by the same author(s) or episodes of the same TV series can appear in the same category.

2) Impact of EPH

We find the following impact of EPH, comparing the actual 2017 results with the calculated results for 2014, 2015 and 2016. (We have not considered the calculations for the 1939 and 1941 Retro Hugos, as they are not really comparable)

	Finalist changes	Final ballot categories changed	Long list changes	Long list categories changed
2017	7	6	13	10
2016	16	9	4	4
2015	14	10	10	8
2014	5	3	14	13

(The 2014, 2015 and 2016 numbers analyze a final ballot of 5 rather than 6, a long list of 15 rather than 16, and compare 15 categories rather than 18.)

EPH made no difference to either the final ballot or the top sixteen in six ballot categories: **Best Novel, Best Related Work, Best Dramatic Presentation (Long Form), Best Dramatic Presentation (Short Form), Best Semiprozine, or Best Series.**

As a result of EPH, the **final ballot** had seven changes in six categories compared to the old system. For those finalists that were included on the final ballot under EPH, but would have been excluded under the old system, we give their ranking in the final ballot vote. Those that were ranked below “No Award” are indicated by the ° symbol.

Category	Included on final ballot under EPH	Excluded from final ballot by EPH
Best Short Story	(°7) An Unimaginable Light” (John C. Wright)	“Things With Beards” (Sam J. Miller)
Best Editor (Long Form)	(°7) Vox Day	Patrick Nielsen Hayden
Best Professional Artist	(6) John Picacio	Tommy Arnold
Best Fancast		Verity! (tie for final place on old-style ballot)
Best Fan Writer	(°7) Jeffro Johnson	Camestros Felapton
Best Fan Artist		<ul style="list-style-type: none"> ● Ariela Housman and ● Galen Dara (3-way tie for final place on old-style ballot)

As a result of EPH, the **top sixteen nominees** had thirteen changes in ten categories compared to the old system.

Category	Included in top sixteen under EPH	Excluded from top sixteen by EPH
Best Novella	Chimera (Gu Shi, S. Qiouyi Lu, Ken Liu)	Everything Belongs to the Future (Laurie Penny)
Best Novelette	“Kid Dark Against the Machine” (Tansy Rayner Roberts)	“The Plague Givers” (Kameron Hurley)
Best Short Story	<ul style="list-style-type: none"> ● “We Have A Cultural Difference, Can I Taste You?” (Rebecca Ann Jordan) ● “The Story of Kai Yu” (Peter S. Beagle) 	<ul style="list-style-type: none"> ● “Seven Birthdays” (Ken Liu) ● “This is not a Wardrobe Door” (A. Merc Rustad)
Best Graphic Story	Oglaf (Bodil Bodilson)	Small Gods (Terry Pratchett, Ray Friesen)
Best Editor (Short Form)	Toni Jerrman	Alisa Krasnostein
Best Editor (Long Form)	Beth Meacham	Anne Sowards
Best Professional Artist	<ul style="list-style-type: none"> ● Michael Komarck ● Donato Giancola 	<ul style="list-style-type: none"> ● Richard Anderson ● Elizabeth Leggett.
Best Fanzine	Chunga (Andy Hooper, Randy Byers and Carl Juarez)	The Rec Center (Elizabeth Minkel and Gavia Baker-Whitelaw)
Best Fancast	Storyological (E.G. Cosh and Chris Kammerud)	<ul style="list-style-type: none"> ● Jay & Miles X-Plain the X-Men (Jay Rachel Edidin and Miles Stokes) ● Breaking the Glass Slipper (Lucy Hounsom, Charlotte Bond and Megan Leigh) (tie for sixteenth place)
Campbell	Sunil Patel	Ilana C. Meyer

It is clear that the number of changes to the final ballot caused by EPH in 2017 is comparable to that calculated for 2014, when slating was less of an issue, and less than calculated for 2015 and 2016, when slating was at its height.

The number of changes to the “long list” caused by EPH in 2017 is comparable to both 2014 and 2015; in context, the rather small number changes that EPH would have made to the “long list” in 2016 seems unusually low.

3) Summary of impact of EPH+

EPH+ would have made no difference to either the final ballot or the top sixteen, as determined by EPH, in nine ballot categories: **Best Novel, Best Novelette, Best Related Work, Best Dramatic Presentation (Long Form), Best Professional Artist Best Fanzine, Best Fancast, Best Fan Writer, or the John W. Campbell Award for Best New Writer.** (Compared to the old system, only three categories would have been the same.)

Under EPH+, the final ballot would have had four changes in four categories from the real final ballot (calculated using EPH).

In the case of **Best Dramatic Presentation, Short Form**, only two episodes of **Game of Thrones** would have qualified for the final ballot under EPH+, and the nominee diversity rule would not have been triggered. In reality, three episodes qualified for the final ballot under EPH, and the makers declined nomination for one of the two that would have qualified under EPH+.

In the case of **Best Professional Artist**, the composition of the final ballot would have been the same, but the process would have differed: JiHun Lee, who received enough votes to be on the final ballot but was disqualified, would not have received enough votes to be on the final ballot under EPH+.

NB that the winner of the Hugo for **Best Fan Artist** would not have qualified for the final ballot under EPH+.

For those finalists that were included on the final ballot under EPH, but would have been excluded by EPH+, we give their ranking in the final ballot vote.

Category	Would have been on final ballot under EPH+	On final ballot under EPH but not EPH+
Best Dramatic Presentation, Short Form	Game of Thrones: The Winds of Winter (see above regarding nominee diversity)	(3) Game of Thrones: The Door
Best Editor, Short Form	P. Alexander	(6) Sheila Williams
Best Professional Artist		(see above regarding JiHun Lee)
Best Fan Artist	Ariela Housman	(1) Elizabeth Leggett (won the Hugo in this category)
Best Series	The Arts of Dark and Light (Vox Day)	(6) The October Daye books (Seanan McGuire)

Under EPH+, the **top sixteen nominees** would have had fourteen changes in nine categories from the top sixteen as calculated by EPH.

