Background

The data team at OP Labs has been working on tracking OP distributions across governance grants, partner funding, and other sources.

We first shared early insights in Oct 2022. Takeaways then:

- Projects were deploying OP too slowly (34% of approved OP was deployed).
- Proposals approved via governance were less effective than other programs.

This doc serves to update data and case studies, and begin open-sourcing the data so others can analyze & contribute.

A snapshot of program data was taken on Mar 13, 2023

Current Deployment Status - Growth Experiments

- We project that 56% of allocated OP (30.7M) has been deployed (not in projects' wallets)
- We've observed 38 growth experiment proposals launch or complete, with 32 to be launched.
- Live & Completed programs represent 80% (43.7M) of Allocated OP (i.e. 24% of allocated OP is "live" and to-be-deployed).

Programs

OP Allocated (M)

% OP Allocated

Live

Subtotal

33

41.1M

75%

Governance - Season 3

-

-

Governance - Season 2

10

7.1M

Governance - Season 1

9

4.5M

Governance - Phase 0

14

29.5M

Coming soon

Subtotal

32

10.9M

20%

Governance - Season 3

12

2.1M

Governance - Season 2

13

5.2M

Governance - Season 1

4

1.3M

Governance - Phase 0

3

2.2M

Completed

Subtotal

5

2.6M

5%

Governance - Season 3

-

-

Governance - Season 2

1

240.0K

Governance - Season 1

-

-

Governance - Phase 0

4

2.4M

Grand Total

70

54.6M

- We’ve observed 38 growth experiment proposals launch or complete, with 32 to be launched.
- Live & Completed programs represent 80% (43.7M) of Allocated OP (i.e. 24% of allocated OP is “live” and to-be-deployed).

Source: OP Summer Programs

Stats by Season

- Aggregate by Gov Fund Season

Stats were measured at the Latest Date (Note: Many programs still ongoing)

Source

OP Allocated

Net OP Deployed

Net $ Inflow

Net $ Inflow / OP

Incremental # Txs

Annualized # Txs / OP

Incremental Gas Fee ($)

Annualized Gas Fee / OP

Governance - Phase 0

31.0M

16.8M

128.1M

$7.61

16,775

0.36

123,940

2.6872

Governance - Season 1

4.5M

2.0M

111.6M

$54.46

3,378

0.60

16,887

3.0086

Governance - Season 2

2.5M

978.0K

16.9M

$17.23

1,214

0.45

5,154

1.9234

Multiple

8.9M

6.9M

227.0M

$32.69

10,701

0.56

33,508

1.7607

Revisited Case Studies & Early Theories

Note: We are mentioning specific programs. Some were more successful than others, but the intent is to learn from their examples, not to accuse or blame.

1. Retention Problem: Separate “Usage Acquisition” vs “Longer-Term Impact”

Theory: Incentives are great at “usage acquisition” (transaction volume, liquidity, etc), but this is not a good predictor of longer-term impact.

DEXs: Uniswap Phases 1 + 2 (selected managers), Revert Finance, Rainbow

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Lending & Borrowing: Aave & WePiggy

TVL measured as “available liquidity” (deposits - borrows)

- Aave had 18% retention from the local max before incentives turned off (+$431M) to 30 days post-incentives (+$78.5M)
- WePiggy had 6% TVL retention by the same methodology (+$2.8M to $165k).

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1. Value Extractive-Resistant Design: Can someone create fabricated activity to maximize rewards?

Theory: When Rewards > Costs, value-maximizing actors will spend to eat up the rewards. Anything that can be gamed, will be gamed.

Aave - Oversized Emissions Led to Recursive Borrowing

- Aave ‘Deposit APY’ + Rewards > Aave ‘Borrow APY’, so actors borrowed and re-deposited the same asset over and over to maximize rewards
- Learning:

Unless ****we can design a system where Rewards < ‘Borrow APY’ - ‘Deposit APY’, lending rewards may always be gamed.

Snapshot ~1 day in to the Aave Liquidity Program

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Rainbow Wallet - Swap Volume Leaderboard Led to Inorganic Volume

- Rainbow Wallet incentivized bridging to and swapping on Optimism. Base rewards were partial gas rebates, but there was an additional 52K OP bonus to the top 100 addresses by trade volume (as of Mar 5).
- On the last day, trade volume spiked to $12M, likely by addresses trying to get in the top 100.
- Trade volume fell to $25k Trade Volume / Day post-program (vs ~$4k prior), showing that the increased volume did not sustain.

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This was similar to Slingshot's Flash Programs we observed last time: Rewards were offered either per trade or per $ of volume until they ran out. Transactions spiked up following program announcements and then return to normal levels afterward.

