

NISTIR 8280

**Ongoing Face Recognition
Vendor Test (FRVT)
Part 3: Demographic Effects**

Annex 10 : Cross age false match rates with visa photos

This document is an annex of NIST Interagency Report 8280:
<https://doi.org/10.6028/NIST.IR.8280>

2019/12/19

NIST
**National Institute of
Standards and Technology**
U.S. Department of Commerce

1 Overview

This annex includes figures that shows false match rates across different age groups. Each page contains one figure corresponding to one algorithm. Each figure shows two heatmaps, each showing a matrix of values. The value in column j is the FMR obtained when images of persons in age group j are compared with images of other subjects in age group i .

2 Data

The images are the compressed visa portraits described in Annex 3.

The total number of images is 243 023. The total number of persons is 223 052. The total number of comparisons is just over 4.4 billion (4 454 571 492) produced by cross-comparison of image-disjoint sets.

3 Fixed Threshold

A false match is declared if the comparison score is equal to, or exceeds, a threshold. This same value applies to all comparisons in all cells. The threshold value could be any value germane to that comparison algorithm. The threshold value was taken over all comparisons of these images as the lowest value for which $FMR \leq 0.0001$.

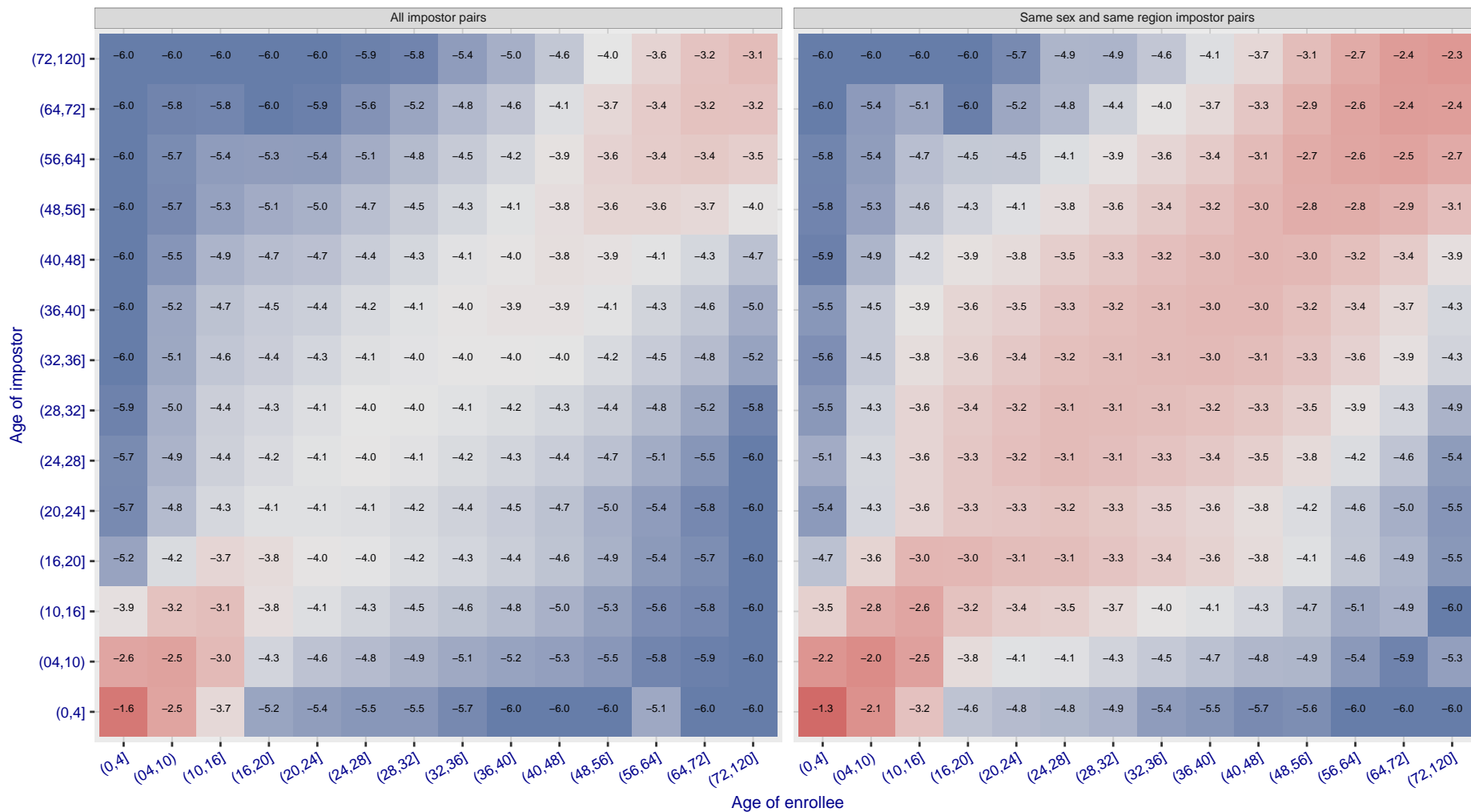
4 Plot

The plot shows cross-age false match rate as follows.

- ▷ 0 - The six columns shows for six countries selected to span global regions and because the dataset contains many images from those countries.
- ▷ 1 - In the top row, the various heatmaps correspond to comparison of women with women from the specific country.
- ▷ 2 - The bottom row likewise shows men with men false match rates.
- ▷ 3 - Any given cell restricts impostors to have the same sex and country of origin, and individuals from age group i and j drawn from the following list: (12 – 20], (20 – 35], (35 – 50], (50 – 65], and (65 – 99].
- ▷ 4 - The countries are sorted left-to-right in increasing order of maximum FMR measured in the two panels (male-male, and female-female).
- ▷ 5 - The name of the algorithm is included in the legend.
- ▷ 6 - The threshold value and the nominal FMR value that it corresponds to, are likewise, recorded in the legend. The FMR is nominal in the sense that it was computed over impostor comparisons made in a separate, domestic, dataset (Annex 1).

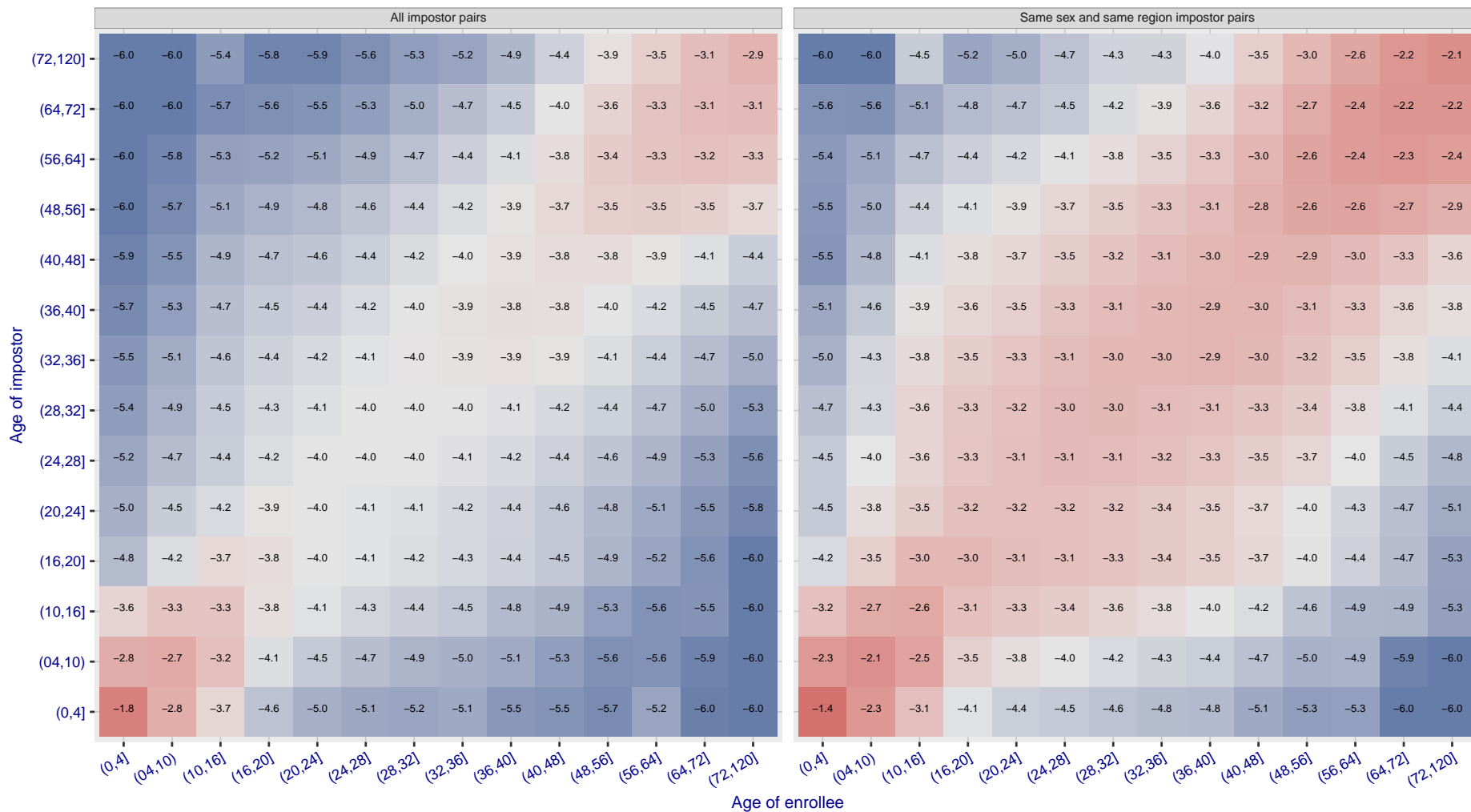
Cross age FMR at threshold $T = 2.740$ for algorithm 3divi_003, giving $FMR(T) = 0.0001$ globally.

log₁₀ FMR



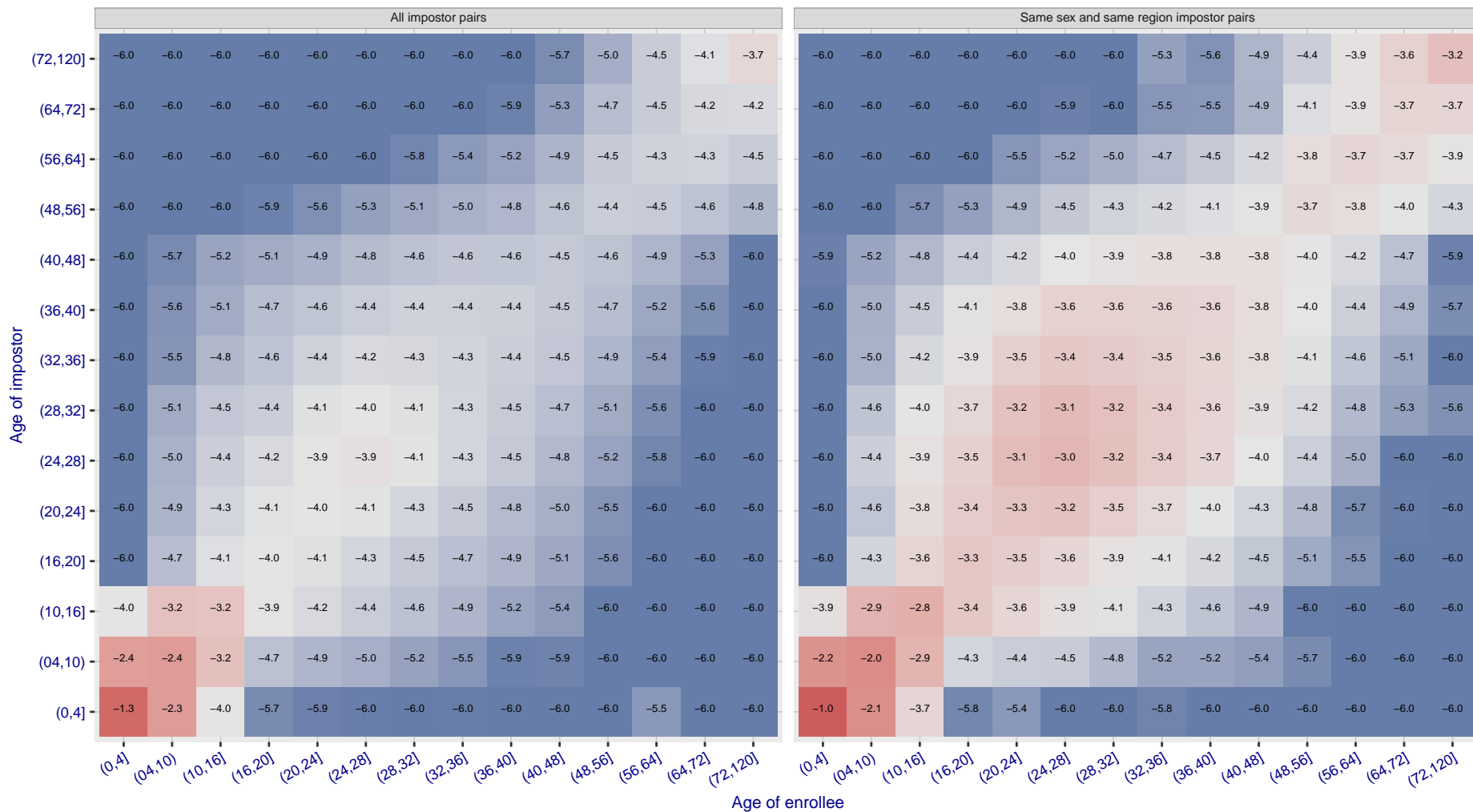
Cross age FMR at threshold $T = 2.857$ for algorithm 3divi_004, giving $FMR(T) = 0.0001$ globally.

log₁₀ FMR



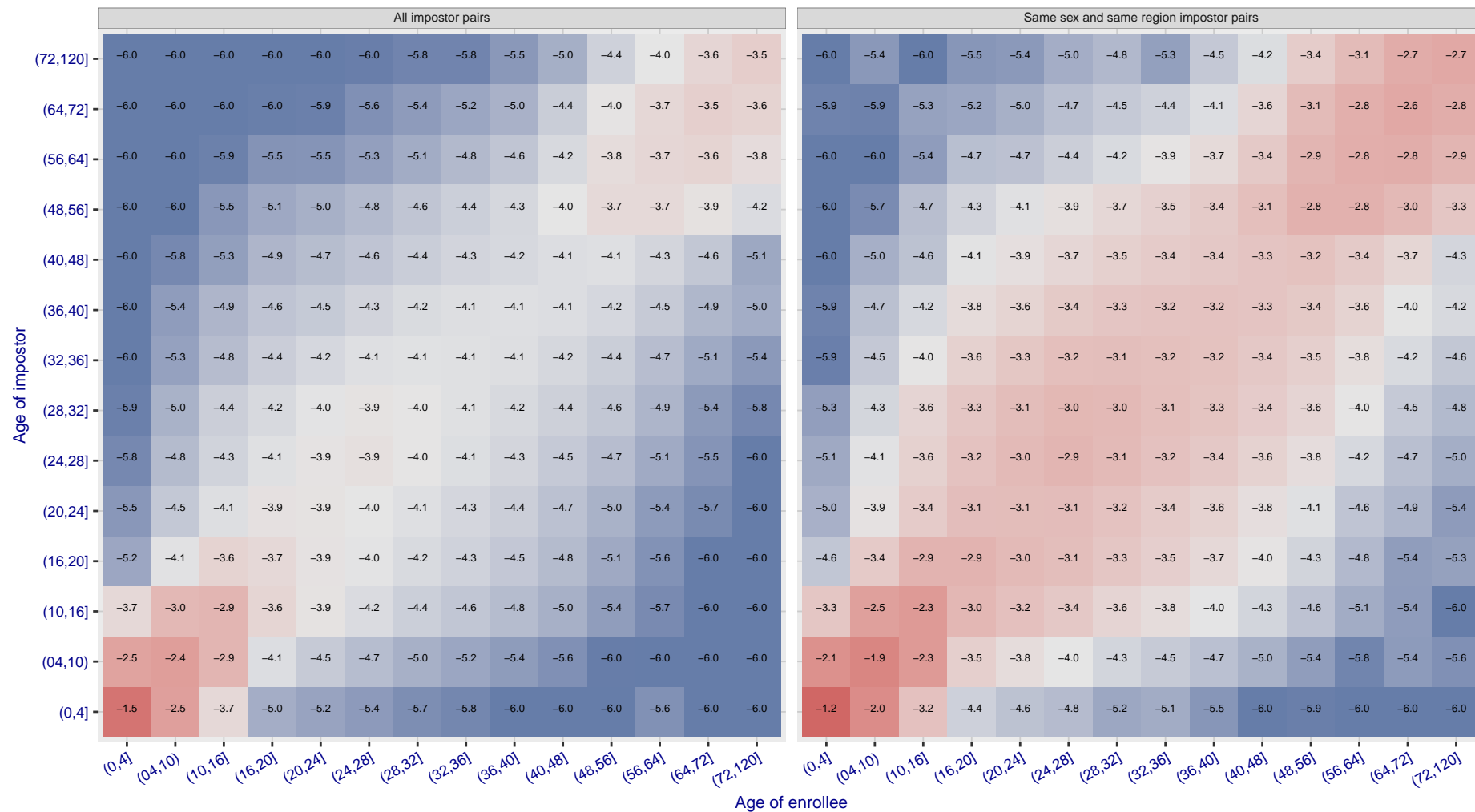
Cross age FMR at threshold $T = 0.713$ for algorithm `adera_001`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



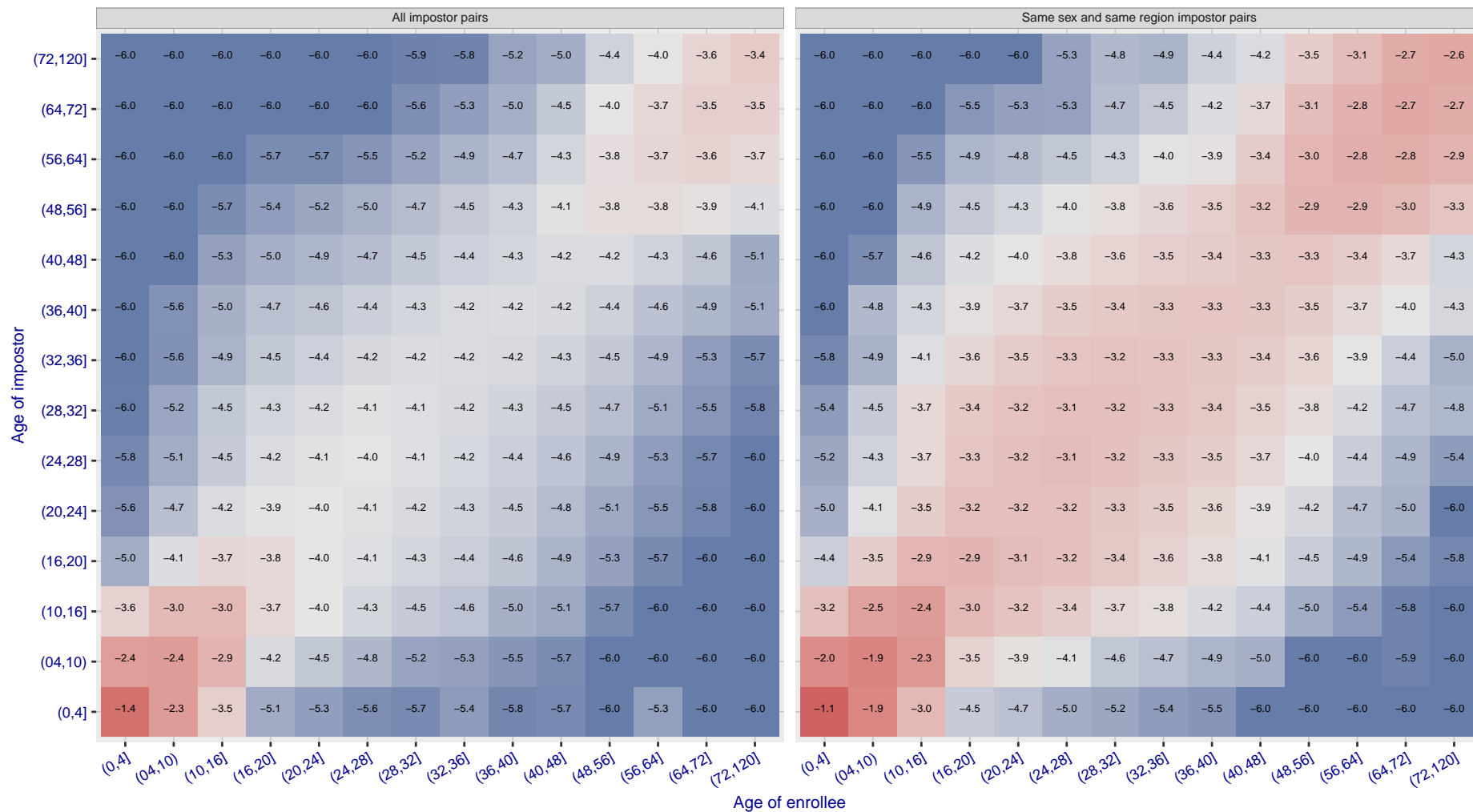
Cross age FMR at threshold $T = 0.702$ for algorithm `alchera_000`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

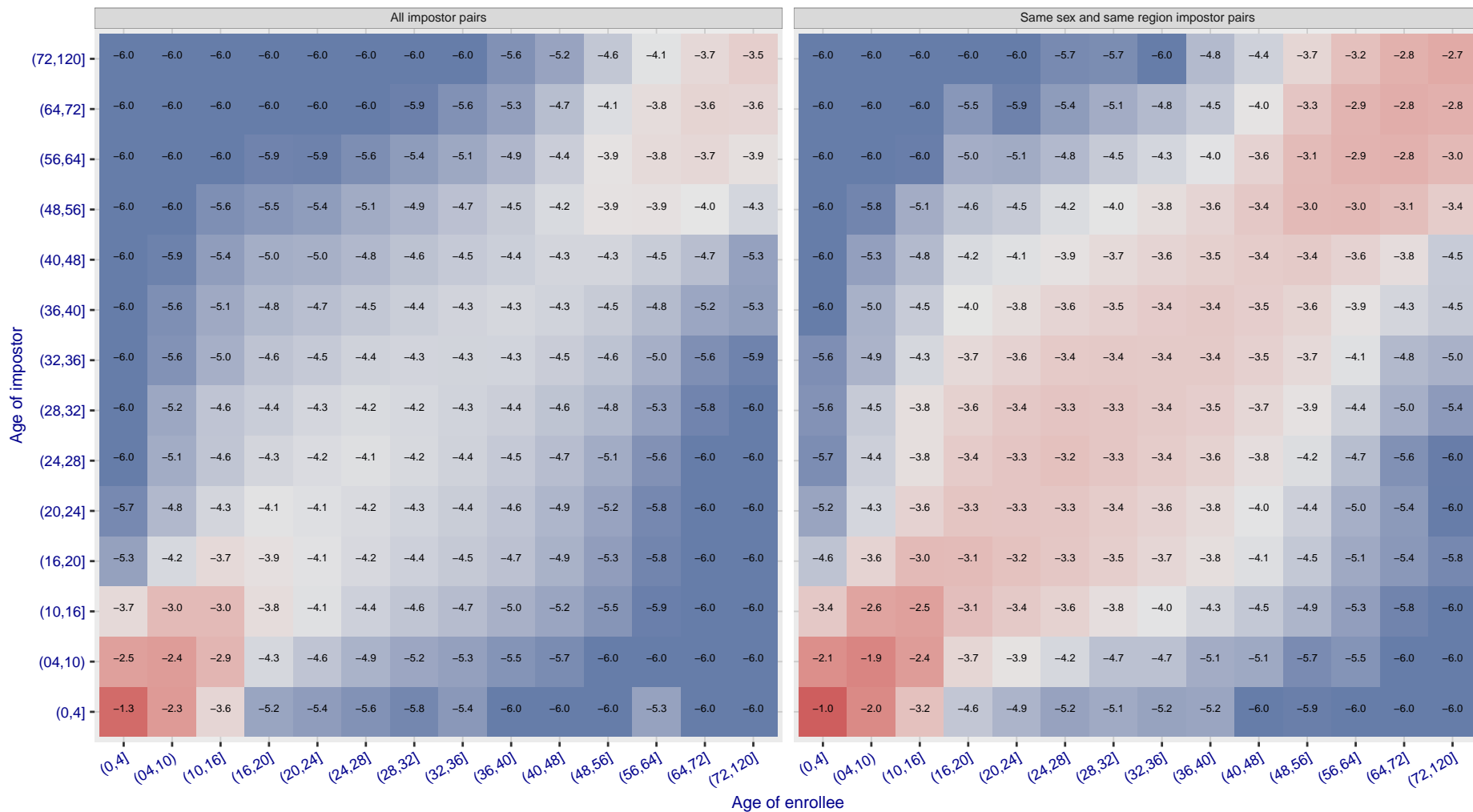


Cross age FMR at threshold $T = 0.713$ for algorithm `alchera_001`, giving $FMR(T) = 0.0001$ globally.

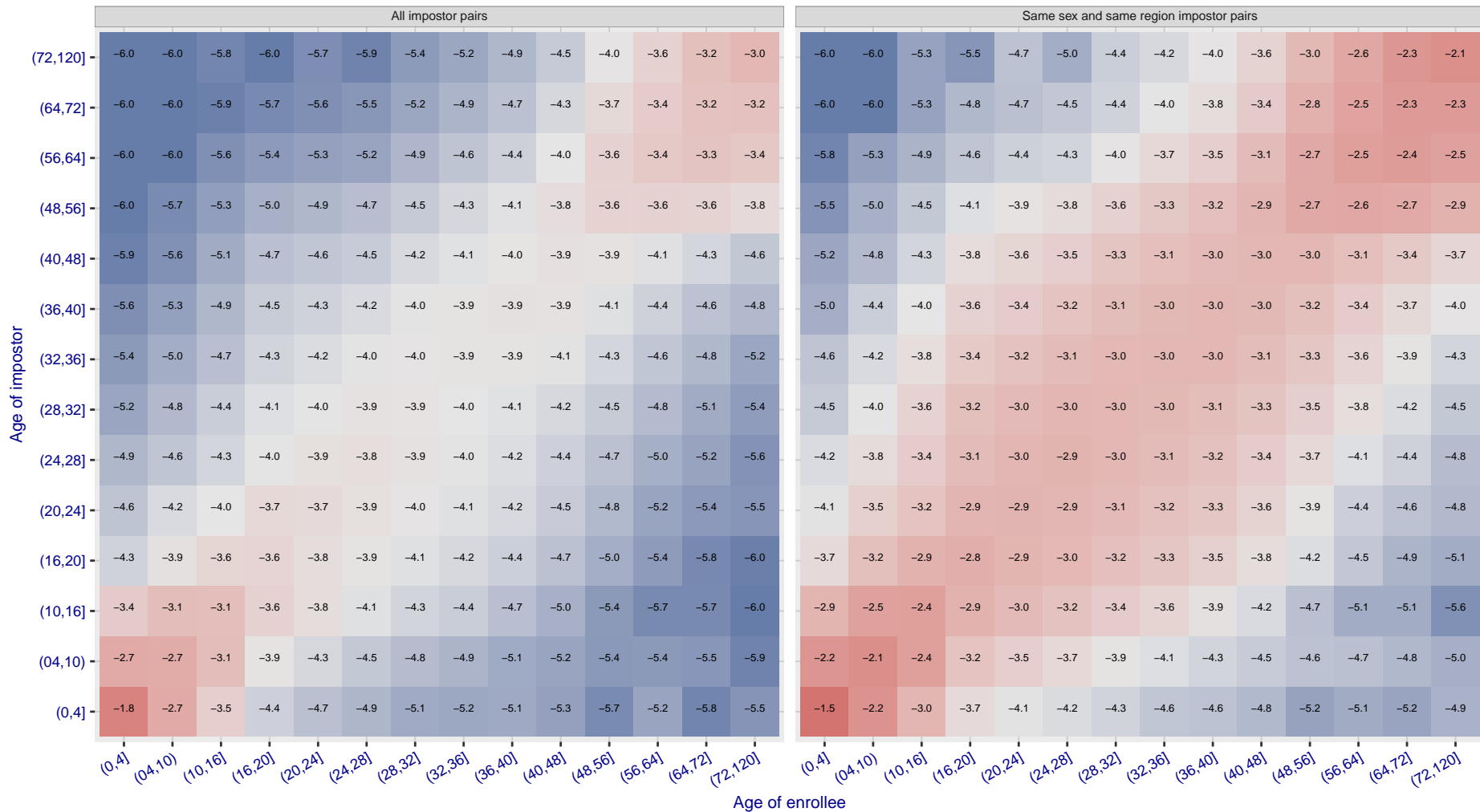
\log_{10} FMR



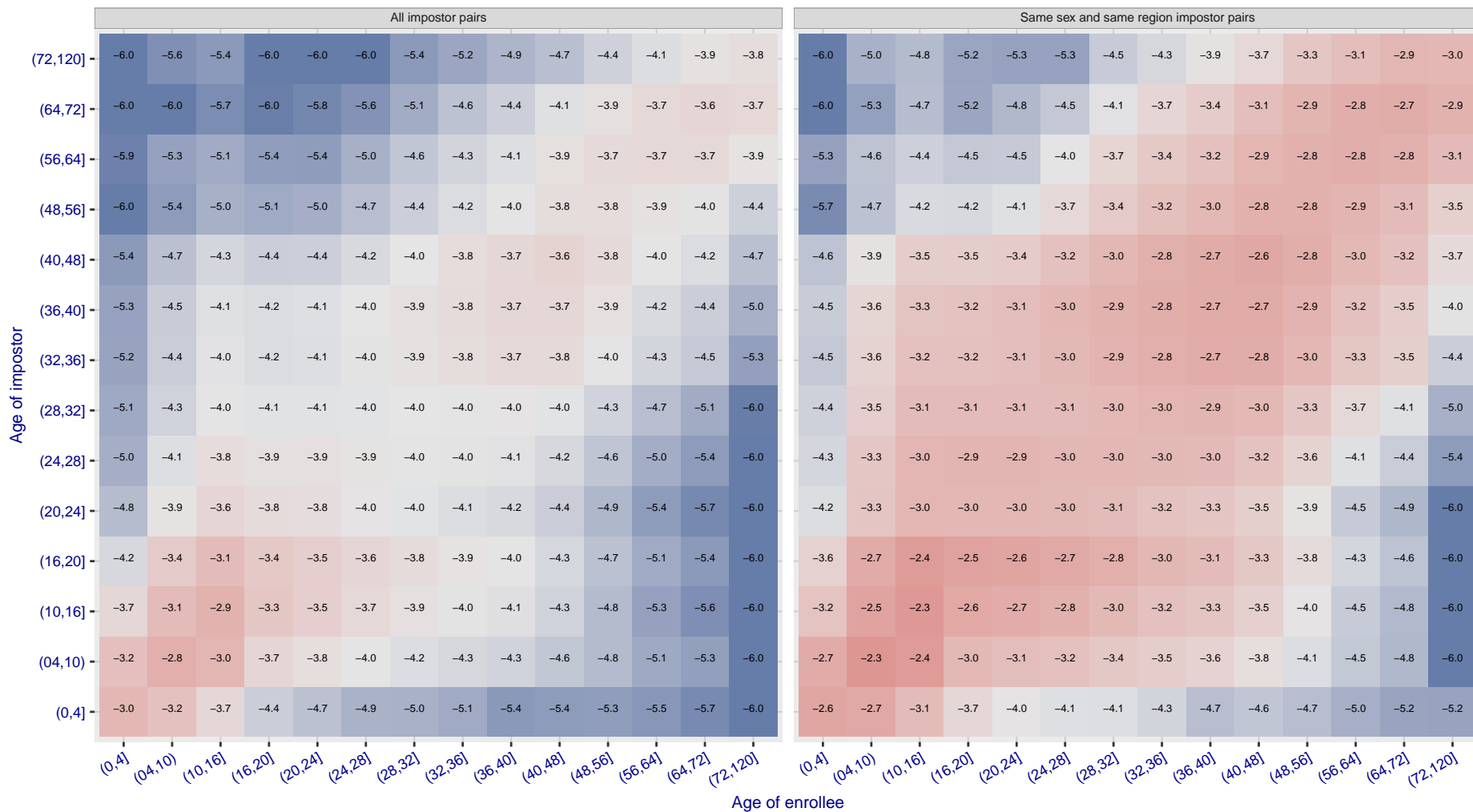
Cross age FMR at threshold $T = 0.433$ for algorithm allgvision_000, giving $FMR(T) = 0.0001$ globally.



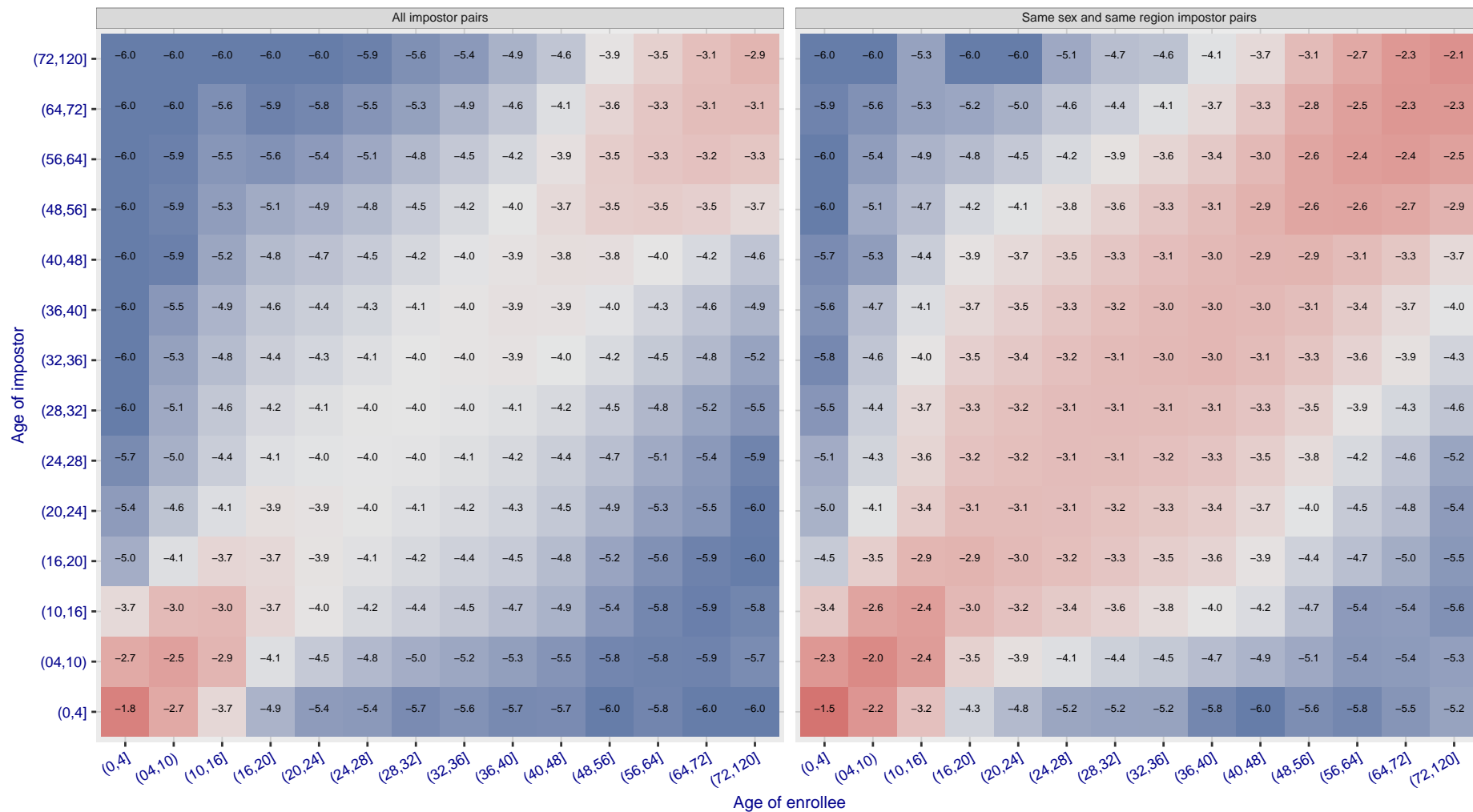
Cross age FMR at threshold $T = 0.396$ for algorithm `alphaface_001`, giving $FMR(T) = 0.0001$ globally.



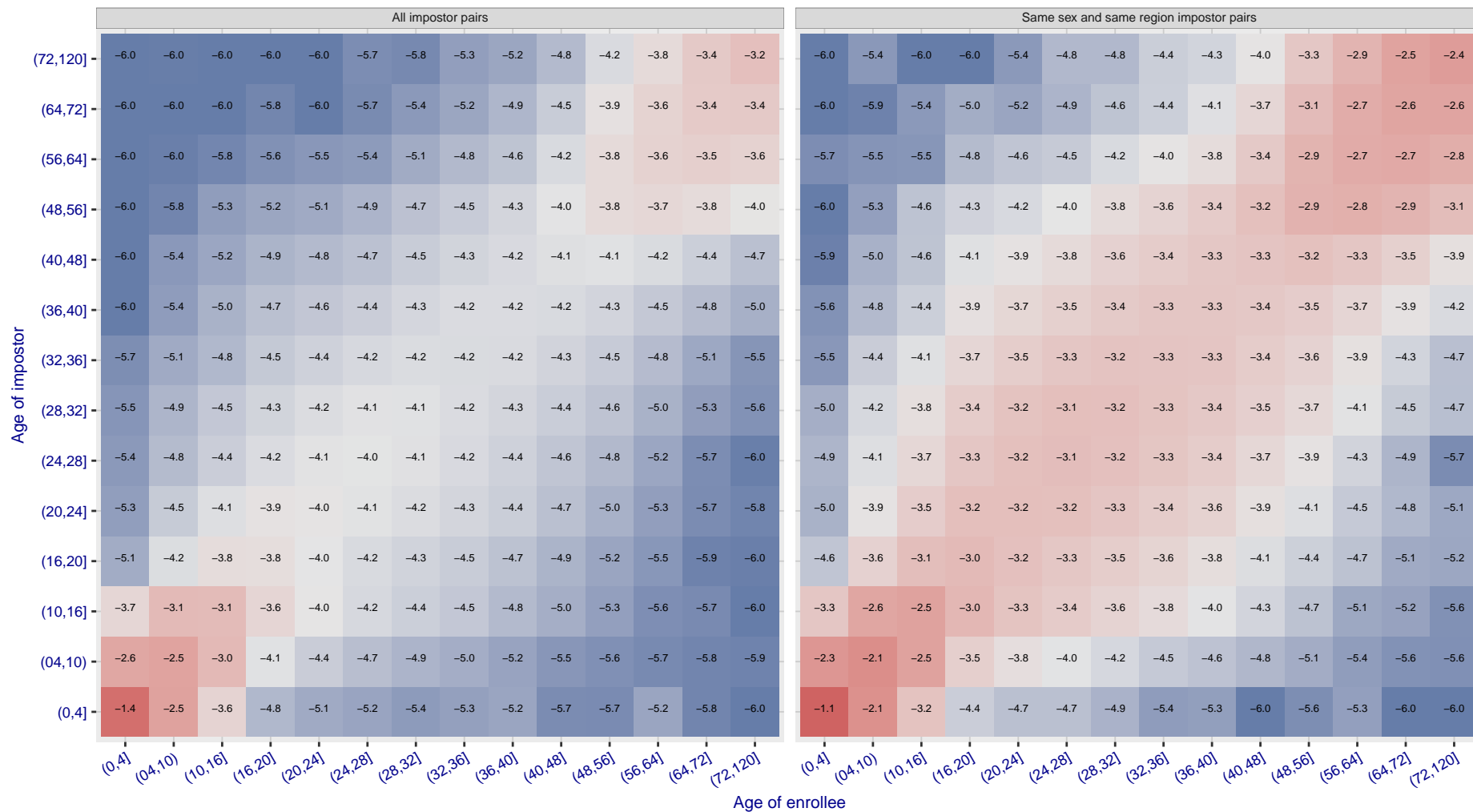
Cross age FMR at threshold $T = 3.640$ for algorithm amplifiedgroup_001, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



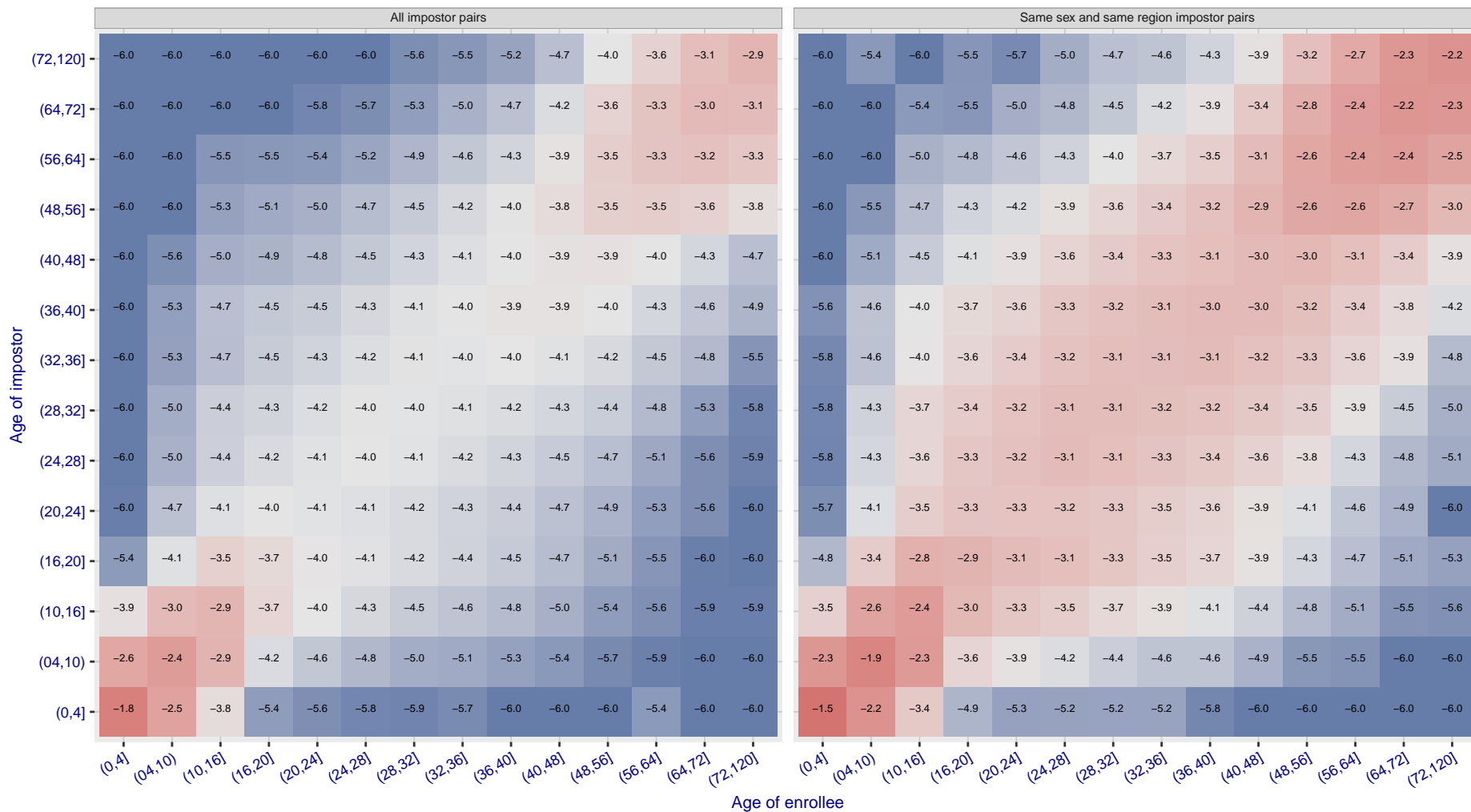
Cross age FMR at threshold $T = 0.397$ for algorithm anke_003, giving $FMR(T) = 0.0001$ globally.



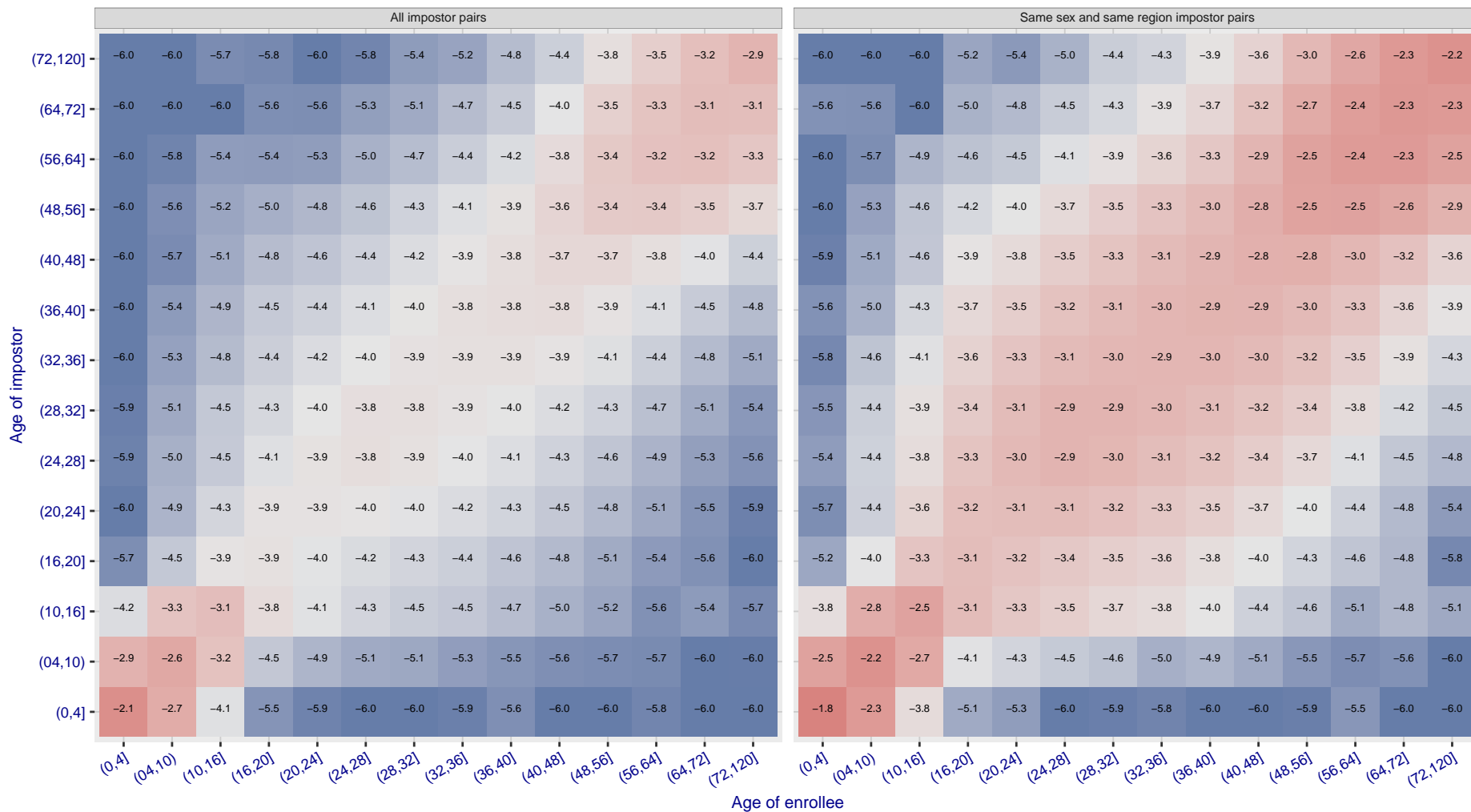
Cross age FMR at threshold $T = 0.397$ for algorithm anke_004, giving $FMR(T) = 0.0001$ globally.



Cross age FMR at threshold $T = 1.526$ for algorithm anyvision_002, giving $FMR(T) = 0.0001$ globally.