Category	Would have been in top sixteen under EPH+	In top sixteen under EPH but not EPH+
Best Novella	Edgedancer (Brian Sanderson)	Cold Forged Flame (Marie Brennan)
Best Short Story	<ul style="list-style-type: none"> • The Kings With No Hands (Johanna Sinisalo) • Night Journey of the Dragon-Horse (Xia Jia) 	<ul style="list-style-type: none"> • The Story of Kao Yu (Peter S. Beagle) • Lullaby for a Lost World (Aliette de Bodard)
Best Graphic Story	<ul style="list-style-type: none"> • Rivers of London vol 2 (Ben Aaronovitch, Andrew Cartmel, Lee Sullivan) • Homestuck (Andrew Hussie) • Freefall (Mark Stanley) • The Unbeatable Squirrel Girl vol 3 (Ryan North) 	<ul style="list-style-type: none"> • Lumberjanes vol 4 (Grace Ellis, Noelle Stevenson, Shannon Watters, Brooke Allen) • Pretty Deadly vol 2 (Kelly Sue DeConnick, Emma Ríos) • Descender vol 2 (Jeff Lemire, Dustin Nguyen) • Oglaf (Bodil Bodilson)
Best Dramatic Presentation, Short Form	<ul style="list-style-type: none"> • Supergirl: World's Finest • Steven Universe: Mindful Education 	<ul style="list-style-type: none"> • The Expanse: Salvage • Stranger Things: Chapter One: The Vanishing of Will Byers
Best Editor, Long Form	Anne Sowards	Bella Pagan
Best Professional Artist	Bob Eggleton	Donato Giancola
Best Semiprozine	Tähtivaeltaja	GigaNotoSaurus
Best Fan Artist	Brad Foster	Simon Stålenhag
Best Series	Wild Cards (George R.R. Martin et. al.)	The Fairyland books (Catherynne M. Valente)

NB that we did not verify the eligibility (or willingness to accept nomination) of any nominee other than those who were finalists in real life, under EPH; so some of those who we indicate as potential finalists under the old system or EPH+ might have declined nomination or been ineligible.

In the category-by-category lists below, the official final ballot, using EPH, is on the left, the ballot as it would have been using the old system in the centre, and the ballot as it would have been under EPH+ on the right. Finalists are highlighted in yellow, ineligible nominees in grey.

Names in **red** in the lists which follow were removed from or added to either the final ballot or the top sixteen by the use of EPH; names in **blue** would have been similarly affected by EPH+. Names in **red** and **blue** were/would have been affected by both systems.

4) Individual categories

4.1) Best Novel

EPH

Ballots	Final Points	Title
480	295.97	Obelisk Gate
399	251.47	All Birds in Sky
363	215.05	Ninefox Gambit
244	146.35	Too Like Lightning
156	109.78	Death's End
166	93.35	Closed Common Orbit
142	92.03	Ghost Talkers
142	72.72	Everfair
85	84.50	Equation Almost Inf Co
125	84.33	Babylon's Ashes
95	72.37	Core of Sun
126	64.20	City Blades
94	62.03	Gent Jole & Red Queen
111	52.55	Borderline
99	47.52	Infomocracy
91	49.78	Children of Earth Sky

Old system

Ballots	Title
480	Obelisk Gate
399	All Birds in Sky
363	Ninefox Gambit
244	Too Like Lightning
166	Closed Common Orbit
156	Death's End
142	Ghost Talkers
142	Everfair
126	City Blades
125	Babylon's Ashes
111	Borderline
99	Infomocracy
95	Core of Sun
94	Gent Jole & Red Queen
91	Children of Earth Sky
85	Equation Almost Inf Co

EPH+

Ballots	Final Pts	Title
480	260.93	Obelisk Gate
399	225.76	All Birds in Sky
363	183.06	Ninefox Gambit
244	127.56	Too Like Lightning
156	99.85	Death's End
166	80.34	Closed Common Orbit
85	84.33	Equation Almost Inf Co
142	78.92	Ghost Talkers
125	74.20	Babylon's Ashes
142	55.24	Everfair
95	67.08	Core of Sun
94	54.50	Gent Jole & Red Queen
126	50.01	City of Blades
111	40.09	Borderline
91	39.44	Children of Earth Sky
99	36.19	Infomocracy

- EPH made no difference to either the final ballot or the top sixteen.
- EPH+ would also have made no difference to either the final ballot or the top sixteen.

4.2) Best Novella

EPH

Ballots	Final Points	Title
511	344.75	Every Heart Doorway
302	154.33	Dream-Quest V Boe
187	147.17	Census-Taker
224	113.08	Taste Honey
227	111.83	Ballad Black Tom
167	104.85	Penric & Shaman
130	75.98	Dispatcher
96	55.57	Penric's Mission
93	51.35	Runtime
88	46.85	Last Days New Paris
81	35.83	Lost Child Lychford
79	36.70	Forest of Memory
80	31.58	Hammers On Bone
61	33.23	Vanishing Kind
73	25.47	Cold Forged Flame
39	30.50	Chimera

Old system

Ballots	Title
511	Every Heart Doorway
302	Dream-Quest V Boe
227	Ballad Black Tom
224	Taste Honey
187	Census-Taker
167	Penric & Shaman
130	Dispatcher
96	Penric's Mission
93	Runtime
88	Last Days New Paris
81	Lost Child Lychford
80	Hammers On Bone
79	Forest of Memory
73	Cold Forged Flame
64	Everything Belongs to the Future
61	Vanishing Kind

EPH+

Ballots	Final pts	Title
511	302.97	Every Heart Doorway
187	137.63	Census-Taker
302	119.54	Dream-Quest V Boe
167	89.44	Penric & Shaman
224	88.49	Taste Honey
227	84.84	Ballad Black Tom
130	62.15	Dispatcher
96	45.08	Penric's Mission
93	42.24	Runtime
88	37.41	Last Days New Paris
81	26.53	Lost Child Lychford
39	29.36	Chimera
79	28.07	Forest of Memory
61	26.82	Vanishing Kind
80	22.07	Hammers On Bone
32	23.86	Edgedancer

- Because of EPH, the top sixteen included **Chimera** by Gu Shi, S. Qiouyi Lu, and Ken Liu instead of **Everything Belongs to the Future** by Laurie Penny. There was no effect on the final ballot.
- Under EPH+, the top sixteen would have included **Edgedancer**, by Brian Sanderson, instead of **Cold Forged Flame**, by Marie Brennan. There would have been no effect on the final ballot.