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Elsewhere: Demand-Side Incentives Have Led to NFT Wash Trading

Wash Trading: People trading NFTs back and forth with themselves to create fabricated volume.

- With LooksRare and X2Y2 introducing tokens rewards for trading, we've seen a significant increase in NFT wash trade volumes (58% of the NFT secondary volume was wash trading in 2022).
- Wash trade volume may disappear once the incentives become less attractive or profitable for traders (starting Sep 2022).

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Source: NFT Wash Trading Dashboard (hildobby)

1. What drives long-term impact? (The real unanswered question)

Theory: We can bootstrap a network with supply incentives, but demand needs to follow, and that comes from natural product usage (need to be careful to not create fabricated demand)

Aave - Non-Recursive Borrowing had ~60% Retention

- While only 18% of Aave TVL retained, 58% of "non-recursive" borrow volume retained 30-days later (+$30.6M vs pre-incentives).
- Hypothesis: The "Non-Recursive Borrow" demand comes from other use cases on/offchain

- While only 18% of Aave TVL retained, 58% of "non-recursive" borrow volume retained 30-days later (+$30.6M vs pre-incentives).
- Hypothesis: The "Non-Recursive Borrow" demand comes from other use cases on/offchain

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Aave User Journey Mapping

OP Quests - ~8% of transactions come from addresses new to Optimism via Quests

- While Quests appeared to have driven a high-volume of fabricated activity, total Optimism daily transactions increased ~50% Post-Quests, and 15/18 apps saw increased transactions
- 8% of Transactions (Last 30 Days) came from addresses new to Optimism via Quests (18% of transacting addresses)
- Quests on Coinbase Wallet launched Mar 9 (requires Coinbase authentication per wallet)

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[Optimism Quests - App Growth on Optimism After Quests

](https://dune.com/oplabspbc/optimism-quests-project-usage-growth)

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[Optimism Quests - App Growth on Optimism After Quests

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Breakdown by Program - Liquidity

Top Inflows - Acquisition Period

For Liquidity Inflows, we can segment programs by where the incentives were deployed (i.e. to the native app, to an external DEX pool).

Inflows Cutoff at Program End Date (Latest Date if still Live)

App

Product Incentivized

Net TVL Inflows

Projected OP Deployed

Net Inflows per OP

Aave

App

$342.0M

5.0M

$68

Velodrome

App

$241.9M

5.1M

$47

Synthetix

DEX Pools

$120.6M

2.4M

$50

Rocket Pool

DEX Pools

$79.4M

222.0k

$357

Pooltogether

App

$56.4M

842.5k

$67

Beefy Finance

App

$32.2M

172.1k

$187

Stargate Finance

App

$27.0M

469.7k

$57

Beethoven X

App

$26.3M

209.5k

$125

Pika Protocol

App

$11.0M

672.6k

$16

Rubicon

App

$9.1M

791.1k

$11

Top Inflows - Post-Incentives Period

Only Showing Programs which Have Ended

App

Product Incentivized

Net TVL Inflows (End Date + 30)

Projected OP Deployed

Net Inflows per OP (End Date + 30)

Aave

App

$77.3M

5.0M

$15

Defiedge

Uniswap - Phase 2

$2.1M

25.0k

$85

Revert Finance

App

$1.6M

240.8k

$7

Xtoken

Uniswap - Phase 1 + 2

$1.2M

41.7k

$28

Gamma

Uniswap - Phase 1 + 2

$372.0k

41.7k

$9

Layer2Dao

DEX Pool

$235.0k

20.8k

$11

Wepiggy

App

$166.8k

300.0k

$1

Breakdown by Program - App Usage

Top Usage - Acquisition Period

For usage, we aggregate all incentive programs and observe the activity on each apps' contracts. For a broader view, see the Project Usage Trends dashboard and project <> contract mappings.

Cutoff at Program End Date (Latest Date if still Live)

App

OP Allocated

OP Deployed (All Programs)

Incremental # Txs

Annualized # Txs / OP

Incremental # Txs After

Annualized # Txs / OP After

Velodrome

7.0M

5.1M

8,045

0.58

-

-

Uniswap

1.0M

150.0K

5,666

13.79

-

-

Pika Protocol

900.0K

672.6K

4,782

2.59

-

-

Rubicon

900.0K

791.1K

4,110

1.9

1,584

0.73

Synthetix

9.0M

4.9M

4,092

0.3

-

-

Aave

5.0M

4.8M

3,123

0.24

4,744

0.36

Hop Protocol

1.0M

152.6K

3,003

7.18

-

-

Beethoven X

500.0K

164.7K

2,297

3.96

-

-

1inch

300.0K

300.0K

2,101

2.56

390

0.47

PoolTogether

1.0M

842.5K

1,910

0.83

-

-

Top Usage - Post-Incentives Period

Cutoff at Program End Date + 30 days (Latest Date if not yet reached 30 days)