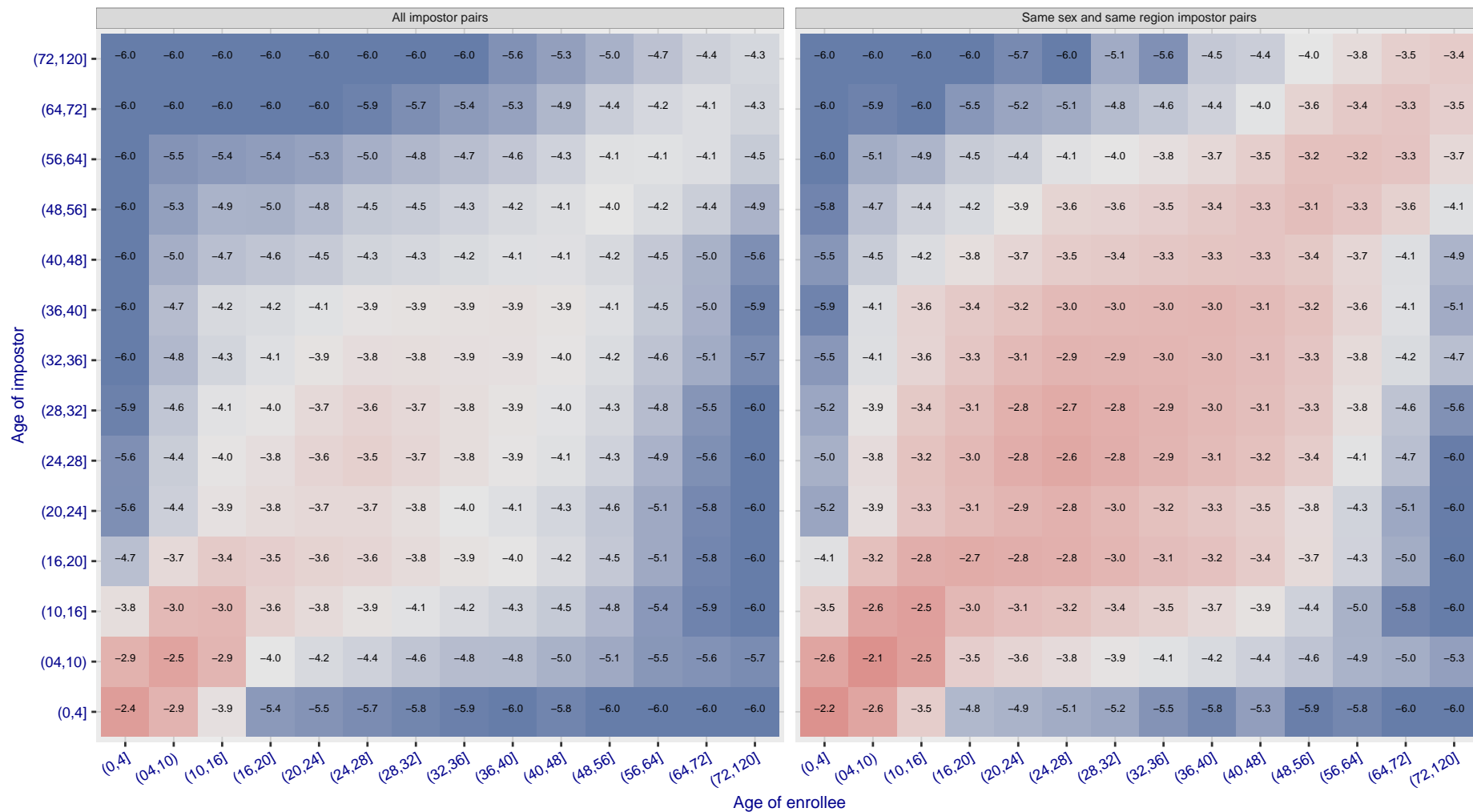


Cross age FMR at threshold $T = 1.375$ for algorithm anyvision_004, giving $FMR(T) = 0.0001$ globally.

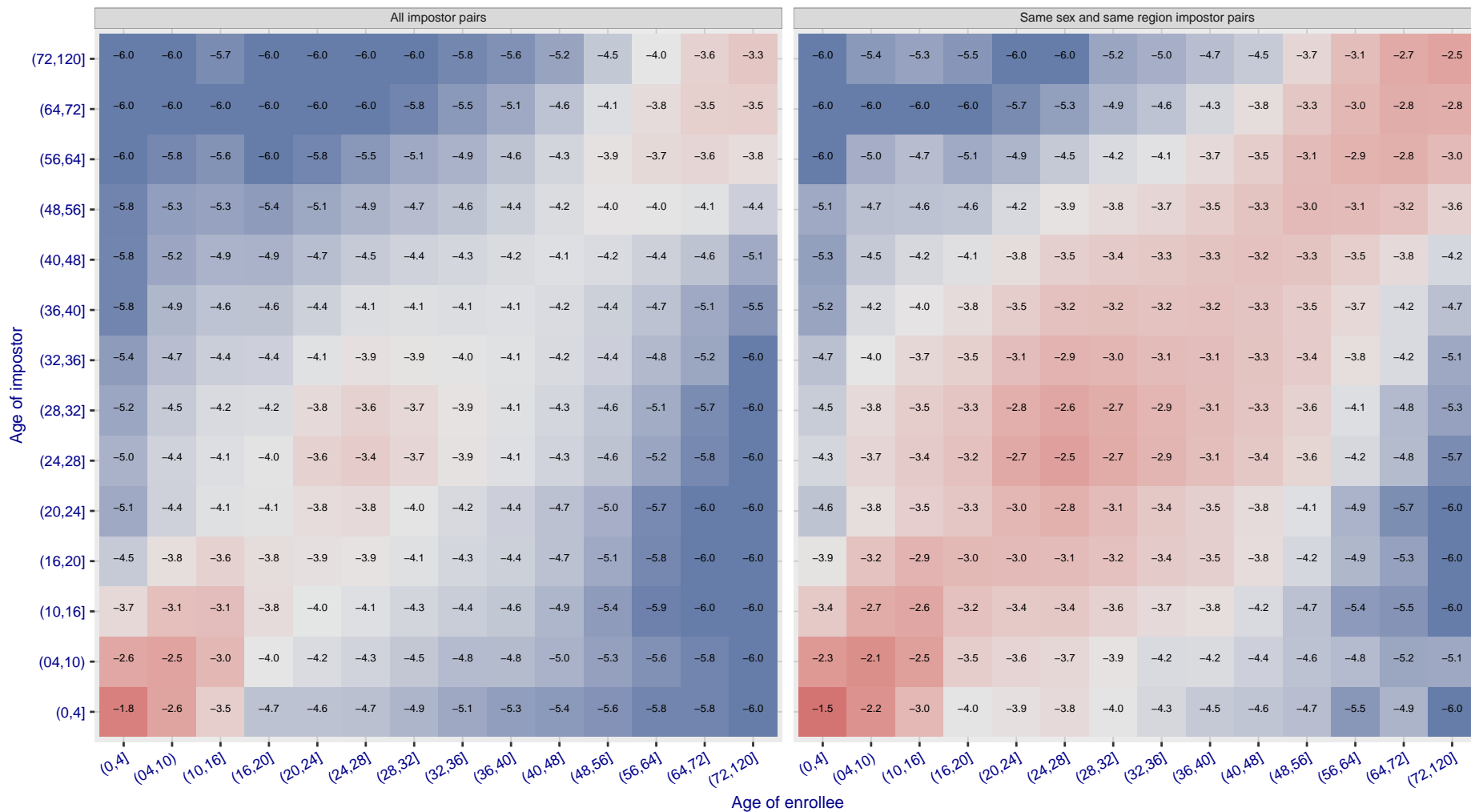


Cross age FMR at threshold $T = 0.799$ for algorithm awiros_001, giving $FMR(T) = 0.0001$ globally.

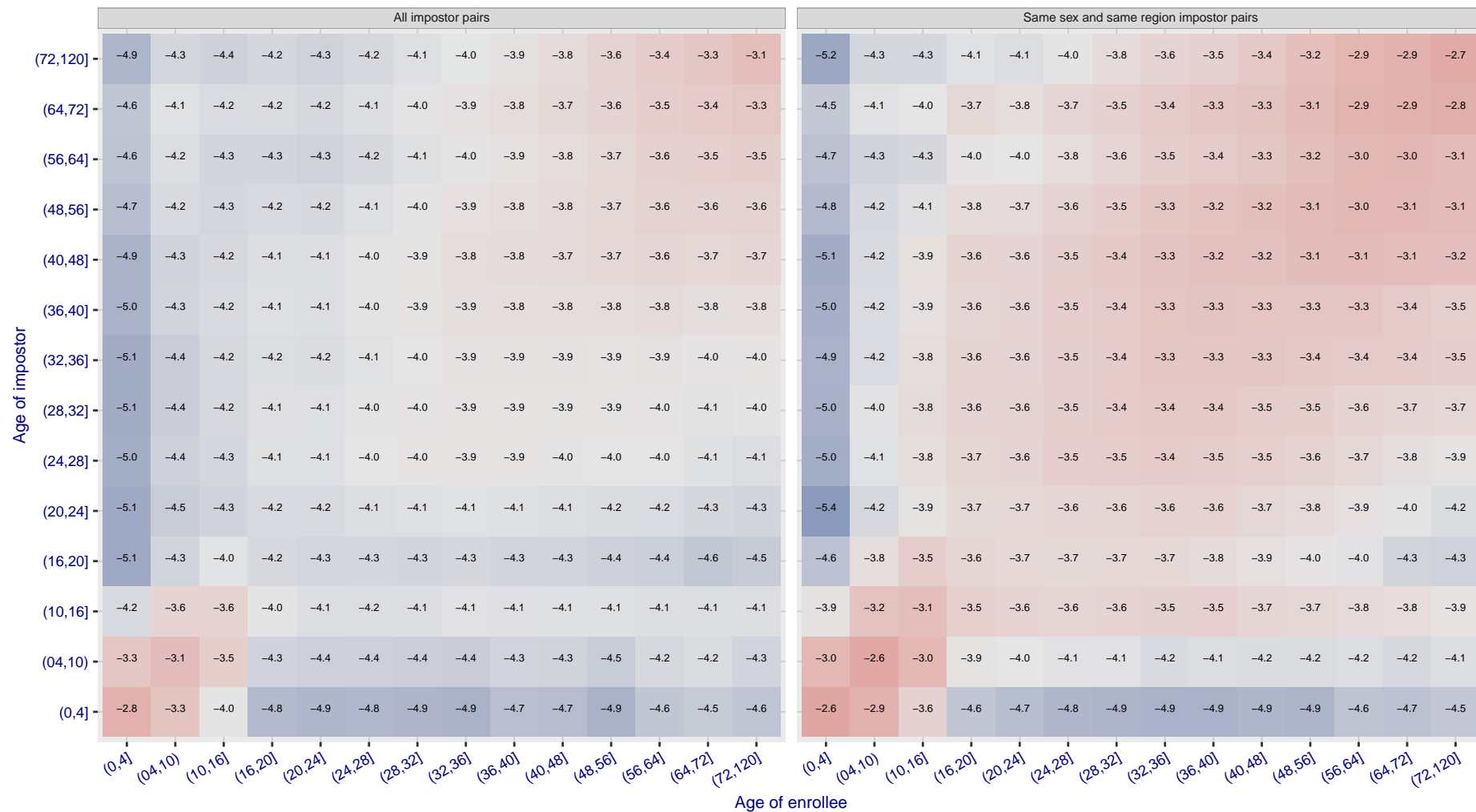
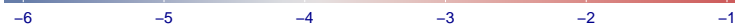
\log_{10} FMR



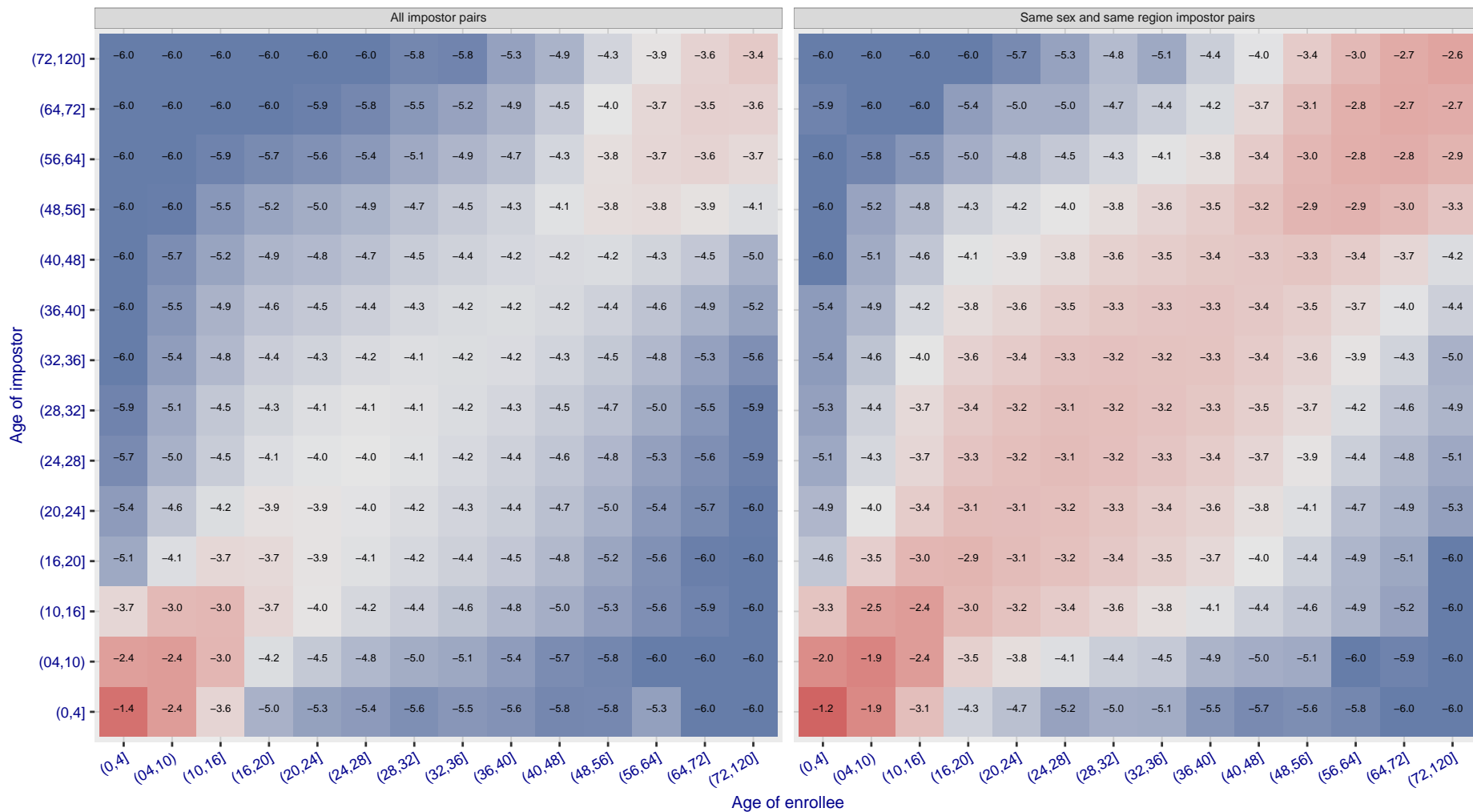
Cross age FMR at threshold $T = 0.919$ for algorithm ayonix_000, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



Cross age FMR at threshold $T = 0.731$ for algorithm `bm_001`, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR

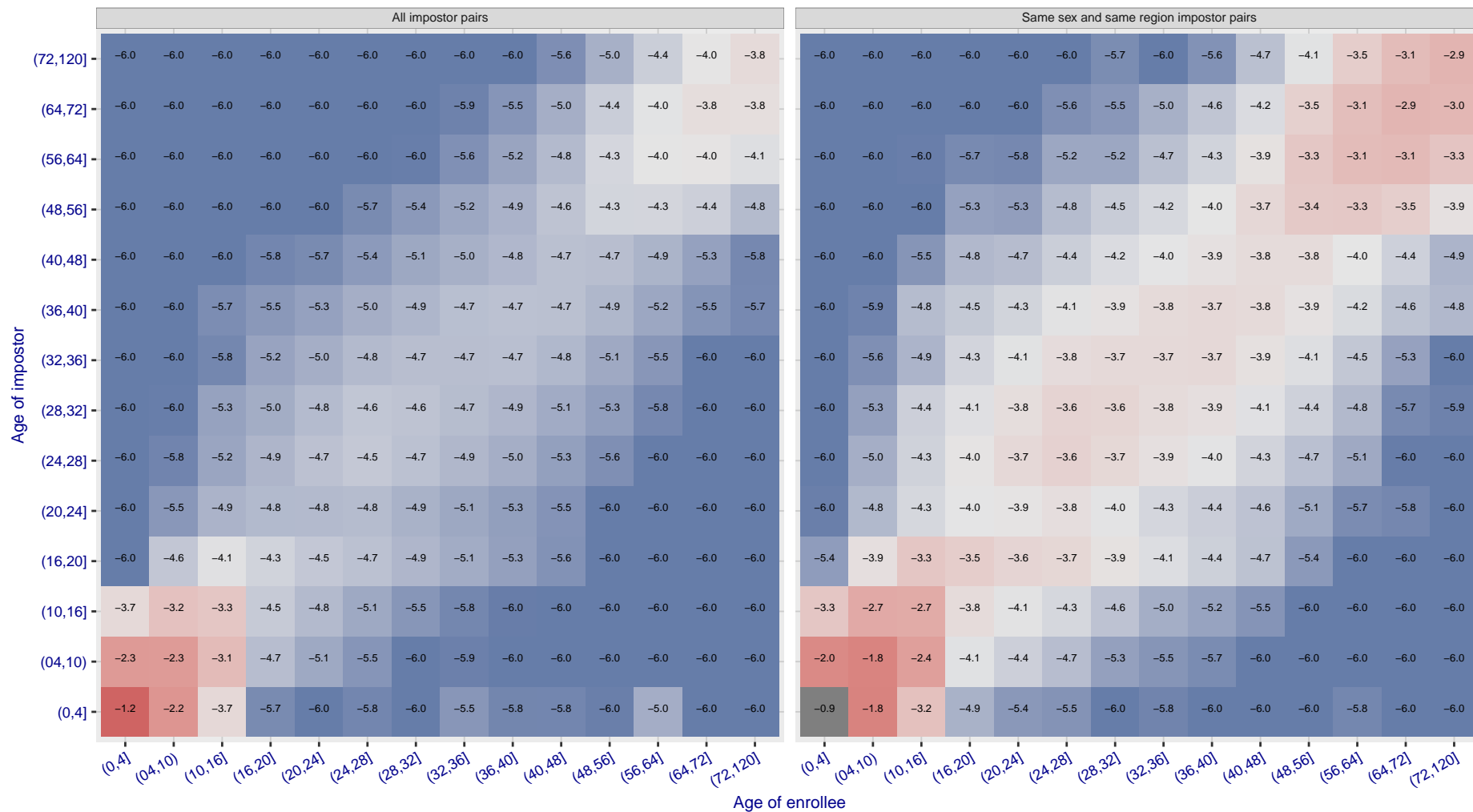


Cross age FMR at threshold $T = 0.388$ for algorithm camvi_002, giving $FMR(T) = 0.0001$ globally.

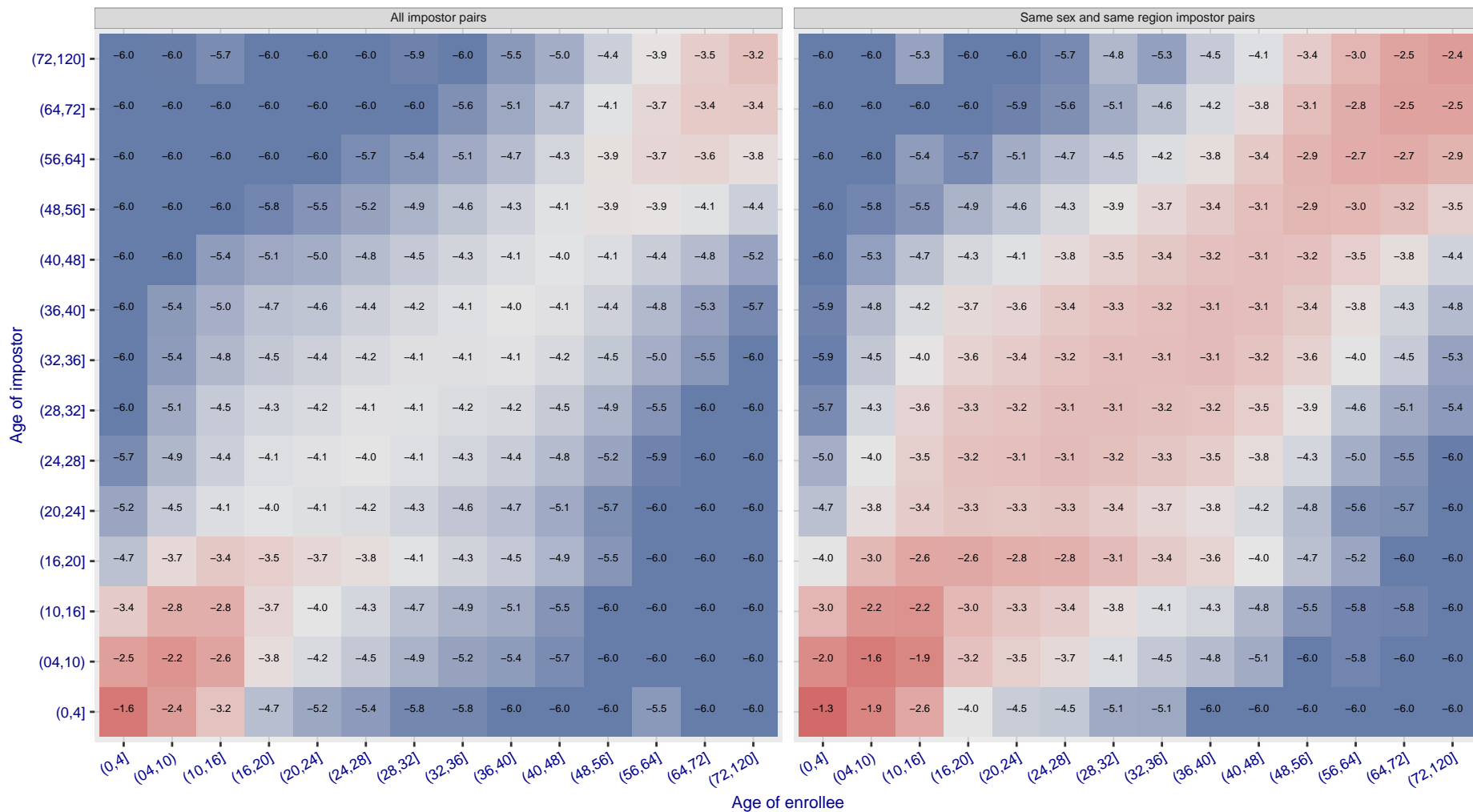


Cross age FMR at threshold $T = 0.377$ for algorithm camvi_004, giving $FMR(T) = 0.0001$ globally.

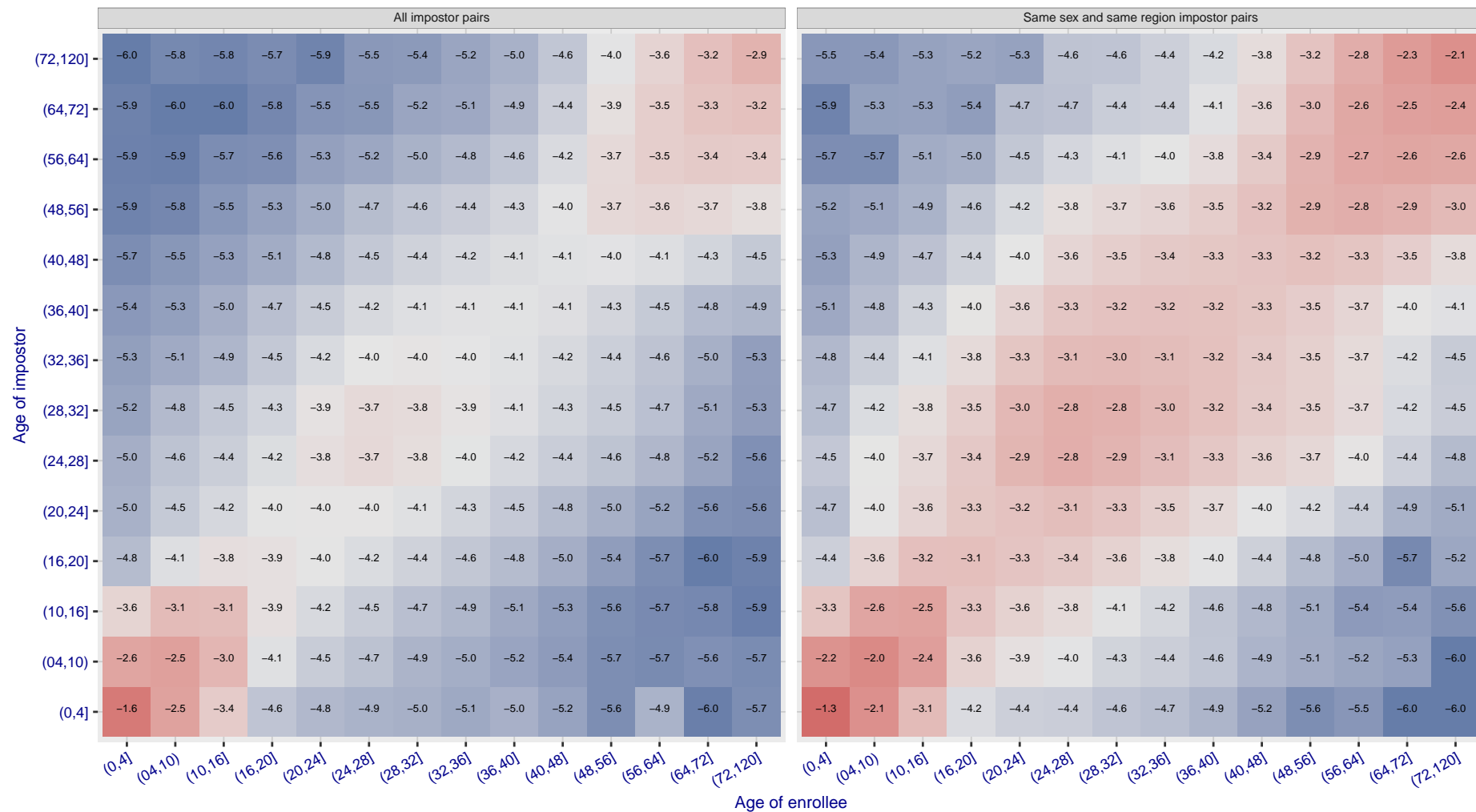
\log_{10} FMR



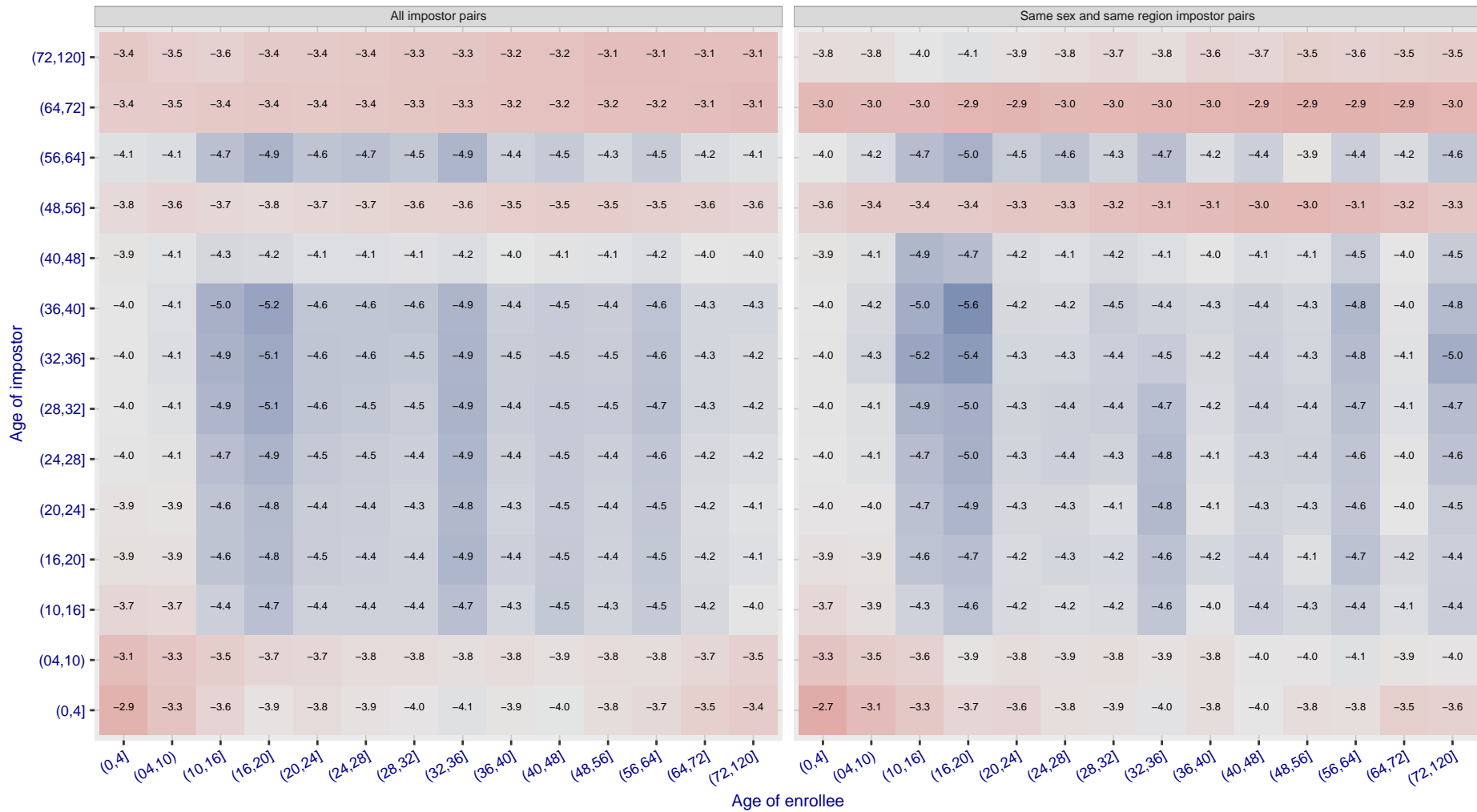
Cross age FMR at threshold $T = 0.436$ for algorithm ceiec_001, giving $FMR(T) = 0.0001$ globally.



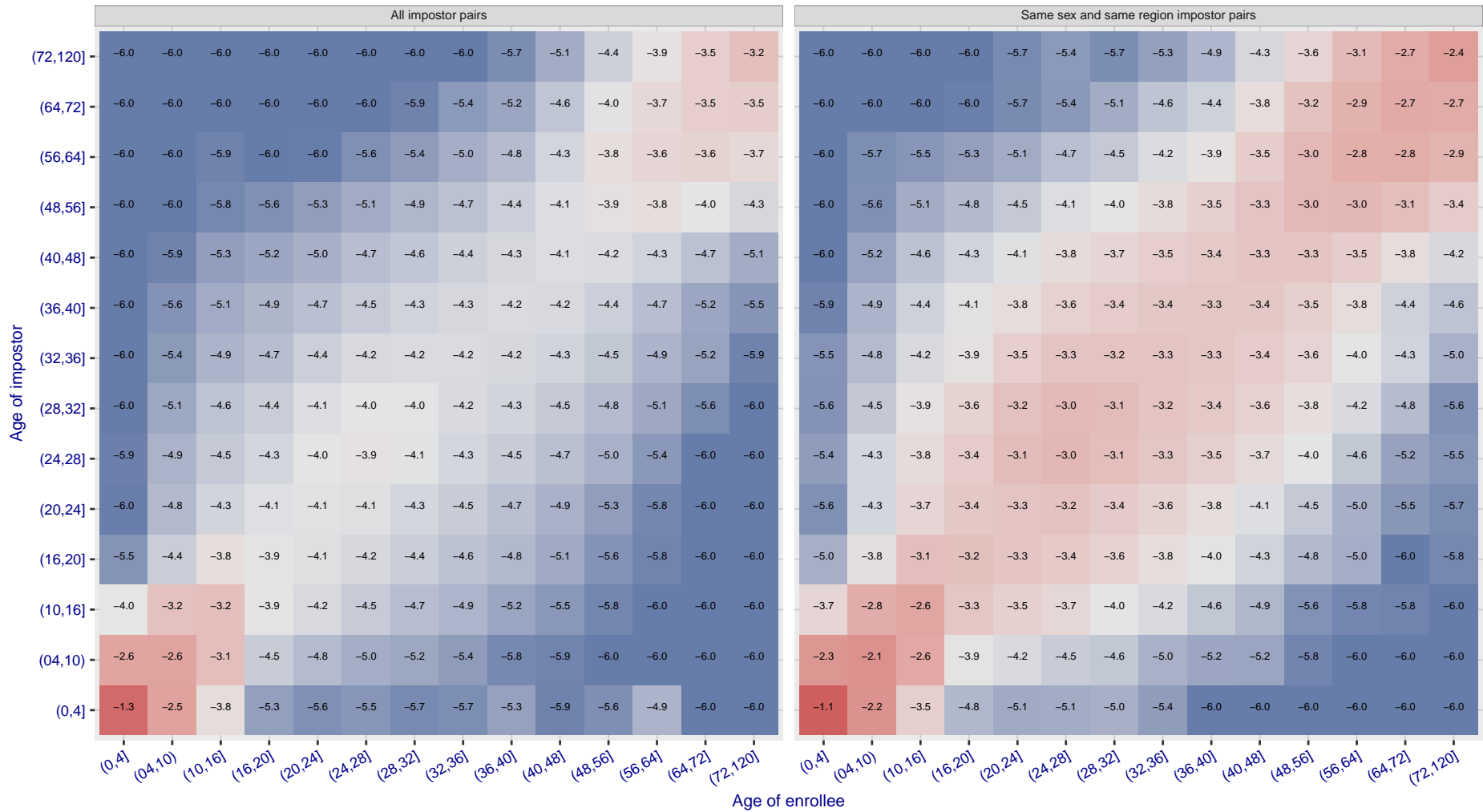
Cross age FMR at threshold $T = 0.325$ for algorithm ceiec_002, giving $FMR(T) = 0.0001$ globally.



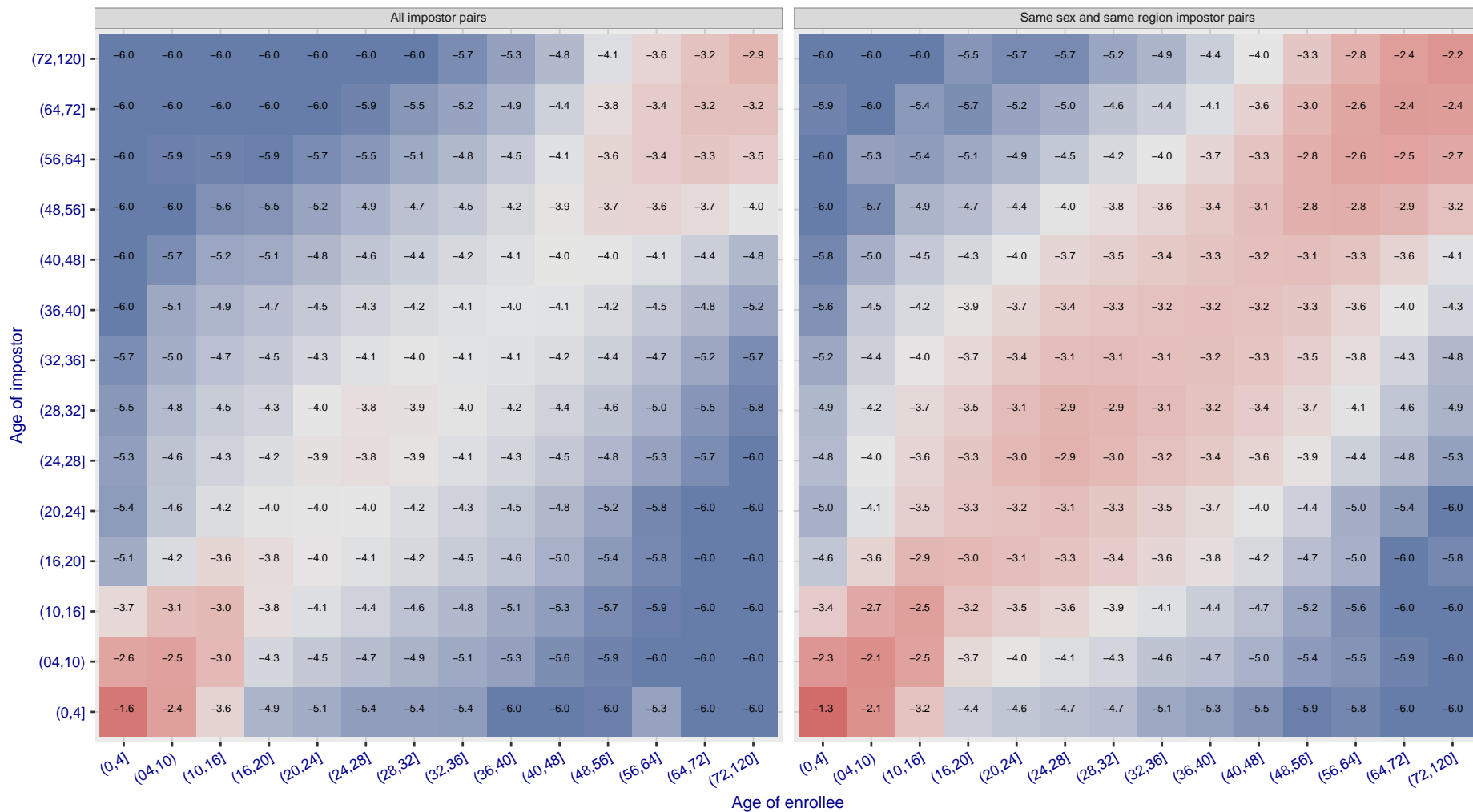
Cross age FMR at threshold $T = 106.748$ for algorithm `chiface_001`, giving $FMR(T) = 0.0001$ globally.



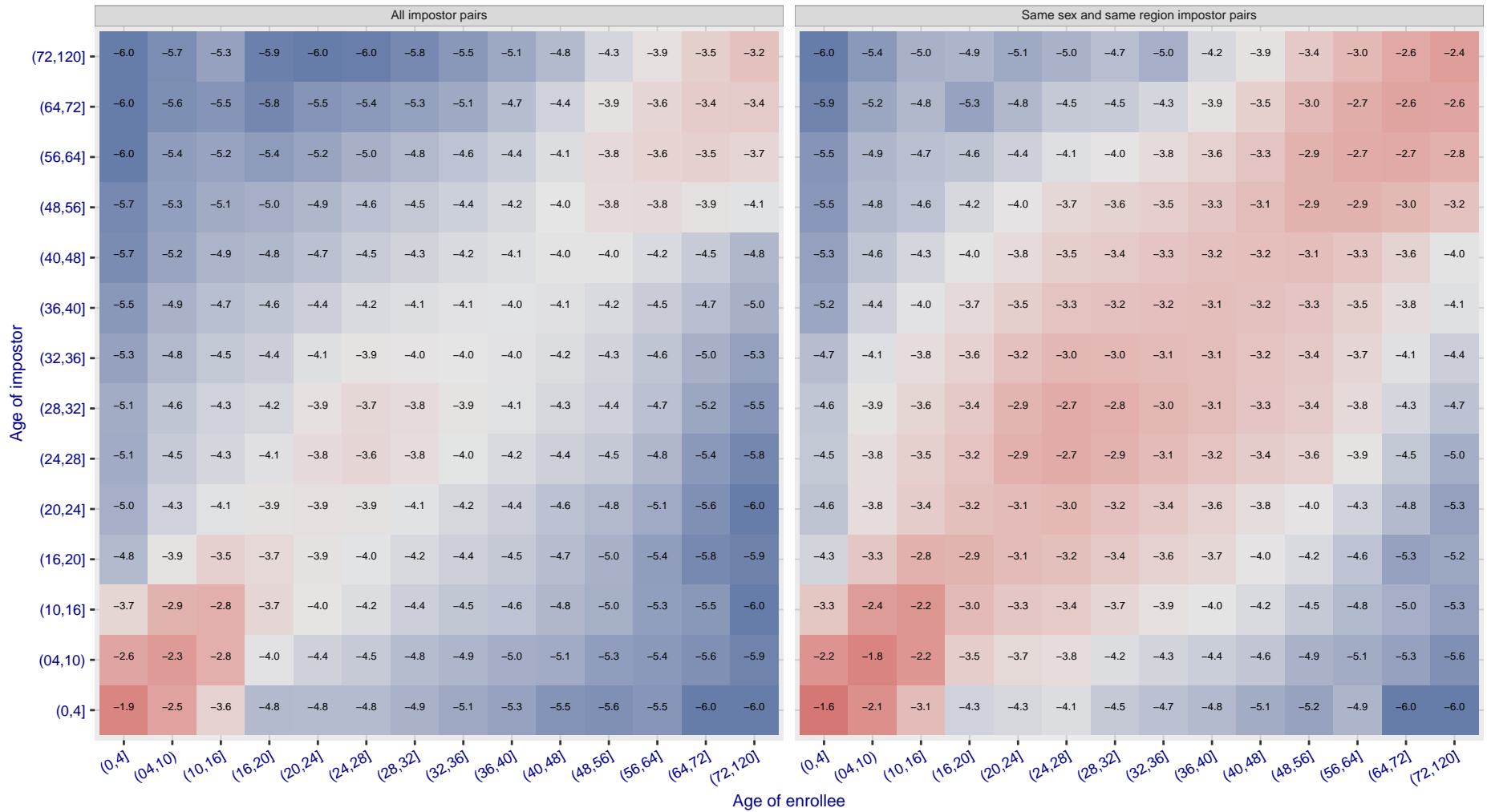
Cross age FMR at threshold $T = 2972.000$ for algorithm cogent_003, giving $FMR(T) = 0.0001$ globally.



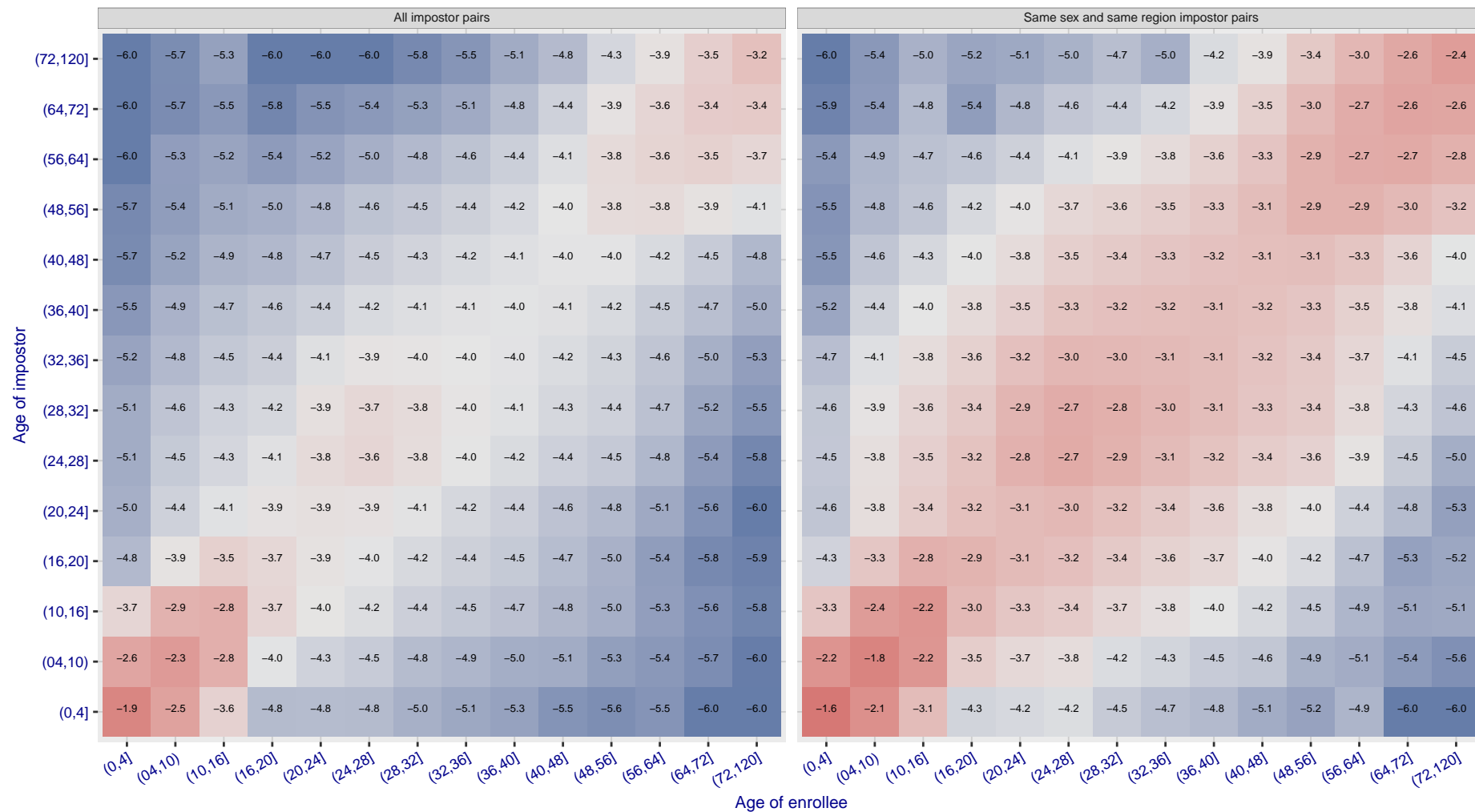
Cross age FMR at threshold $T = 3156.000$ for algorithm cogent_004, giving $FMR(T) = 0.0001$ globally.