4.3) Best Novelette

EPH

Ballots	Final Points	Title
268	185.92	You'll Surely Drown
160	103.25	Jewel & Lapidary
129	94.75	Tomato Thief
77	76.50	Alien Stripper
78	57.83	Art Space Travel
74	52.67	Touring Alien
73	44.08	Sooner or Later
72	42.50	Foxfire, Foxfire
66	38.75	Everyone from Themis
62	37.20	Visitor From Taured
59	34.65	Spinning Silver
58	35.33	Dead Djinn Cairo
51	31.42	Venus Effect
50	23.65	Blood Grains Speak
48	25.98	Red Blood White Bone
37	24.65	Kid Dark against the Machine

Old system

Ballots	Title
268	You'll Surely Drown
160	Jewel & Lapidary
129	Tomato Thief
77	Alien Stripper
78	Art Space Travel
74	Touring Alien
73	Sooner or Later
72	Foxfire, Foxfire
66	Everyone from Themis
62	The Visitor From Taured
59	Spinning Silver
58	Dead Djinn Cairo
51	Venus Effect
50	Blood Grains Speak
48	Red Blood White Bone
40	Plague Givers

EPH+

Ballots	Final Pts	Title
268	162.93	You'll Surely Drown
160	87.98	Jewel & Lapidary
129	85.38	Tomato Thief
77	76.33	Alien Stripper
78	52.29	Art Space Travel
74	46.84	Touring Alien
73	36.85	Sooner or Later
72	34.86	Foxfire, Foxfire
66	31.98	Everyone from Themis
58	31.24	Dead Djinn Cairo
62	30.10	Visitor From Taured
59	27.87	Spinning Silver
51	26.58	Venus Effect
50	17.86	Blood Grains Speak
37	22.17	Kid Dark against Machine
48	20.82	Red Blood White Bone

- Because of EPH, the top sixteen included “Kid Dark Against the Machine” by Tansy Rayner Roberts instead of “The Plague Givers” by Kameron Hurley. There was no effect on the final ballot.
- EPH+ would have made no difference to either the final ballot or the top sixteen.

4.4) Best Short Story

EPH

Ballots	Final Points	Title
182	125.83	Talons Crush Galaxies
155	105.17	Seasons Glass Iron
87	87.00	Unimaginable Light
106	67.50	Fist Permutations
88	64.67	Game Played During War
98	64.17	City Born Great
88	63.67	Things With Beards
81	57.33	Razorback
51	35.50	Welcome Medical Clinic
40	22.37	Terminal
37	25.83	Highlands & Lowlands
34	25.50	Red in Tooth and Cog
33	22.03	A Salvaging of Ghosts
28	21.50	We Have A Cultural Diff
32	21.20	Story Kao Yu
38	20.25	Lullaby Lost World

Old system

Ballots	Title
182	Talons Crush Galaxies
155	Seasons Glass Iron
106	Fist Permutations
98	City Born Great
88	Game Played During War
88	Things With Beards
87	Unimaginable Light
81	Razorback
51	Welcome Medical Clinic
40	Terminal
38	Lullaby Lost World
38	Seven Birthdays
37	Highlands & Lowlands
35	This is not a Wardrobe Door
34	Red in Tooth and Cog
33	A Salvaging of Ghosts

EPH+

Ballots	Final Pts	Title
182	110.48	Talons Crush Galaxies
155	92.01	Seasons Glass Iron
87	87.00	Unimaginable Light
88	57.89	Game Played During War
106	57.39	Fist Permutations
98	54.70	City Born Great
88	57.37	Things With Beards
81	50.89	Razorback
51	31.44	Welcome Medical Clinic
40	18.25	Terminal
34	22.93	Red in Tooth and Cog
37	22.73	Highlands & Lowlands
33	19.73	A Salvaging of Ghosts
28	19.60	We Have A Cultural Diff
20	19.33	The Kings with No Hands
21	19.00	Night Journey Dragon-Horse

- Because of EPH, the final ballot included “An Unimaginable Light” by John C. Wright instead of “Things With Beards” by Sam J. Miller; and the top sixteen included “We Have A Cultural Difference, Can I Taste You?” by Rebecca Ann Jordan and “The Story of Kai Yu” by Peter S. Beagle instead of “Seven Birthdays” by Ken Liu and “This is not a Wardrobe Door” by A. Merc Rustad.
- Under EPH+, the top sixteen would have included “The Kings with No Hands” by Johanna Sinisalo, and “Night Journey of the Dragon-Horse” by Xia Jia, instead of “The Story of Kao Yu” by Peter S. Beagle and “Lullaby for a Lost World” by Alette de Bodard. There would have been no effect on the final ballot.
- NB that “The Story of Kao Yu” was in the top sixteen under EPH, but would not have made it under either the old system or EPH+.

4.5) Best Related Work

EPH

Ballots	Final Points	Title
424	288.87	Geek Feminist Revolution
130	101.17	View Cheap Seats
123	75.00	Princess Diarist
119	73.03	Traveler of Worlds
133	70.45	Words Are My Matter
88	50.37	Women Harry Potter
82	44.12	Writing Women Characters..
78	48.25	Star Wars Art
70	46.20	Making Conversation
73	34.77	Octavia E. Butler
69	37.68	#BlackSpecFic
57	35.75	The Tingled Puppies
61	30.02	Archive of Our Own
41	31.00	THEN
41	23.02	Bandersnatch
36	13.27	Speculative Blackness

Old system

Ballots	Title
424	Geek Feminist Revolution
133	Words Are My Matter
130	View Cheap Seats
123	Princess Diarist
119	Traveler of Worlds
88	Women of Harry Potter
82	Writing Women Characters...
78	Star Wars Art
73	Octavia E. Butler
70	Making Conversation
69	#BlackSpecFic
61	Archive of Our Own
57	The Tingled Puppies
41	THEN
41	Bandersnatch
36	Speculative Blackness

EPH+

Ballots	Final Pts	Title
424	263.64	Geek Feminist Revolution
130	91.73	View Cheap Seats
123	62.16	Princess Diarist
119	60.64	Traveler of Worlds
133	55.17	Words Are My Matter:
88	43.75	Women of Harry Potter
70	42.40	Making Conversation
82	33.40	Writing Women Characters
78	38.31	Star Wars Art
57	32.50	The Tingled Puppies
73	26.49	Octavia E. Butler
69	29.06	#BlackSpecFic
41	28.22	THEN
61	23.32	Archive of Our Own
41	19.55	Bandersnatch
36	9.20	Speculative Blackness

- EPH made no difference to either the final ballot or the top sixteen.
- EPH+ would also have made no difference to either the final ballot or the top sixteen.