App

OP Allocated

OP Deployed

Incremental # Txs

Annualized # Txs / OP

Incremental # Txs After

Annualized # Txs / OP After

Rubicon

900.0K

791.1K

4,110

1.9

1,584

0.73

1inch

300.0K

300.0K

2,101

2.56

390

0.47

Revert Finance

240.0K

240.8K

218

0.33

247

0.37

Aave

5.0M

4.8M

3,123

0.24

4,744

0.36

WePiggy

300.0K

300.0K

39

0.05

12

0.01

Aelin

900.0K

900.0K

8

0

-5

0

Top Gas Spend - Acquisition Period

Cutoff at Program End Date (Latest Date if still Live)

App

OP Allocated

OP Deployed

Incremental Gas Fee ($)

Annualized Gas Fee / OP

Incremental Gas Fee ($) After

Annualized Gas Fee / OP After

Synthetix

9.0M

4.9M

91,133

6.76

-

-

Velodrome

7.0M

5.1M

32,018

2.31

-

-

Hop Protocol

1.0M

152.6K

17,055

40.79

-

-

Uniswap

1.0M

150.0K

9,268

22.55

-

-

Beethoven X

500.0K

164.7K

7,638

16.93

-

-

Aave

5.0M

4.8M

6,832

0.52

12,297

0.93

Rubicon

900.0K

791.1K

6,519

3.01

8,511

3.93

QiDao

750.0K

342.9K

5,729

6.10

-

-

Stargate Finance

1.0M

469.7K

4,774

3.71

-

-

1inch

300.0K

300.0K

4,511

5.49

-49

-0.06

Top Usage - Post-Incentives Period

Cutoff at Program End Date + 30 days (Latest Date if not yet reached 30 days)

App

OP Allocated

OP Deployed

Incremental Gas Fee ($)

Annualized Gas Fee / OP

Incremental Gas Fee ($) After

Annualized Gas Fee / OP After

Rubicon

900.0K

791.1K

6,519

3.01

8,511

3.93

Aave

5.0M

4.8M

6,832

0.52

12,297

0.93

Revert Finance

240.0K

240.8K

99

0.15

263

0.40

WePiggy

300.0K

300.0K

132

0.16

132

0.16

1inch

300.0K

300.0K

4,511

5.49

-49

-0.06

Aelin

900.0K

900.0K

49

0.02

-66

-0.03

Key Takeaways

- Usage Acquisition Efficiency has improved Post-Phase 0
- Incentives have been effective at attracting usage, but not retaining it (yet).
- Game-able program designs will be gamed - how can we mitigate this?
- Open design space with how to drive longer-term impact post-incentives.

Analytics Resources

Things are still super messy, but a lot of the code and scripts powering our analysis are listed below! [Readmes & how-to-contribute writeups coming soon]

TVL Flows by Program

Flows are shown by token at the latest price (unless otherwise indicated) | Sources: Defillama & TheGraph APIs

- Time-Series Chart of TVL Flows by Program from Start to End + 30 Days
- Folder of charts specific to each program

Onchain Usage by Program

- Incentive Program Usage Summary from Start to End + 30 Days

Other Metrics & Resources

Dashboards that publicly sharable

- Optimism Popular Apps and Project Usage Trends - Dashboard
- NFT Marketplace Volume on Optimism - Dashboard
- DEX Volume on Optimism - Dashboard
- Overall Optimism Protocol Metrics - Dashboard
- OP Analytics GitHub - See Readme for more

Google Sheet Summary of Results

- Gov Fund Incentive Program Performance Sheet

Token Distribution Transfer Mappings [WIP]

We can map token transfers involving known (or suspected) project addresses to determine when tokens are deployed (and to where).

- Intermediate Addresses <> Program Mapping (can help here!) | Mapping Scripts

Closing Notes

- Tracking this stuff is super difficult to do as a small group. Please help

There are also infinite more rabbit holes we could go down

- We're thinking about better metrics than raw transactions, volume, and TVL (i.e. app fees, transfer volume, incentivized vs native yield) and deeper-dive methods (i.e. segment by behavior type). Open to ideas!
- Splitting by grants and by season may get increasingly difficult over time, since protocols are re-applying for grants and using the same addresses.
- In a perfect world, every proposal uses completely distinct addresses, but may be infeasible.
- In a perfect world, every proposal uses completely distinct addresses, but may be infeasible.
- For simplicity: Thales and Overtime Markets were combined since they each used the same proposal address (we can't easily tell the grants apart)

This post is coauthored with @MSilb7

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