Cross age FMR at threshold $T = 0.565$ for algorithm `cognitec_000`, giving $FMR(T) = 0.0001$ globally. $\log_{10} FMR$

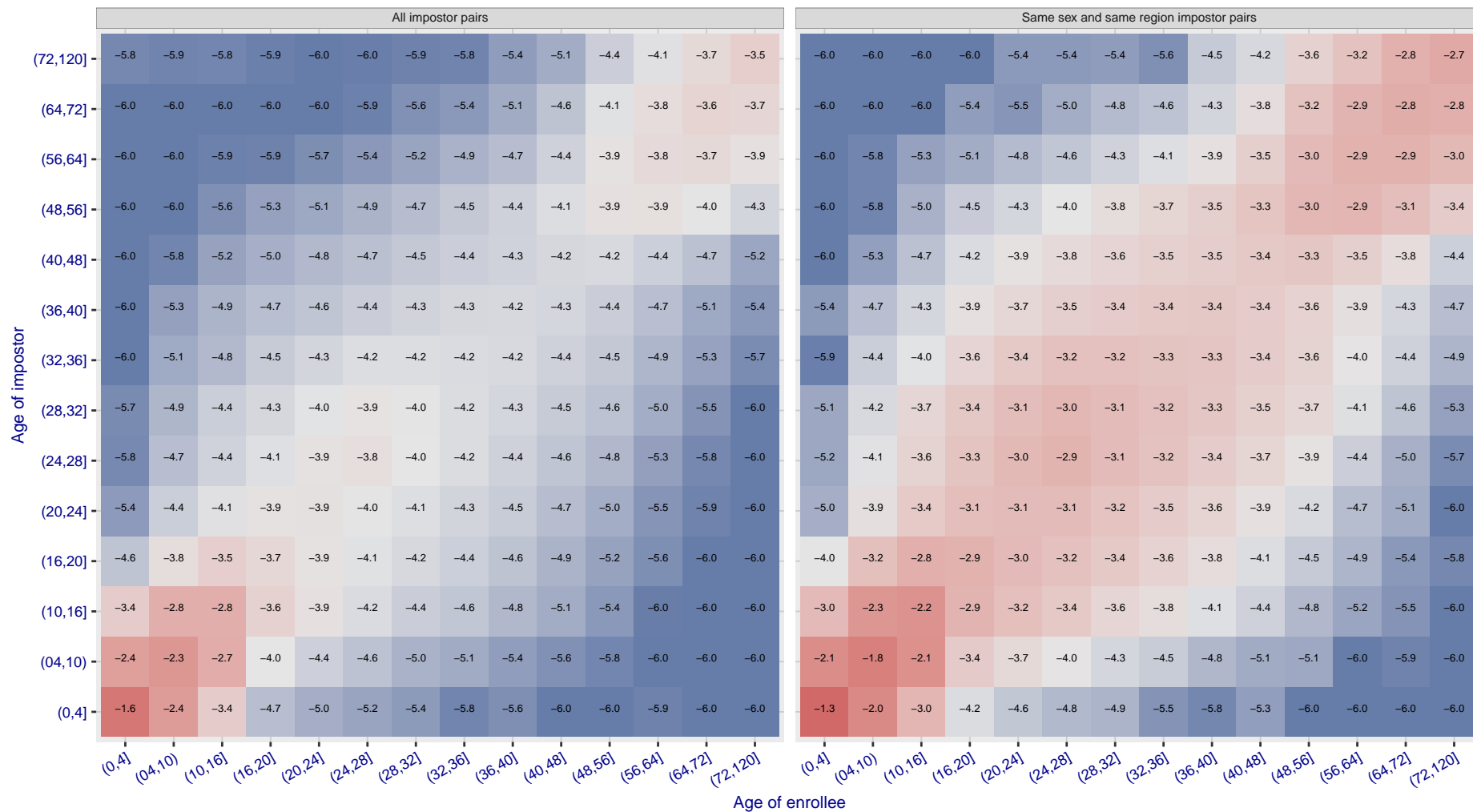


Cross age FMR at threshold $T = 0.565$ for algorithm `cognitec_001`, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR

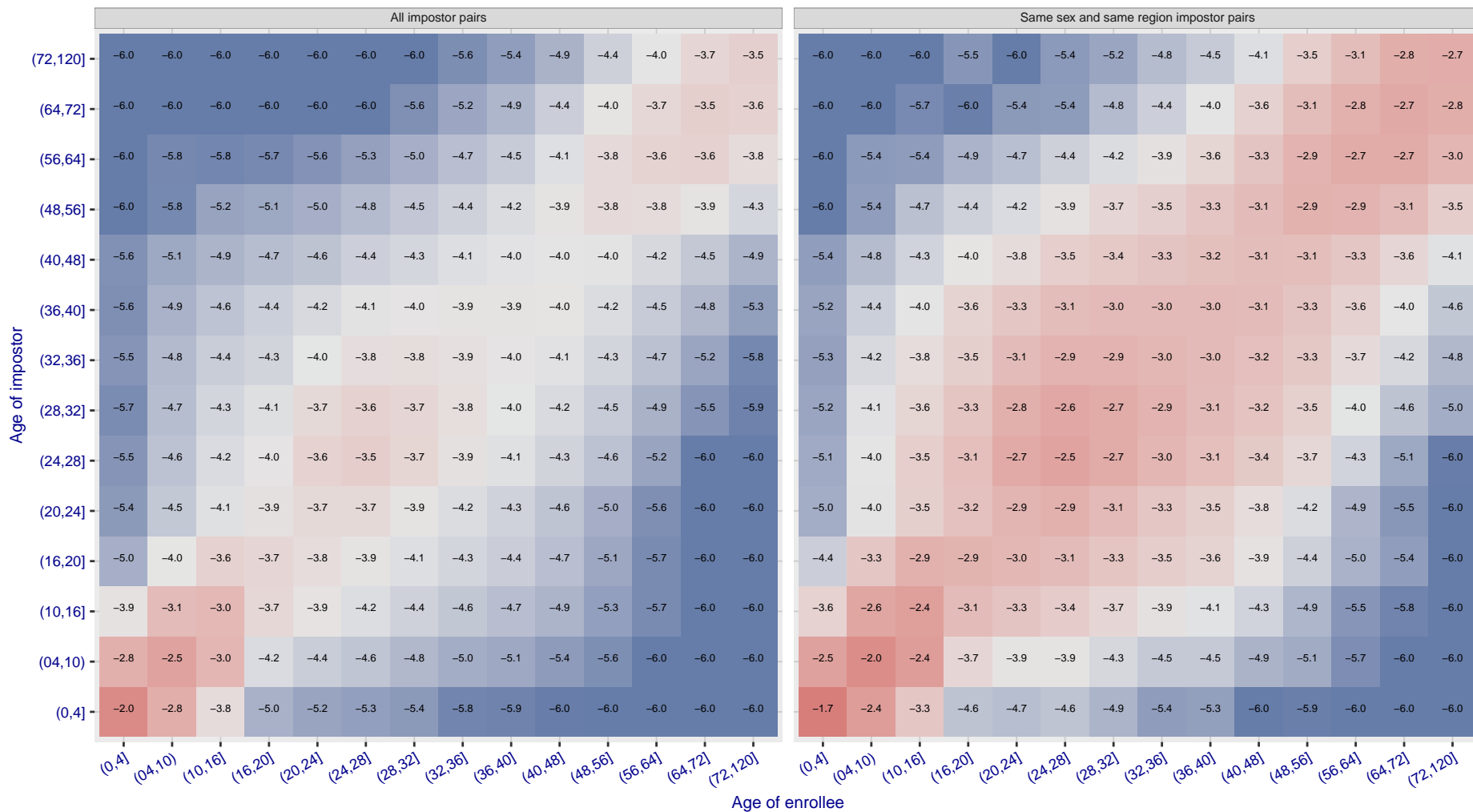


Cross age FMR at threshold $T = 3.730$ for algorithm `ctcbank_000`, giving $FMR(T) = 0.0001$ globally.

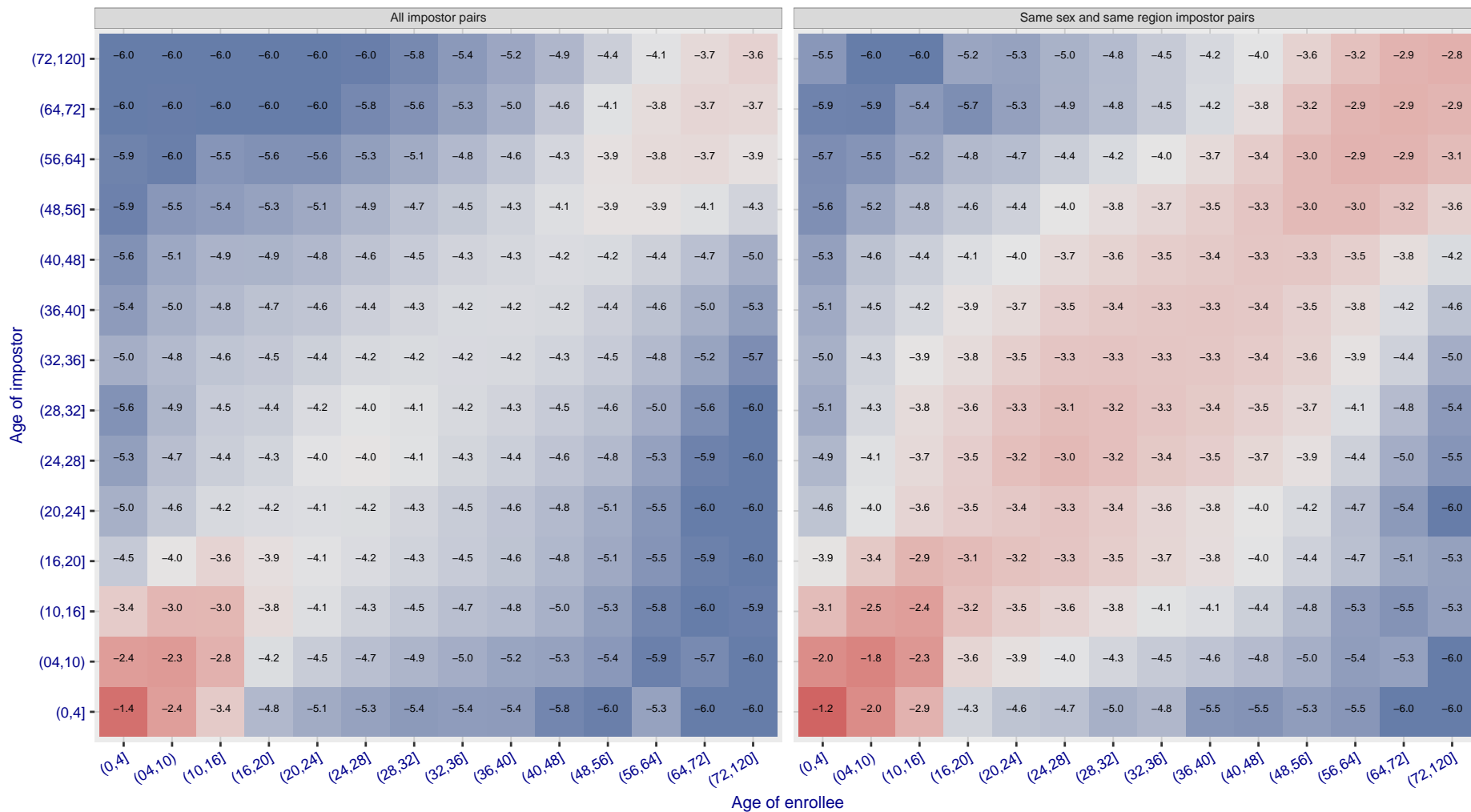
log10 FMR



Cross age FMR at threshold $T = 0.762$ for algorithm cyberextruder_001, giving $FMR(T) = 0.0001$ globally.

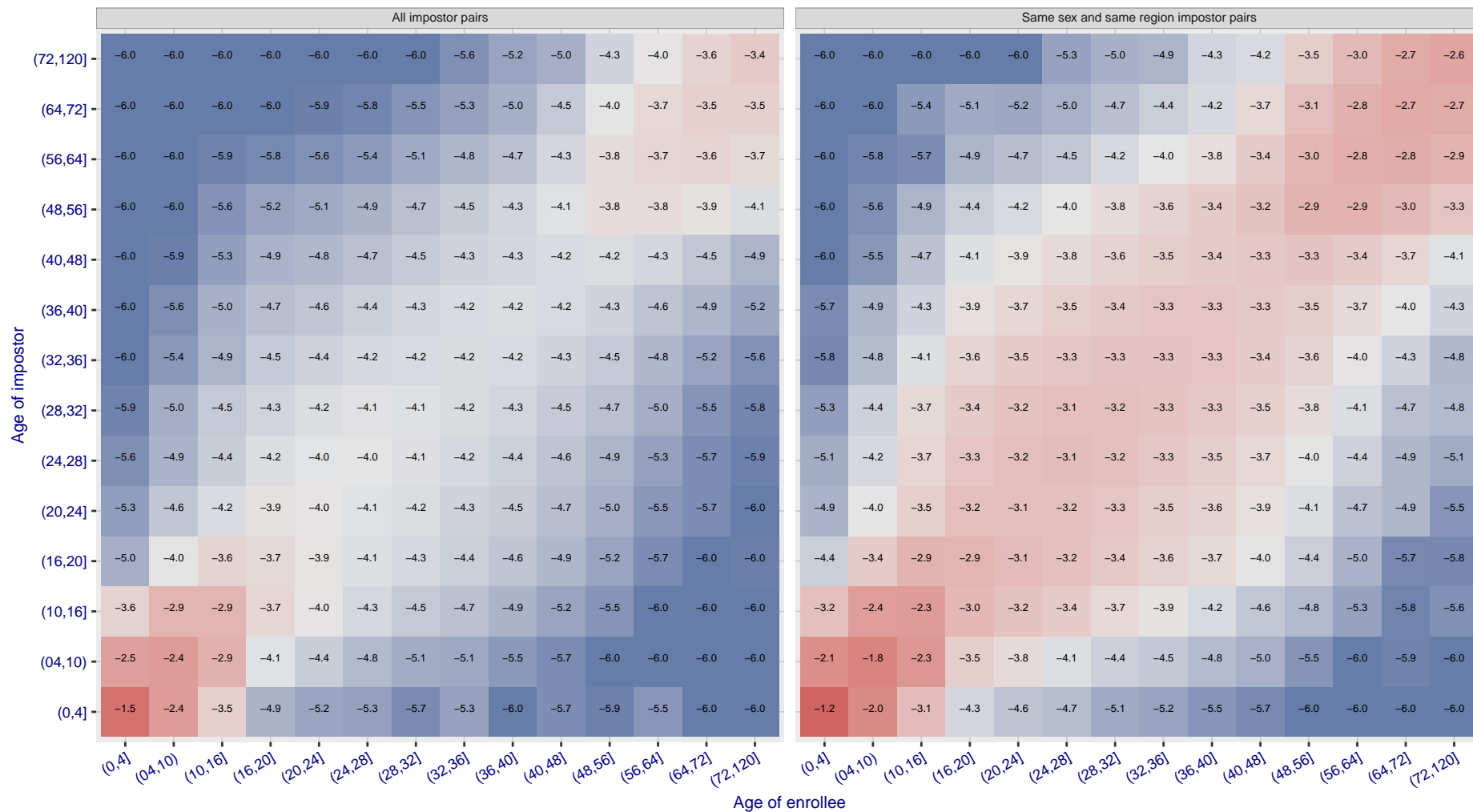
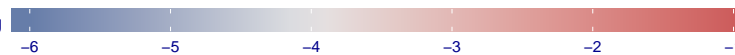


Cross age FMR at threshold $T = 0.500$ for algorithm cyberextruder_002, giving $FMR(T) = 0.0001$ globally.



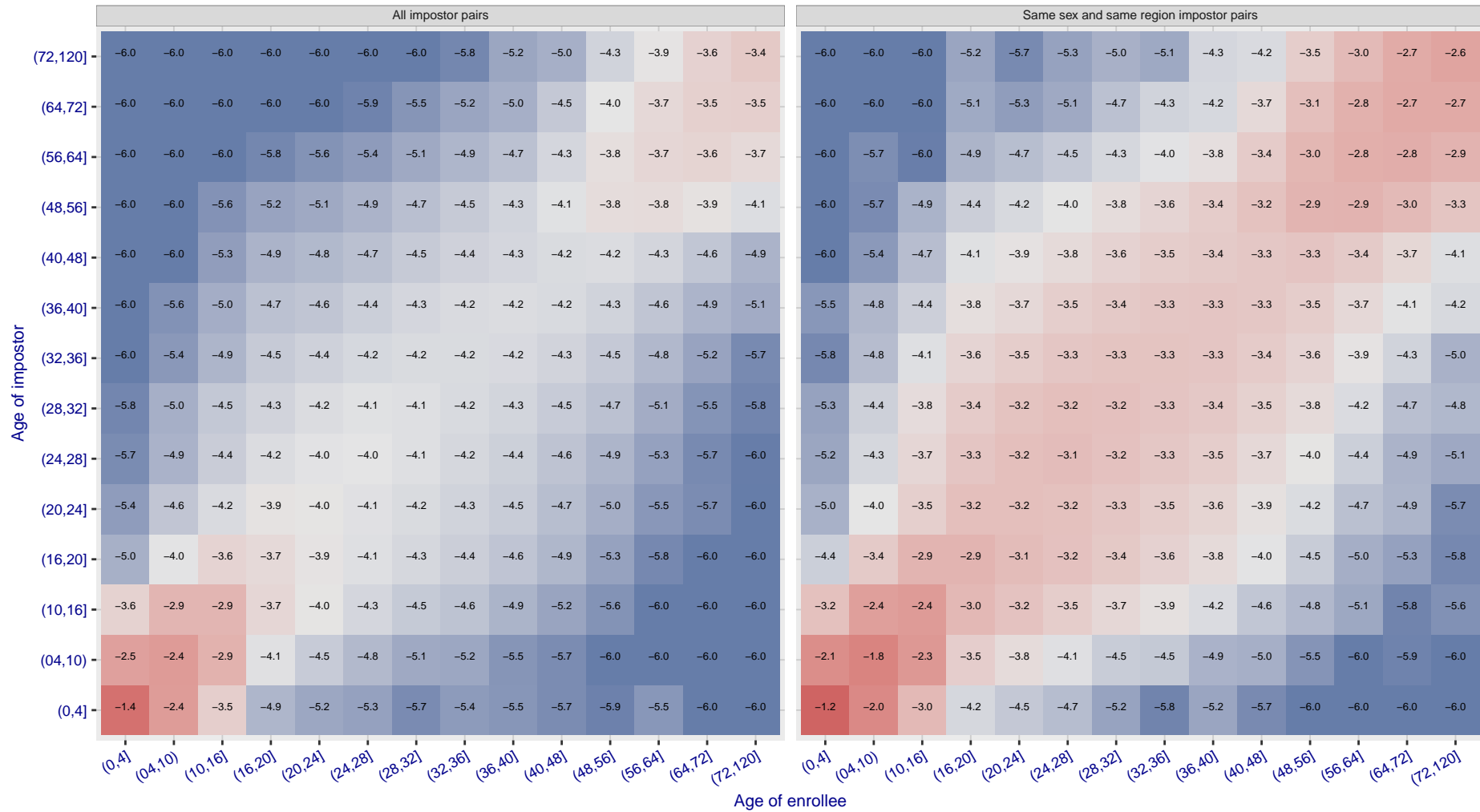
Cross age FMR at threshold $T = 1.409$ for algorithm cyberlink_002, giving $FMR(T) = 0.0001$ globally.

log10 FMR

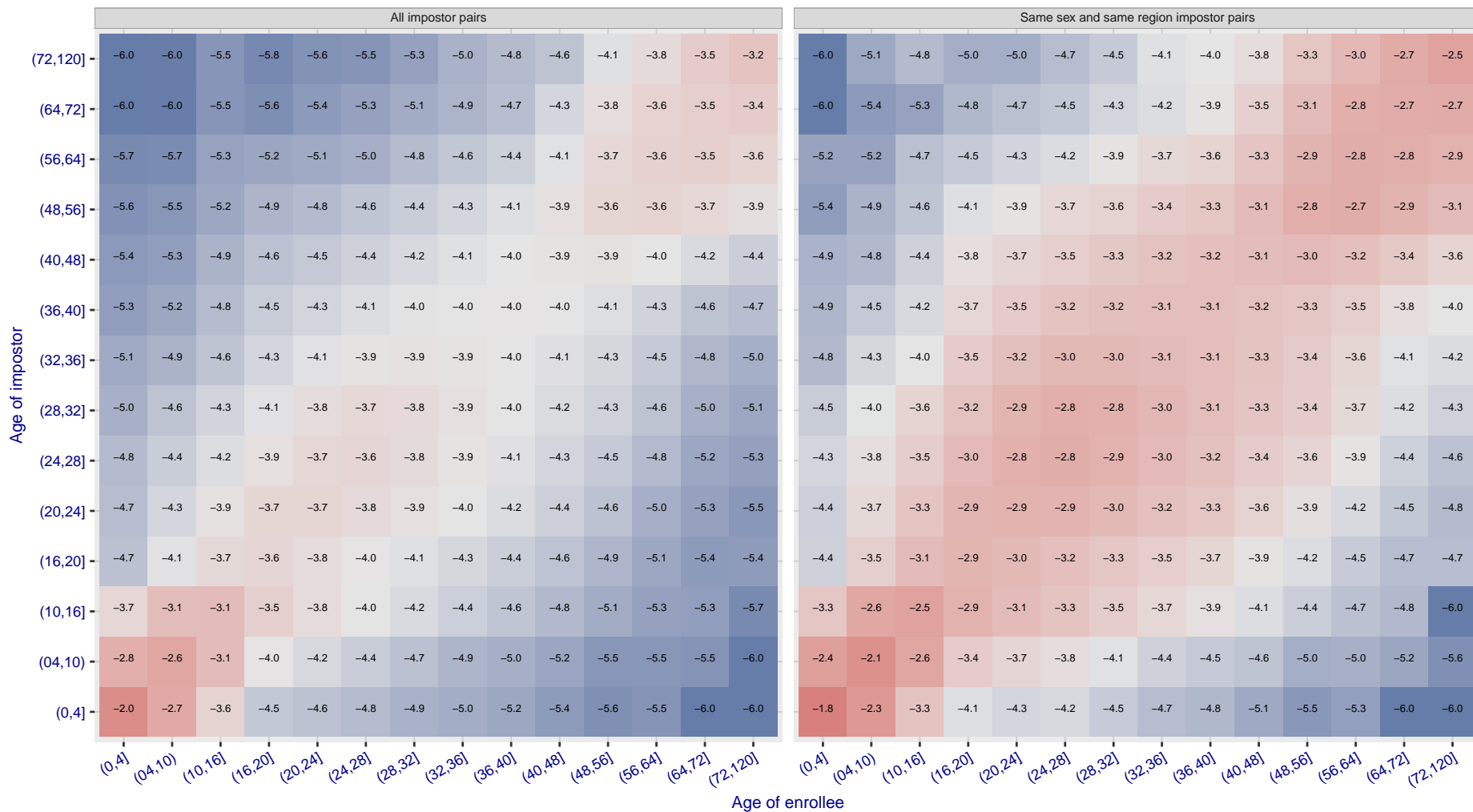


Cross age FMR at threshold $T = 1.409$ for algorithm `cyberlink_003`, giving $FMR(T) = 0.0001$ globally.

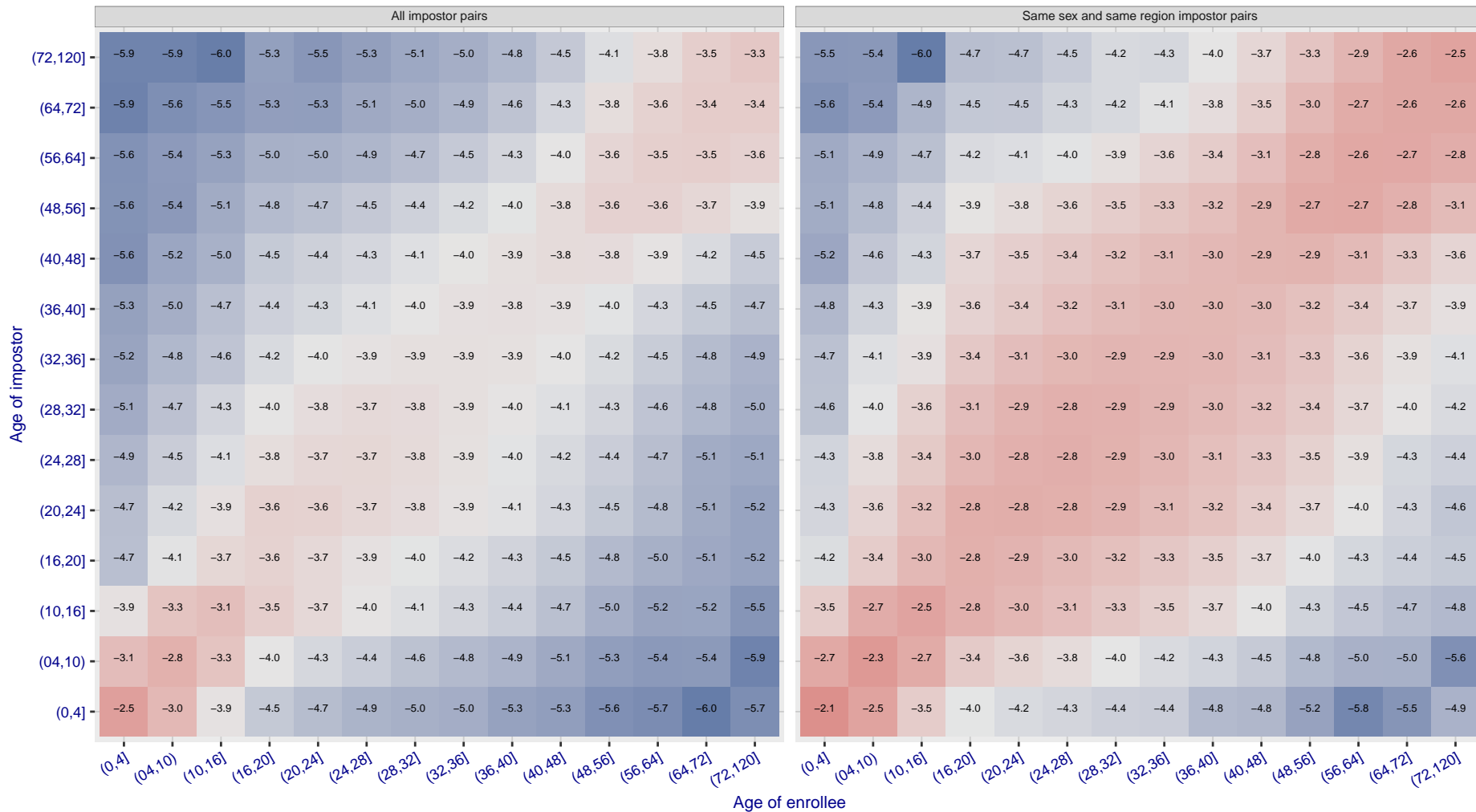
log10 FMR



Cross age FMR at threshold $T = 6696.000$ for algorithm dahua_002, giving $FMR(T) = 0.0001$ globally.

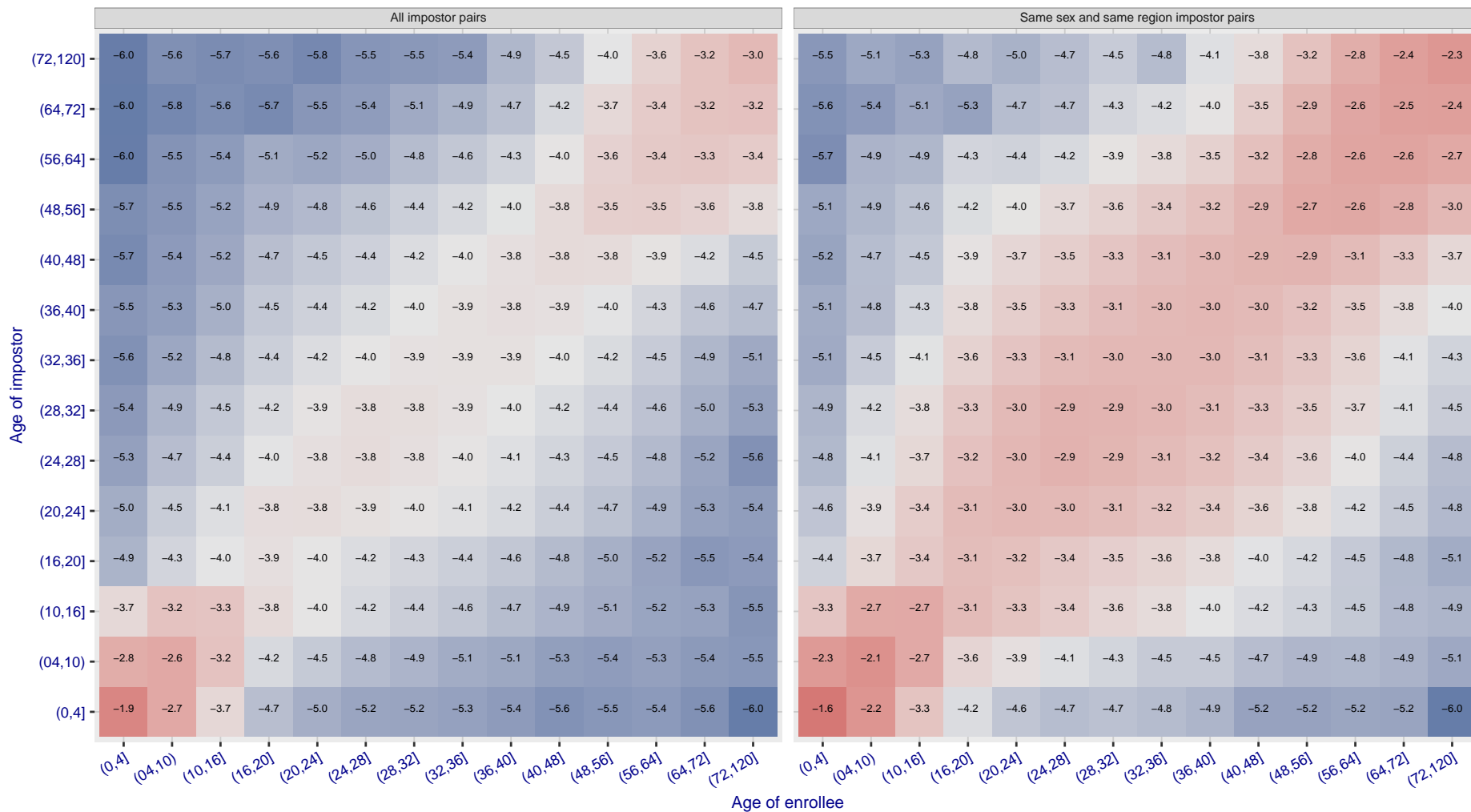


Cross age FMR at threshold $T = 6034.000$ for algorithm `dahua_003`, giving $FMR(T) = 0.0001$ globally.



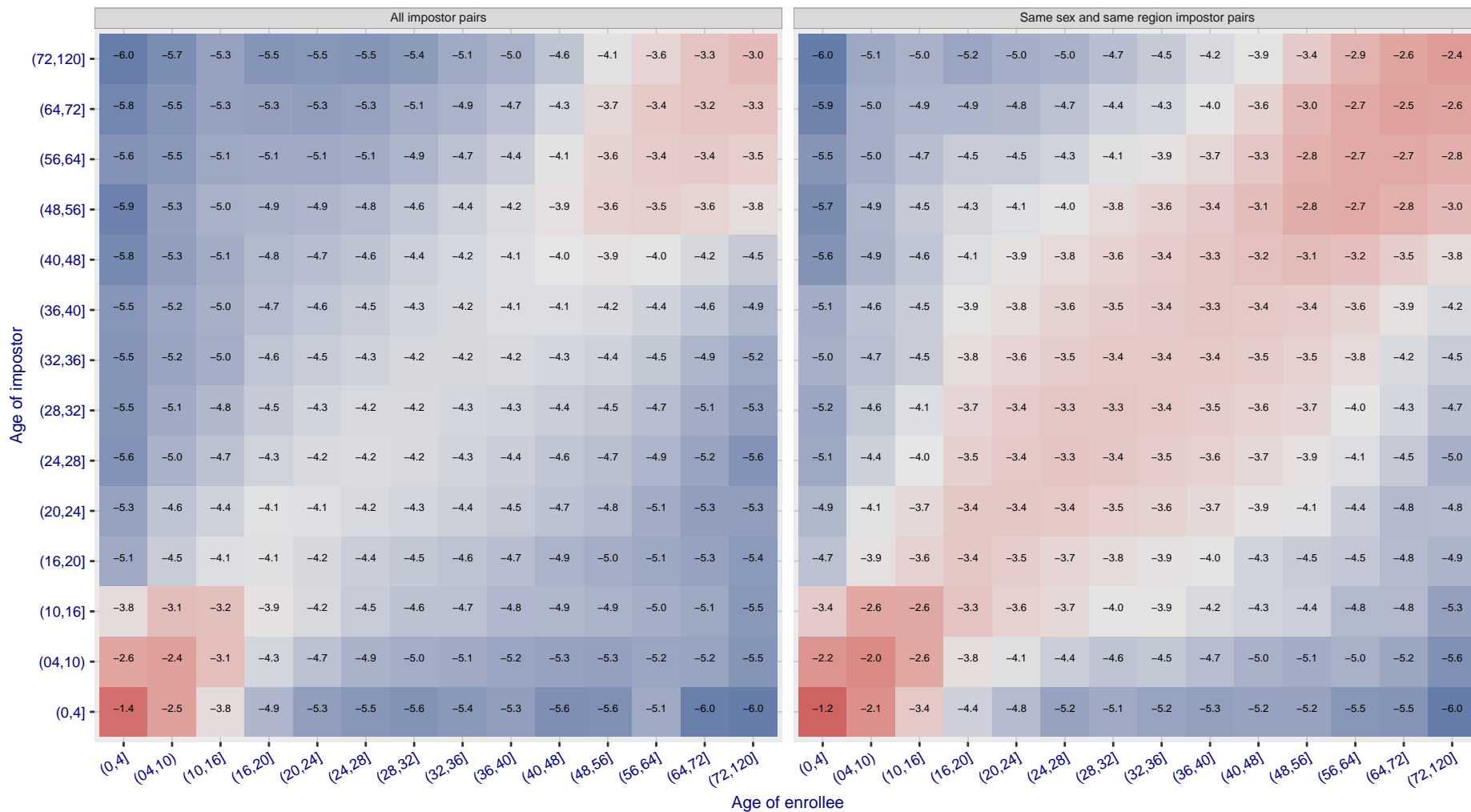
Cross age FMR at threshold $T = 1.359$ for algorithm deepglint_001, giving $FMR(T) = 0.0001$ globally.

log10 FMR

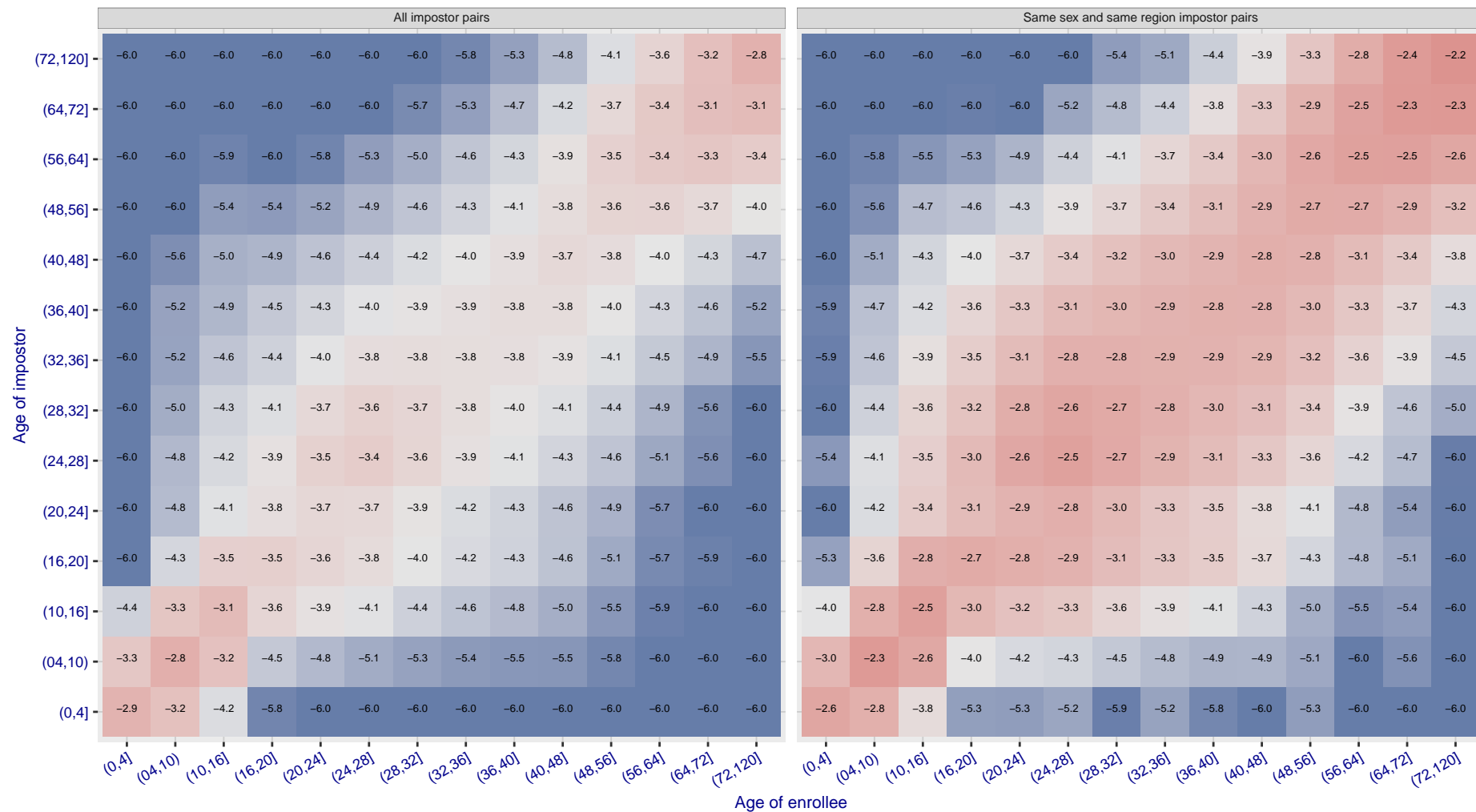


Cross age FMR at threshold $T = 1.371$ for algorithm deepsea_001, giving $FMR(T) = 0.0001$ globally.

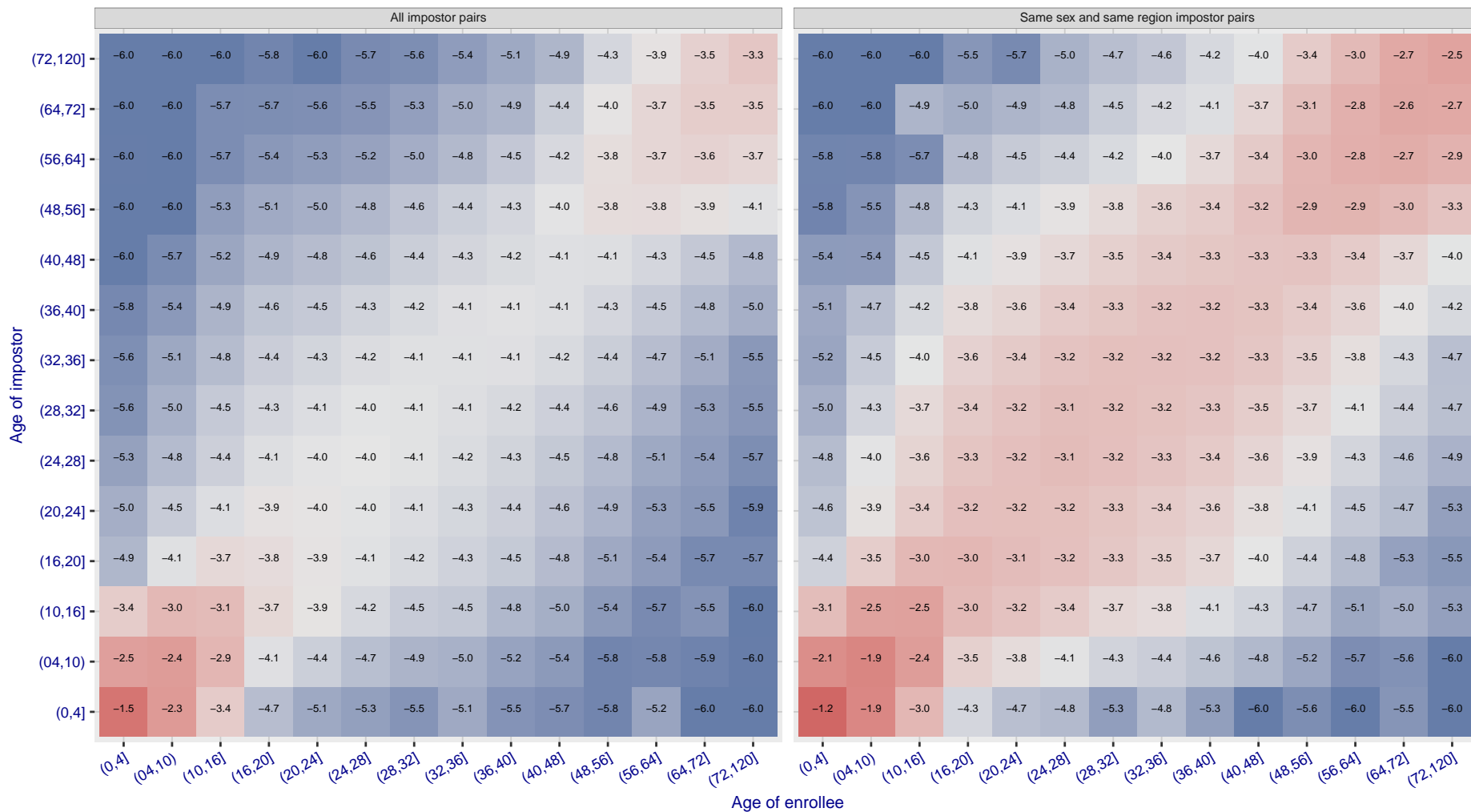
\log_{10} FMR



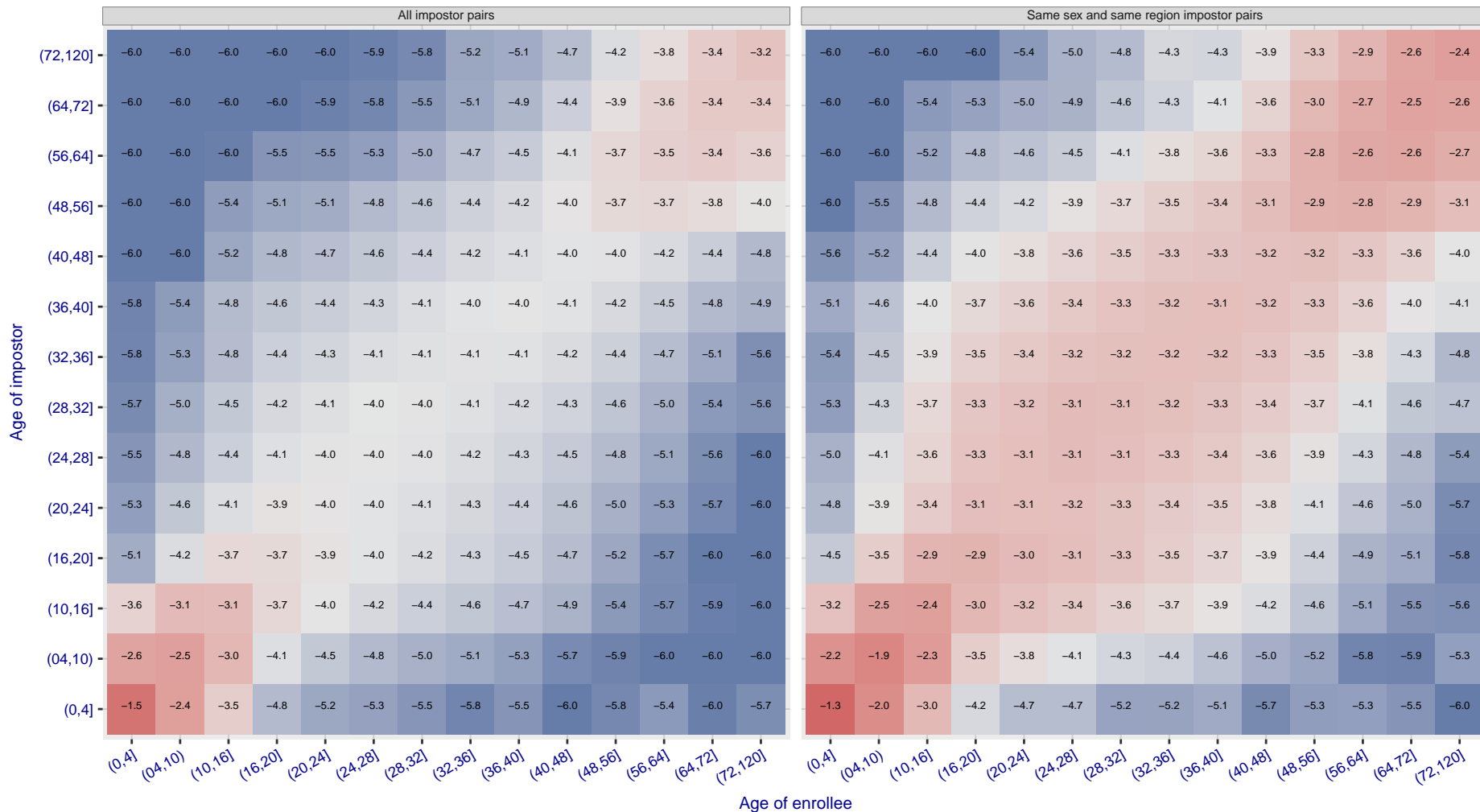
Cross age FMR at threshold $T = 79.344$ for algorithm dermalog_005, giving $FMR(T) = 0.0001$ globally.



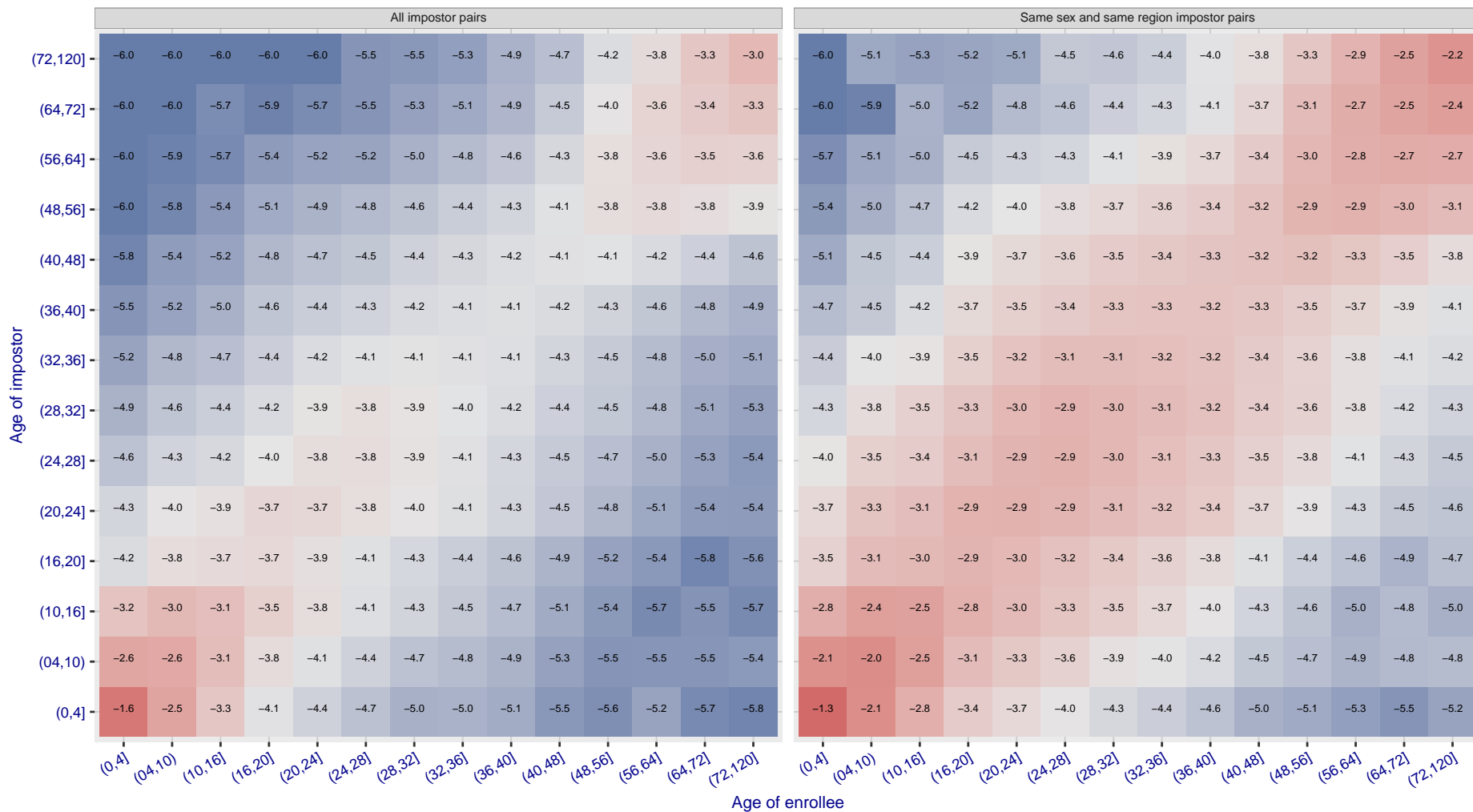
Cross age FMR at threshold $T = 79.670$ for algorithm dermalog_006, giving $FMR(T) = 0.0001$ globally.



Cross age FMR at threshold $T = 0.430$ for algorithm `df_001`, giving $FMR(T) = 0.0001$ globally.