4.6) Best Graphic Story

EPH

Ballots	Final Points	Title
221	140.87	Monstress v. 1
147	97.95	Saga v. 6
109	64.28	B Panther: Nation Feet
106	60.00	Ms. Marvel v. 5
100	54.78	Paper Girls v. 1
72	41.70	The Vision v. 1
61	51.42	Stand Still. Stay Silent
52	30.67	Unb Sq Girl Marvel Un
49	26.75	Wicked & Divine v. 3
36	22.67	Mockingbird v. 1
32	14.40	Clean Room v. 1
24	16.08	Injection v. 2
30	12.87	Lumberjanes v. 4
30	12.60	Pretty Deadly v. 2
26	10.83	Descender v. 2
22	12.17	Oglaf

Old system

Ballots	Title
221	Monstress v. 1
147	Saga v. 6
109	B Panther: Nation Feet
106	Ms. Marvel v. 5
100	Paper Girls v. 1
72	The Vision v. 1
61	Stand Still. Stay Silent
52	Unb Sq Girl Marvel Un
49	Wicked & Divine v. 3
36	Mockingbird v. 1
32	Clean Room v. 1
30	Lumberjanes v. 4
30	Pretty Deadly v. 2
26	Descender v. 2
24	Injection v. 2
23	Small Gods

EPH+

Ballots	Final Pts	Title
221	120.23	Monstress v. 1
147	84.89	Saga v. 6
109	52.80	B Panther: Nation Feet
61	48.81	Stand Still. Stay Silent
106	48.50	Ms. Marvel v. 5
100	43.34	Paper Girls v. 1
72	34.79	The Vision v. 1
52	25.39	Unb Sq Girl Marvel Un
49	21.65	Wicked & Divine v. 3
36	19.50	Mockingbird v. 1
32	10.55	Clean Room v. 1
24	14.23	Injection v. 2
14	10.63	Rivers of London v. 2
19	10.51	Homestuck
11	10.33	Freefall
21	9.92	Unb Sq Girl v. 3

- Because of EPH, the top sixteen included **Oglaf** by Bodil Bodilson instead of **Small Gods** by Terry Pratchett and Ray Friesen. There was no effect on the final ballot.
- Under EPH+, the final ballot would have included **Stand Still. Stay Silent** by Minna Sundberg instead of **The Vision vol. 1**; and the top sixteen would have included **Rivers of London Vol. 2: Night Witch** by Ben Aaronovitch and Andrew Cartmel with art by Lee Sullivan, **Homestuck** by Andrew Hussie, **Freefall** by Mark Stanley, and **The Unbeatable Squirrel Girl vol 3: Squirrel You Really Got Me Now** by Ryan North would have made the top 16 rather than **Lumberjanes vol 4**, **Pretty Deadly vol 2**, **Descender vol 2** and **Oglaf**.
- NB that **Oglaf** was in the top sixteen under EPH, but would not have made it under either the old system or EPH+.

4.7) Best Dramatic Presentation (Long Form)

EPH

Ballots	Final Points	Title
1030	572.02	Arrival
660	313.73	Star Wars - Rogue One
350	201.72	Deadpool
402	173.38	Hidden Figures
297	116.40	Ghostbusters
240	103.57	Stranger Things, season 1
232	99.18	Kubo and the Two Strings
228	96.57	Doctor Strange
233	91.00	The Expanse, Season 1
195	64.13	Moana
171	58.57	Zootopia
156	45.63	Captain America Civil War
130	45.00	Fantastic Beasts
113	35.55	Star Trek: Beyond
110	38.78	Westworld, Season 1
72	22.85	10 Cloverfield Lane

Old system

Ballots	Title
1030	Arrival
660	Star Wars - Rogue One
402	Hidden Figures
350	Deadpool
297	Ghostbusters
240	Stranger Things, season 1
233	The Expanse, Season 1
232	Kubo and the Two Strings
228	Doctor Strange
195	Moana
171	Zootopia
156	Captain America Civil War
130	Fantastic Beasts
113	Star Trek: Beyond
110	Westworld, Season 1
72	10 Cloverfield Lane

EPH

Ballots	Final Pts	Title
1030	462.36	Arrival
660	232.28	Star Wars - Rogue One
350	168.53	Deadpool
402	125.21	Hidden Figures
297	79.36	Ghostbusters
240	73.01	Stranger Things, season 1
232	70.90	Kubo and the Two Strings
228	69.00	Doctor Strange
233	63.81	The Expanse Season 1
195	41.09	Moana
171	39.39	Zootopia
156	27.94	Captain America Civil War
130	30.93	Fantastic Beasts
110	26.83	Westworld, Season 1
113	23.25	Star Trek: Beyond
72	14.84	10 Cloverfield Lane

- EPH made no difference to either the final ballot or the top 16.
- EPH+ would also have made no difference to either the final ballot or the top 16.

4.8) Best Dramatic Presentation (Short Form)

EPH			Old system		EPH+		
Ballots	Final Points	Title	Ballots	Title	Ballots	Final pts	Title
193	139.95	Expanse: Leviathan Wakes	193	Expanse: Leviathan Wakes	193	125.84	Expanse: Leviathan Wakes
193	131.62	GoT: The Winds of Winter	193	GoT: The Winds of Winter	193	116.00	GoT: The Winds of Winter
149	112.67	B Mirror: San Junipero	149	B Mirror: San Junipero	149	102.35	B Mirror: San Junipero
116	89.83	DW: Return Doctor Mysterio	126	GoT: Battle of the Bastards	116	82.84	DW: Return Doctor Mysterio
126	74.62	GoT: Battle of the Bastards	122	GoT: The Door	91	67.12	Clipping: Splendor & Misery
122	67.87	GoT: The Door	116	DW: Return Doctor Mysterio	126	61.80	GoT: Battle of the Bastards
91	72.45	Clipping: Splendor & Misery	91	Clipping: Splendor & Misery	122	54.52	GoT: The Door
88	62.92	L Cage: Manifest	88	L Cage: Manifest	88	55.41	L Cage: Manifest
82	48.75	Wworld: The Bicameral Mind	82	Wworld: The Bicameral Mind	82	39.98	Wworld: The Bicameral Mind
81	49.72	Str Th: Ch 8: Upside Down	81	Str Th: Ch 8: Upside Down	81	42.78	Str Th: Ch 8: Upside Down
59	41.83	St Univ: Answer	59	St Univ: Answer	59	37.84	St Univ: Answer
52	24.53	Wworld: Original	52	Wworld: Original	52	18.65	Wworld: Original
50	29.65	Pol: Return 0	50	Pol: Return 0	50	25.00	Pol: Return 0
43	19.98	Str Th: Ch 7: The Bathtub	43	Str Th: Ch 7: The Bathtub	43	14.82	Str Th: Ch 7: The Bathtub
41	20.20	Expanse: Salvage	41	Expanse: Salvage	28	17.22	Supergirl: World's Finest
33	15.33	Str Th: Ch 1: Vanishing W Byers	33	Str Th: Ch 1: Vanishing W Byers	31	14.68	St Univ: Mindful Education

- EPH made no difference to either the final ballot or the top 16.
- Under EPH+, **Game of Thrones: The Door** would not have qualified for the final ballot, Nominee Diversity would not therefore have mattered, and the makers of **Game of Thrones** would likely not have declined nomination for **The Winds of Winter**. The top sixteen would have included **Supergirl: World's Finest** and **Steven Universe: Mindful Education** instead of **The Expanse: Salvage** and **Stranger Things: Chapter One: The Vanishing of Will Byers**.

3.9) Best Editor, Short Form

EPH

Ballots	Final points	Editor
179	127.28	LM & MD Thomas
229	125.65	JJ Adams
201	106.73	Ellen Datlow
165	90.57	Jonathan Strahan
149	80.70	Sheila Williams
155	79.57	Neil Clarke
77	76.50	P. Alexander
139	67.55	C. C. Finlay
104	51.98	Ann VanderMeer
98	48.00	Lee Harris
80	34.95	Scott H. Andrews
64	31.88	Mur Lafferty
48	22.73	Lynne M. Thomas
36	27.40	Toni Jerrman
48	21.13	Sana Amanat
39	19.42	Trevor Quachri

Old system

Ballots	Editor
229	JJ Adams
201	Ellen Datlow
179	LM & MD Thomas
165	Jonathan Strahan
155	Neil Clarke
149	Sheila Williams
139	C.C. Finlay
104	Ann VanderMeer
98	Lee Harris
80	Scott H. Andrews
77	P. Alexander
64	Mur Lafferty
48	Lynne M. Thomas
48	Sana Amanat
40	Alisa Krasnostein
39	Trevor Quachri

EPH+

Ballots	Final pts	Editor
179	113.44	LM & MD Thomas
229	100.14	JJ Adams
201	83.13	Ellen Datlow
77	76.33	P. Alexander
165	73.11	Jonathan Strahan
155	61.81	Neil Clarke
149	65.46	Sheila Williams
139	52.68	C. C. Finlay
104	40.81	Ann VanderMeer
98	37.48	Lee Harris
80	26.13	Scott H. Andrews
36	26.37	Toni Jerrman
64	24.22	Mur Lafferty
48	17.27	Lynne M. Thomas
48	16.03	Sana Amanat
39	16.09	Trevor Quachri

- Because of EPH, the top sixteen included Toni Jerrman instead of Alisa Krasnostein. There was no effect on the final ballot.
- Under EPH+, the final ballot would have included P. Alexander instead of Sheila Williams. There would have been no effect on the top sixteen.

4.10) Best Editor, Long Form

EPH

Ballots	Final points	Editor
201	103.25	Liz Gorinsky
140	83.82	Sheila Gilbert
83	83.00	Vox Day
155	79.55	Devi Pillai
161	76.72	Navah Wolfe
131	54.25	Miriam Weinberg
118	65.42	Patrick Nielsen Hayden
101	53.27	Joe Monti
66	29.62	Jonathan Oliver
59	43.65	Toni Weisskopf
59	33.57	Anne Lesley Groell
56	22.78	Jane Johnson
53	17.13	Betsy Wollheim
44	21.78	Marco Palmieri
36	17.67	Beth Meacham
38	11.57	Bella Pagan

Old system

Ballots	Editor
201	Liz Gorinsky
161	Navah Wolfe
155	Devi Pillai
140	Sheila Gilbert
131	Miriam Weinberg
118	Patrick Nielsen Hayden
101	Joe Monti
83	Vox Day
66	Jonathan Oliver
59	Toni Weisskopf
59	Anne Lesley Groell
56	Jane Johnson
53	Betsy Wollheim
44	Marco Palmieri
38	Bella Pagan
37	Anne Sowards

EPH+

Ballots	Final pts	Editor
83	83.00	Vox Day
201	82.12	Liz Gorinsky
140	72.37	Sheila Gilbert
155	63.20	Devi Pillai
161	58.17	Navah Wolfe
131	37.95	Miriam Weinberg
118	54.36	Patrick Nielsen Hayden
101	43.98	Joe Monti
59	39.98	Toni Weisskopf
66	22.46	Jonathan Oliver
59	27.30	Anne Lesley Groell
56	16.30	Jane Johnson
44	18.17	Marco Palmieri
53	10.31	Betsy Wollheim
36	14.03	Beth Meacham
37	10.93	Anne Sowards

- Because of EPH, the final ballot included Vox Day instead of Patrick Nielsen Hayden; and the top sixteen included Beth Meacham instead of Anne Sowards.
- Under EPH+, the top sixteen would have included Anne Sowards instead of Bella Pagan.
- NB that Anne Sowards did not make the top sixteen under EPH, but would have done so under both the old system and EPH+.

4.11) Best Professional Artist

EPH

Ballots	Final Points	Artist
143	95.75	Julie Dillon
143	92.75	Galen Dara
98	65.08	Sana Takeda
92	58.75	Victo Ngai
75	56.67	Chris McGrath
72	41.00	Tomek Radziewicz
63	32.00	JiHun Lee
53	40.17	John Picacio
57	30.37	Tommy Arnold
41	30.58	Todd Lockwood
52	30.33	Likhain (M. Sereno)
48	25.57	Rovina Cai
44	27.53	Fiona Staples
31	23.83	Michael Komarck
44	20.50	Reiko Murakami
35	21.85	Donato Giancola

Old system

Ballots	Artist
143	Julie Dillon
143	Galen Dara
98	Sana Takeda
92	Victo Ngai
75	Chris McGrath
72	Tomek Radziewicz
63	JiHun Lee
57	Tommy Arnold
53	John Picacio
52	Likhain (M. Sereno)
48	Rovina Cai
44	Fiona Staples
44	Reiko Murakami
41	Todd Lockwood
41	Richard Anderson
36	Elizabeth Leggett

EPH+

Ballots	Final Pts	Artist
143	75.90	Galen Dara
143	74.83	Julie Dillon
72	72.00	Tomek Radziewicz
98	55.43	Sana Takeda
75	51.42	Chris McGrath
92	48.08	Victo Ngai
53	36.60	John Picacio
63	21.67	JiHun Lee
41	27.34	Todd Lockwood
52	25.22	Likhain (M. Sereno)
57	24.51	Tommy Arnold
44	23.72	Fiona Staples
48	19.94	Rovina Cai
31	21.53	Michael Komarck
24	20.34	Bob Eggleton
44	15.73	Reiko Murakami

- Because of EPH, the final ballot included John Picacio instead of Tommy Arnold; and the top sixteen included Michael Komarck and Donato Giancola instead of Richard Anderson and Elizabeth Leggett.
- Under EPH+, there would have been no change to the final ballot, although JiHun Lee would not have received enough votes to qualify and so his eligibility would not have been an issue. The top sixteen would have included Bob Eggleton instead of Donato Giancola.
- NB that Donato Giancola was in the top sixteen under EPH, but would not have made it under either the old system or EPH+.