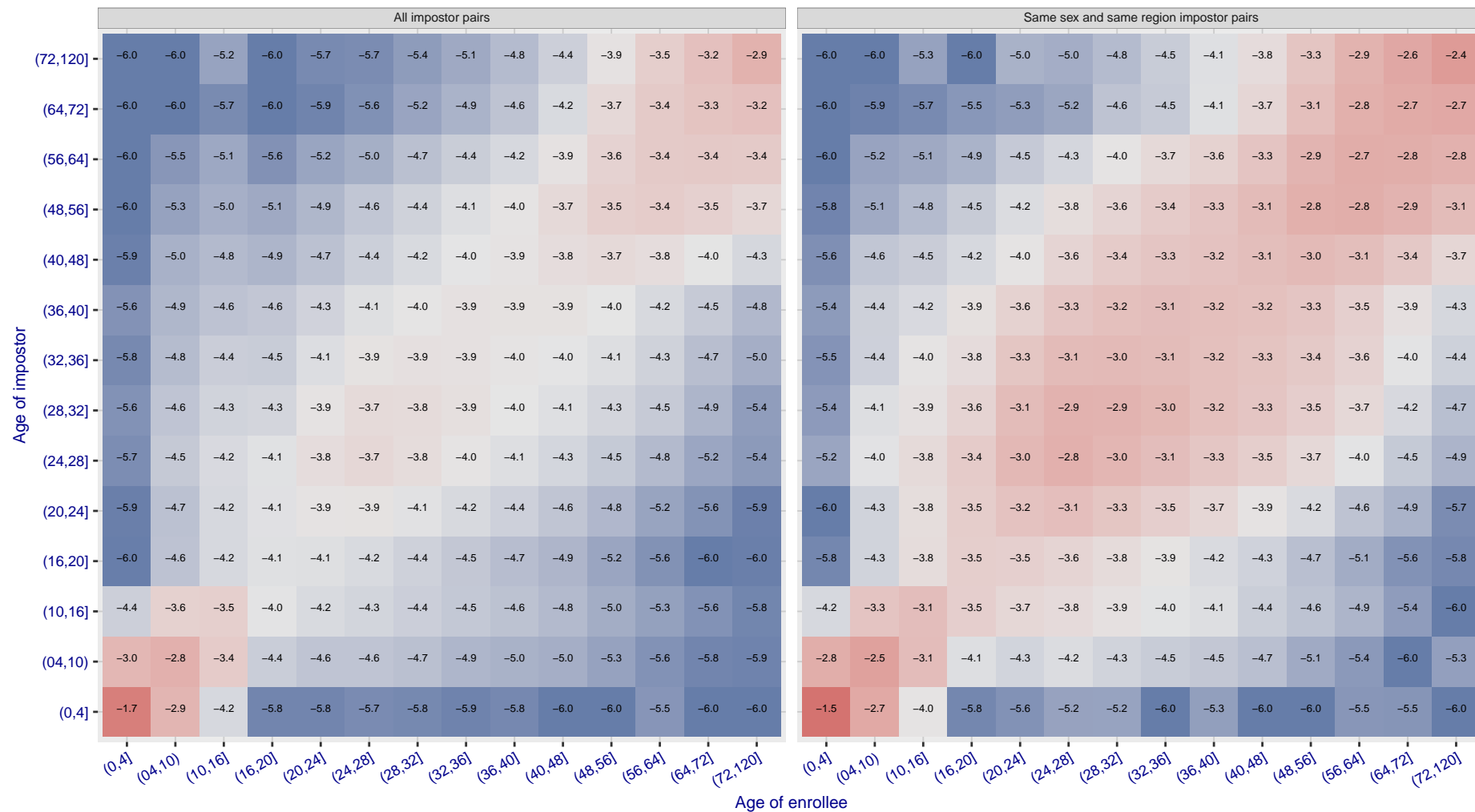


Cross age FMR at threshold $T = 0.331$ for algorithm didiglobalface_001, giving $FMR(T) = 0.0001$ globally.

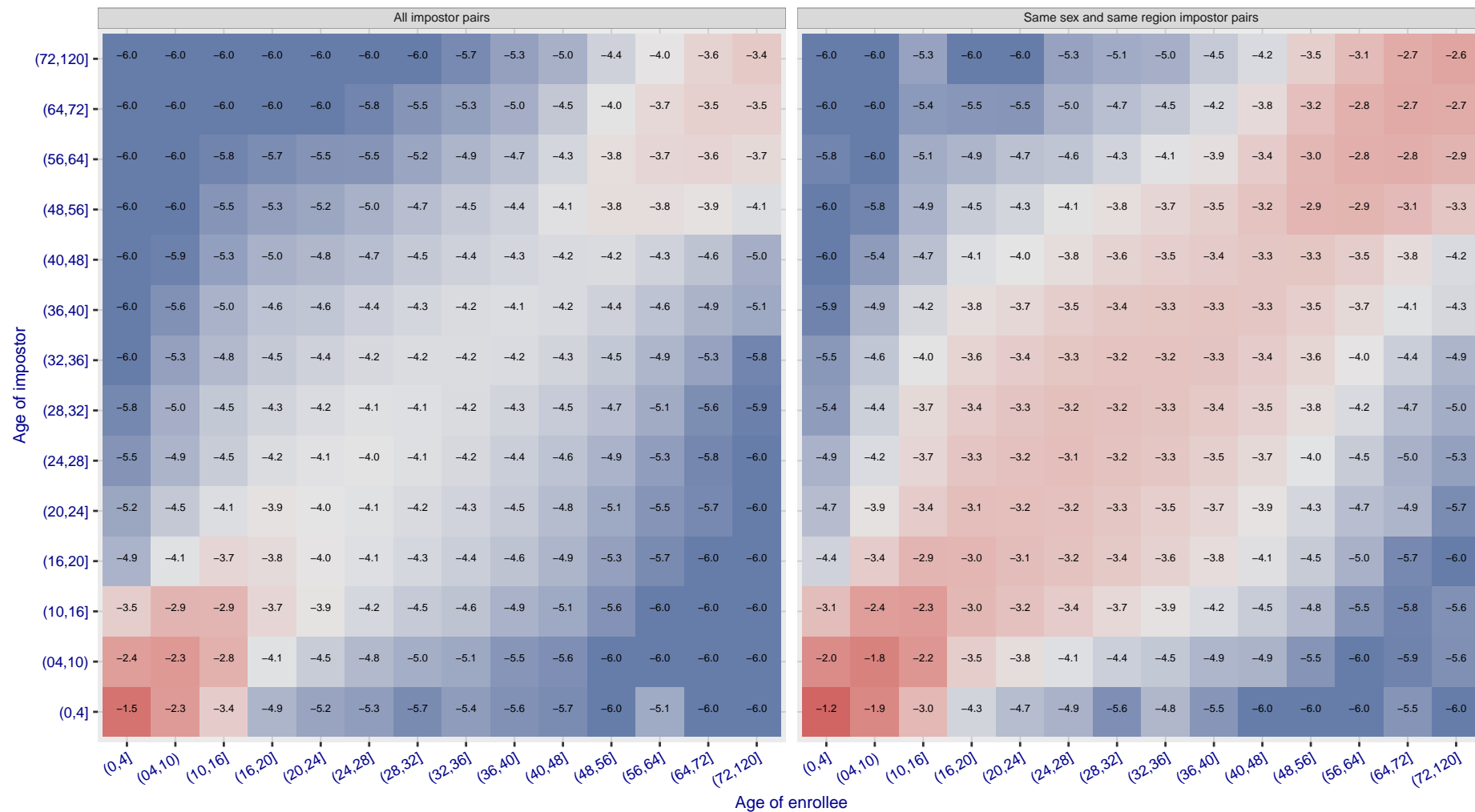


Cross age FMR at threshold $T = 1.061$ for algorithm dsk_000, giving $FMR(T) = 0.0001$ globally.

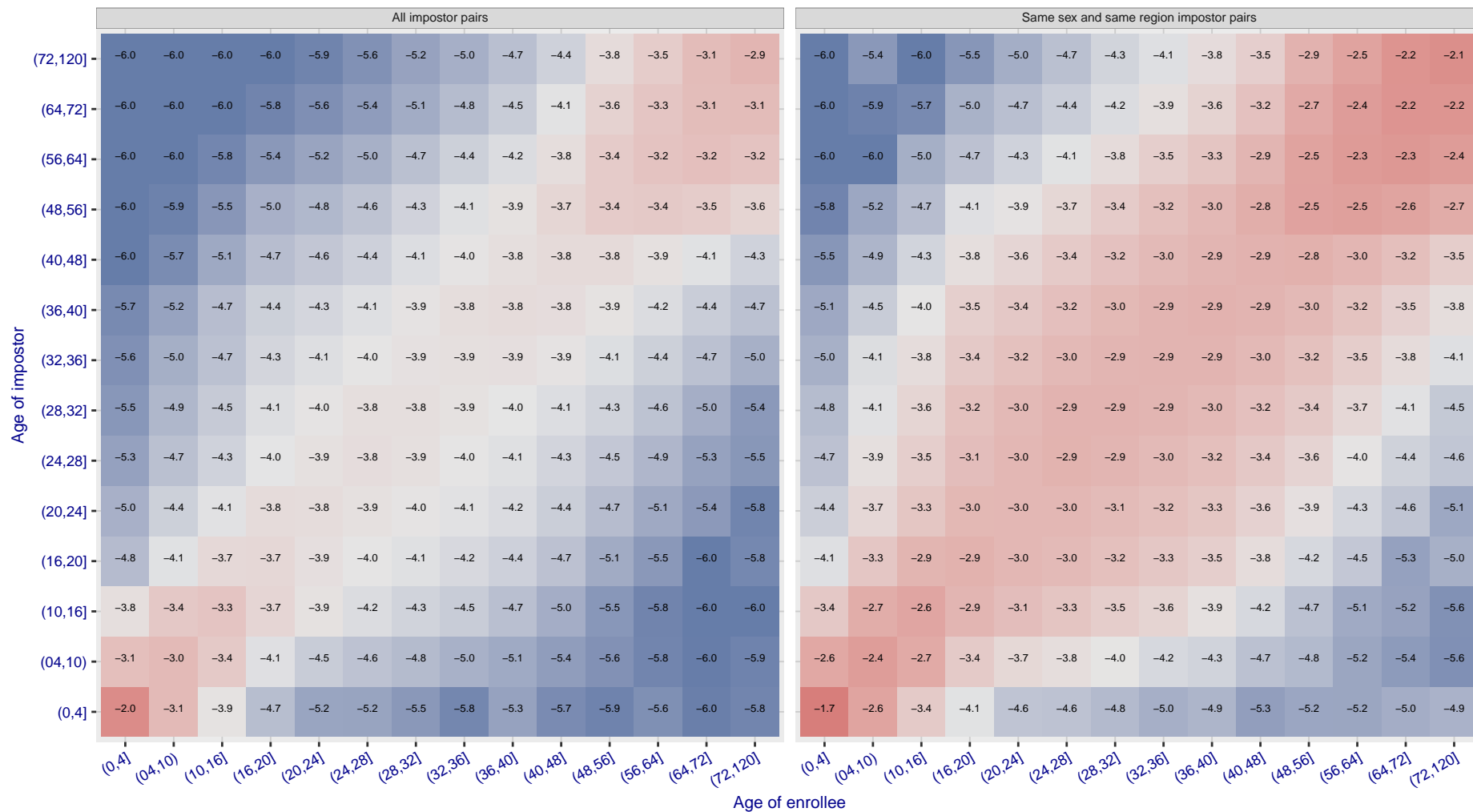
\log_{10} FMR



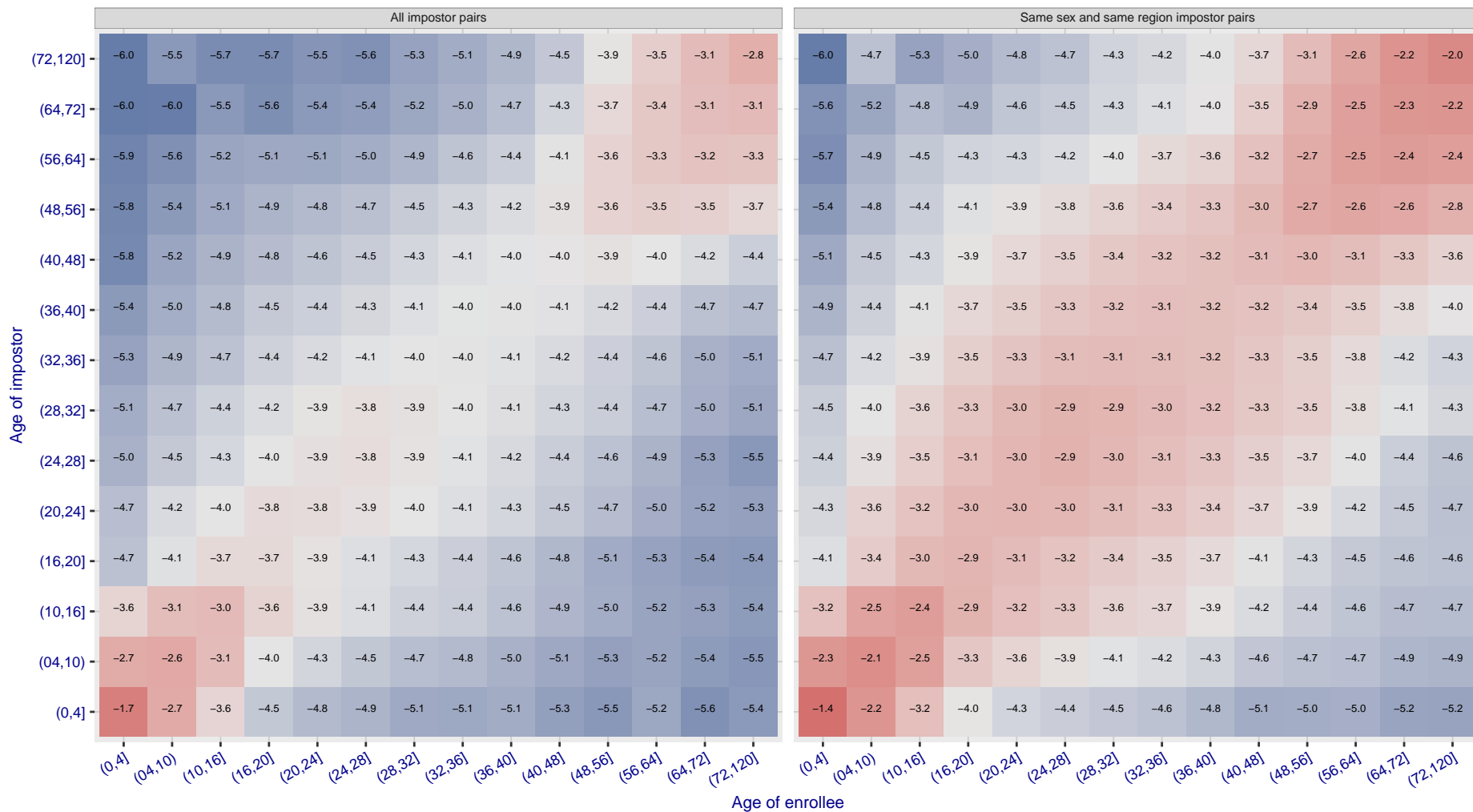
Cross age FMR at threshold $T = 53.280$ for algorithm einetworks_000, giving $FMR(T) = 0.0001$ globally.



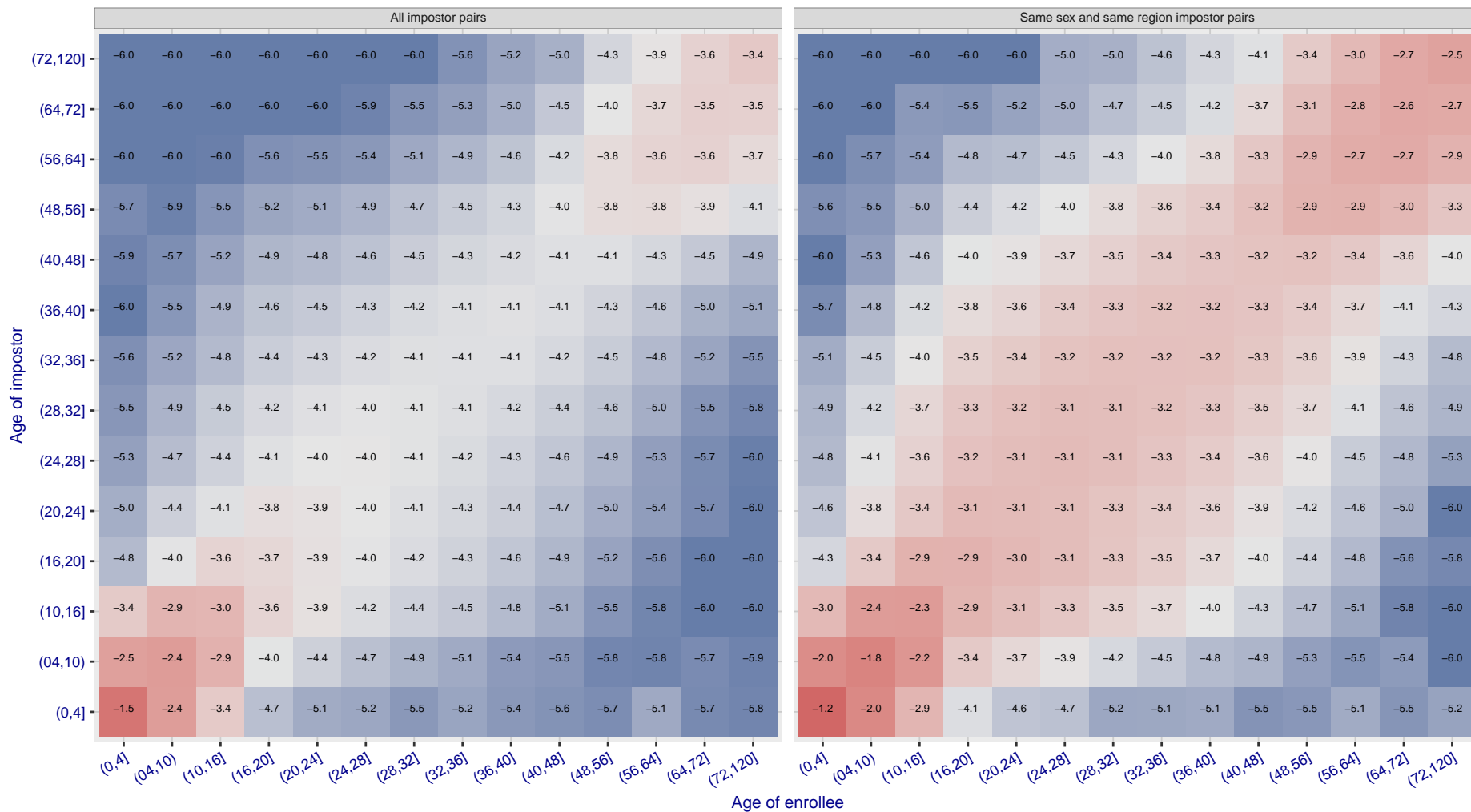
Cross age FMR at threshold $T = 2.589$ for algorithm everai_002, giving $FMR(T) = 0.0001$ globally.



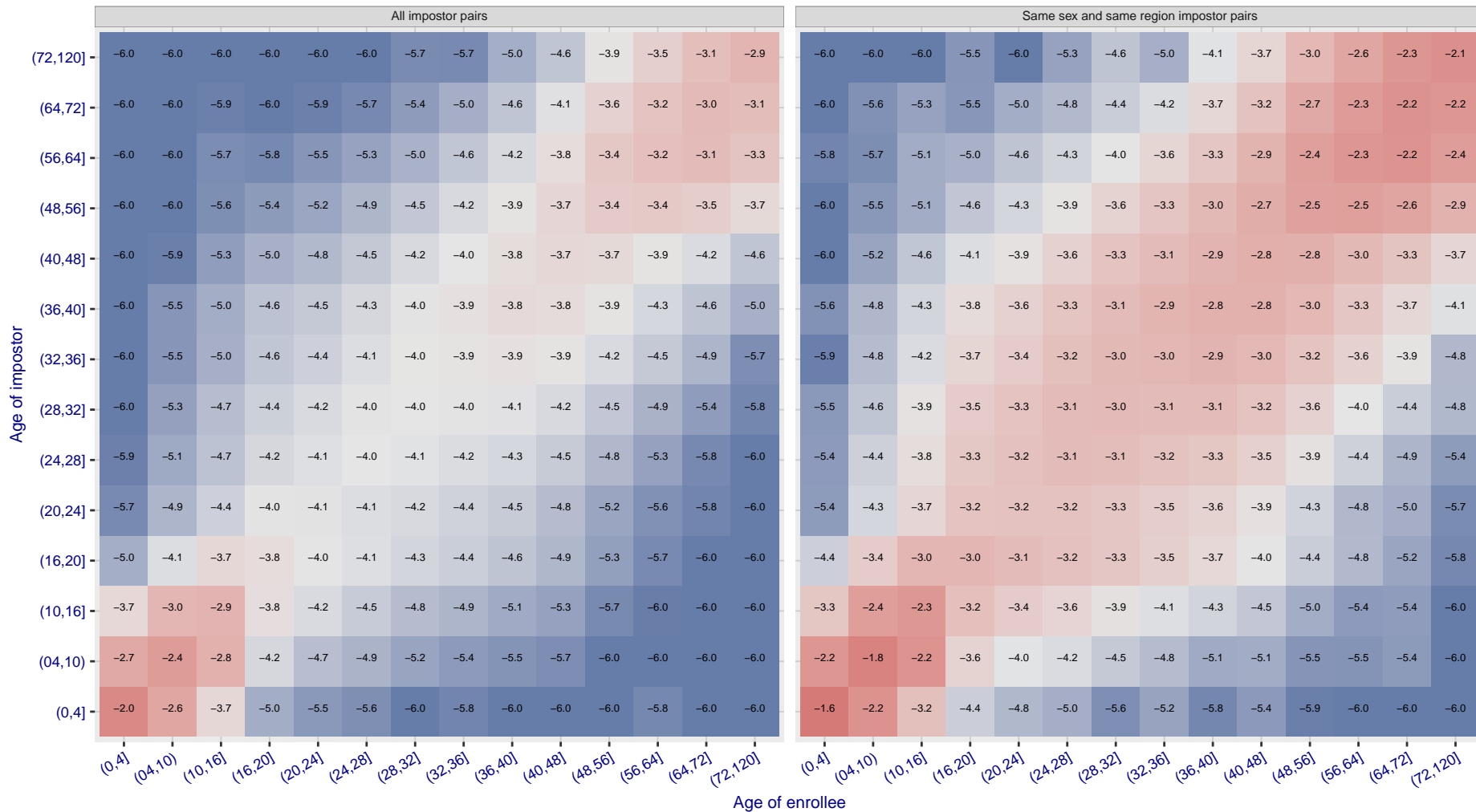
Cross age FMR at threshold $T = 2.667$ for algorithm everai_paravision_003, giving $\text{FMR}(T) = 0.0001$ globally.



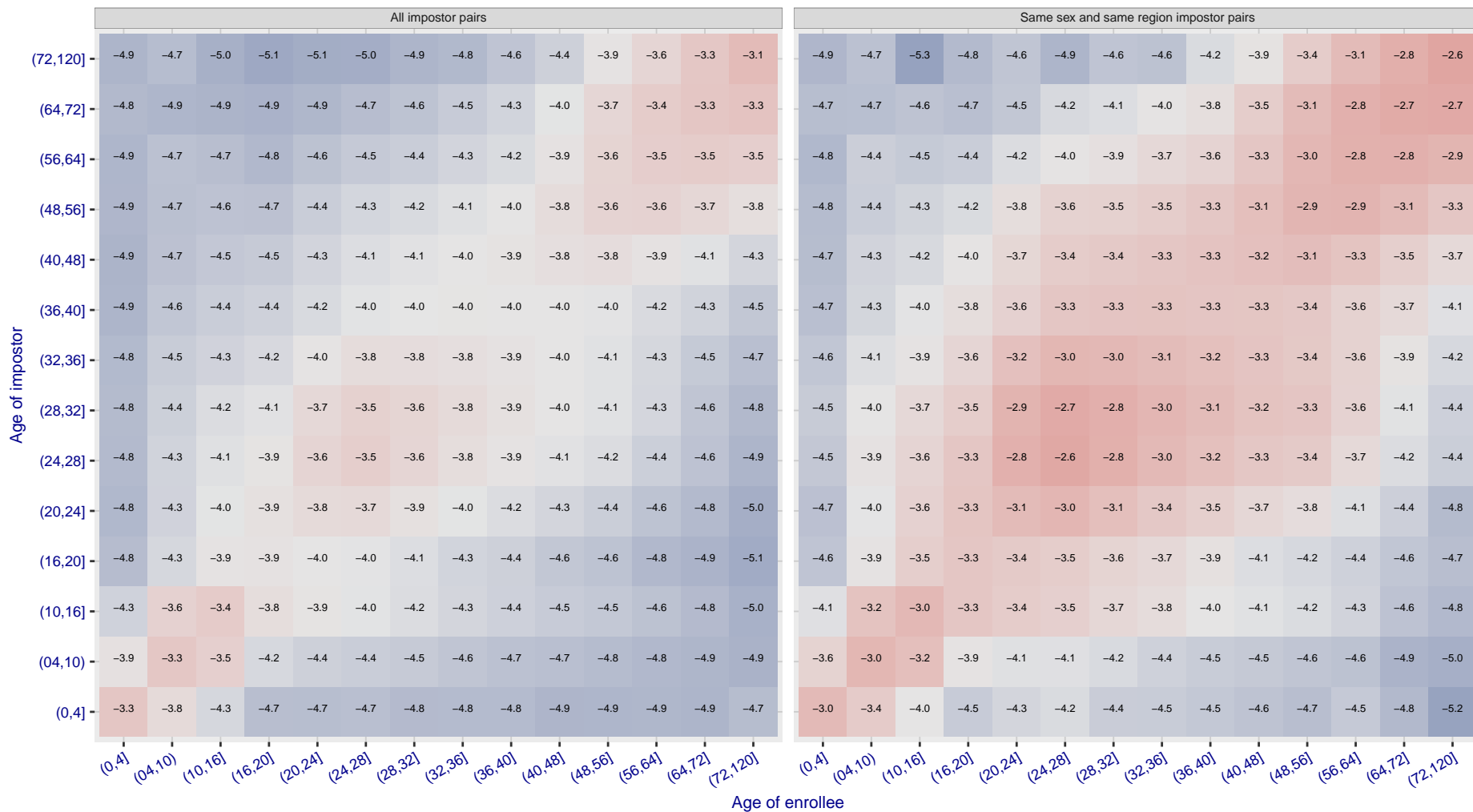
Cross age FMR at threshold $T = 0.400$ for algorithm f8_001, giving $FMR(T) = 0.0001$ globally.



Cross age FMR at threshold $T = 1.375$ for algorithm facesoft_000, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR

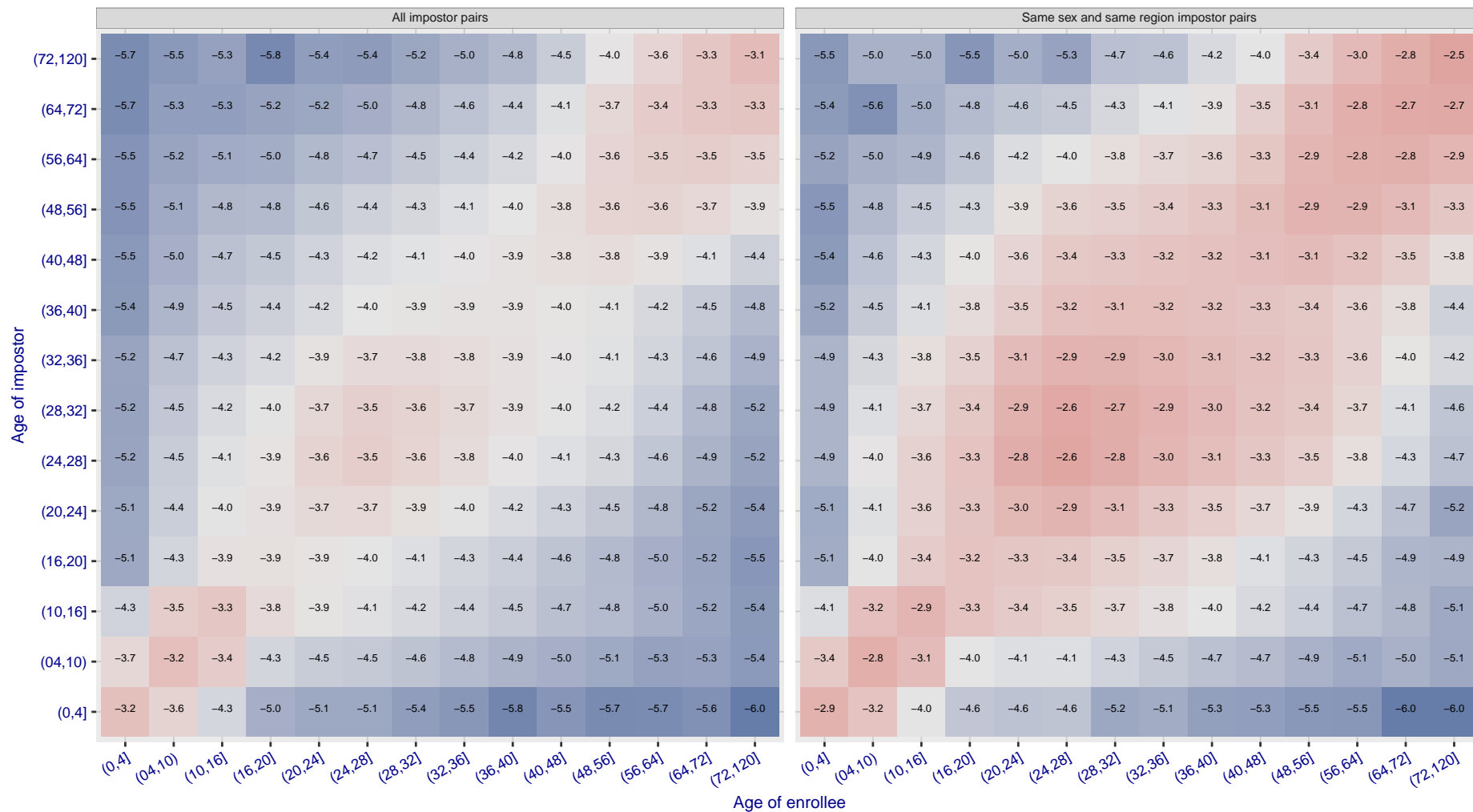


Cross age FMR at threshold $T = 0.611$ for algorithm glory_000, giving $FMR(T) = 0.0001$ globally.



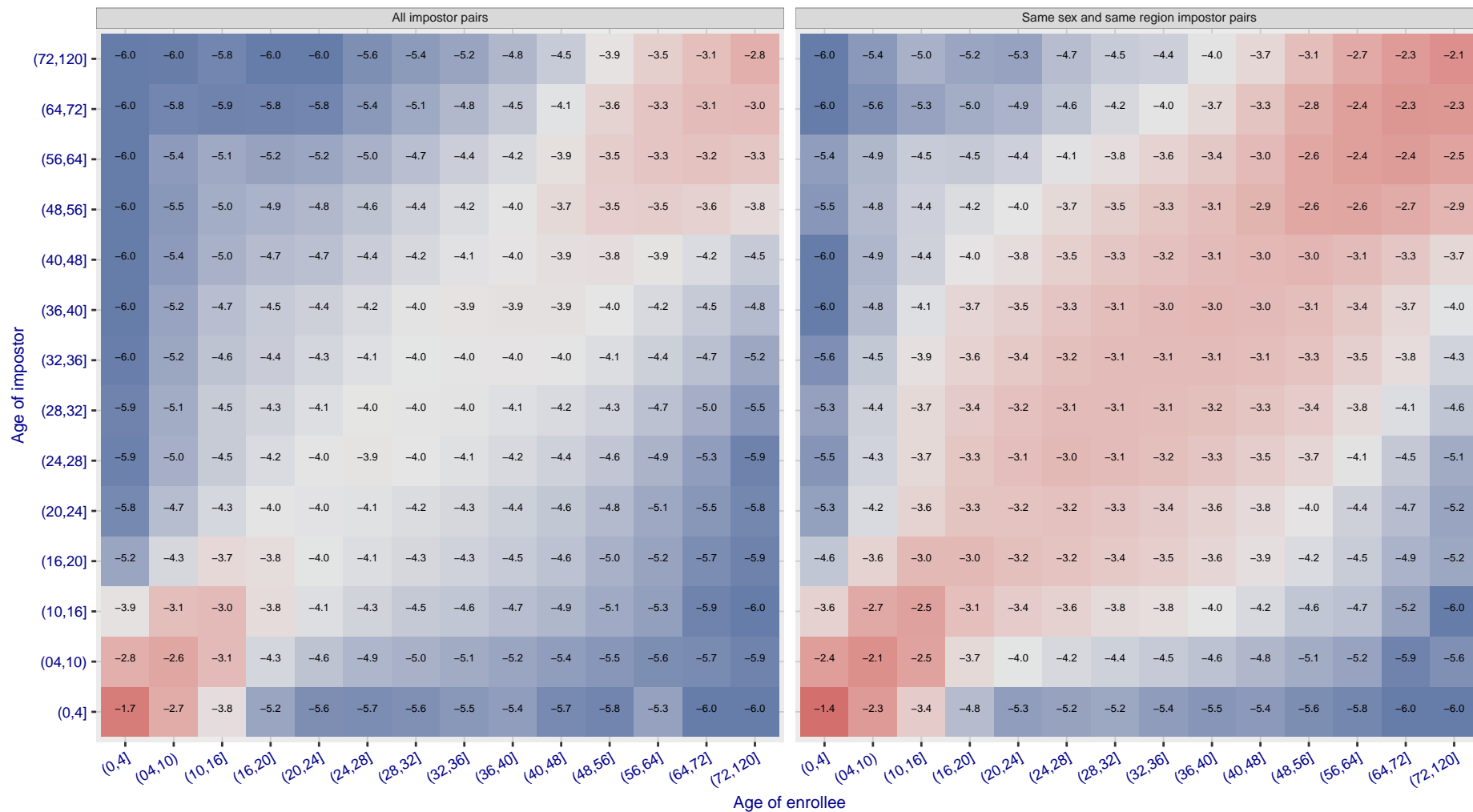
Cross age FMR at threshold $T = 0.618$ for algorithm glory_001, giving $FMR(T) = 0.0001$ globally.

log₁₀ FMR

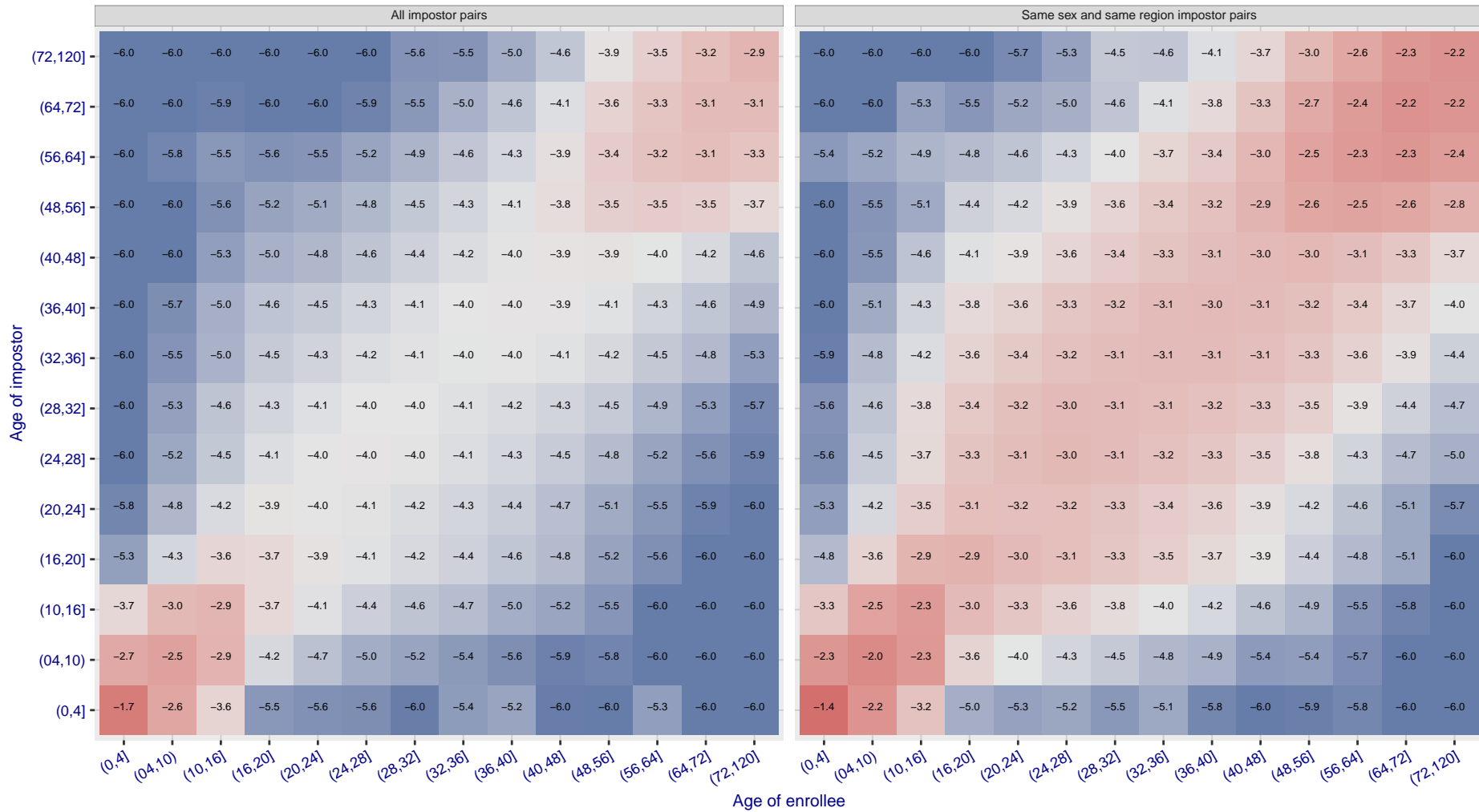


Cross age FMR at threshold $T = 0.483$ for algorithm gorilla_002, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

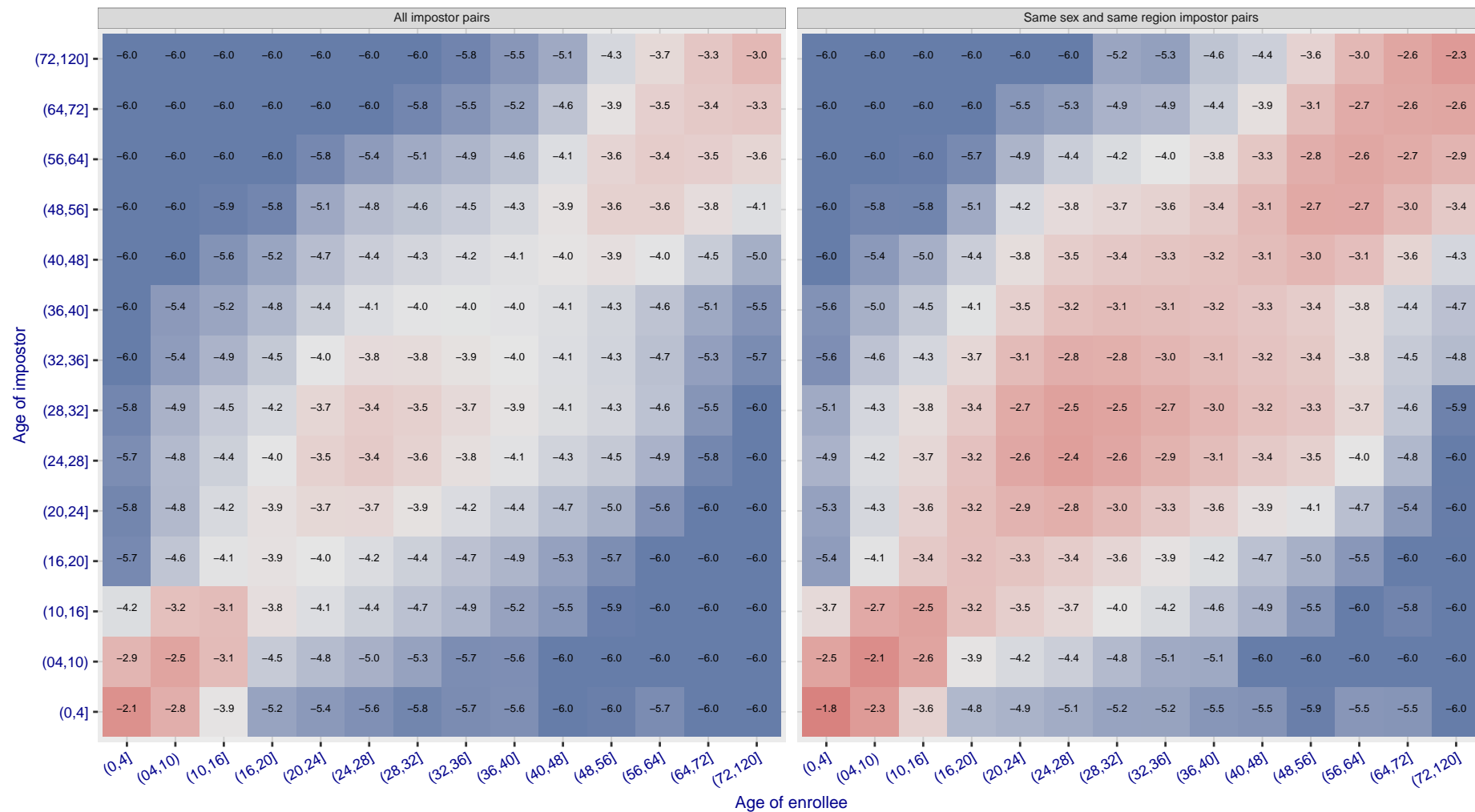


Cross age FMR at threshold $T = 0.454$ for algorithm gorilla_003, giving $FMR(T) = 0.0001$ globally.
log10 FMR

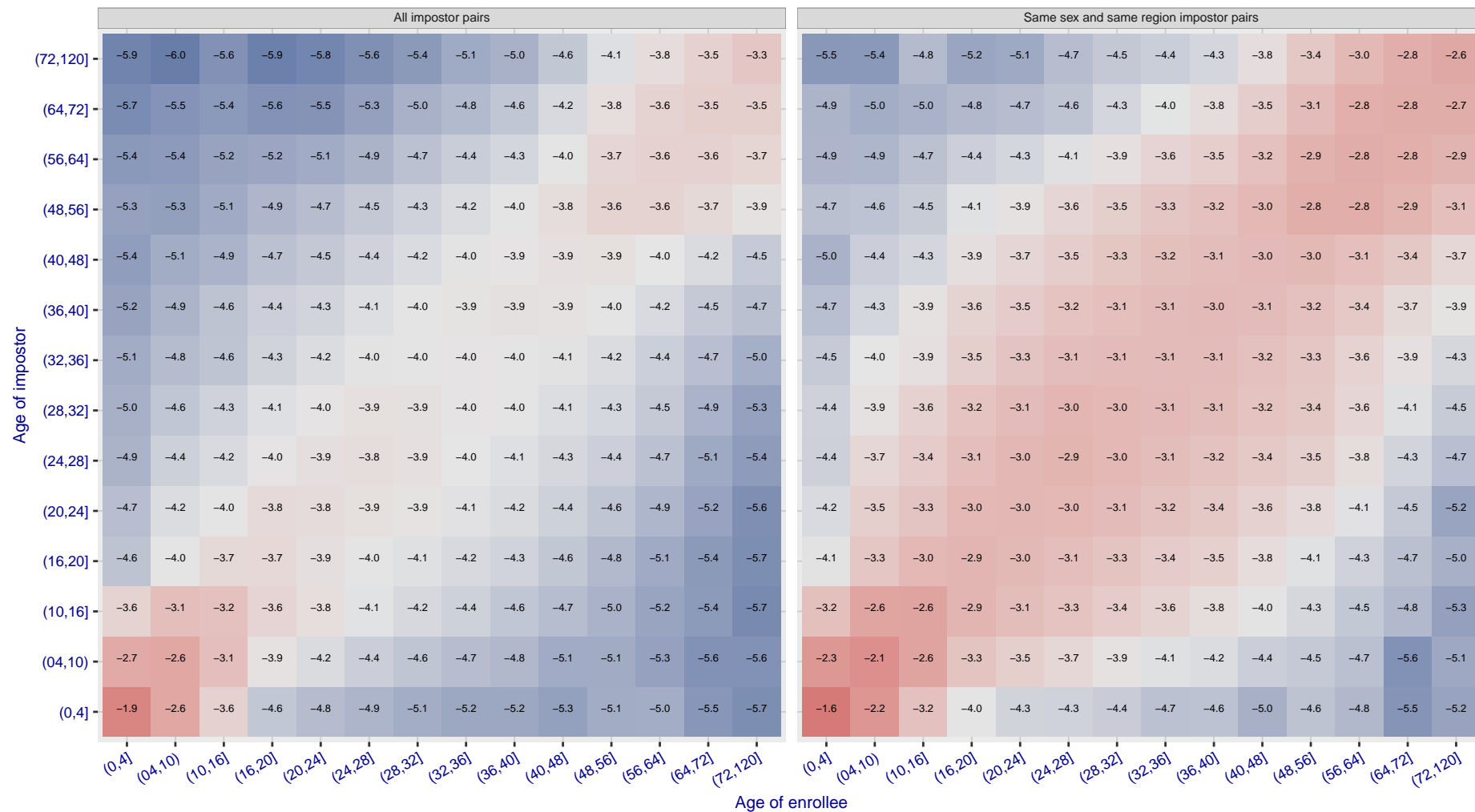


Cross age FMR at threshold $T = 66.565$ for algorithm hik_001, giving $FMR(T) = 0.0001$ globally.

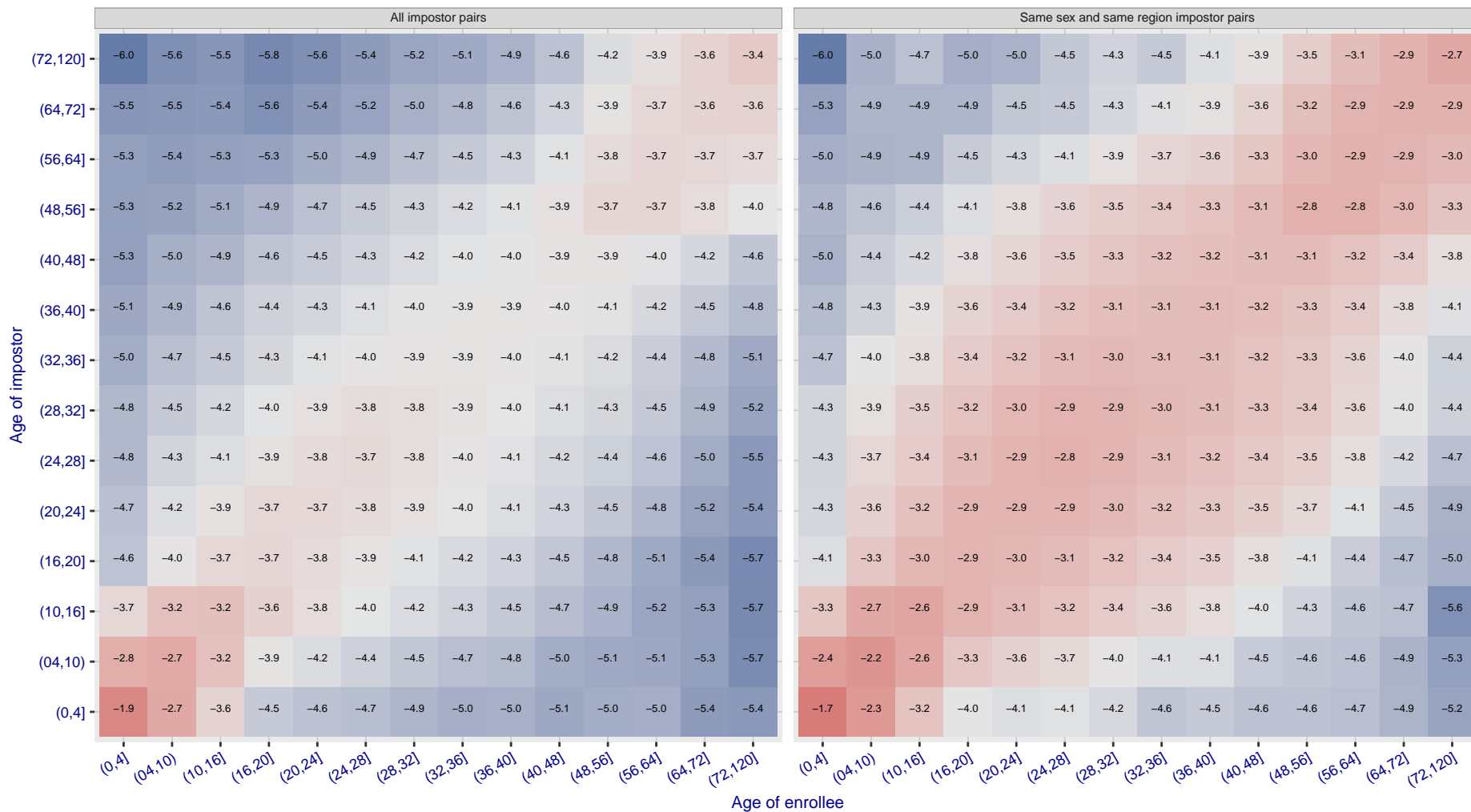
\log_{10} FMR



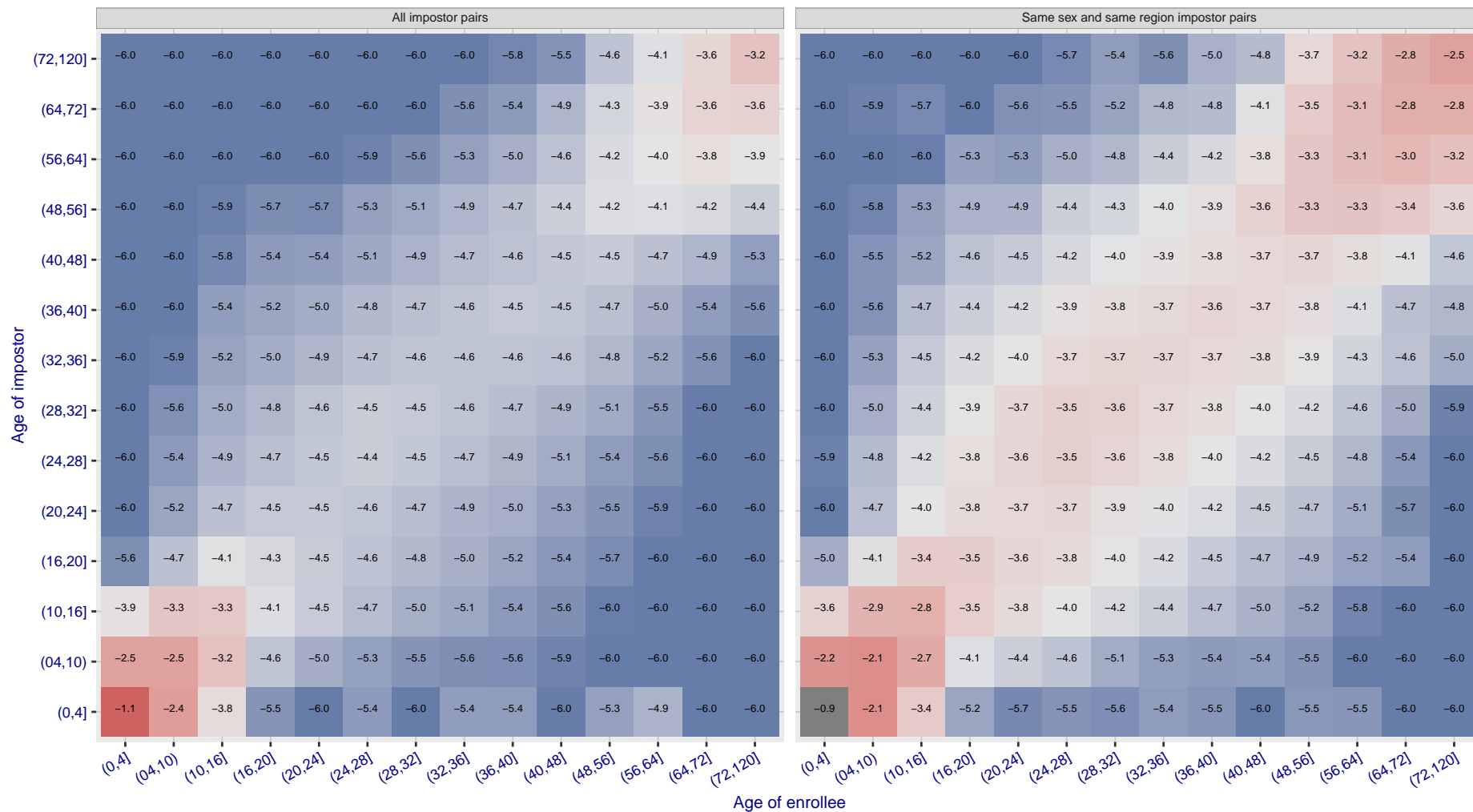
Cross age FMR at threshold $T = 0.823$ for algorithm hr_001, giving $FMR(T) = 0.0001$ globally.