4.12) Best Semiprozine

EPH

Ballots	Final points	Magazine
434	222.02	Uncanny Magazine
336	155.27	Strange Horizons
259	109.45	Beneath Ceaseless Skies
80	79.50	Cirsova
153	65.40	Lightspeed Magazine
116	49.22	The Book Smugglers
82	26.15	GigaNotoSaurus
51	43.20	Tähtivaeltaja
77	35.55	Interzone
76	32.50	Mothership Zeta
71	27.90	Fireside Fiction
58	24.10	Escape Pod
53	16.08	Shimmer
45	18.95	Clarkesworld
46	14.00	PodCastle
41	14.52	Daily Science Fiction

Old system

Ballots	Magazine
434	Uncanny Magazine
336	Strange Horizons
259	Beneath Ceaseless Skies
153	Lightspeed Magazine
116	The Book Smugglers
82	GigaNotoSaurus
80	Cirsova
77	Interzone
76	Mothership Zeta
71	Fireside Fiction
58	Escape Pod
53	Shimmer
51	Tähtivaeltaja
46	PodCastle
45	Clarkesworld
41	Daily Science Fiction

EPH+

Ballots	Final pts	Magazine
434	181.06	Uncanny Magazine
336	119.88	Strange Horizons
259	83.22	Beneath Ceaseless Skies
80	79.33	Cirsova
153	49.13	Lightspeed Magazine
116	36.33	The Book Smugglers
51	41.18	Tähtivaeltaja
82	16.03	GigaNotoSaurus
77	27.03	Interzone
58	25.92	Escape Pod
71	18.90	Fireside Fiction
76	17.41	Mothership Zeta
45	14.67	Clarkesworld
53	10.50	Shimmer
41	10.50	Daily Science Fiction
46	8.22	PodCastle

- EPH made no difference to either the final ballot or the top sixteen.
- Under EPH+, the final ballot would have included **Tähtivaeltaja** rather than **GigaNotoSaurus**. There would have been no change to the top sixteen.

3.13) Best Fanzine

EPH

Ballots	Final Points	Fanzine
159	103.83	Lady Business
116	89.08	File 770
85	84.00	Castalia House blog
82	54.00	Rocket Stack Rank
57	47.00	Journey Planet
77	38.58	nerds of a feather
53	27.50	SF Bluestocking
47	28.50	Galactic Journey
39	19.73	Black Gate
32	22.50	Banana Wings
35	16.27	Quick Sip Reviews
32	16.70	Young People Read Old SFF
34	13.42	Women Write About Comics
25	14.57	Ansible
21	14.42	Chunga
26	13.65	James Nicholl Reviews

Old system

Ballots	Fanzine
159	Lady Business
116	File 770
85	Castalia House blog
82	Rocket Stack Rank
77	nerds of a feather
57	Journey Planet
53	SF Bluestocking
47	Galactic Journey
39	Black Gate
35	Quick Sip Reviews
34	Women Write About Comics
32	Banana Wings
32	Young People Read Old SFF
26	James Nicholl Reviews
25	Ansible
22	The Rec Center

EPH+

Ballots	Final Pts	Fanzine
159	89.57	Lady Business
85	83.67	Castalia House blog
116	81.96	File 770
82	46.84	Rocket Stack Rank
57	43.93	Journey Planet
77	29.25	nerds of a feather
53	21.70	SF Bluestocking
47	23.72	Galactic Journey
39	15.98	Black Gate
32	19.89	Banana Wings
35	12.12	Quick Sip Reviews
32	12.86	Young People Read Old SFF
21	12.54	Chunga
25	12.44	Ansible
34	9.44	Women Write About Comics
26	11.16	James Nicholl Reviews

- Because of EPH, the top sixteen included **Chunga** instead of **The Rec Center**. There was no effect on the final ballot.
- EPH+ would have made no difference to either the final ballot or the top sixteen.

4.14) Best Fancast

EPH

Ballots	Final points	Fancast
76	76.00	The Rageaholic
109	62.62	Galactic Suburbia
87	59.37	Coode Street Podcast
88	58.33	Fangirl Happy Hour
76	57.28	Ditch Diggers
93	55.03	Tea and Jeopardy
81	53.37	Verity!
63	34.20	Skiffy and Fanty Show
61	33.50	Superversive SF
48	32.73	Sword and Laser
30	15.03	Down and Safe
27	18.58	Fansplaining
22	17.83	Storyological
28	16.28	StarShipSofa
30	12.12	Midnight in Karachi
23	13.37	Vaginal Fantasy

Old system

Ballots	Fancast
109	Galactic Suburbia
93	Tea and Jeopardy
88	Fangirl Happy Hour
87	Coode Street Podcast
81	Verity!
76	The Rageaholic
76	Ditch Diggers
63	Skiffy and Fanty Show
61	Superversive SF
48	Sword and Laser
30	Down and Safe
30	Midnight in Karachi
28	StarShipSofa
27	Fansplaining
23	Vaginal Fantasy
23	Jay & Miles X-Plain X-Men
23	Breaking the Glass Slipper

EPH+

Ballots	Final pts	Fancast
76	76.00	The Rageaholic
76	52.56	Ditch Diggers
87	52.45	Coode Street Podcast
109	51.23	Galactic Suburbia
88	51.01	Fangirl Happy Hour
93	45.96	Tea and Jeopardy
81	46.74	Verity!
63	27.88	Skiffy and Fanty Show
48	29.17	Sword and Laser
61	24.33	Superversive SF
30	11.99	Down and Safe
22	16.67	Storyological
27	16.41	Fansplaining
28	13.59	StarShipSofa
23	12.07	Vaginal Fantasy
30	7.92	Midnight in Karachi

- Because of EPH, the final ballot did not include **Verity!**; and the top sixteen included **Storyological** instead of **Jay & Miles X-Plain the X-Men** and **Breaking the Glass Slipper**.
- EPH+ would have made no difference to either the final ballot or the top sixteen.