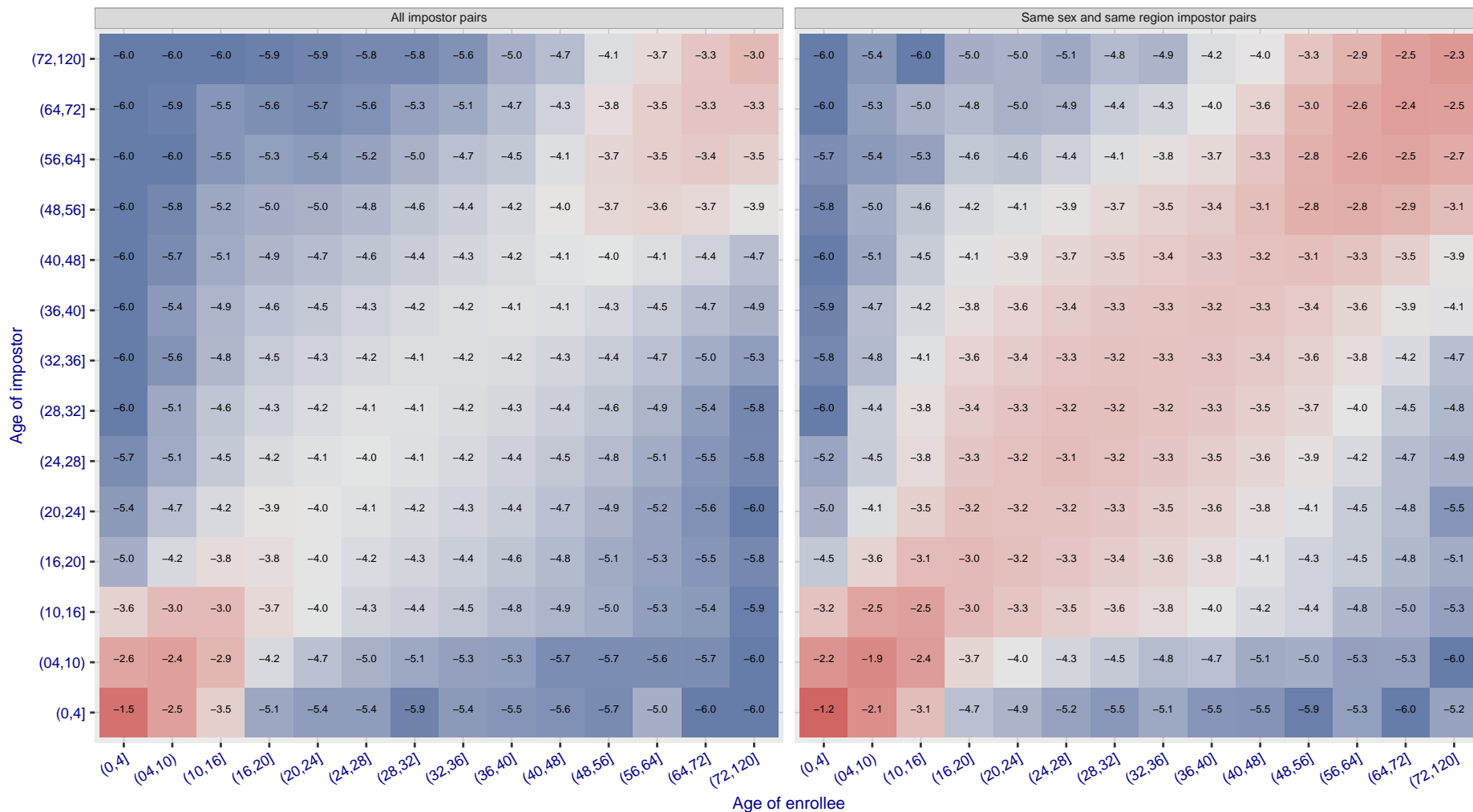
Cross age FMR at threshold $T = 0.285$ for algorithm hr_002, giving $FMR(T) = 0.0001$ globally.



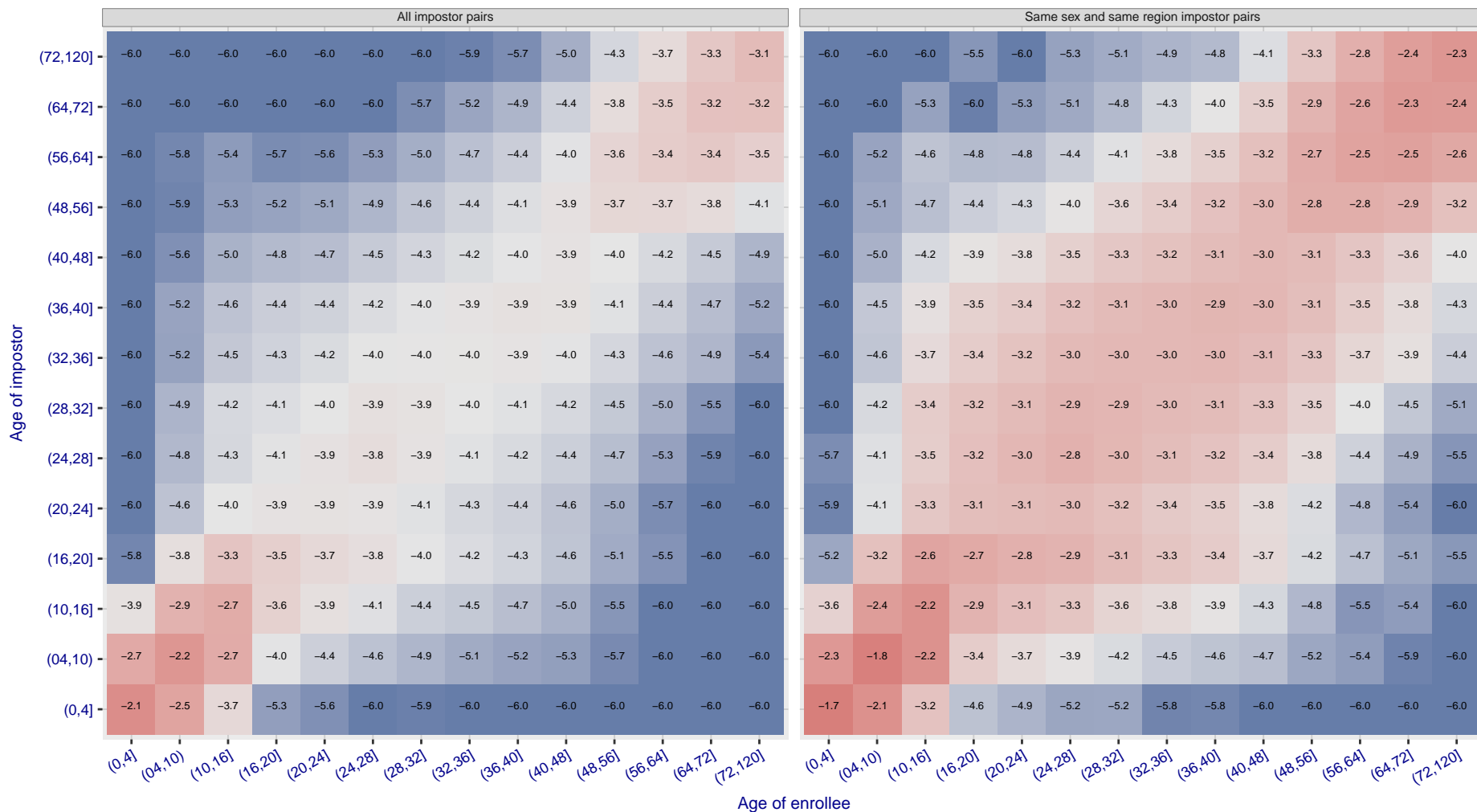
Cross age FMR at threshold $T = 37645.000$ for algorithm id3_003, giving $FMR(T) = 0.0001$ globally. $\log_{10} FMR$



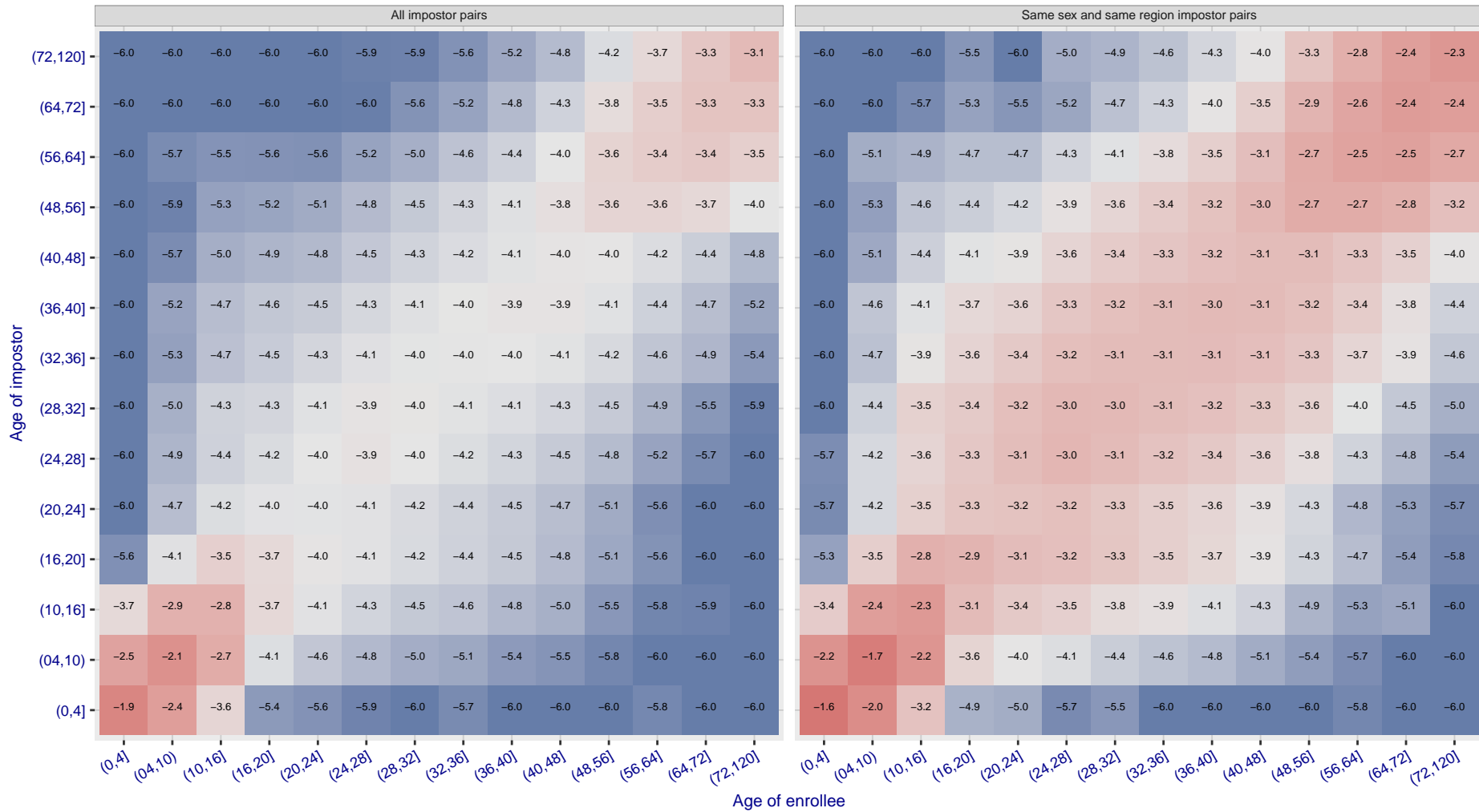
Cross age FMR at threshold $T = 37001.000$ for algorithm `id3_004`, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



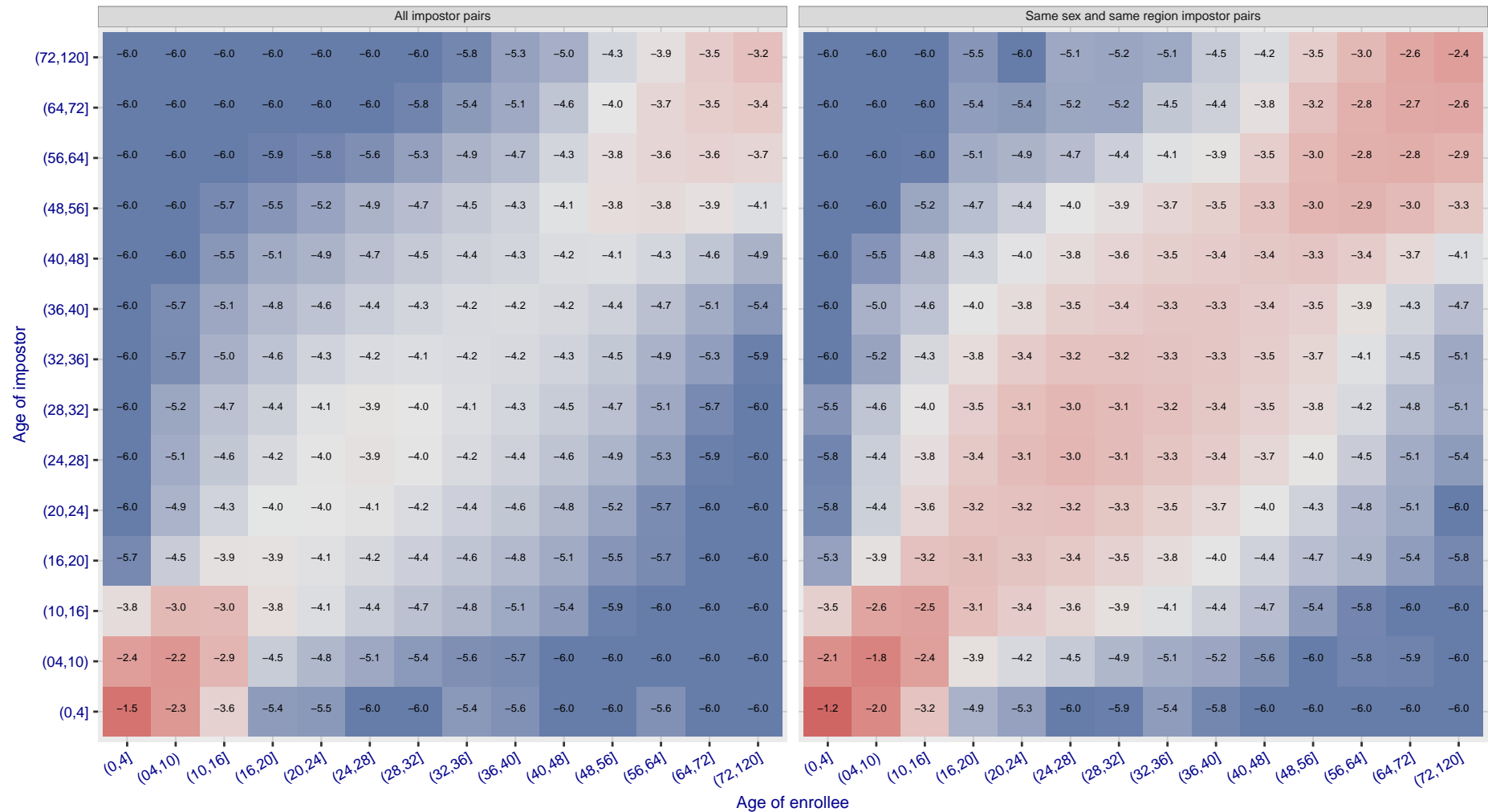
Cross age FMR at threshold $T = 3664.380$ for algorithm `idemia_003`, giving $\text{FMR}(T) = 0.0001$ globally.



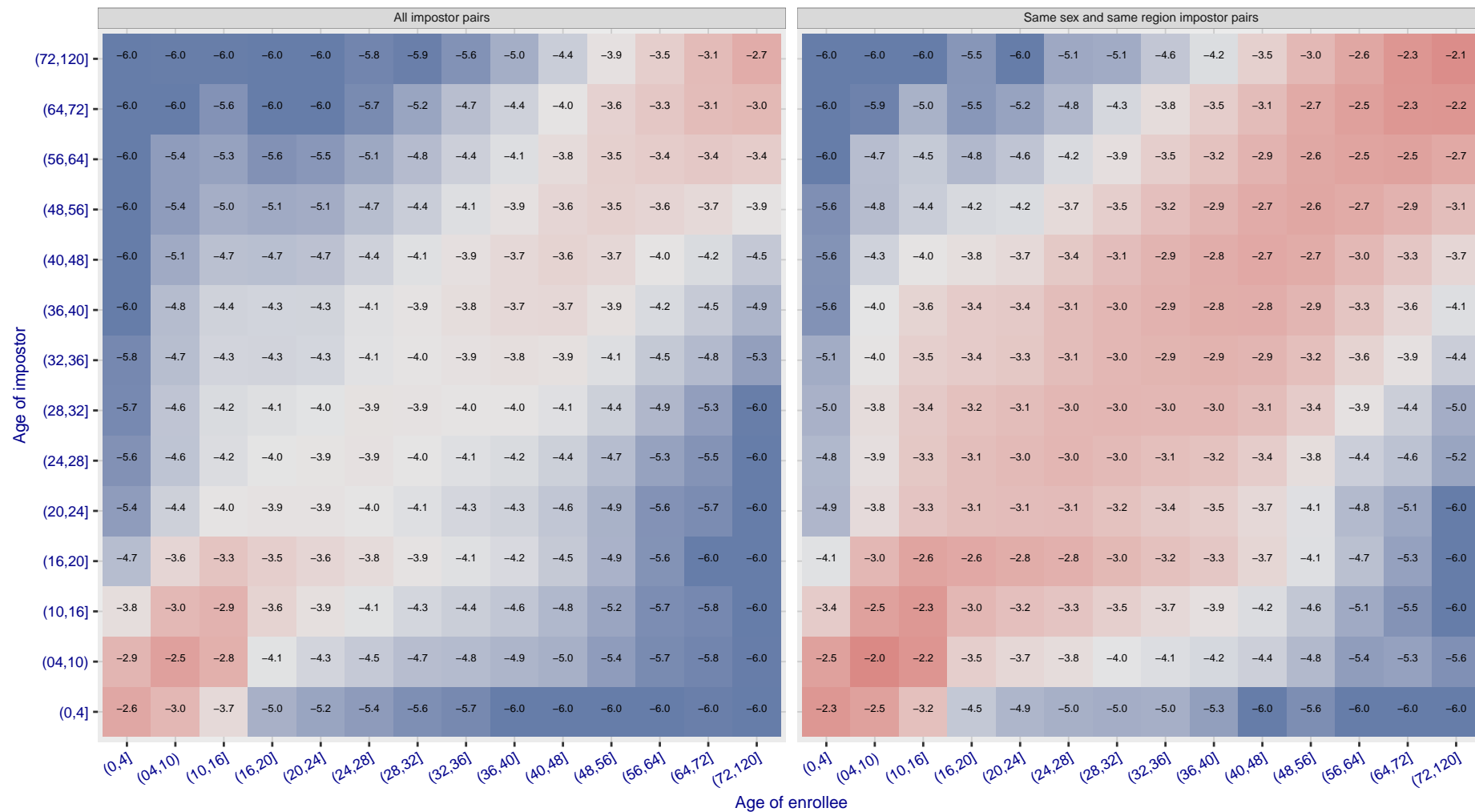
Cross age FMR at threshold $T = 3925.463$ for algorithm *idemia_004*, giving $FMR(T) = 0.0001$ globally.



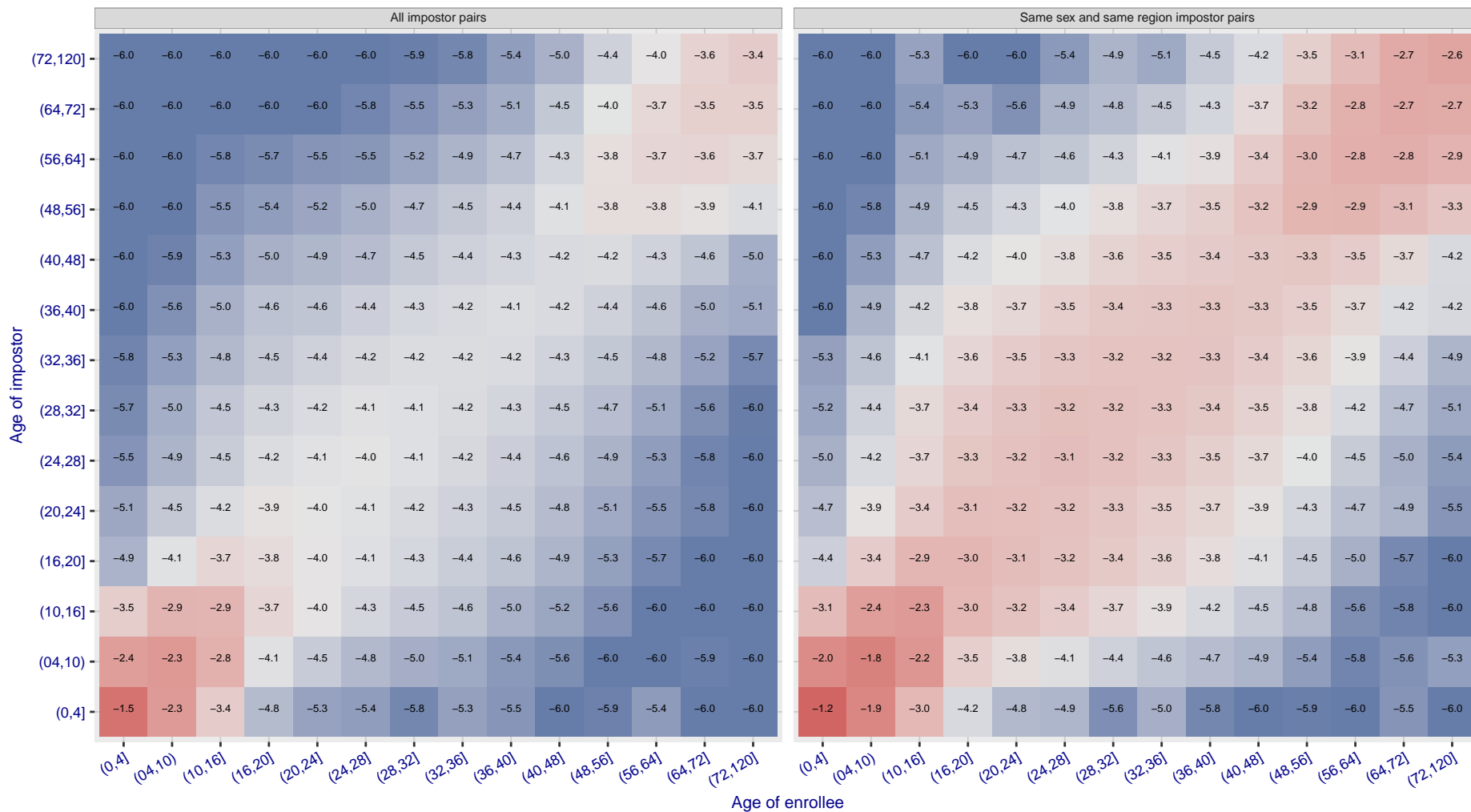
Cross age FMR at threshold $T = 3764.961$ for algorithm `idemia_005`, giving $FMR(T) = 0.0001$ globally.



Cross age FMR at threshold $T = 0.760$ for algorithm iit_000, giving $FMR(T) = 0.0001$ globally.
log10 FMR

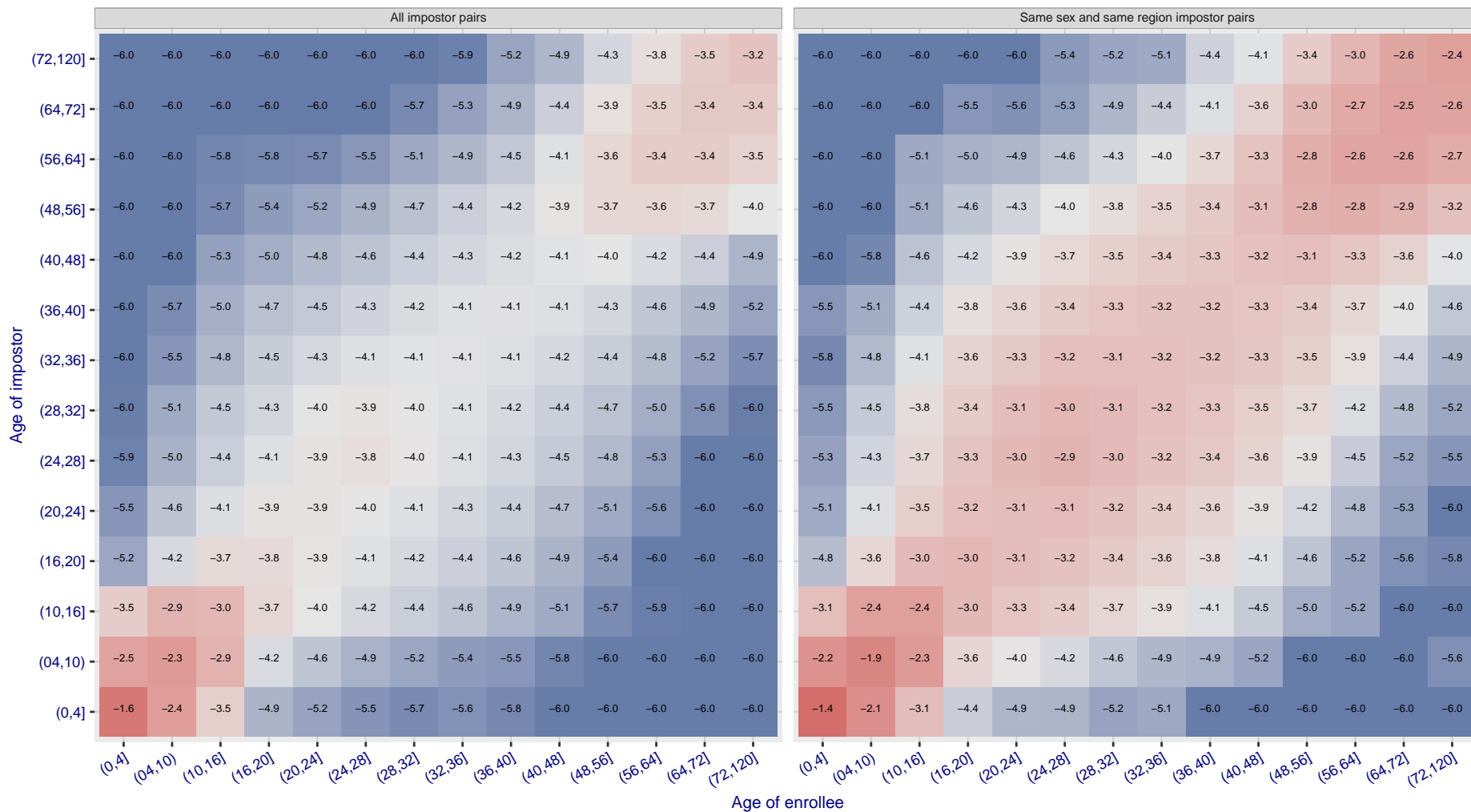


Cross age FMR at threshold $T = 0.691$ for algorithm iit_001, giving $FMR(T) = 0.0001$ globally.

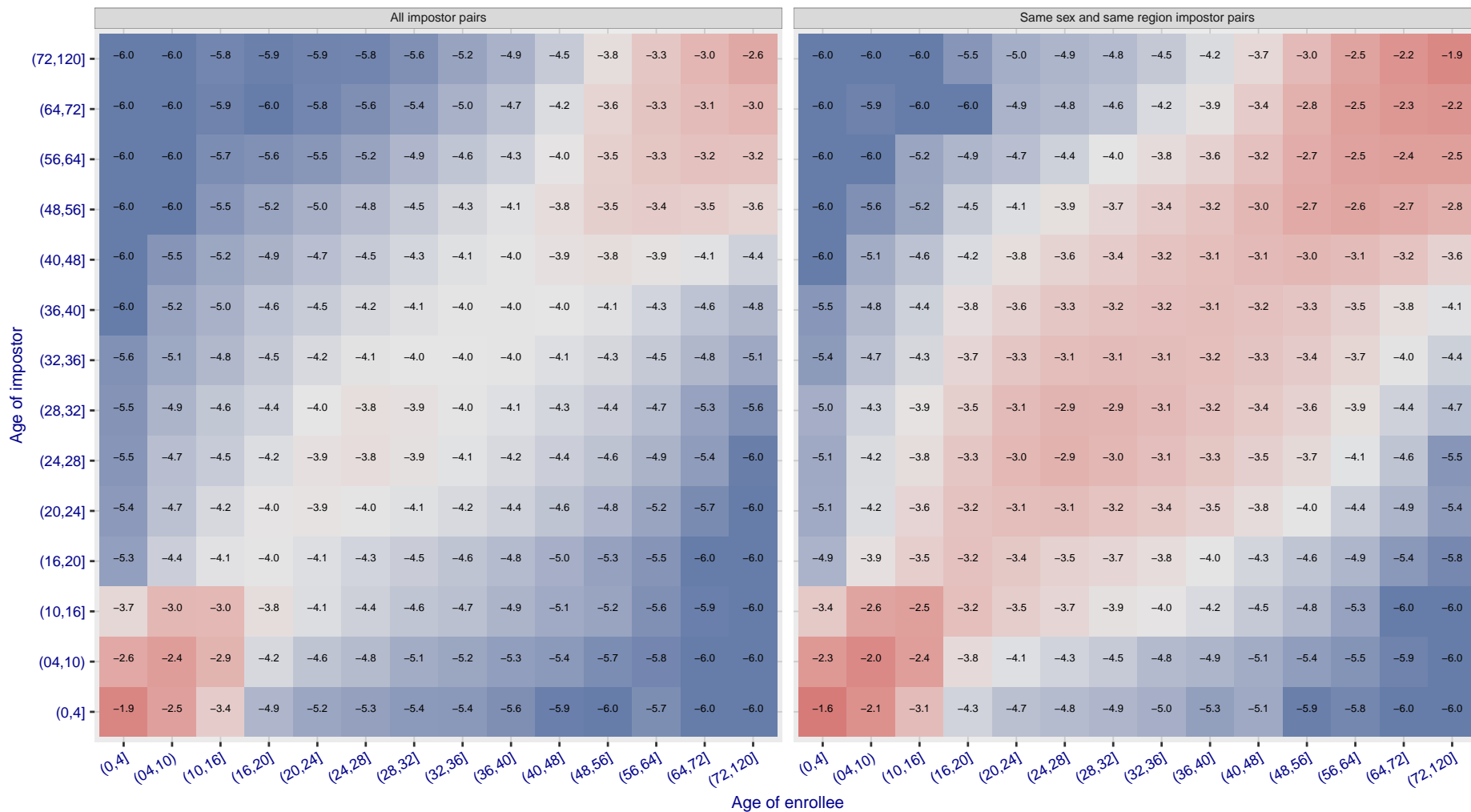


Cross age FMR at threshold $T = 0.926$ for algorithm `imagus_000`, giving $FMR(T) = 0.0001$ globally.

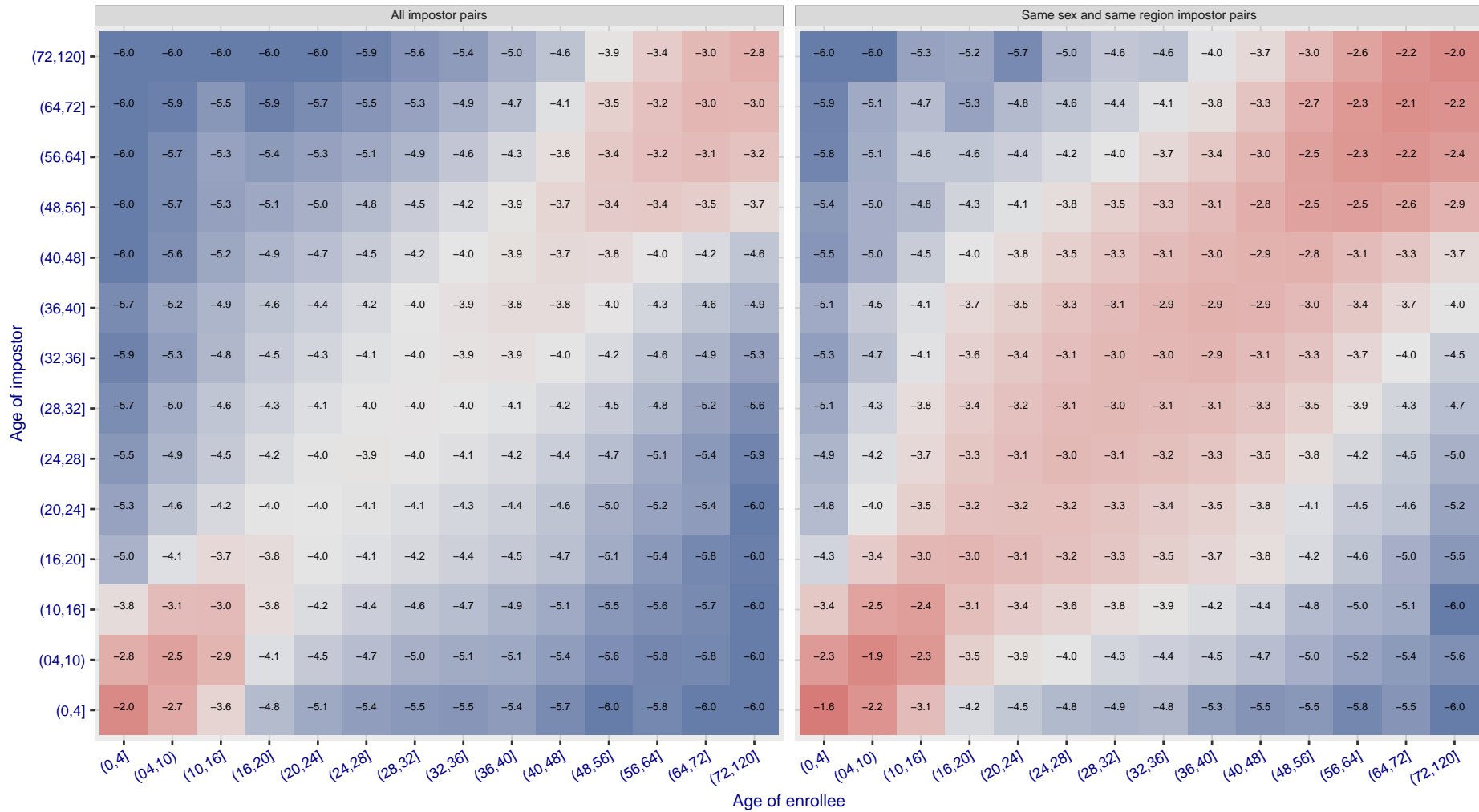
\log_{10} FMR



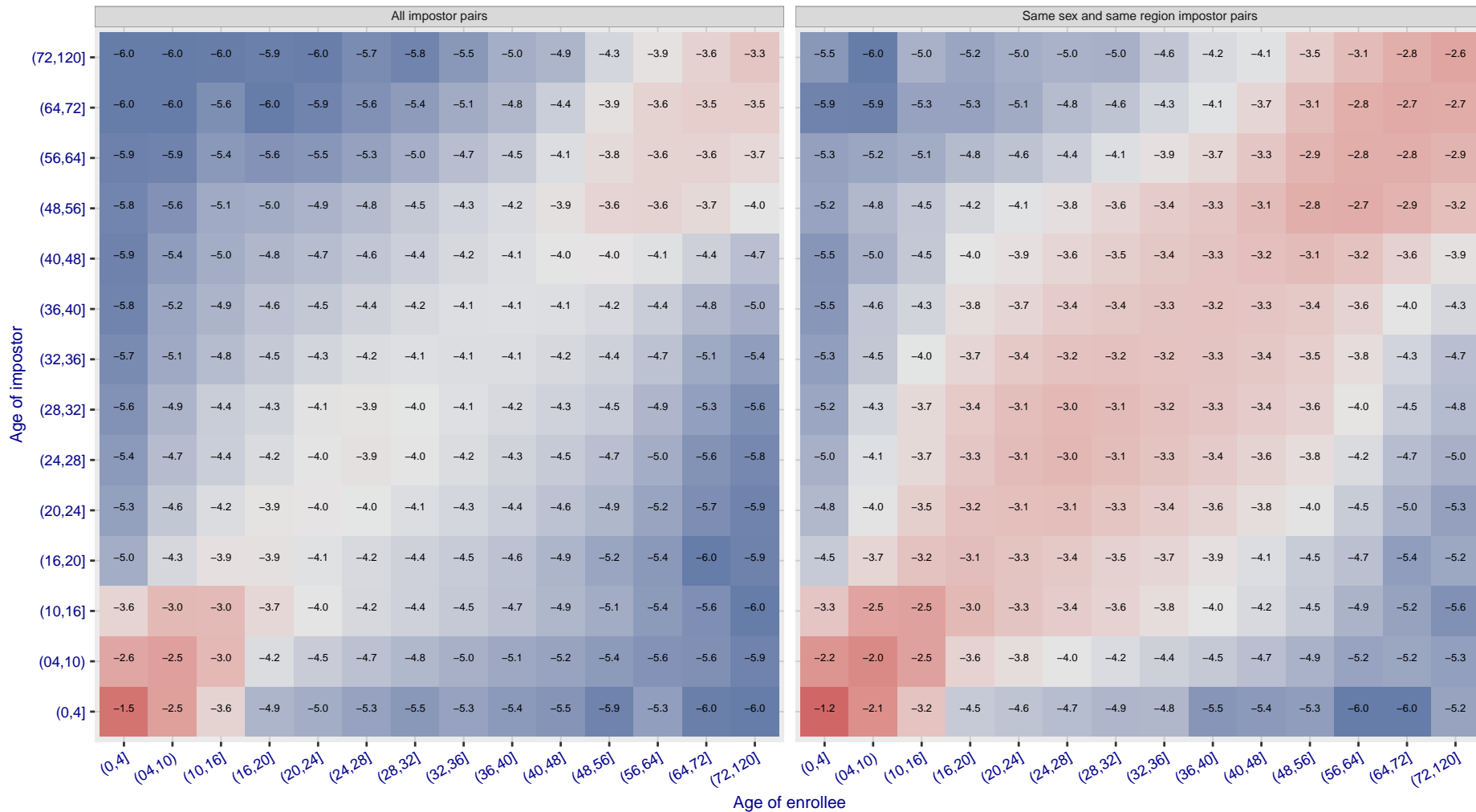
Cross age FMR at threshold $T = 1.375$ for algorithm imperial_000, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



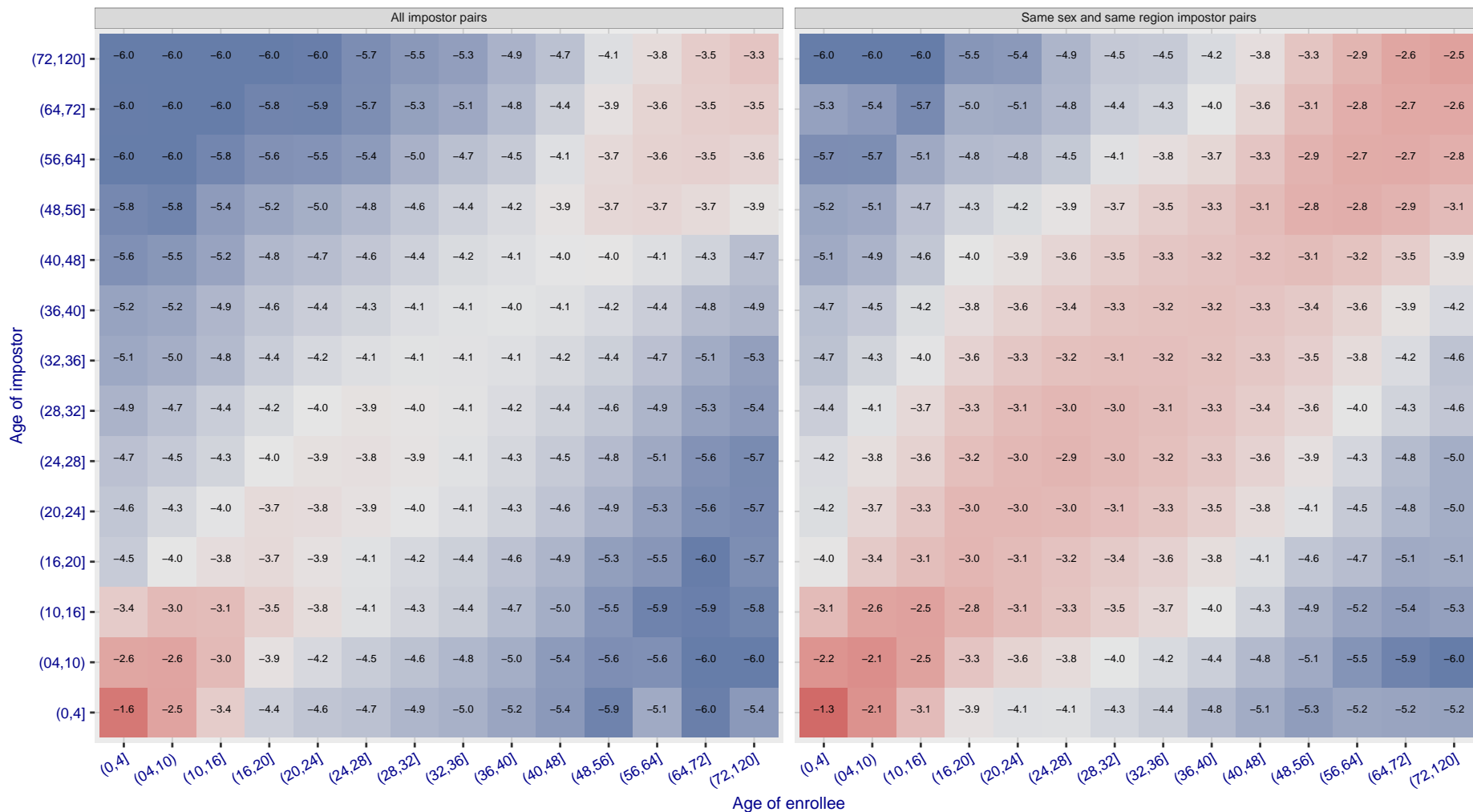
Cross age FMR at threshold $T = 1.358$ for algorithm imperial_002, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



Cross age FMR at threshold $T = 1.427$ for algorithm `incode_003`, giving $FMR(T) = 0.0001$ globally. $\log_{10} FMR$

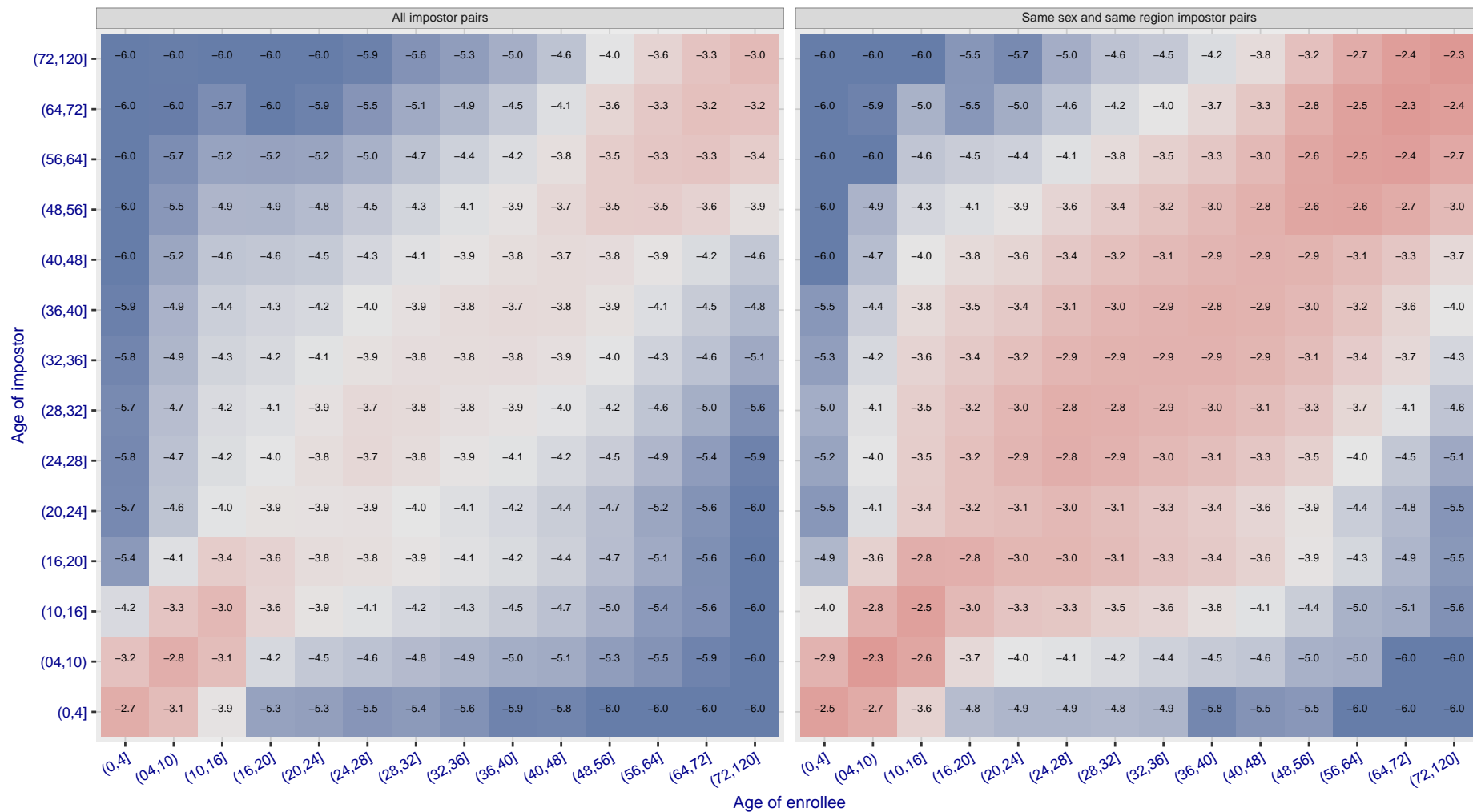


Cross age FMR at threshold $T = 1.398$ for algorithm `incod_004`, giving $FMR(T) = 0.0001$ globally. $\log_{10} FMR$



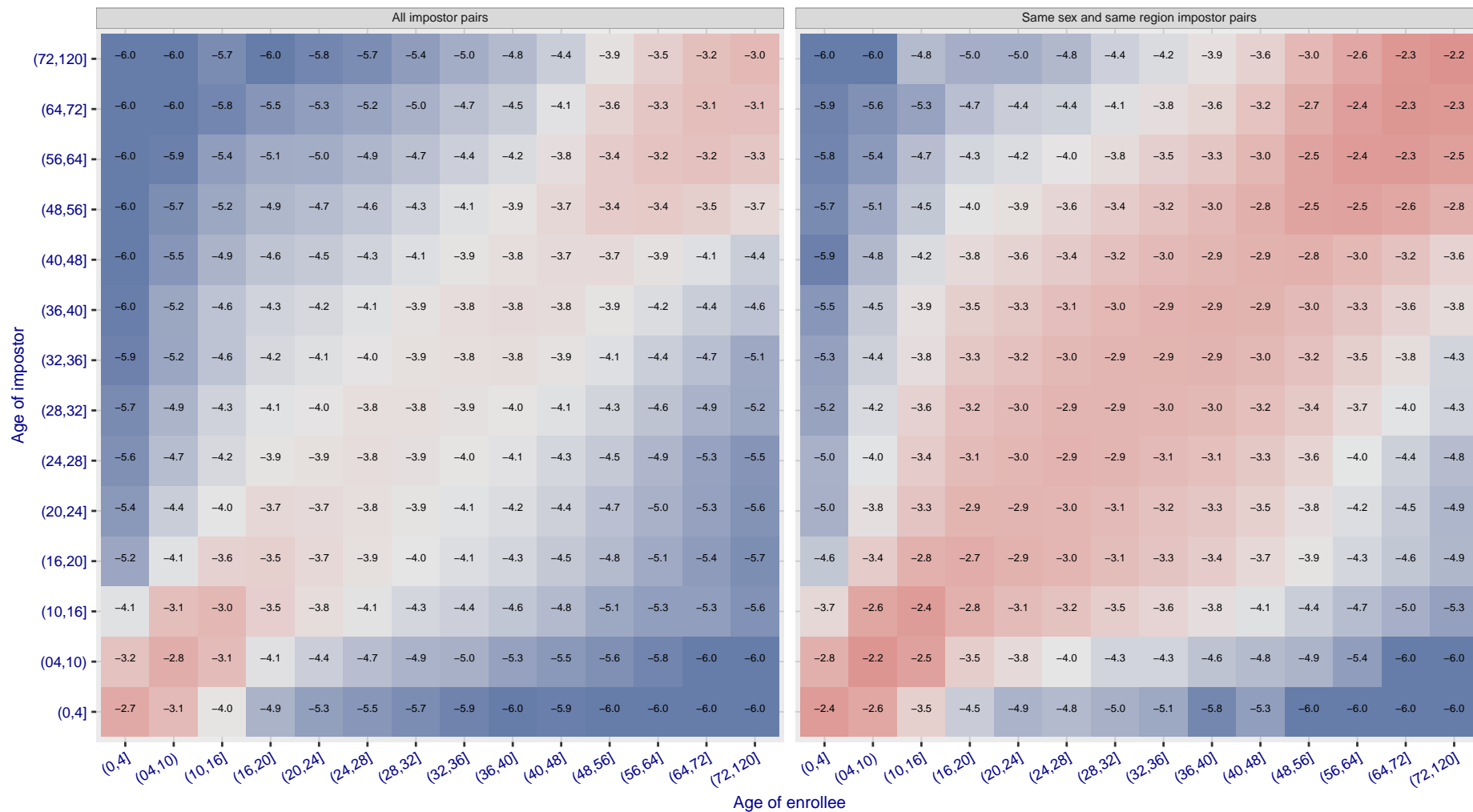
Cross age FMR at threshold $T = 29.232$ for algorithm `innovatrics_004`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

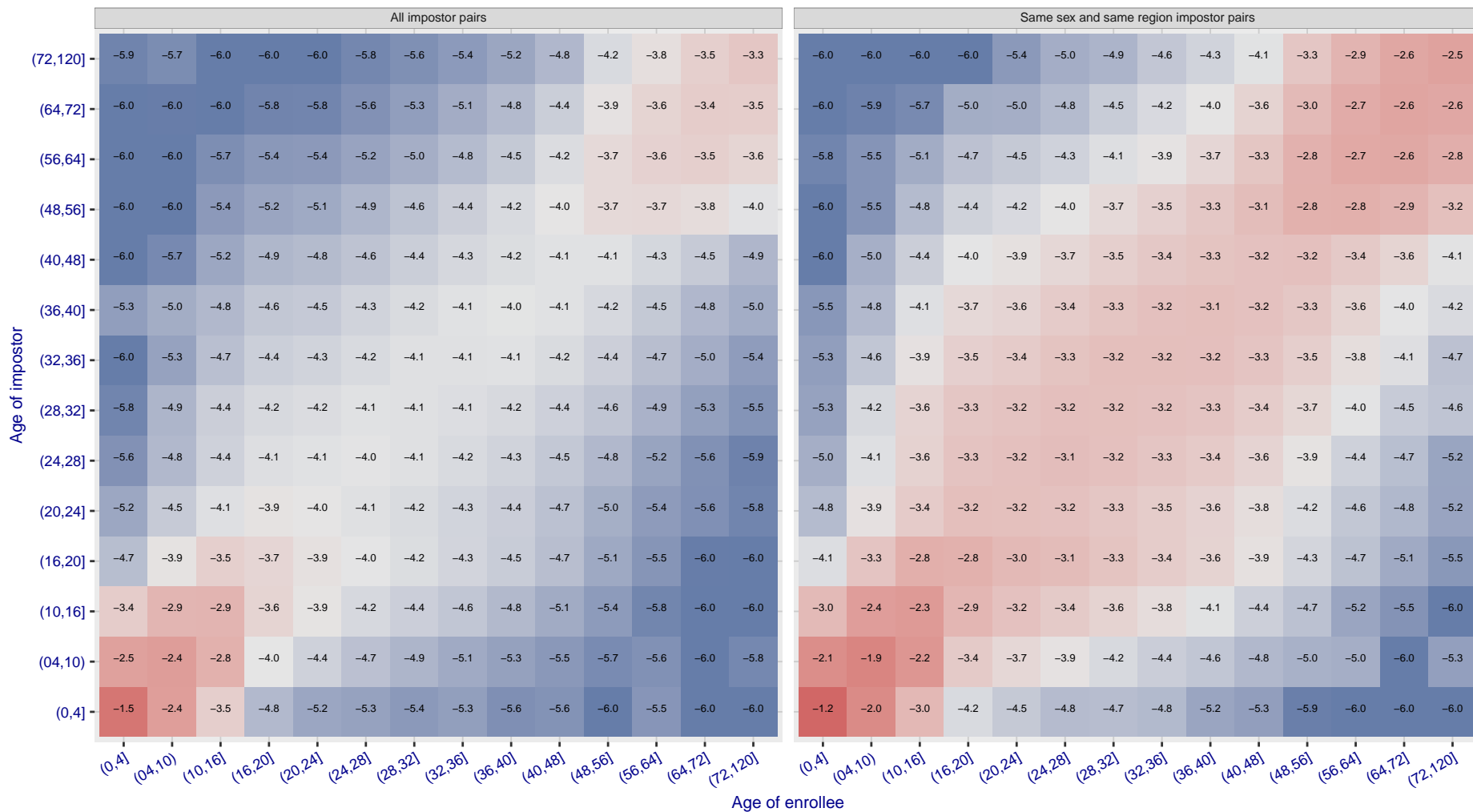


Cross age FMR at threshold $T = 27.987$ for algorithm `innovatics_006`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

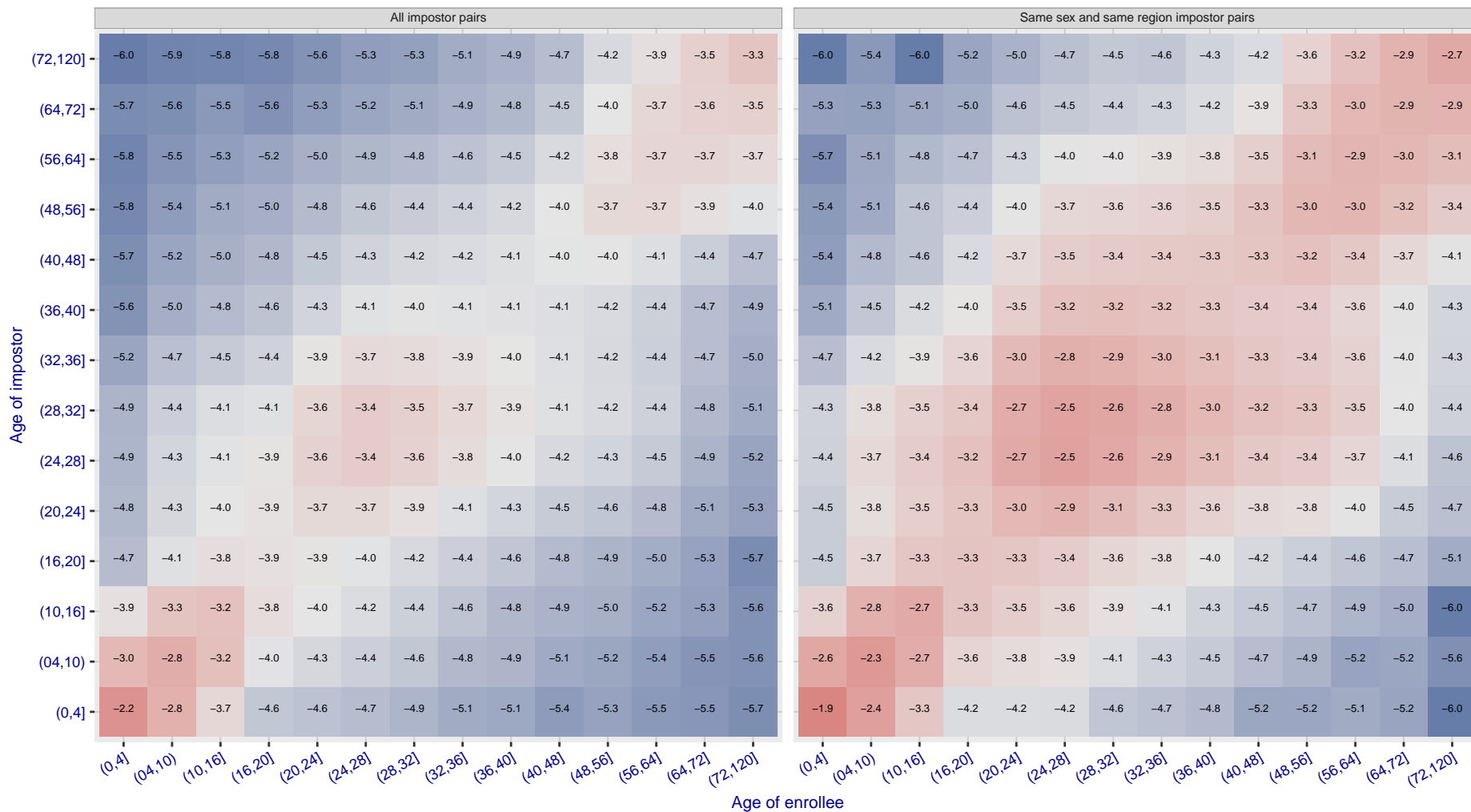


Cross age FMR at threshold $T = 0.705$ for algorithm `intellcloudai_001`, giving $FMR(T) = 0.0001$ globally.

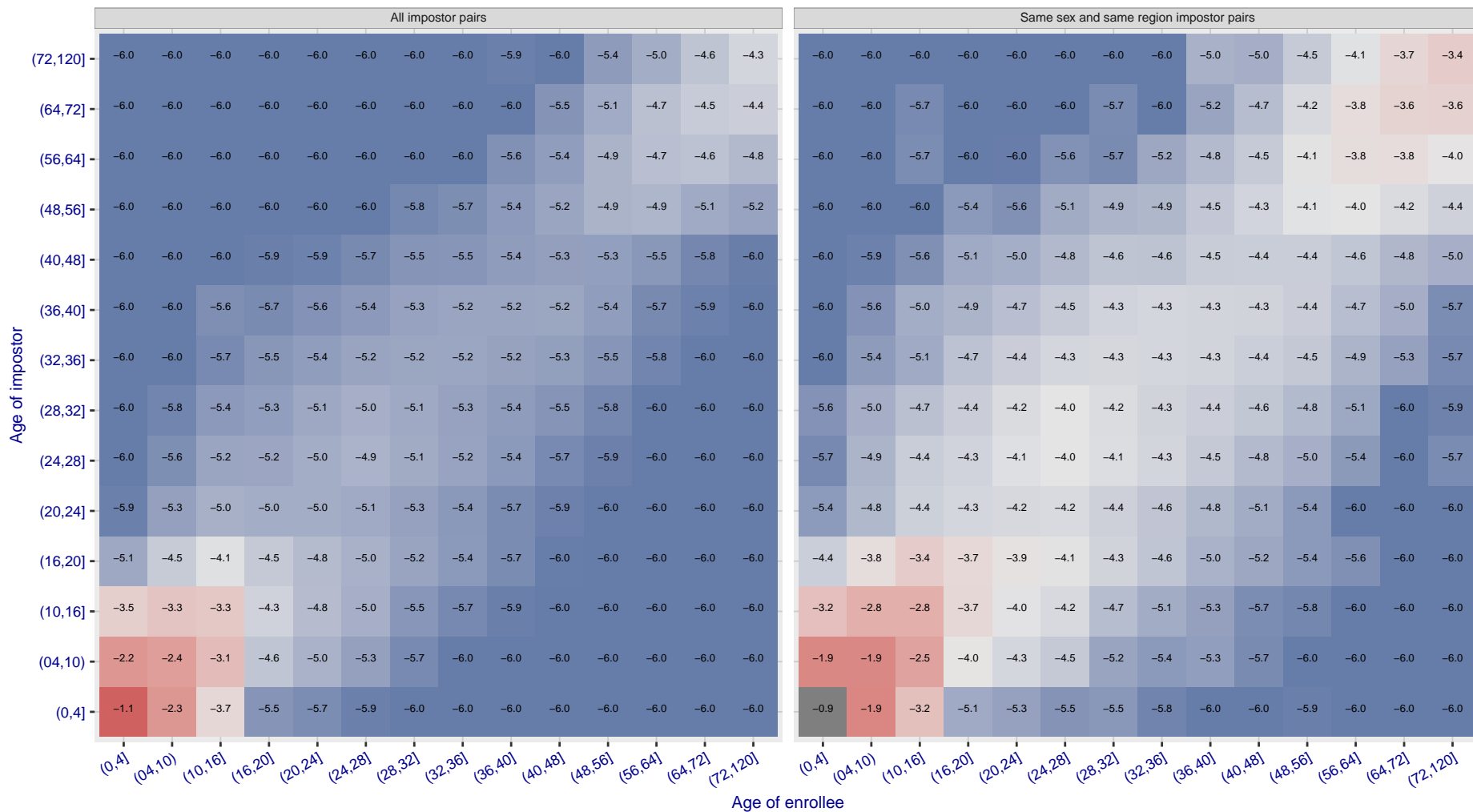


Cross age FMR at threshold $T = 0.300$ for algorithm intellifusion_001, giving $FMR(T) = 0.0001$ globally.

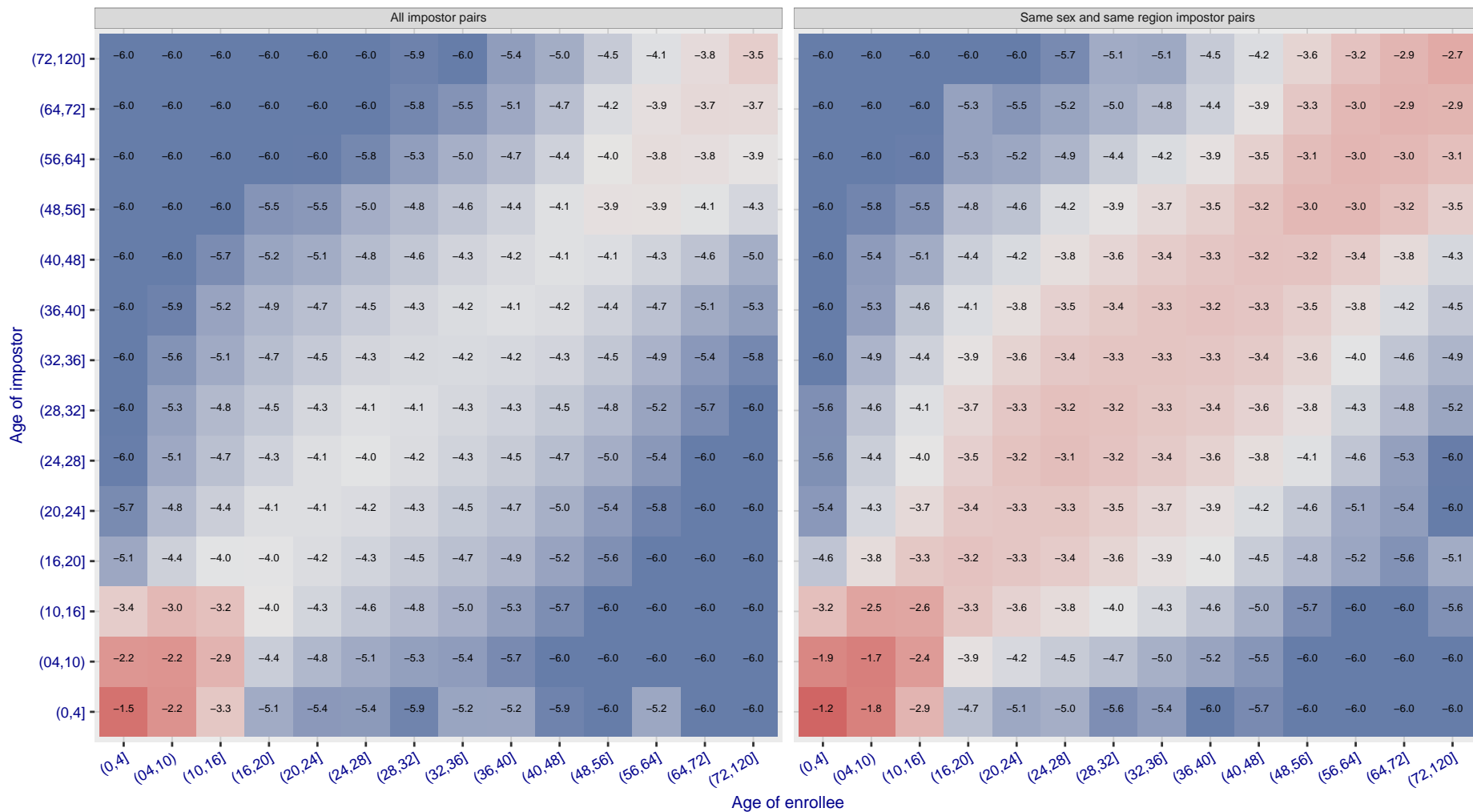
\log_{10} FMR



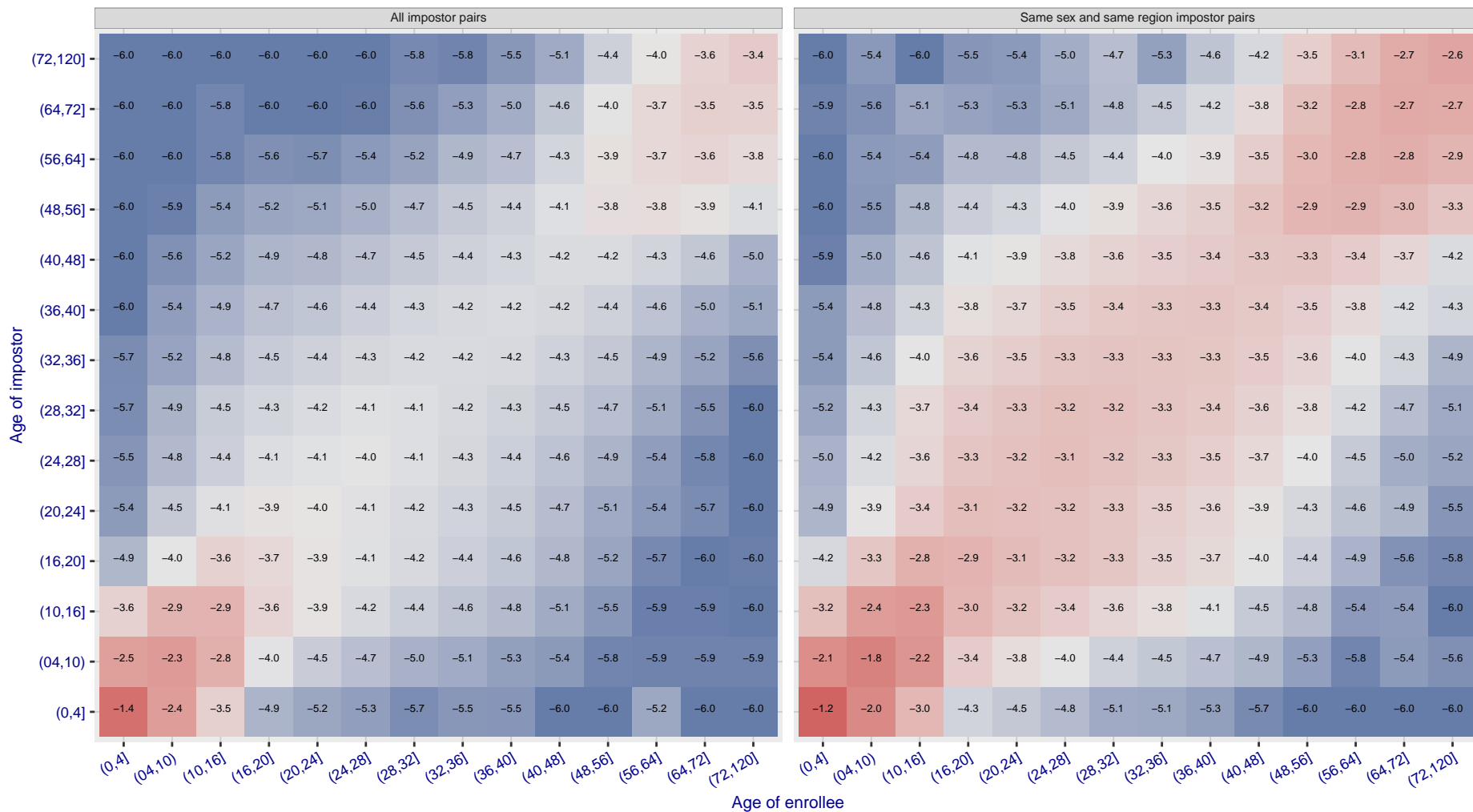
Cross age FMR at threshold $T = 49.664$ for algorithm `intellivision_001`, giving $FMR(T) = 0.0001$ globally.



Cross age FMR at threshold $T = 594.014$ for algorithm intelresearch_000, giving $FMR(T) = 0.0001$ globally.

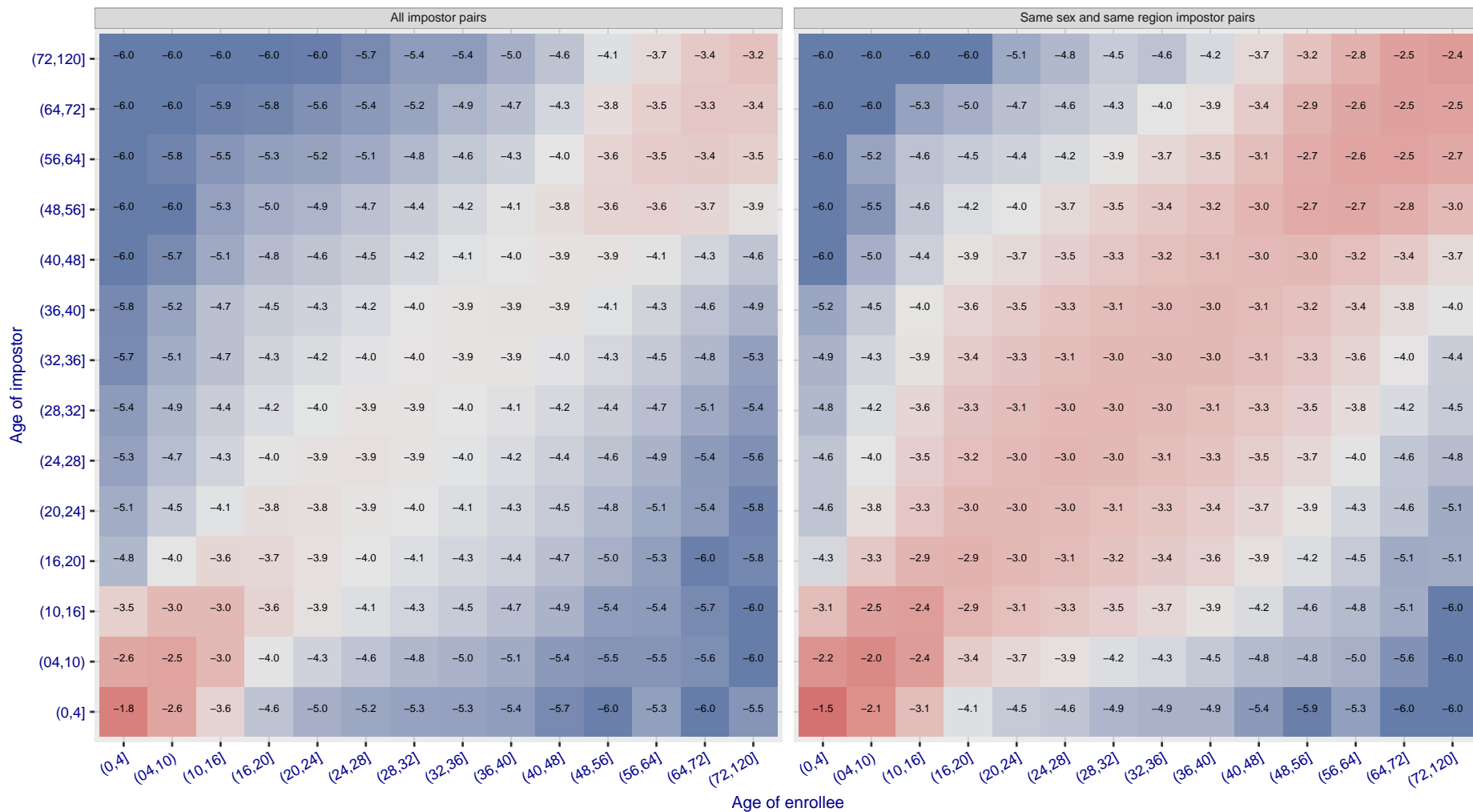


Cross age FMR at threshold $T = 1.389$ for algorithm `intsysmsu_000`, giving $FMR(T) = 0.0001$ globally.



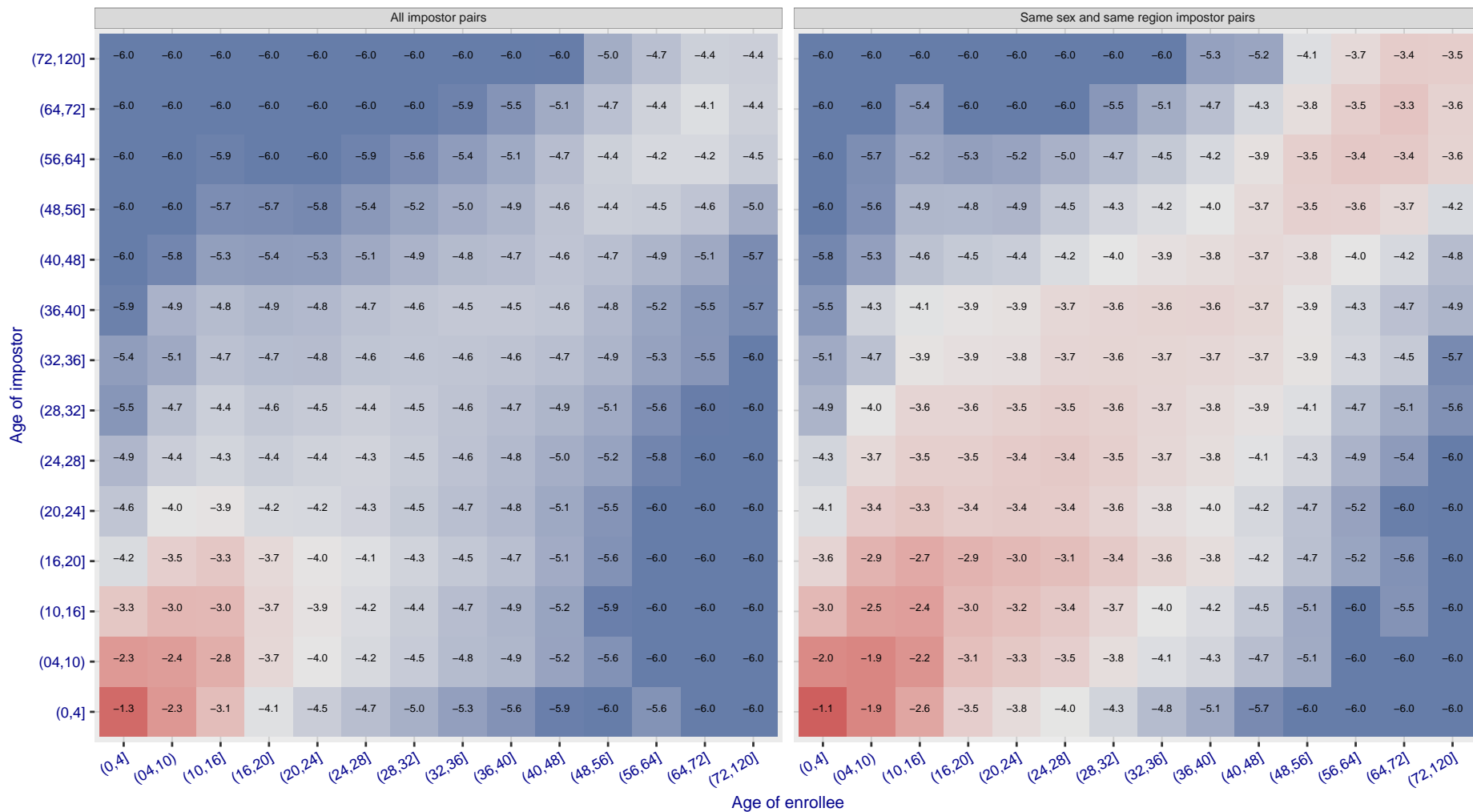
Cross age FMR at threshold $T = 1.361$ for algorithm `iqface_000`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



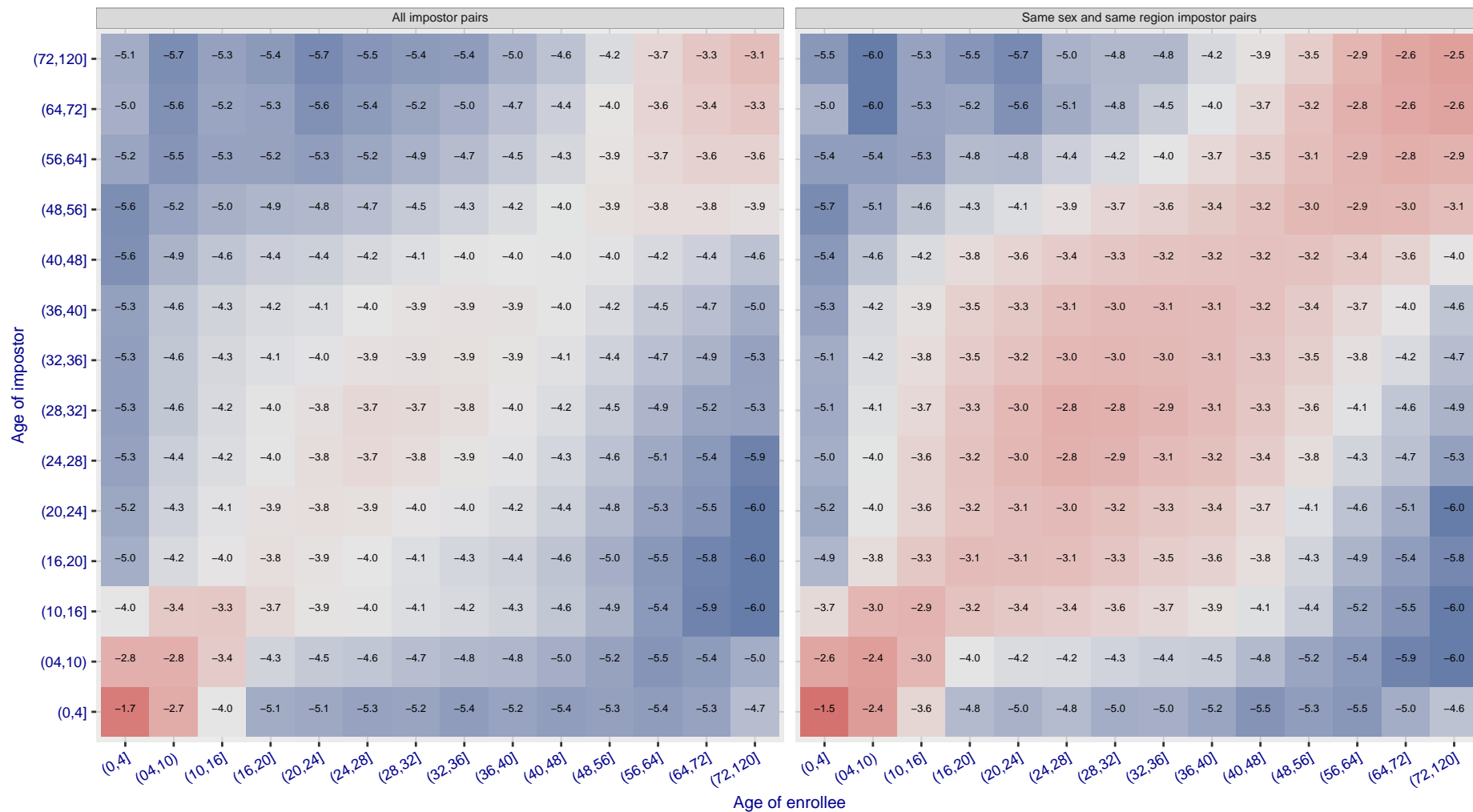
Cross age FMR at threshold $T = 0.985$ for algorithm isap_001, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



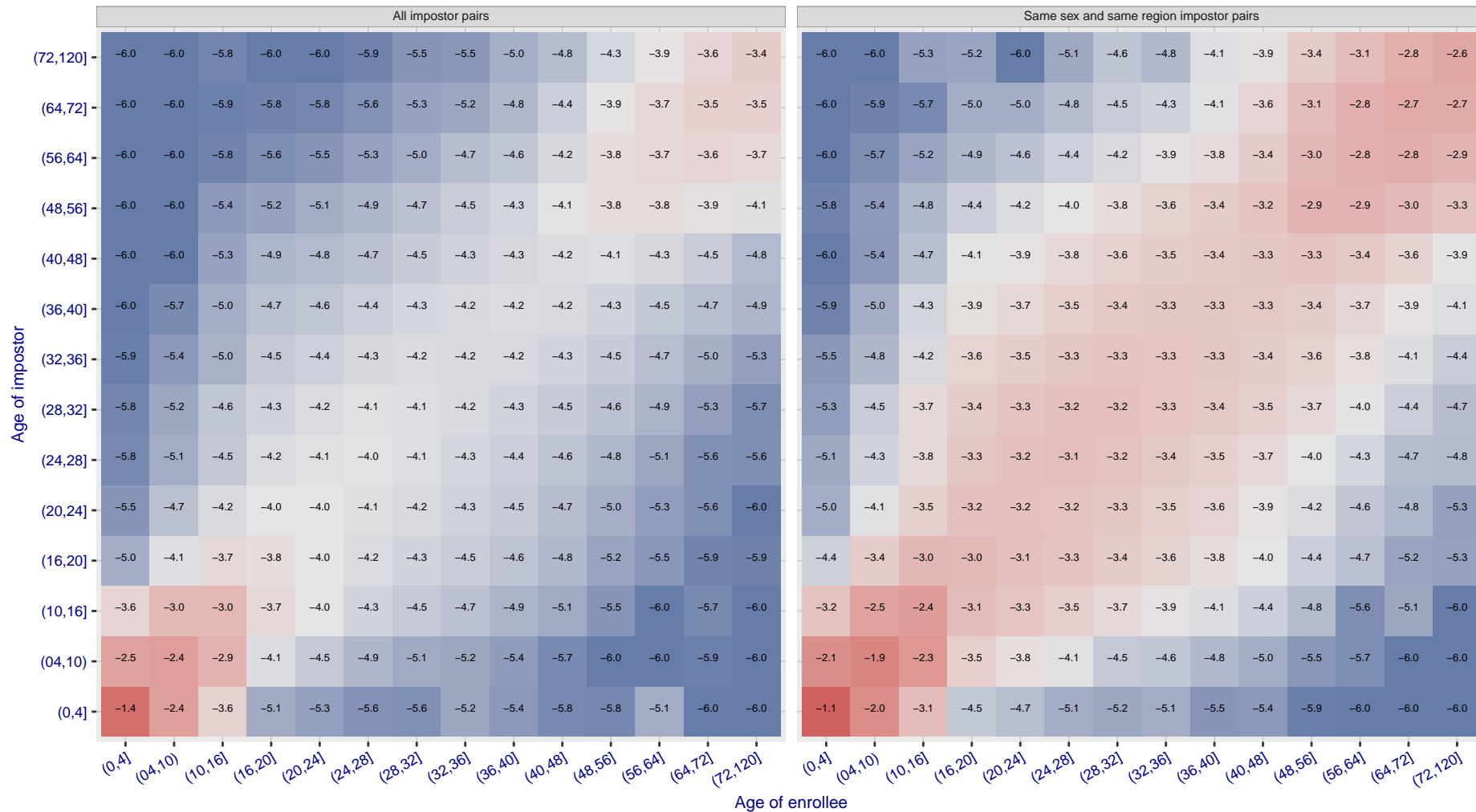
Cross age FMR at threshold $T = 23.498$ for algorithm isityou_000, giving $FMR(T) = 0.0001$ globally.

log10 FMR



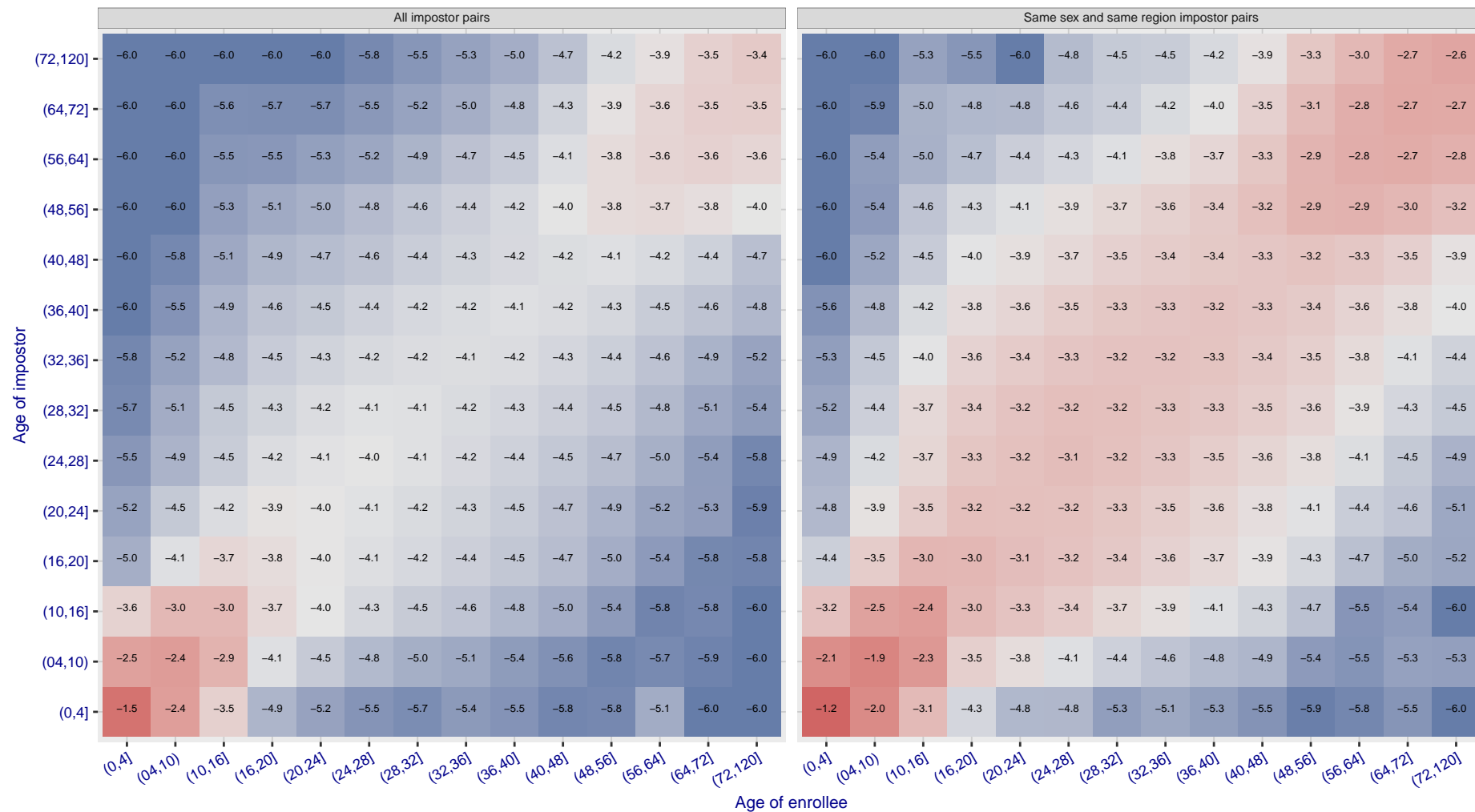
Cross age FMR at threshold $T = 0.693$ for algorithm isystems_001, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

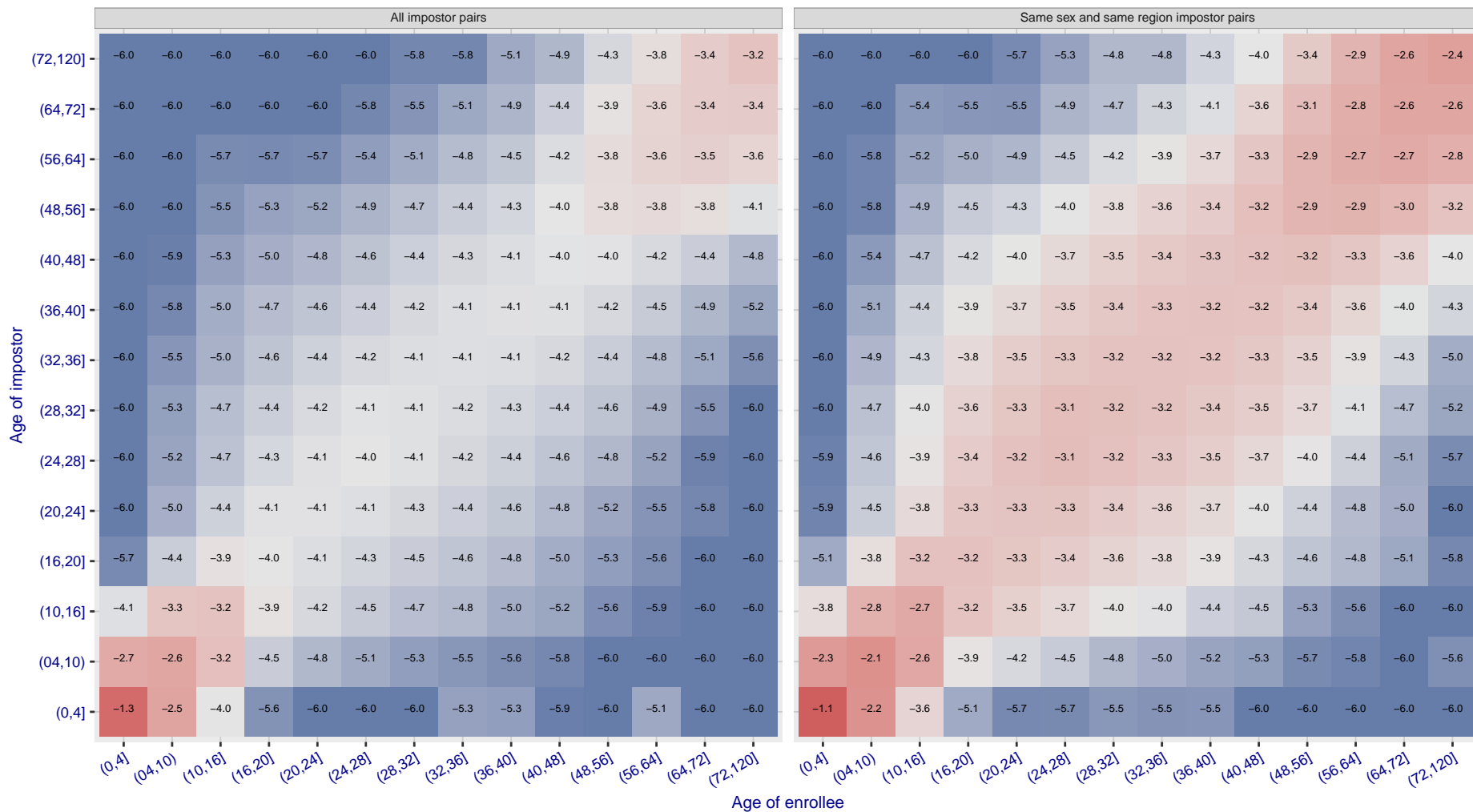


Cross age FMR at threshold $T = 0.690$ for algorithm isystems_002, giving $FMR(T) = 0.0001$ globally.

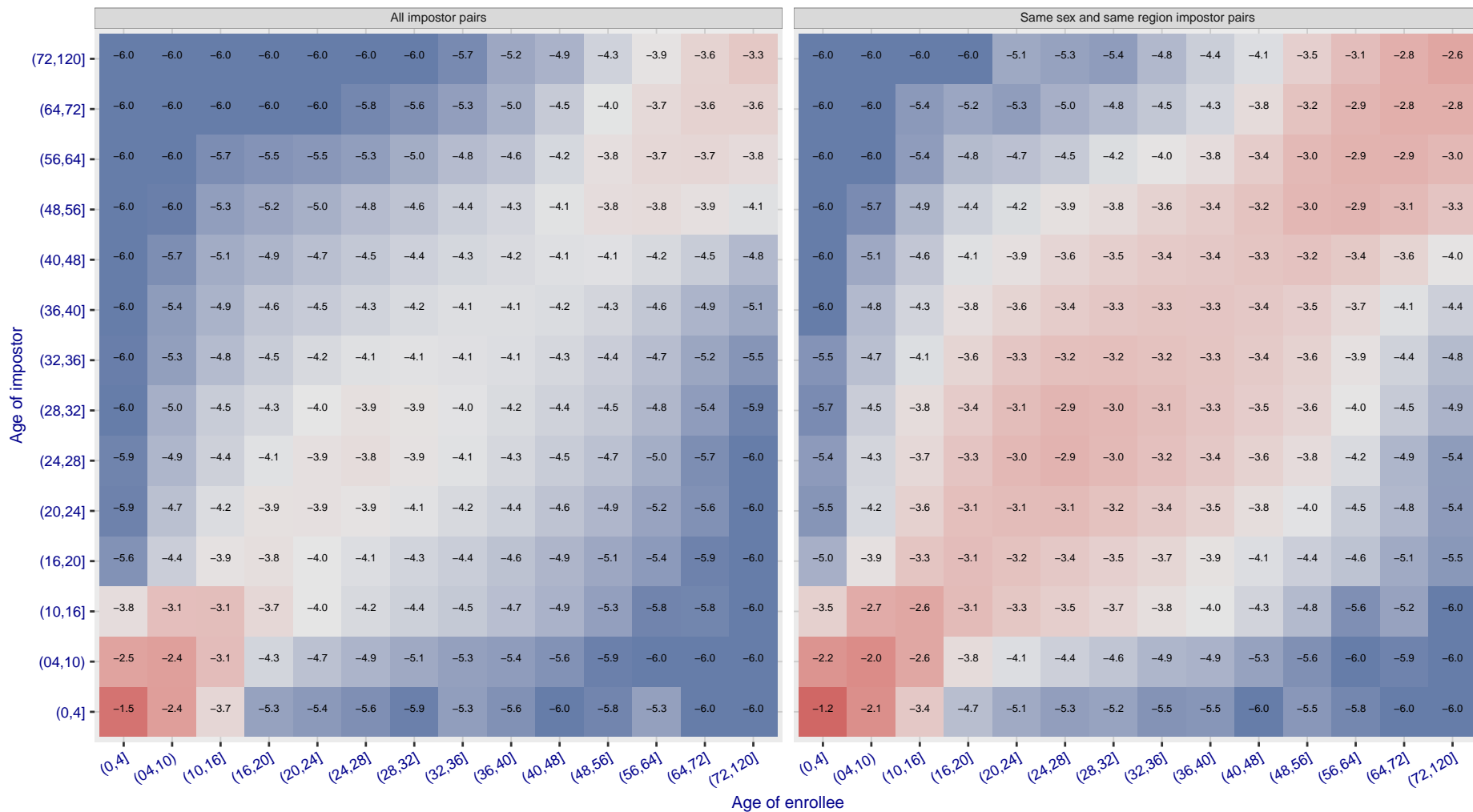
log10 FMR



Cross age FMR at threshold $T = 49.879$ for algorithm `itmo_005`, giving $FMR(T) = 0.0001$ globally.