4.15) Best Fan Writer

EPH

Ballots	Final Points	Writer
152	104.28	Abigail Nussbaum
122	91.37	Mike Glycer
80	80.00	Jeffro Johnson
122	65.03	Foz Meadows
90	61.50	Chuck Tingle
84	43.53	Natalie Luhrs
79	46.28	Mark Oshiro
81	45.33	Camestros Felapton
68	29.78	Alexandra Erin
59	35.47	Sarah Gailey
55	34.25	James Nicoll
46	29.08	Charles Payseur
50	25.00	Morgan
40	25.53	Crystal Huff
25	17.42	O. Westin
25	9.27	Cora Buhlert

Old system

Ballots	Writer
152	Abigail Nussbaum
122	Mike Glycer
122	Foz Meadows
90	Chuck Tingle
84	Natalie Luhrs
81	Camestros Felapton
80	Jeffro Johnson
79	Mark Oshiro
68	Alexandra Erin
59	Sarah Gailey
55	James Nicoll
50	Morgan
46	Charles Payseur
40	Crystal Huff
25	O. Westin
25	Cora Buhlert

EPH+

Ballots	Final Points	Writer
152	91.78	Abigail Nussbaum
122	82.88	Mike Glycer
80	80.00	Jeffro Johnson
90	54.19	Chuck Tingle
122	50.65	Foz Meadows
84	33.57	Natalie Luhrs
79	38.53	Mark Oshiro
81	36.54	Camestros Felapton
59	30.99	Sarah Gailey
55	30.60	James Nicoll
46	25.90	Charles Payseur
68	20.46	Alexandra Erin
40	22.10	Crystal Huff
50	16.67	Morgan
25	15.50	O. Westin
25	6.73	Cora Buhlert

- Because of EPH, the final ballot included Jeffro Johnson instead of Camestros Felapton. There was no change to the top sixteen.
- EPH+ would have made no difference to either the final ballot or the top sixteen.

3.16) Best Fan Artist

EPH

Ballots	Final Points	Artist
121	109.42	Likhain
70	53.92	Vesa Lehtimäki
69	41.00	Alex Garner
48	35.42	Ninni Aalto
58	30.00	Mansik Yang
39	28.25	Spring Schoenhuth
33	29.00	Steve Stiles
34	24.00	Elizabeth Leggett
33	24.75	Ariela Housman
33	20.17	Galen Dara
27	19.57	Richard Man
28	14.83	Kathryn M Weaver
25	16.00	Megan Lara
21	12.08	Liz Argall
21	11.00	Iguanamouth
19	10.25	Simon Stålenhag

Old system

Ballots	Artist
121	Likhain
70	Vesa Lehtimäki
69	Alex Garner
58	Mansik Yang
48	Ninni Aalto
39	Spring Schoenhuth
34	Elizabeth Leggett
33	Steve Stiles
33	Ariela Housman
33	Galen Dara
28	Kathryn M Weaver
27	Richard Man
25	Megan Lara
21	Liz Argall
21	Iguanamouth
19	Simon Stålenhag

EPH+

Ballots	Final Pts	Artist
121	106.73	Likhain (M. Sereno)
70	48.40	Vesa Lehtimäki
48	32.53	Ninni Aalto
69	31.67	Alex Garner
33	31.00	Steve Stiles
58	20.67	Mansik Yang
33	25.53	Ariela Housman
39	24.09	Spring Schoenhuth
34	18.80	Elizabeth Leggett
27	18.00	Richard Man
33	17.06	Galen Dara
28	11.07	Kathryn M Weaver
25	13.53	Megan Lara
21	9.90	Liz Argall
15	9.69	Brad Foster
21	8.75	Iguanamouth

- Because of EPH, the final ballot did not include Ariela Housman and Galen Dara. NB that Galen Dara also qualified for Best Professional Artist.
- Under EPH+, the final ballot would have included Ariela Housman instead of Elizabeth Leggett; and the top sixteen would have included Brad Foster instead of Simon Stålenhag.
- NB that Ariela Housman did not qualify for the final ballot under EPH, but would have done so under both the old system and EPH+.
- NB also that Elizabeth Leggett, who won the Hugo in this category, would not have qualified for the final ballot under EPH+

4.17) Best Series

EPH

Ballots	Final Points	Series
326	218.67	Vorkosigan Saga
257	187.17	The Expanse
168	112.33	Craft Sequence
167	97.83	Temeraire
130	82.50	Rivers of London
129	79.67	October Daye
104	65.83	Laundry Files
77	76.00	Arts Dark Light
94	61.92	Foreigner
91	62.20	Rem Earth's Past
86	46.20	Thessaly
82	49.92	Mistborn
85	46.48	Newsflesh
83	39.35	World Five Gods
68	36.53	Young Wizards
64	35.95	Fairyland

Old system

Ballots	Series
326	Vorkosigan Saga
257	The Expanse
168	Craft Sequence
167	Temeraire
130	Rivers of London
129	October Daye
104	Laundry Files
94	Foreigner
91	Rem Earth's Past
86	Thessaly
85	Newsflesh
83	World Five Gods
82	Mistborn
77	Arts Dark Light
68	Young Wizards
64	Fairyland

EPH+

Ballots	Final Pts	Series
326	197.56	Vorkosigan Saga
257	174.90	The Expanse
168	99.70	Craft Sequence
167	81.50	Temeraire
77	75.67	Arts Dark Light
130	74.76	Rivers of London
129	70.07	October Daye
104	55.94	The Laundry Files
91	57.22	Rem Earth's Past
94	50.63	Foreigner
86	36.37	Thessaly
84	43.07	Mistborn
85	37.51	Newsflesh
83	29.30	World Five Gods
55	31.03	Wild Cards
68	29.43	Young Wizards

- EPH made no difference to either the final ballot or the top sixteen.
- Under EPH+, the final ballot would have included the **Arts of Dark and Light** series by Vox Day instead of the **October Daye** books by Seanan McGuire; and the top sixteen would have included the **Wild Cards** series, edited by George R.R. Martin and others, instead of the **Fairyland** books by Catherynne Valente.

4.18) John W. Campbell Award for Best New Writer

EPH

Ballots	Final Points	Author
255	187.28	Ada Palmer
179	105.95	Malka Older
156	99.37	Kelly Robson
91	91.00	J. Mulrooney
101	66.70	Sarah Gailey
88	51.17	Laurie Penny
59	30.53	Cassandra Khaw
54	32.75	Sarah Kuhn
48	31.67	Sylvain Neuvel
46	24.52	K.B. Wagers
35	24.92	Sunil Patel
45	23.32	Natasha Pulley
45	22.18	Arkady Martine
43	19.57	Tade Thompson
40	21.35	Scott Hawkins
39	19.73	Charlotte Ashley

Old system

Ballots	Author
255	Ada Palmer
179	Malka Older
156	Kelly Robson
101	Sarah Gailey
91	J. Mulrooney
88	Laurie Penny
59	Cassandra Khaw
54	Sarah Kuhn
48	Sylvain Neuvel
46	K.B. Wagers
45	Natasha Pulley
45	Arkady Martine
43	Tade Thompson
41	Ilana C. Meyer
40	Scott Hawkins
39	Charlotte Ashley

EPH

Ballots	Final Pts	Author
255	169.50	Ada Palmer
91	91.00	J. Mulrooney
179	86.85	Malka Older
156	84.14	Kelly Robson
101	57.90	Sarah Gailey
88	41.85	Laurie Penny
59	23.48	Cassandra Khaw
48	28.04	Sylvain Neuvel
54	27.18	Sarah Kuhn
35	22.41	Sunil Patel
46	19.87	K.B. Wagers
45	18.71	Natasha Pulley
40	18.02	Scott Hawkins
45	16.98	Arkady Martine
43	14.23	Tade Thompson
39	15.68	Charlotte Ashley

- Because of EPH, the top sixteen included Sunil Patel instead of Ilana C. Meyer. There was no effect on the final ballot.
- EPH+ would have made no difference to either the final ballot or the top sixteen.

5) The effect of “5 and 6”

The following would **not** have qualified for the final ballot, under each system, if it had consisted of only five rather than six finalists. The ranking of nominees which **were** on the 2017 final ballot is given in each case.

Names in red and blue did not qualify for the final ballot under EPH, but would have qualified under the old system and EPH+ respectively.

Category	Real ballot (EPH)	Old system	EPH+
Novel	(5) <i>Death’s End</i>	(5) <i>Death’s End</i>	(5) <i>Death’s End</i>
Novella	(3) <i>Penric and the Shaman</i>	(3) <i>Penric and the Shaman</i>	(5) <i>A Taste of Honey</i>
Novelette	(3) <i>Touring with the Alien</i>	(3) <i>Touring with the Alien</i>	(3) <i>Touring with the Alien</i>
Short Story	(3) <i>That Game We Played During the War</i>	None (tie for fifth place)	(3) <i>That Game We Played During the War</i>
Related Work	(5) <i>The Women of Harry Potter</i>	(5) <i>The Women of Harry Potter</i>	(5) <i>The Women of Harry Potter</i>
Graphic Story	(6) <i>The Vision v 1</i>	(6) <i>The Vision v 1</i>	<i>Stand Still. Stay Silent</i>
DP LF	(4) <i>Stranger Things s 1</i>	(4) <i>Stranger Things s 1</i>	(4) <i>Stranger Things s 1</i>
DP SF	(6) <i>Splendor & Misery</i> and (3) <i>The Door</i> <i>The Winds of Winter</i> would have qualified – no trigger for nominee diversity.	(6) <i>Splendor & Misery</i>	(6) <i>Splendor & Misery</i>
Editor Short	(6) <i>Sheila Williams</i>	(6) <i>Sheila Williams</i>	<i>P. Alexander</i>
Editor Long	(4) <i>Miriam Weinberg</i>	<i>Patrick Nielsen Hayden</i>	(4) <i>Miriam Weinberg</i>
Pro Artist	(6) <i>John Picacio</i>	<i>Tommy Arnold</i>	(6) <i>John Picacio</i> (and <i>JiHun Lee</i> , ineligible)
Semiprozine	(5) <i>GigaNotoSaurus</i>	(7) <i>Cirsova</i>	<i>Tähtivaeltaja</i>
Fanzine	(4) <i>SF Bluestocking</i>	(4) <i>SF Bluestocking</i>	(4) <i>SF Bluestocking</i>
Fancast	(5) <i>Ditch Diggers</i>	(5) <i>Ditch Diggers</i> and (7) <i>The Rageaholic</i> (tie for sixth place)	(5) <i>Ditch Diggers</i>
Fan Writer	(5) <i>Natalie Luhrs</i>	<i>Camestros Felapton</i>	(5) <i>Natalie Luhrs</i>
Fan Artist	(1) <i>Elizabeth Leggett</i>	(6) <i>Steve Stiles</i> , <i>Ariela Housman</i> and <i>Galen Dara</i> (tie for sixth place)	(5) <i>Spring Schoenhuth</i>
Series	(6) <i>October Daye</i>	(6) <i>October Daye</i>	<i>Arts of Dark and Light</i>
Campbell	(4) <i>Laurie Penny</i>	(4) <i>Laurie Penny</i>	(4) <i>Laurie Penny</i>

Under EPH, **nominee diversity** would not affect **Best Dramatic Presentation, Short Form**; only two episodes of **Game of Thrones** would have qualified.

Under EPH+, **JiHun Lee** would not have had enough points for his eligibility to be an issue for **Best Professional Artist**.

6) Conclusion

EPH provides a very specific response to a very specific problem: in 2015 and 2016, hundreds of co-ordinated voters swamped several ballot categories, with the consequence that no award was made in five categories in 2015 and in two categories in 2016. It can be easily shown from the statistics above that if there had been a similar campaign in 2017 to the two previous years, with four or five slate candidates in numerous categories, EPH would have opened up one or two places in each slated category (and EPH+ would have opened up two or three) that would otherwise have been taken by slate candidates. The slates would still have been over-represented, but not by as much.

However, this problem did not recur in 2017. It is clear from the nominating statistics that there were fewer than a hundred slate voters this year, as compared to several hundred in 2015 and 2016, and that there were at most two slated candidates in any one category. This is not surprising: the co-ordinators of the 2015 and 2016 campaigns had stated in advance that they did not intend to pursue the same tactics this year. Most of the slated finalists in 2017 were voted below No Award by Hugo voters (as in previous years).

It is also clear that EPH made it relatively easier in 2017 for a nominee with a large number of “bullet” votes, ie whose supporters did not support any other nominees, to get on the ballot. Most notably, in one category a nominee who would have been in eighth place under the old system, and therefore not a finalist, ended in third place under EPH, edging out another nominee who had 42% more nominating votes. EPH+ would have made this easier still - another two such “bullet vote” candidates would have made it onto the final ballot.

It is for the WSFS Business Meeting to decide how to respond to the current situation. Arguably, the adoption of EPH may have already worked in that it changed the behaviour of those who had co-ordinated slates in previous years, and this may be sufficient to prevent a repeat of the 2015/2016 crisis.

It was not trivial to develop a software solution to calculate the EPH results, and we are grateful to the Worldcon 75 DevOps Division for their work. However, that work has now been done, and the open source software is available to future Worldcons if the WSFS Business Meeting decides to retain EPH. It can also easily be adapted to implement EPH+.

We have released details of the last ten counts in each category at nomination stage. It is for the WSFS Business Meeting to decide if this is sufficiently transparent. (NB that the Constitution requires only that these figures, along with the detailed voting and nomination counts, be published “within 90 days after the Worldcon”.) We are considering a more detailed release of the voting data, suitably anonymised, in due course.

We do not recommend that future administrators provide (or be asked to provide) the detailed comparison in this Report. The WSFS Business Meeting should decide which system to use in future, with due regard to the cost of any further changes.

Nicholas Whyte and Kathryn Duval, 2017 Hugo Administrators