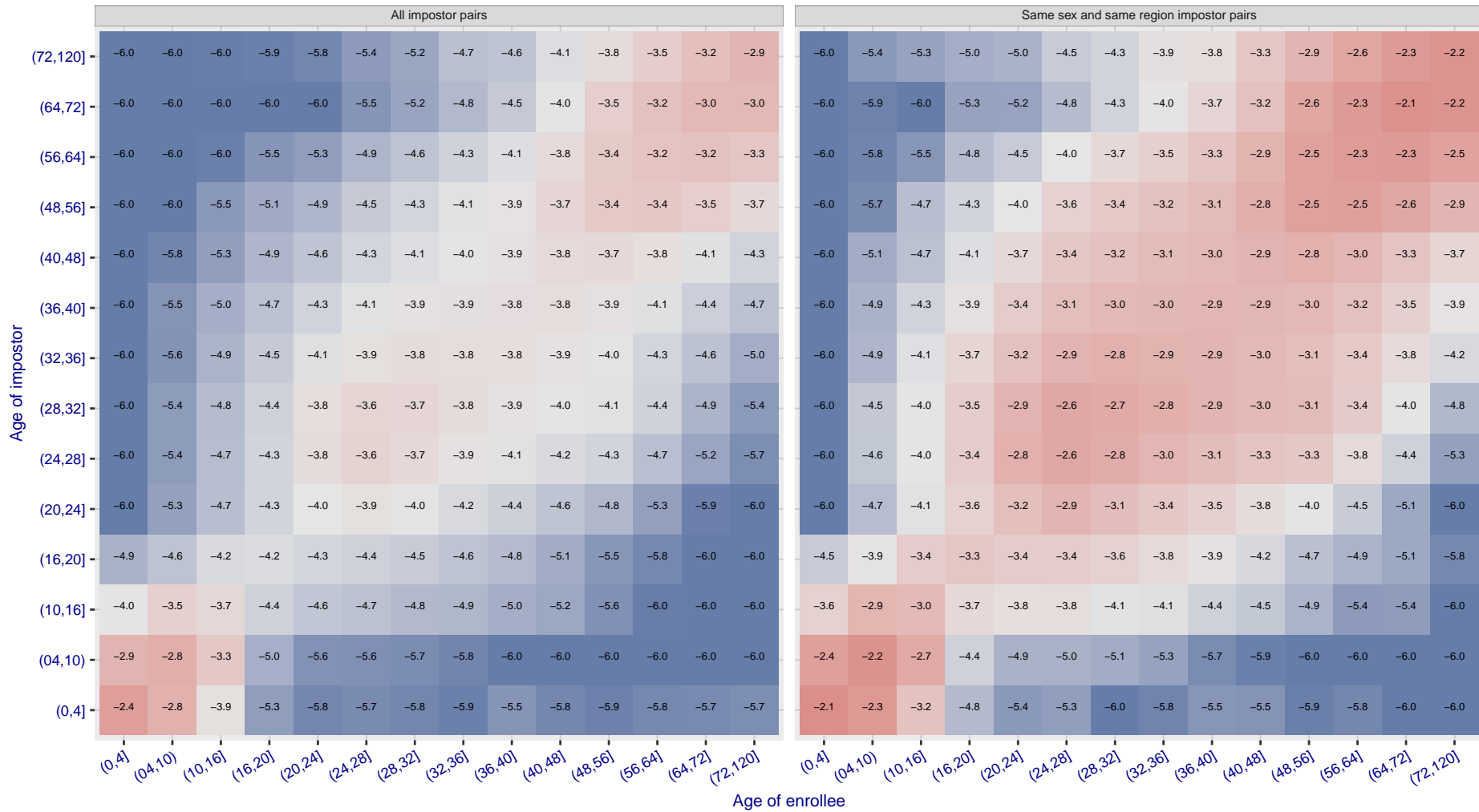


Cross age FMR at threshold $T = 49.789$ for algorithm `itmo_006`, giving $FMR(T) = 0.0001$ globally.

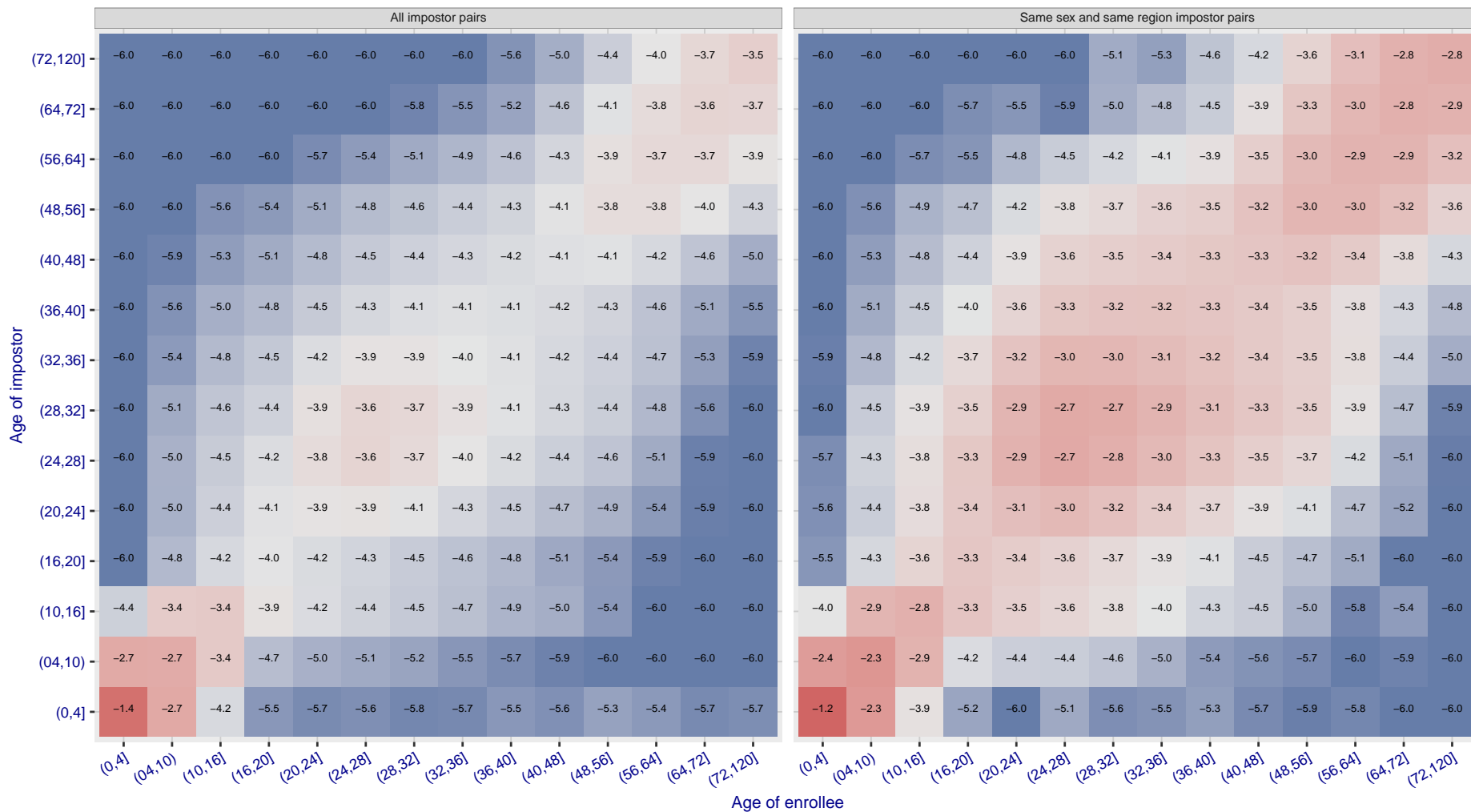


Cross age FMR at threshold $T = 1.301$ for algorithm kakao_001, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

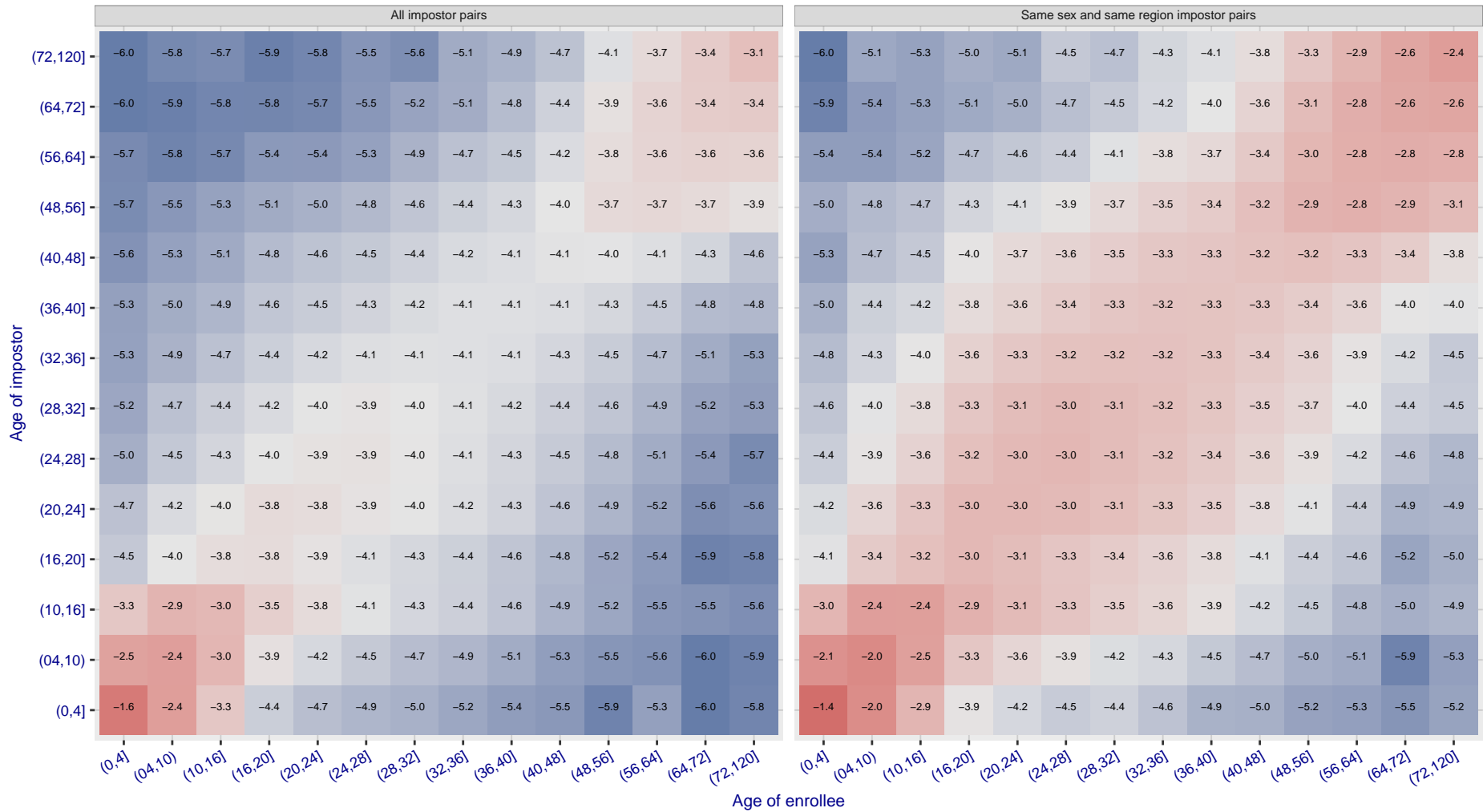


Cross age FMR at threshold $T = 0.929$ for algorithm kakao_002, giving $FMR(T) = 0.0001$ globally.

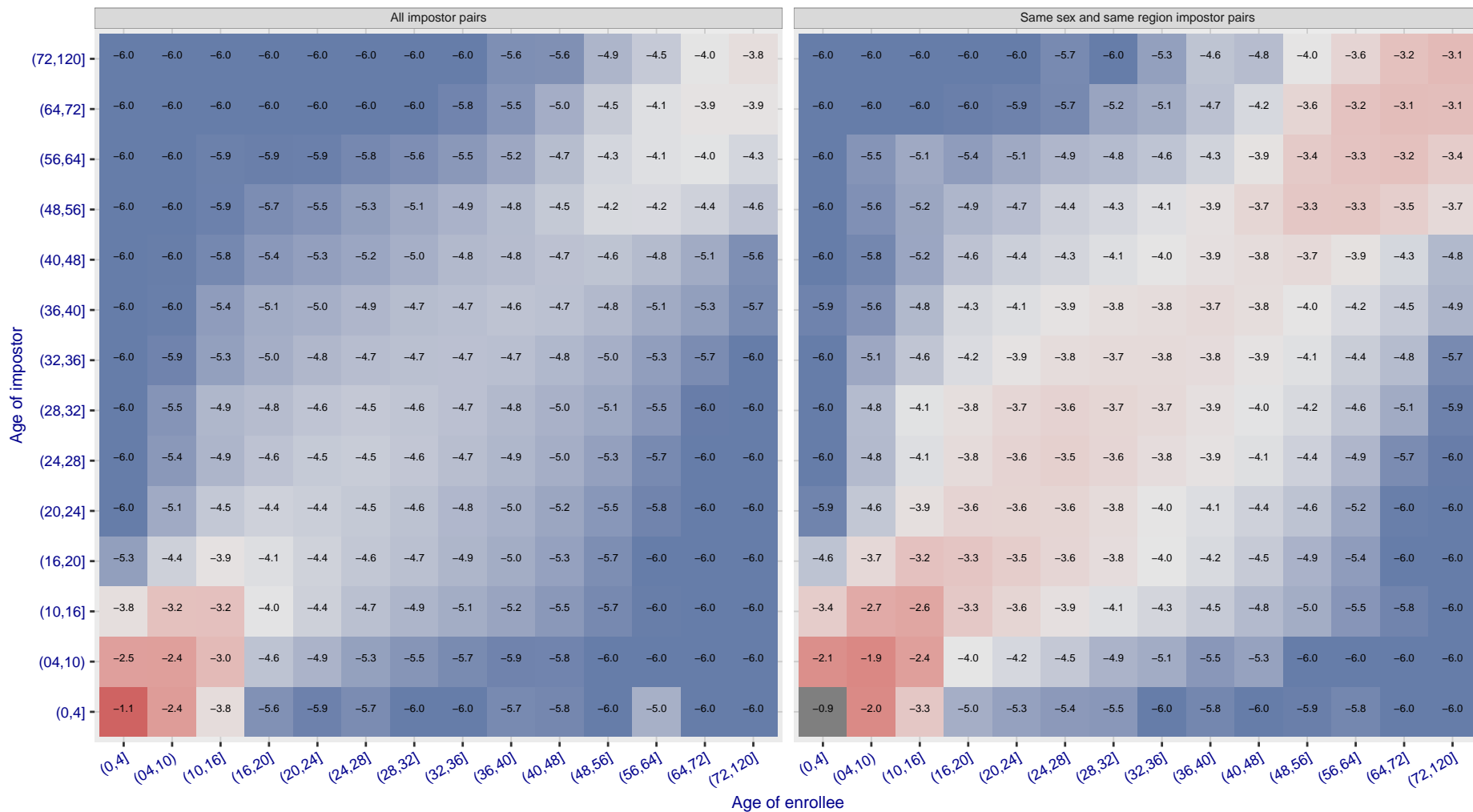


Cross age FMR at threshold $T = 0.686$ for algorithm `kedacom_000`, giving $FMR(T) = 0.0001$ globally.

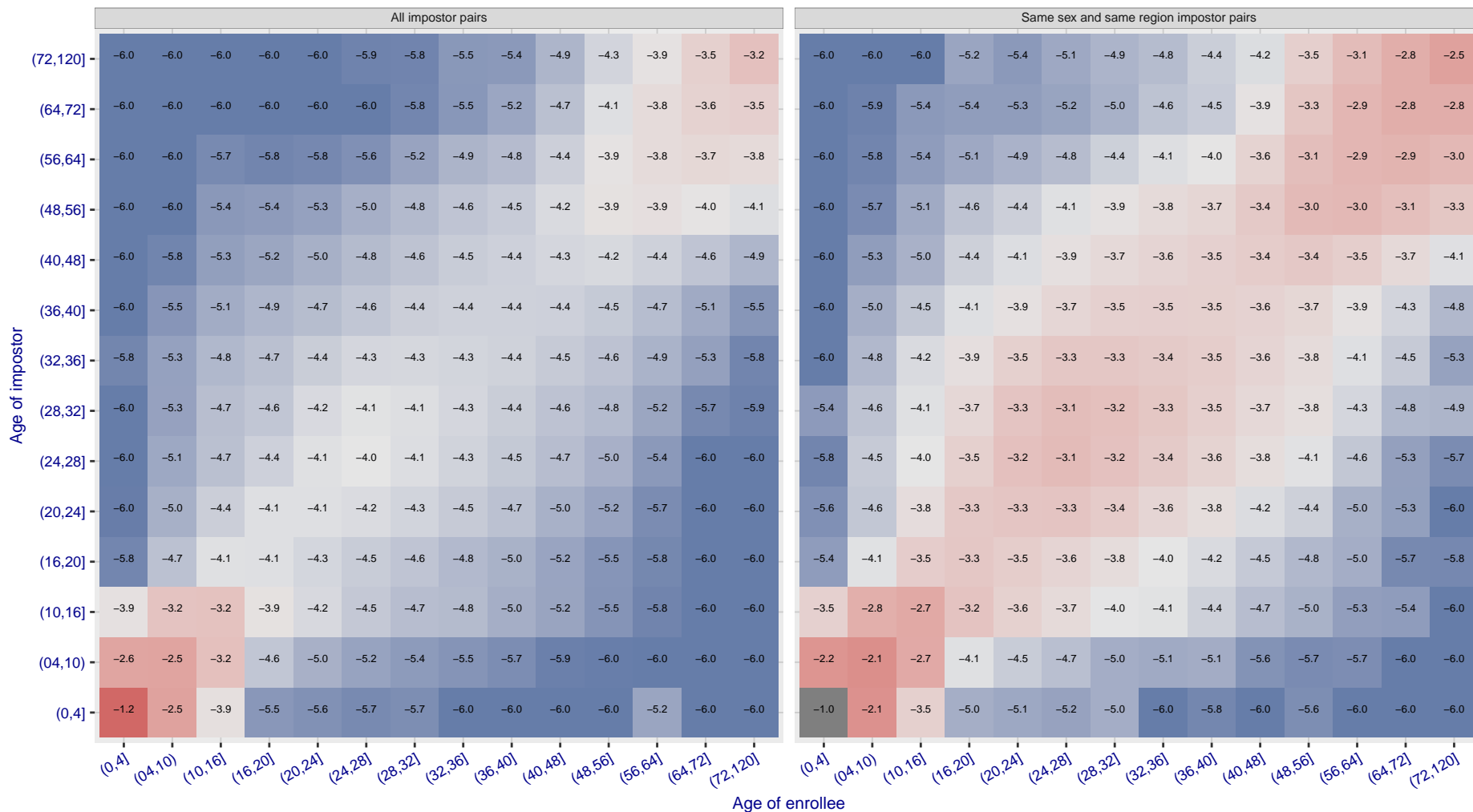
\log_{10} FMR



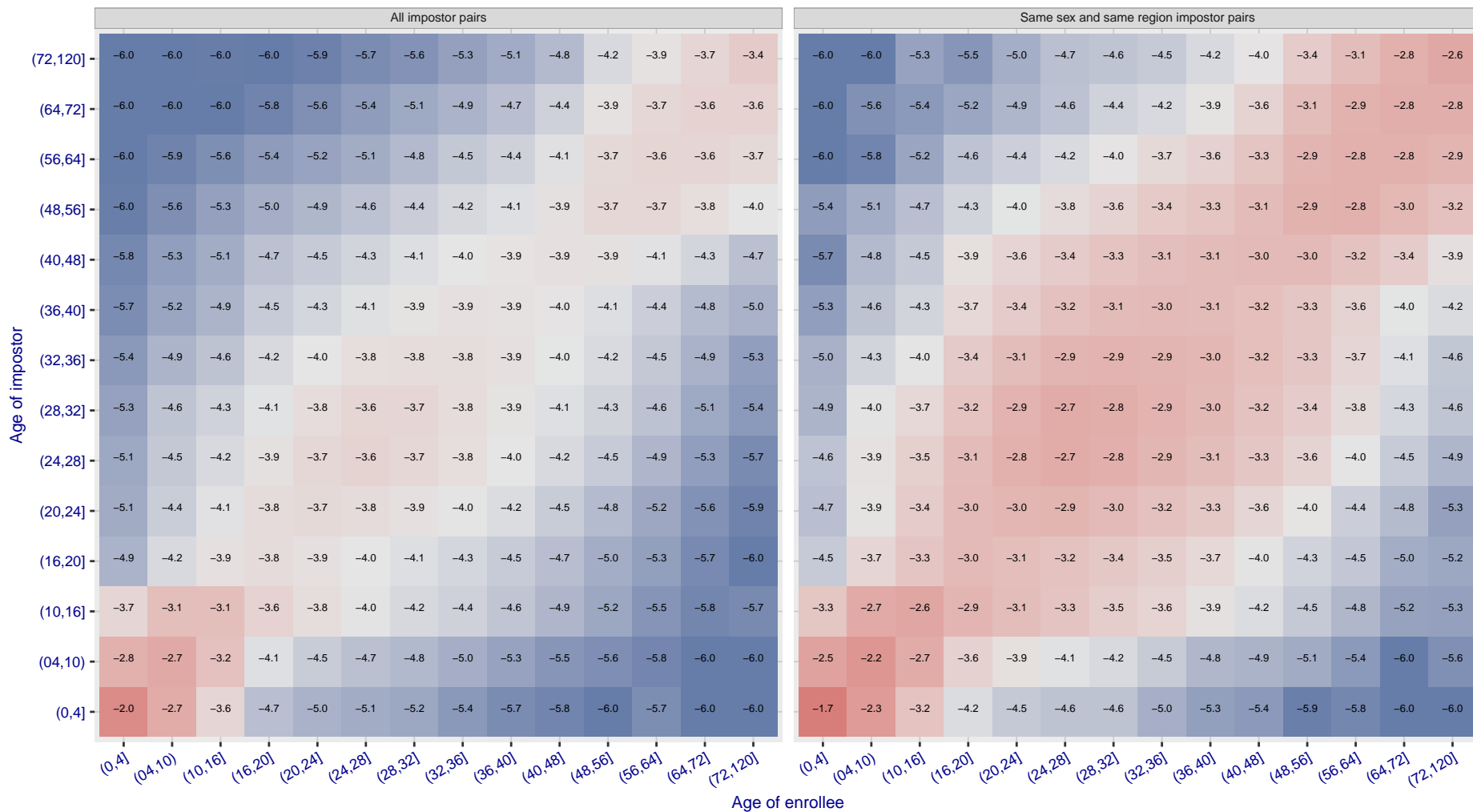
Cross age FMR at threshold $T = 0.500$ for algorithm `kneron_003`, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



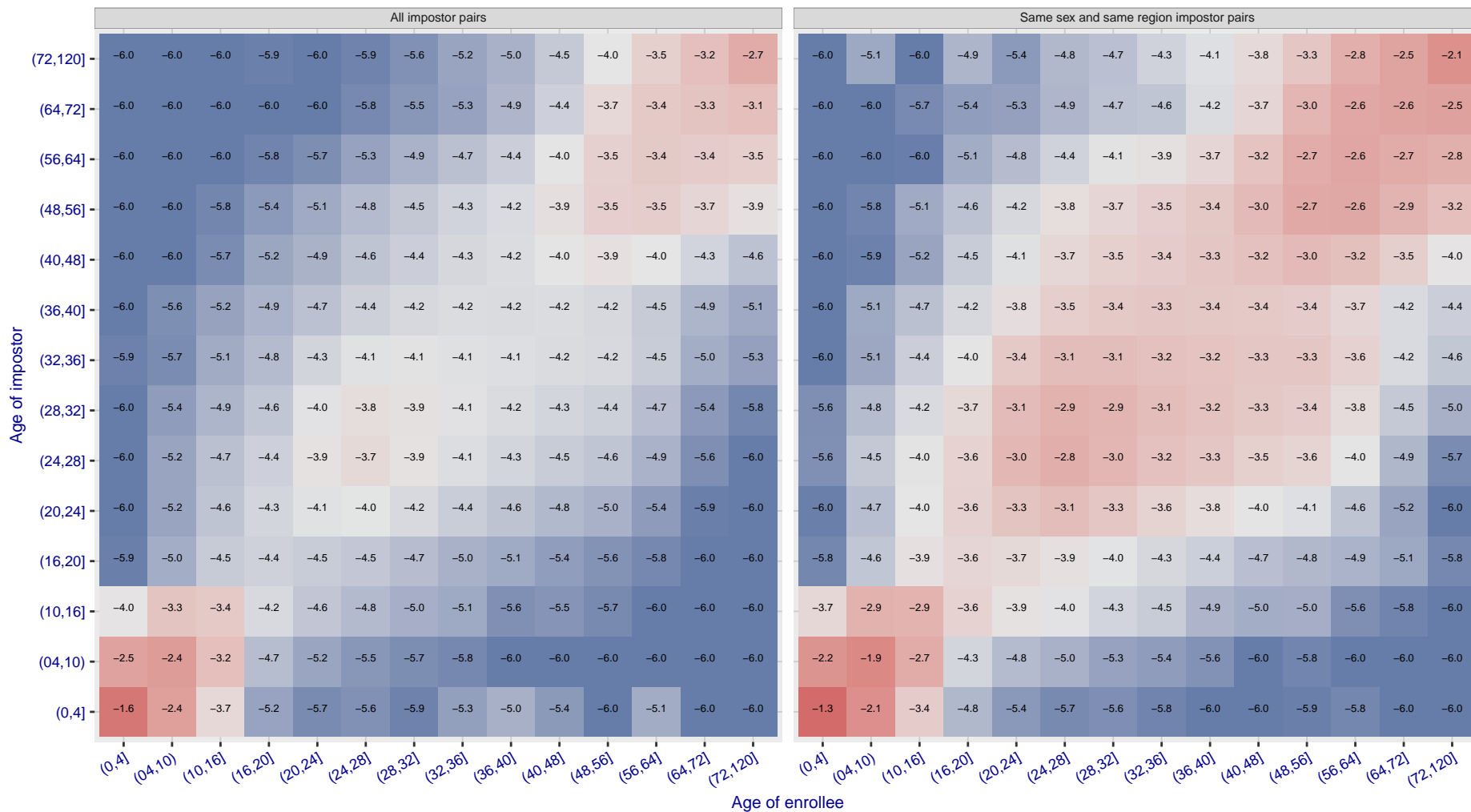
Cross age FMR at threshold $T = 0.701$ for algorithm lookman_002, giving $FMR(T) = 0.0001$ globally. $\log_{10} FMR$



Cross age FMR at threshold $T = 0.733$ for algorithm lookman_004, giving $FMR(T) = 0.0001$ globally. $\log_{10} FMR$

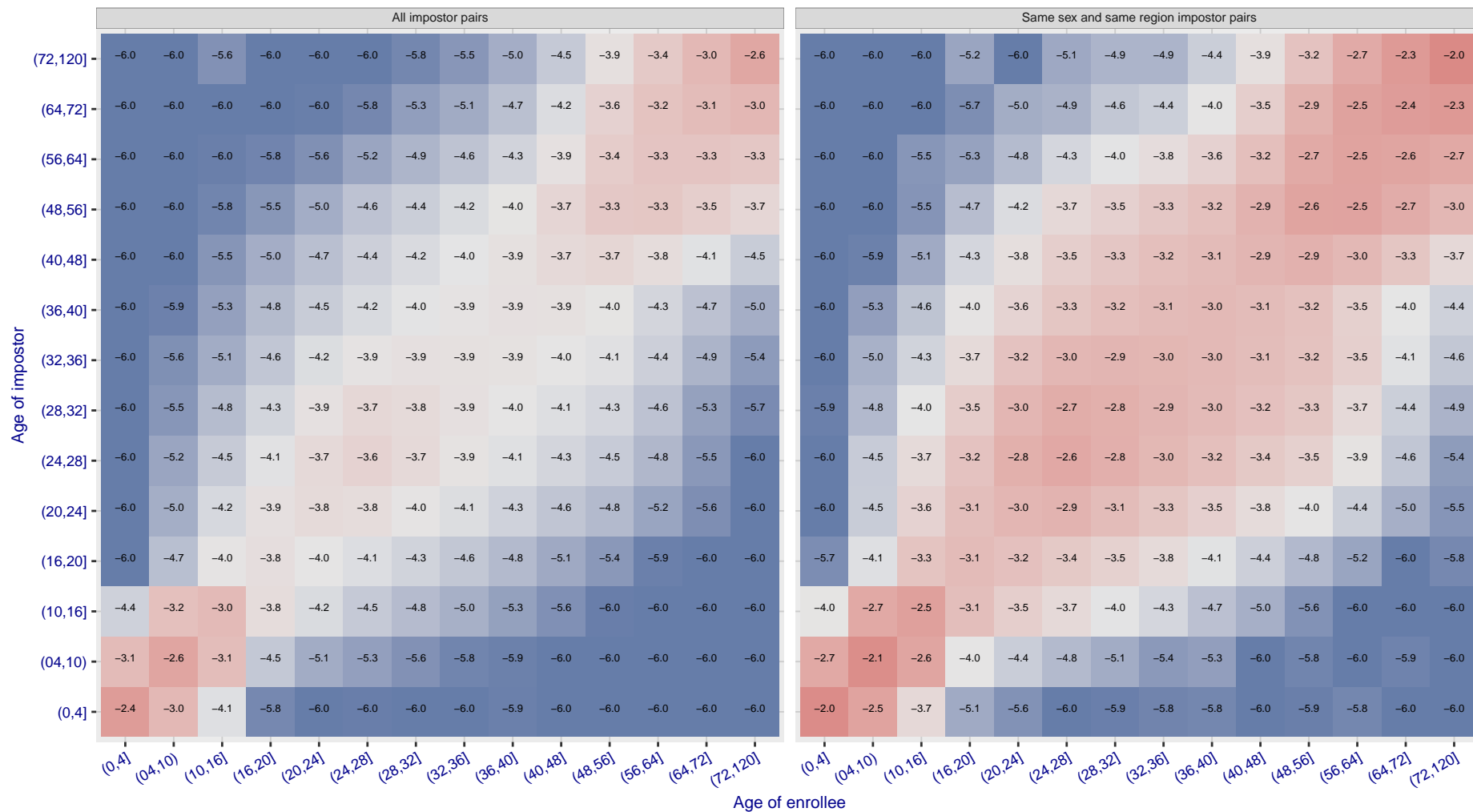
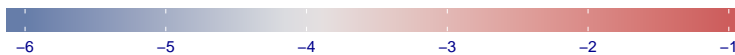


Cross age FMR at threshold $T = 74.511$ for algorithm megvii_001, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR

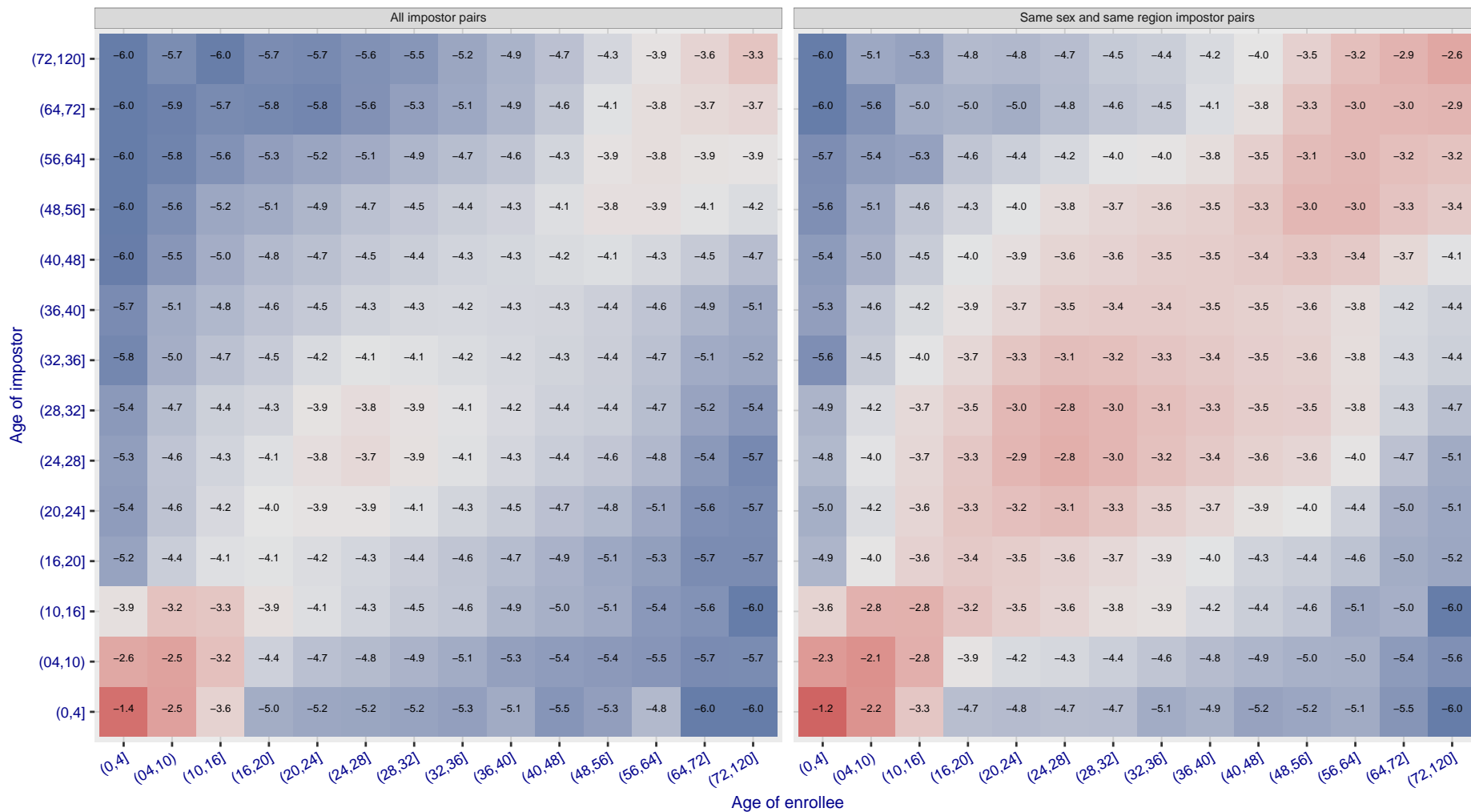


Cross age FMR at threshold $T = 66.384$ for algorithm megvii_002, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

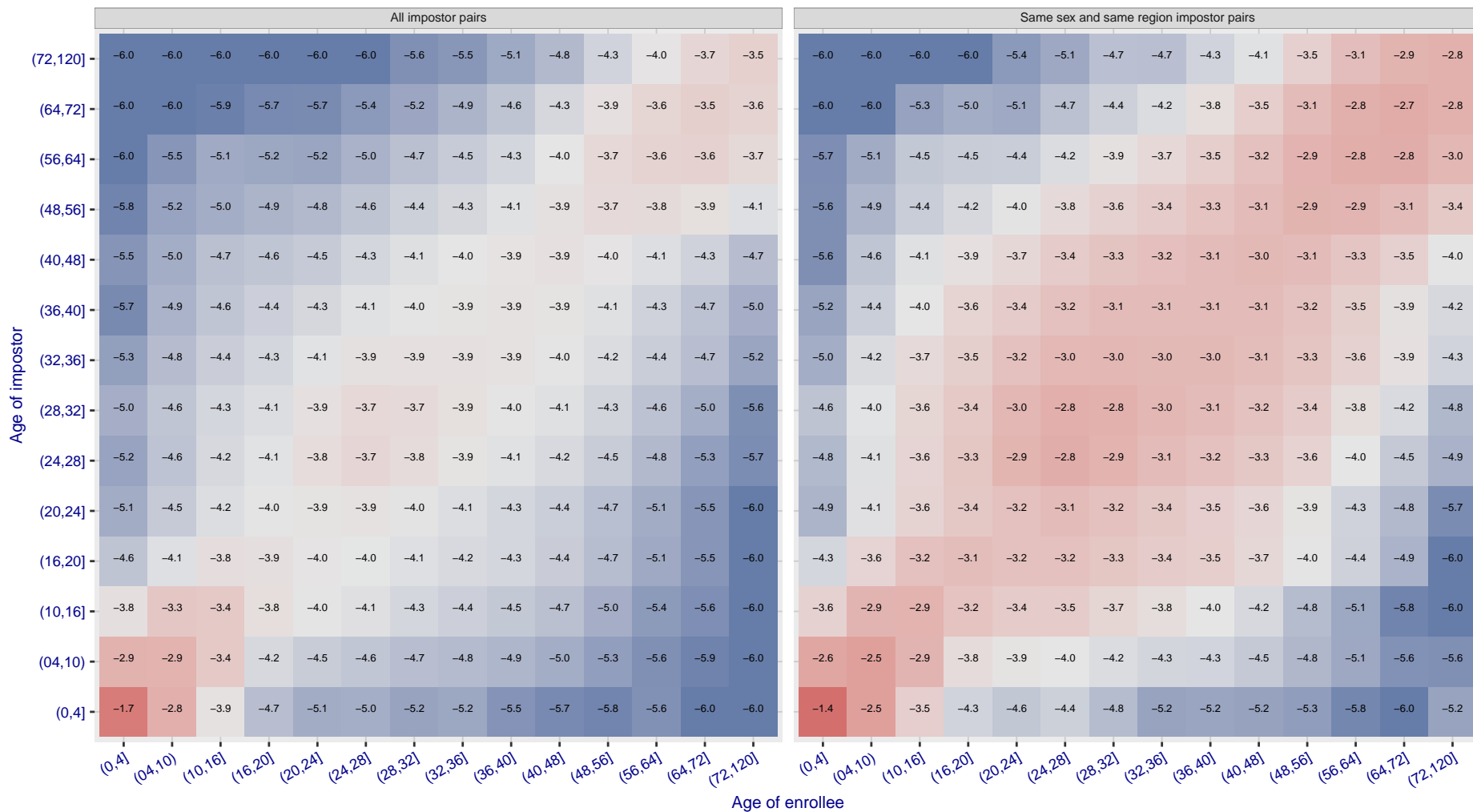


Cross age FMR at threshold $T = 0.425$ for algorithm meiya_001, giving $FMR(T) = 0.0001$ globally.



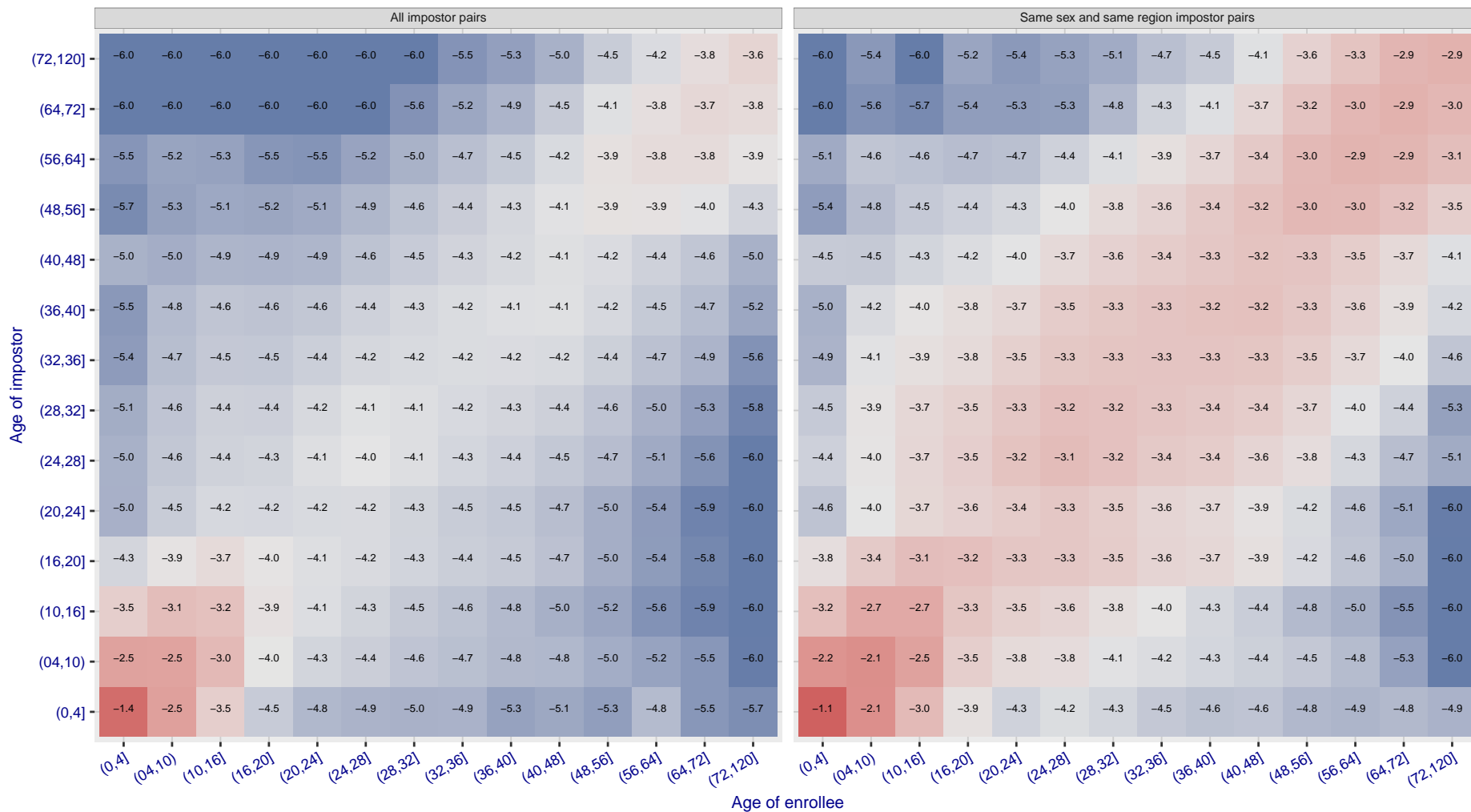
Cross age FMR at threshold $T = 0.668$ for algorithm `microfocus_001`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

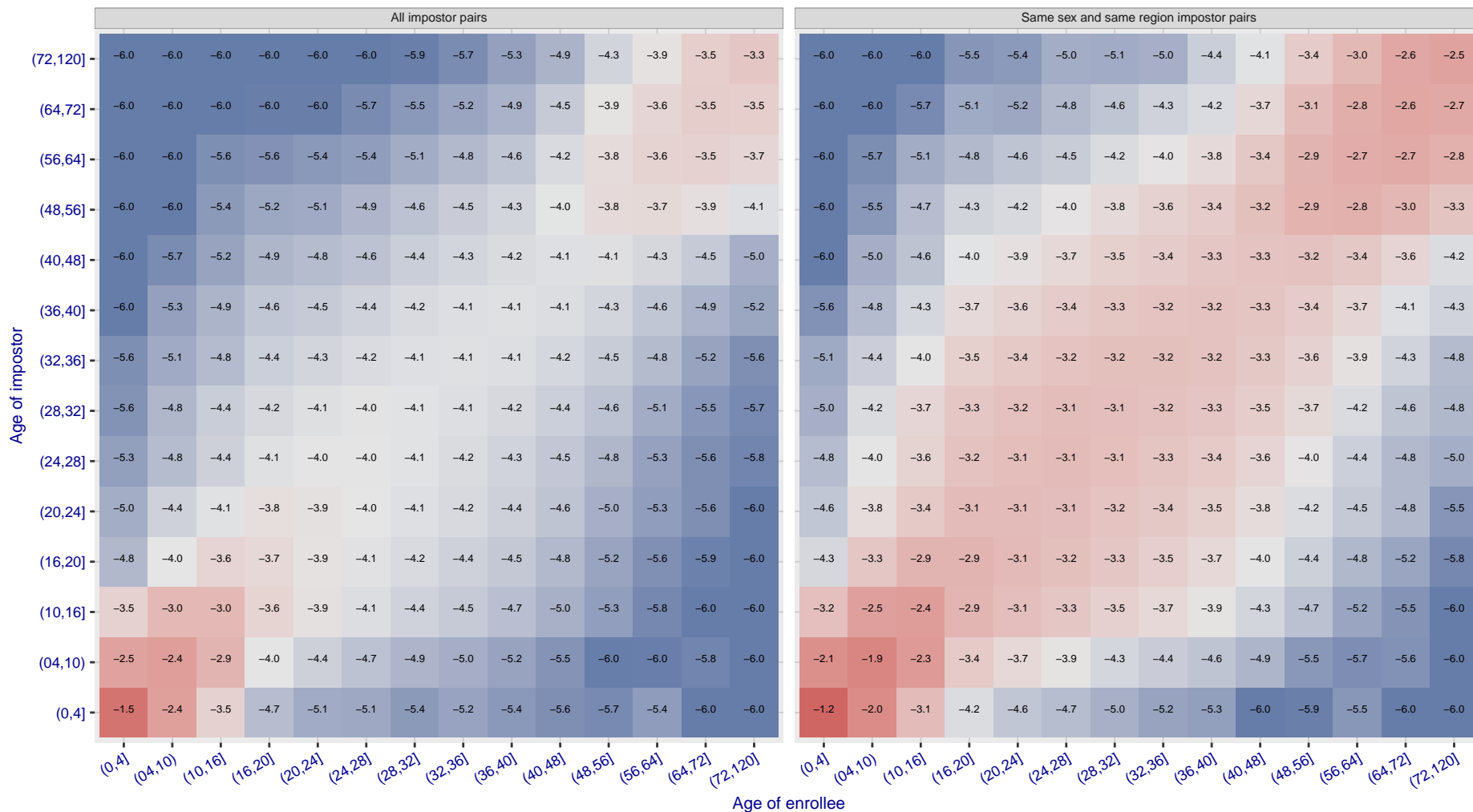


Cross age FMR at threshold $T = 0.602$ for algorithm `microfocus_002`, giving $FMR(T) = 0.0001$ globally.

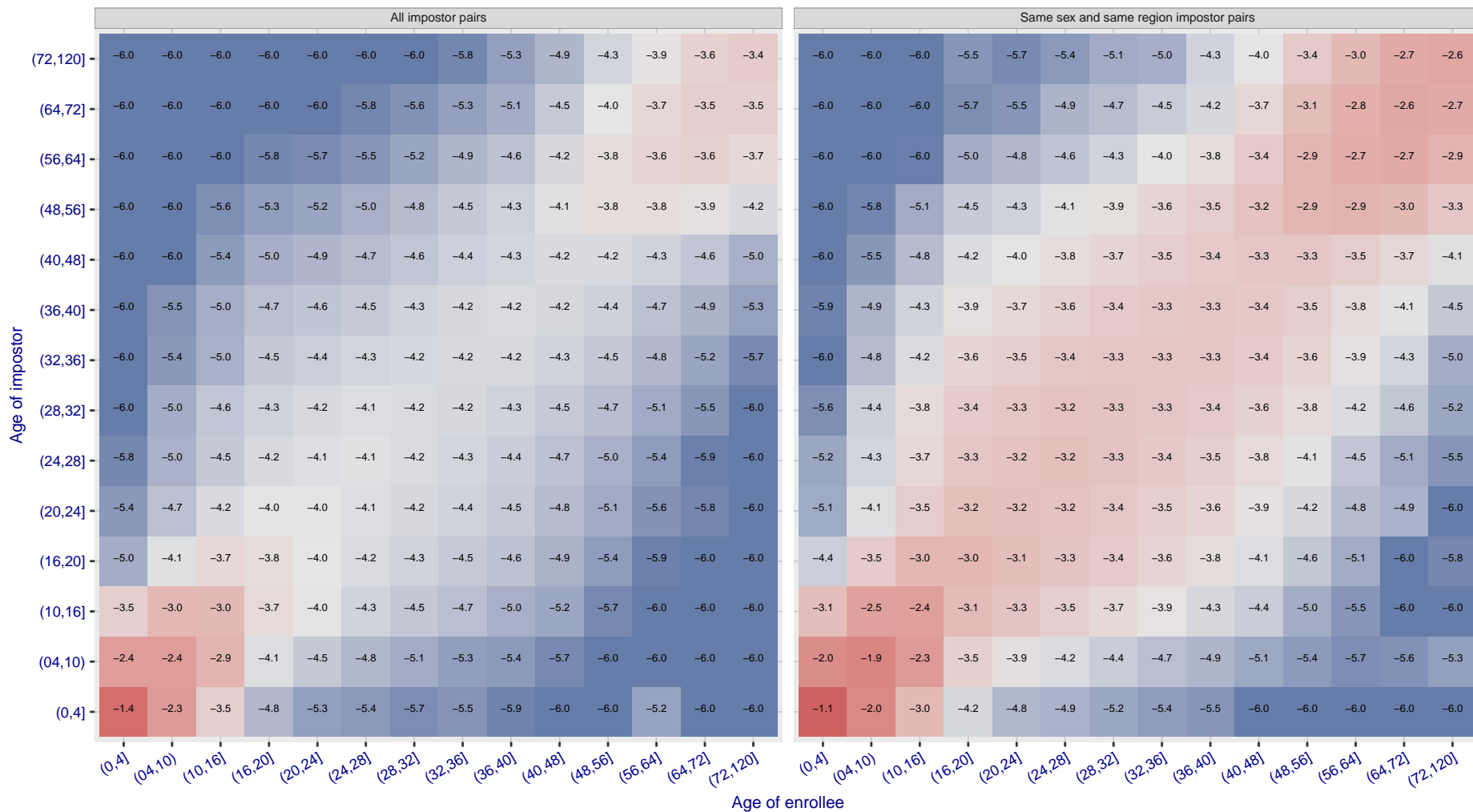
\log_{10} FMR



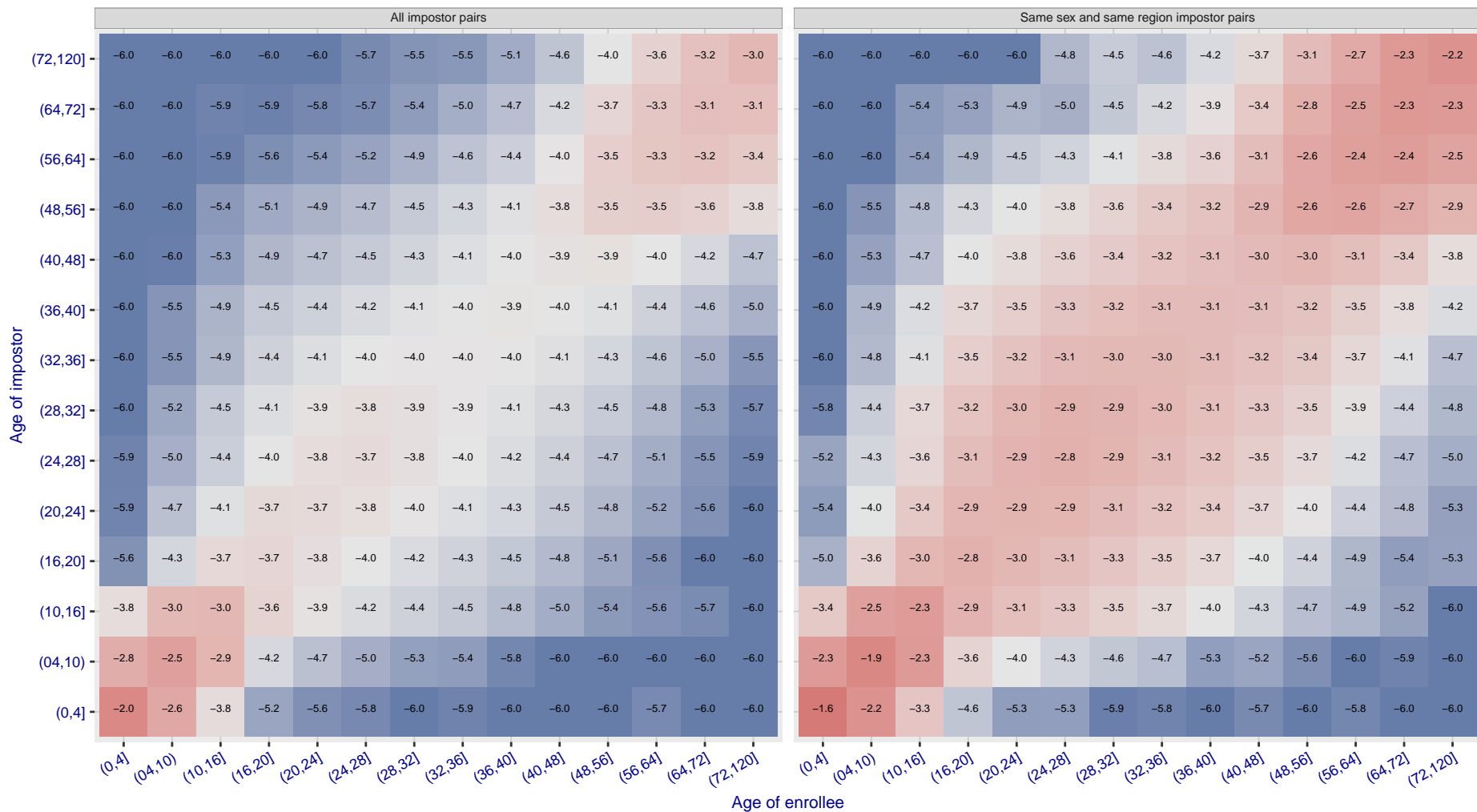
Cross age FMR at threshold $T = 1.394$ for algorithm mt_000, giving $FMR(T) = 0.0001$ globally.



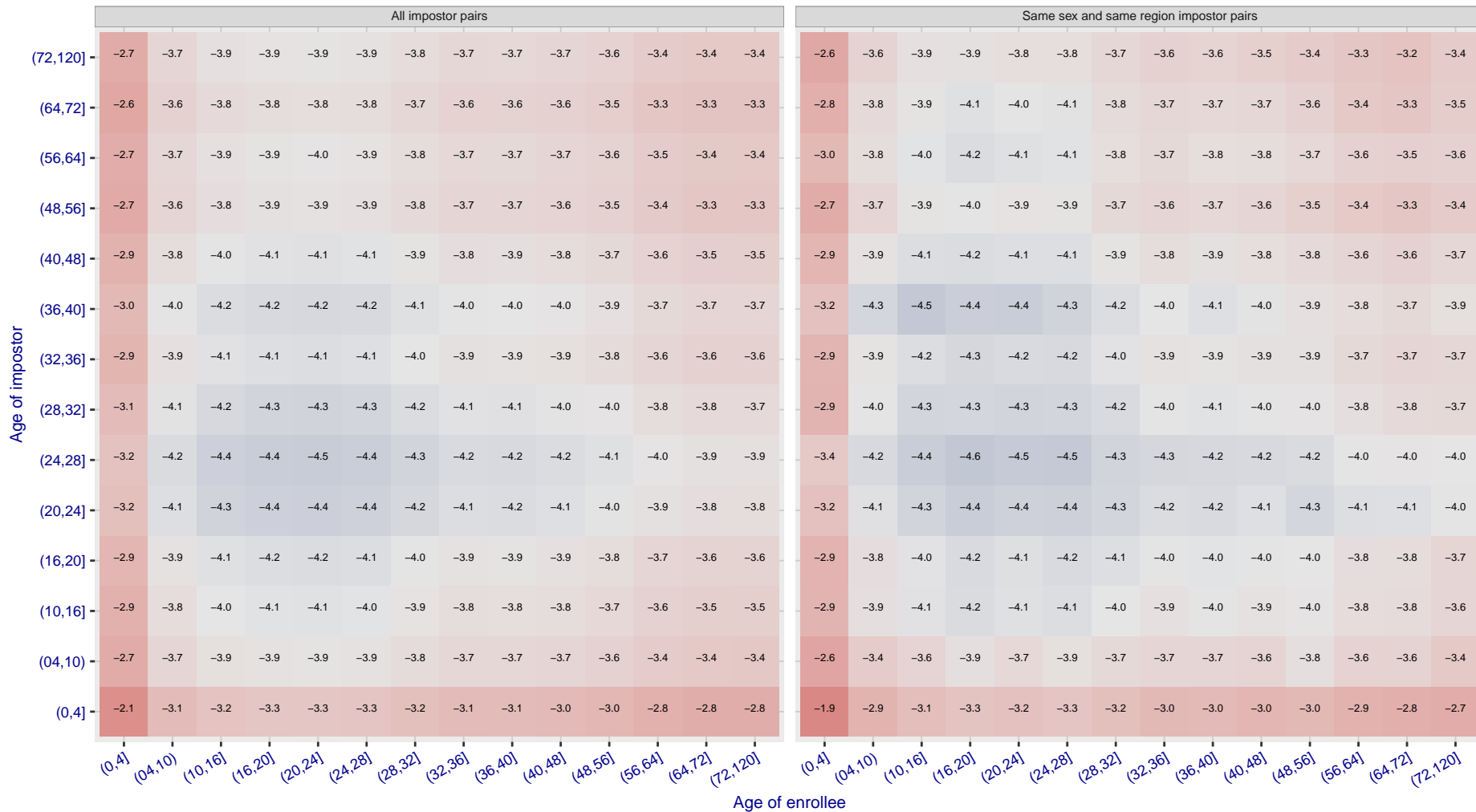
Cross age FMR at threshold $T = 46.101$ for algorithm `neurotechnology_005`, giving $FMR(T) = 0.0001$ globally.



Cross age FMR at threshold $T = 2044.000$ for algorithm `neurotechnology_006`, giving $FMR(T) = 0.0001$ globally.

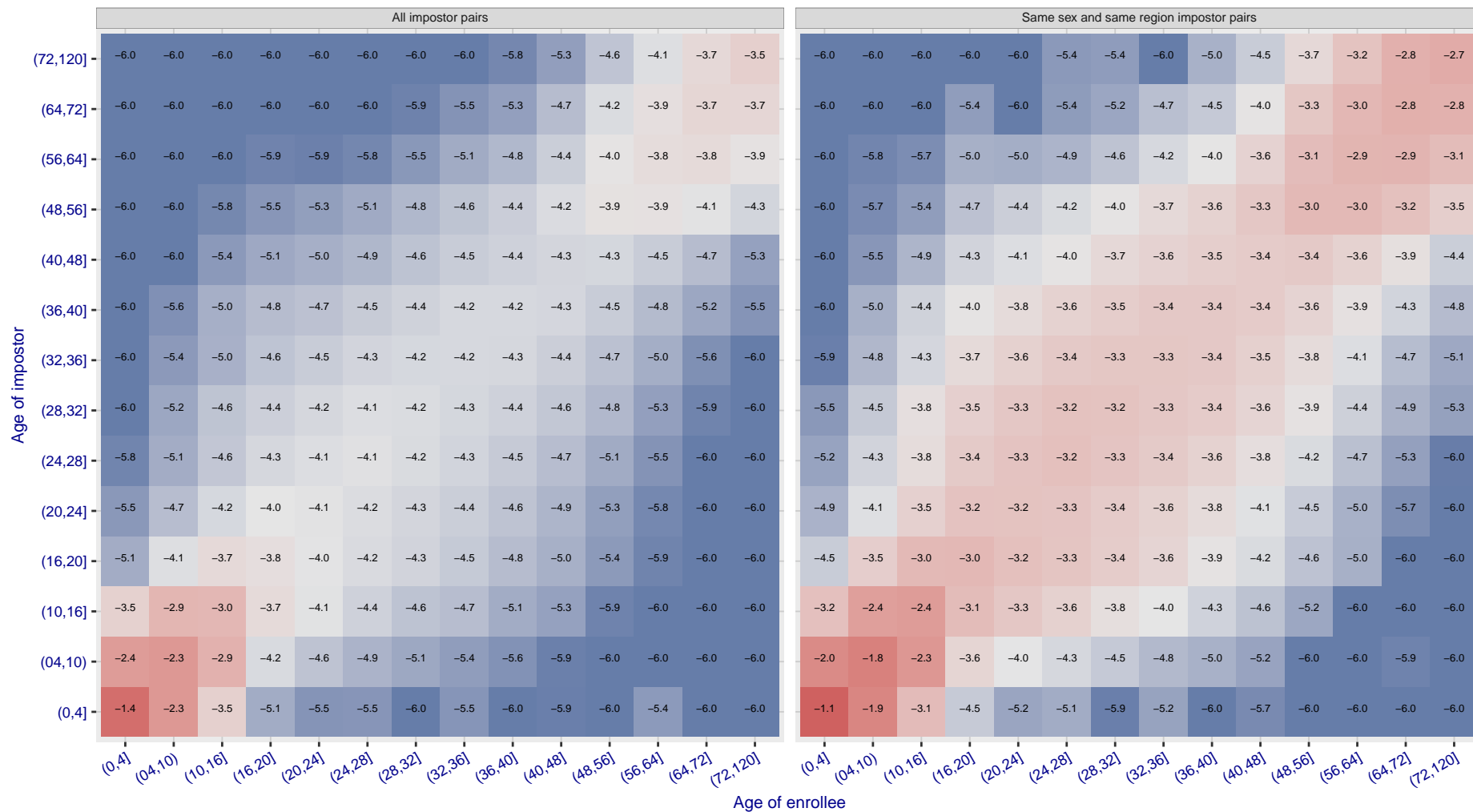


Cross age FMR at threshold $T = 1.000$ for algorithm nodeflux_001, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR

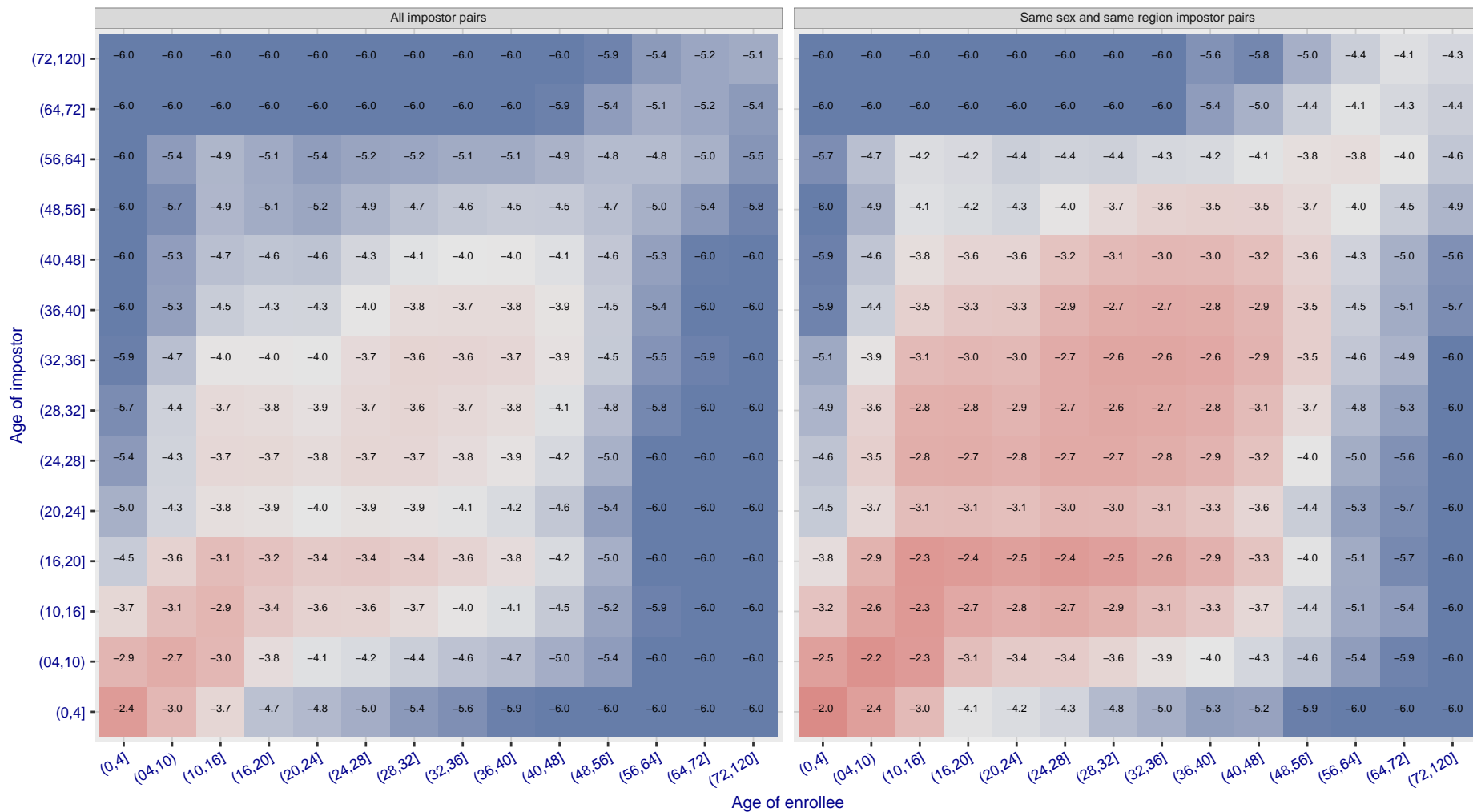


Cross age FMR at threshold $T = 0.455$ for algorithm nodeflux_002, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

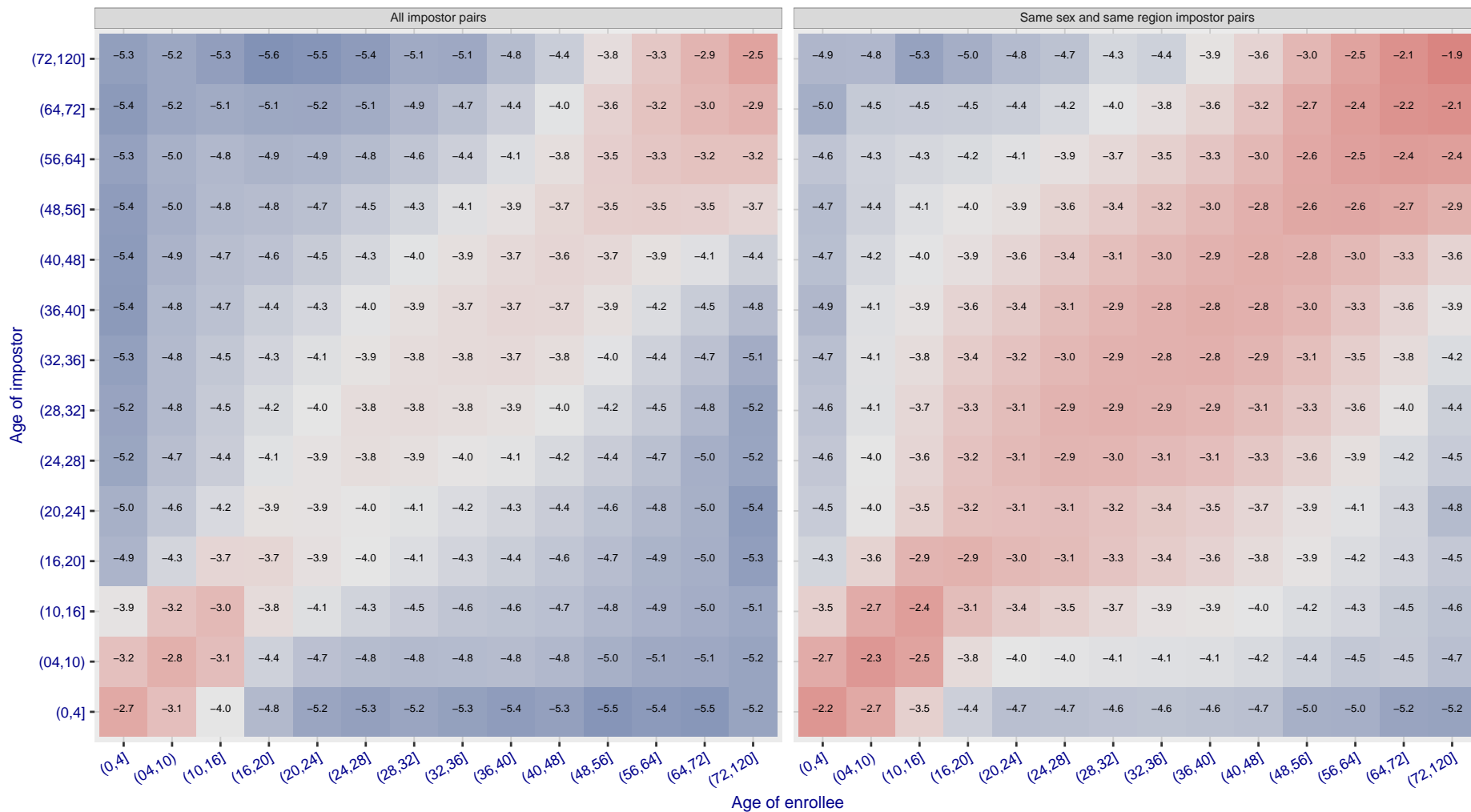


78728508749508306738122785099180495252950144487468954605214391819635563576348021983576872062648638901233947118338438420271161854018147318546067599795435142378710012068708547335424481767



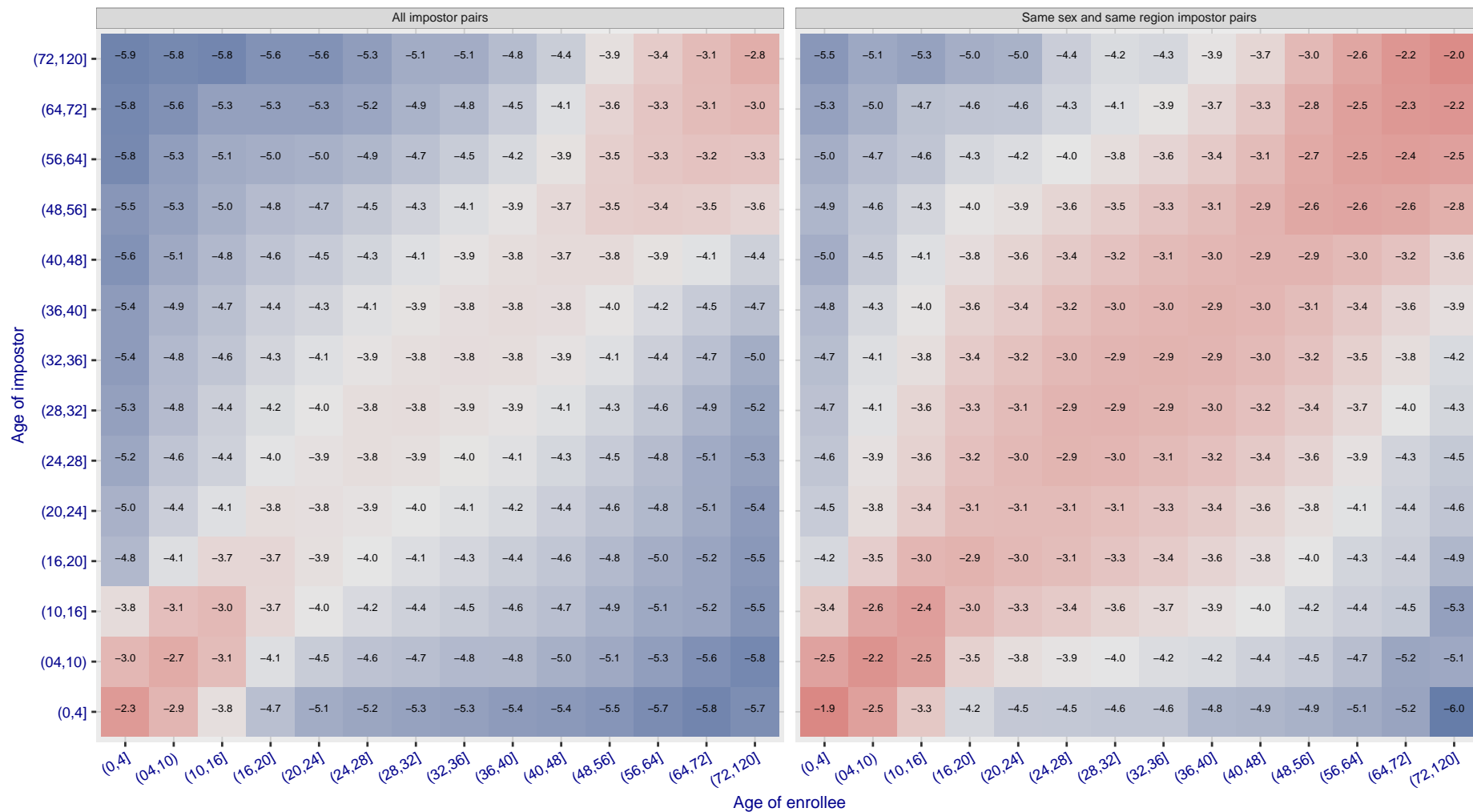
Cross age FMR at threshold $T = 1.997$ for algorithm ntechlab_006, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



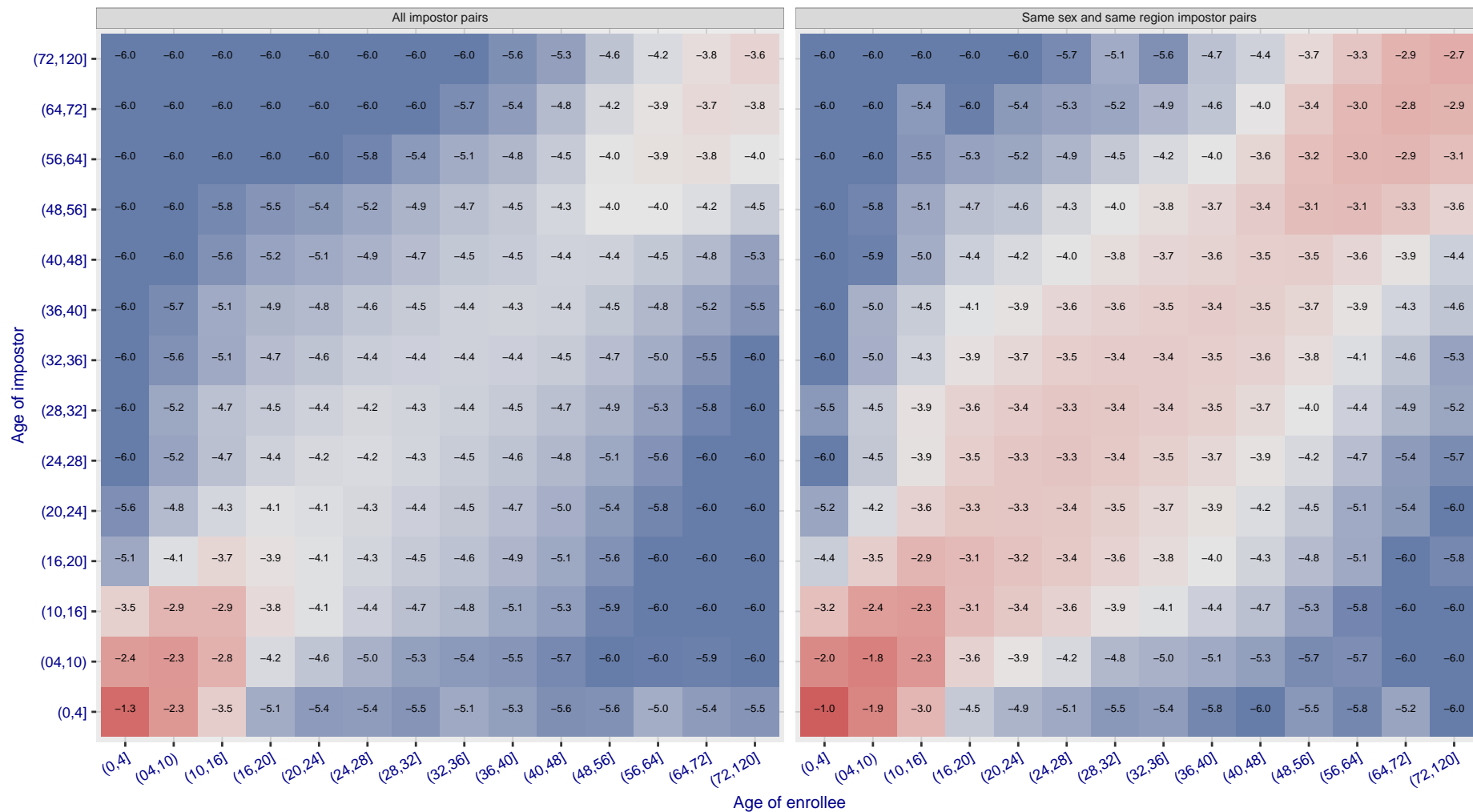
Cross age FMR at threshold $T = 1.416$ for algorithm ntechlab_007, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



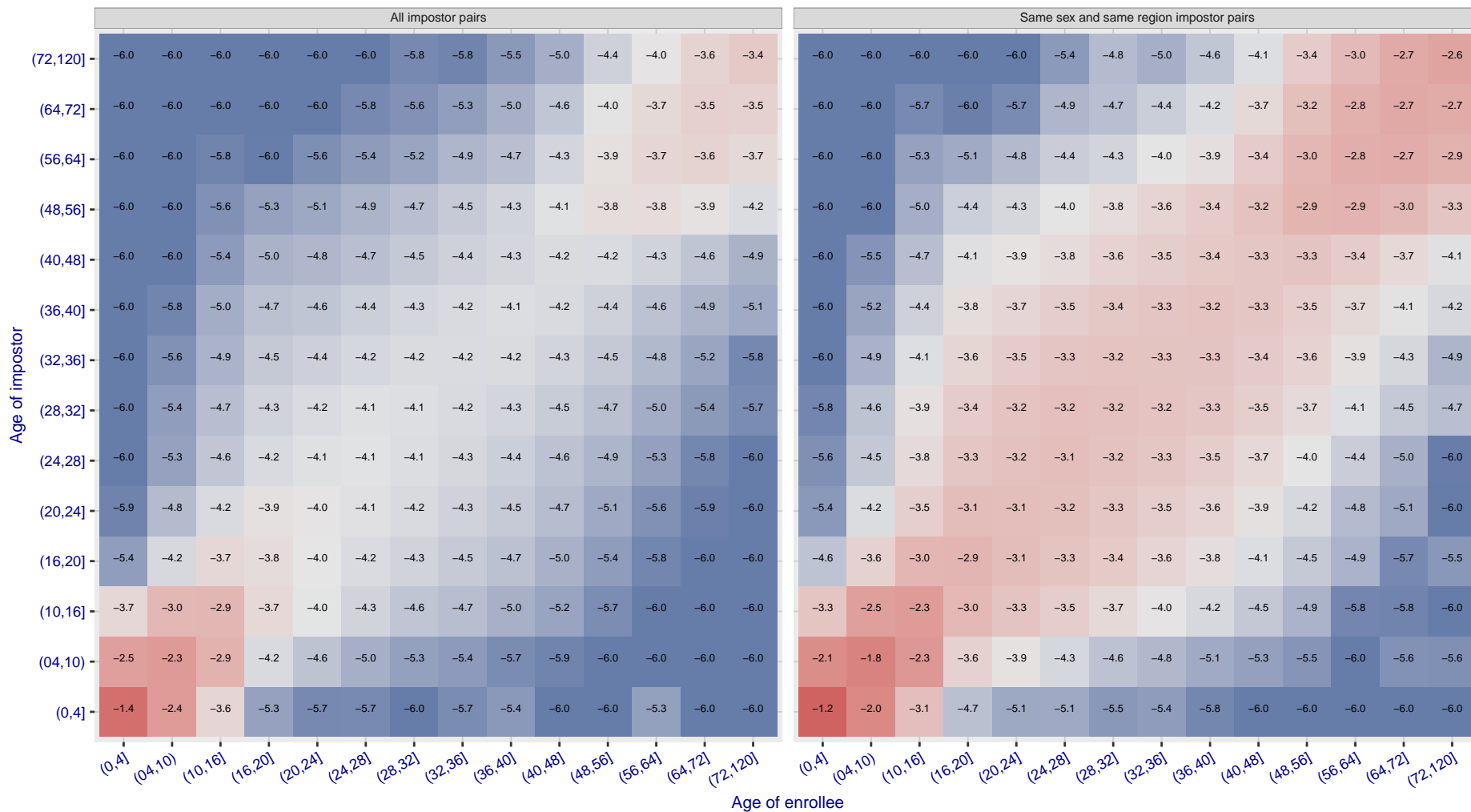
Cross age FMR at threshold $T = 0.428$ for algorithm pixelall_002, giving $FMR(T) = 0.0001$ globally.

log₁₀ FMR



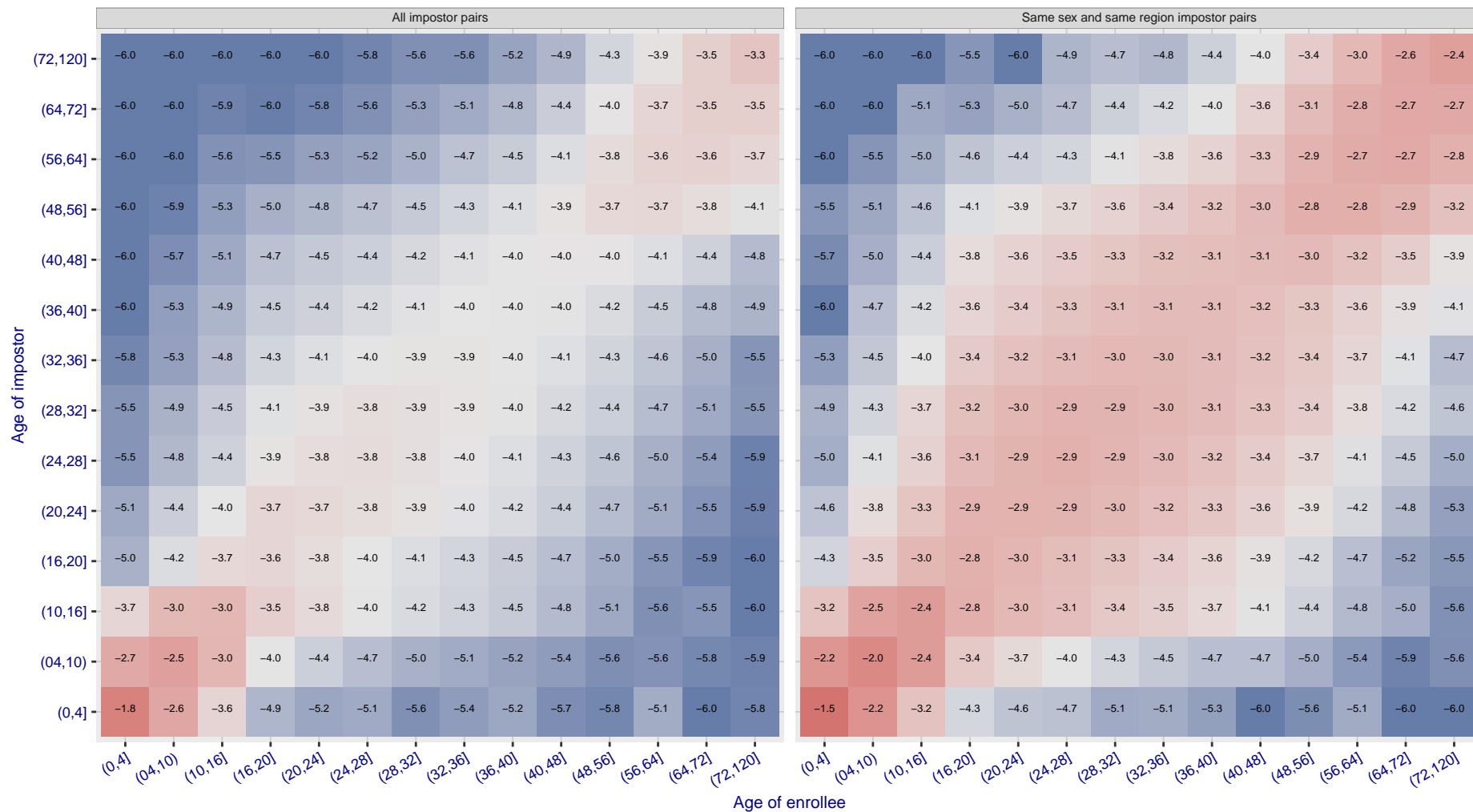
Cross age FMR at threshold $T = 0.353$ for algorithm psl_002, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



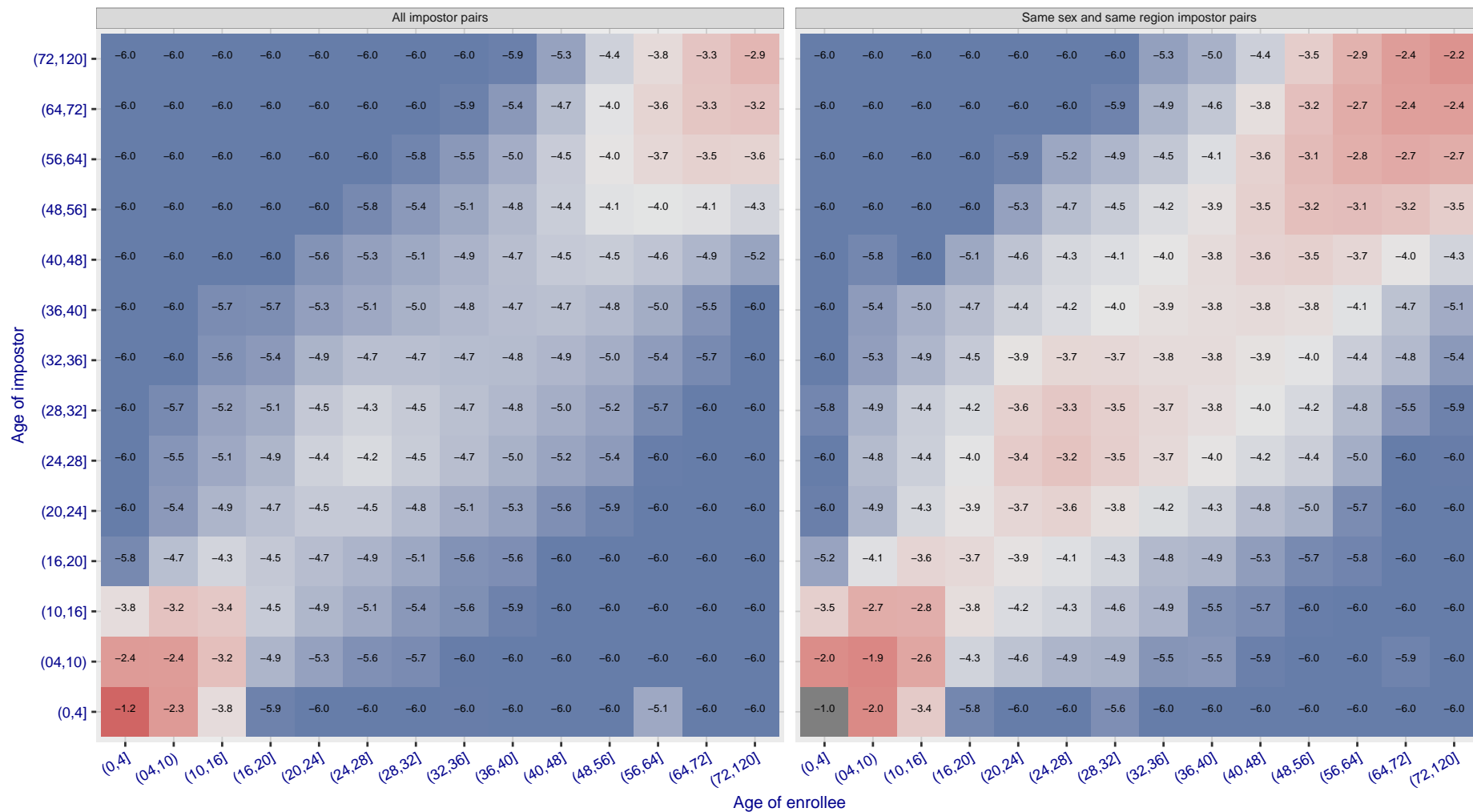
Cross age FMR at threshold $T = 0.668$ for algorithm psl_003, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



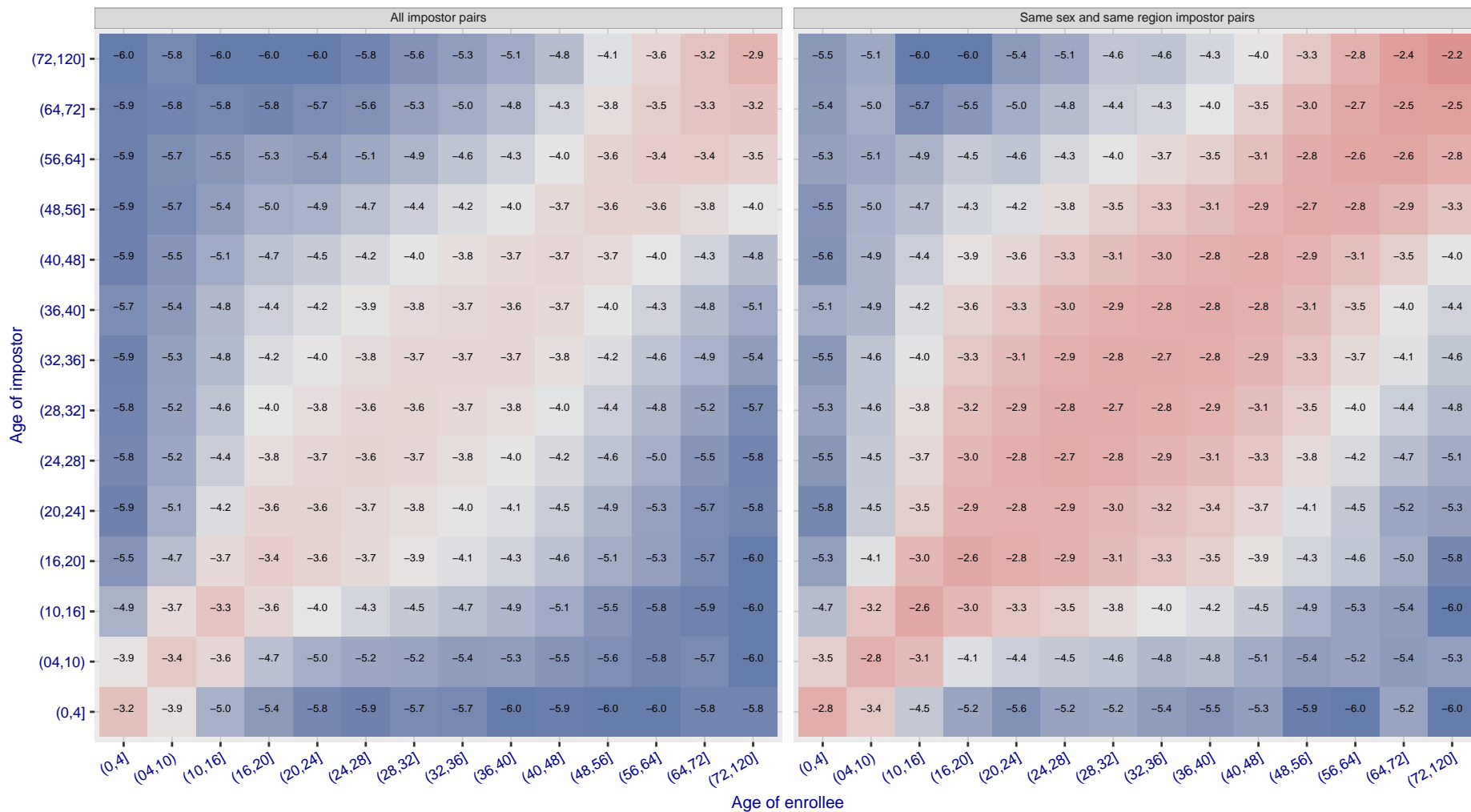
Cross age FMR at threshold $T = 0.779$ for algorithm rankone_006, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

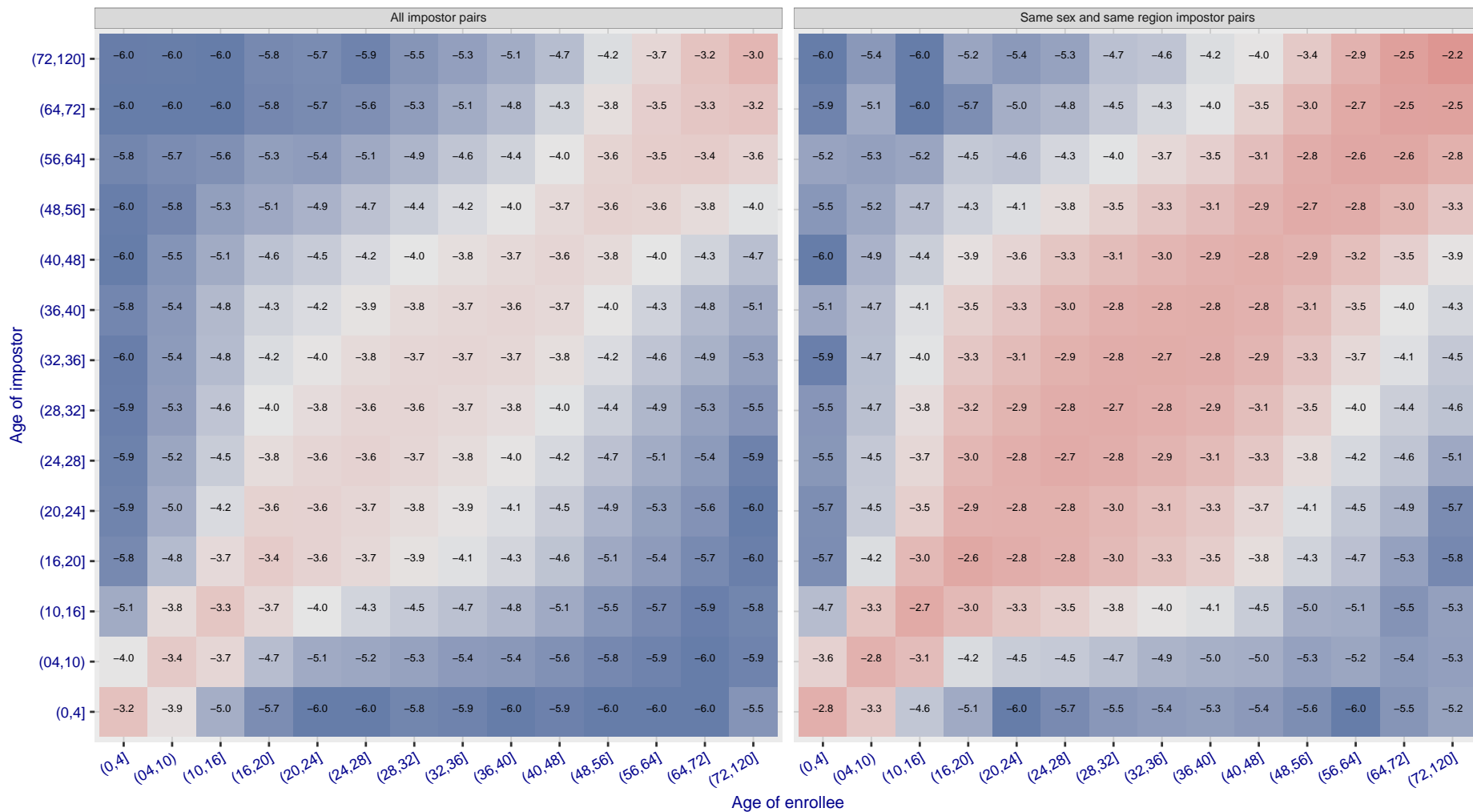


Cross age FMR at threshold $T = 0.883$ for algorithm `realnetworks_002`, giving $FMR(T) = 0.0001$ globally.

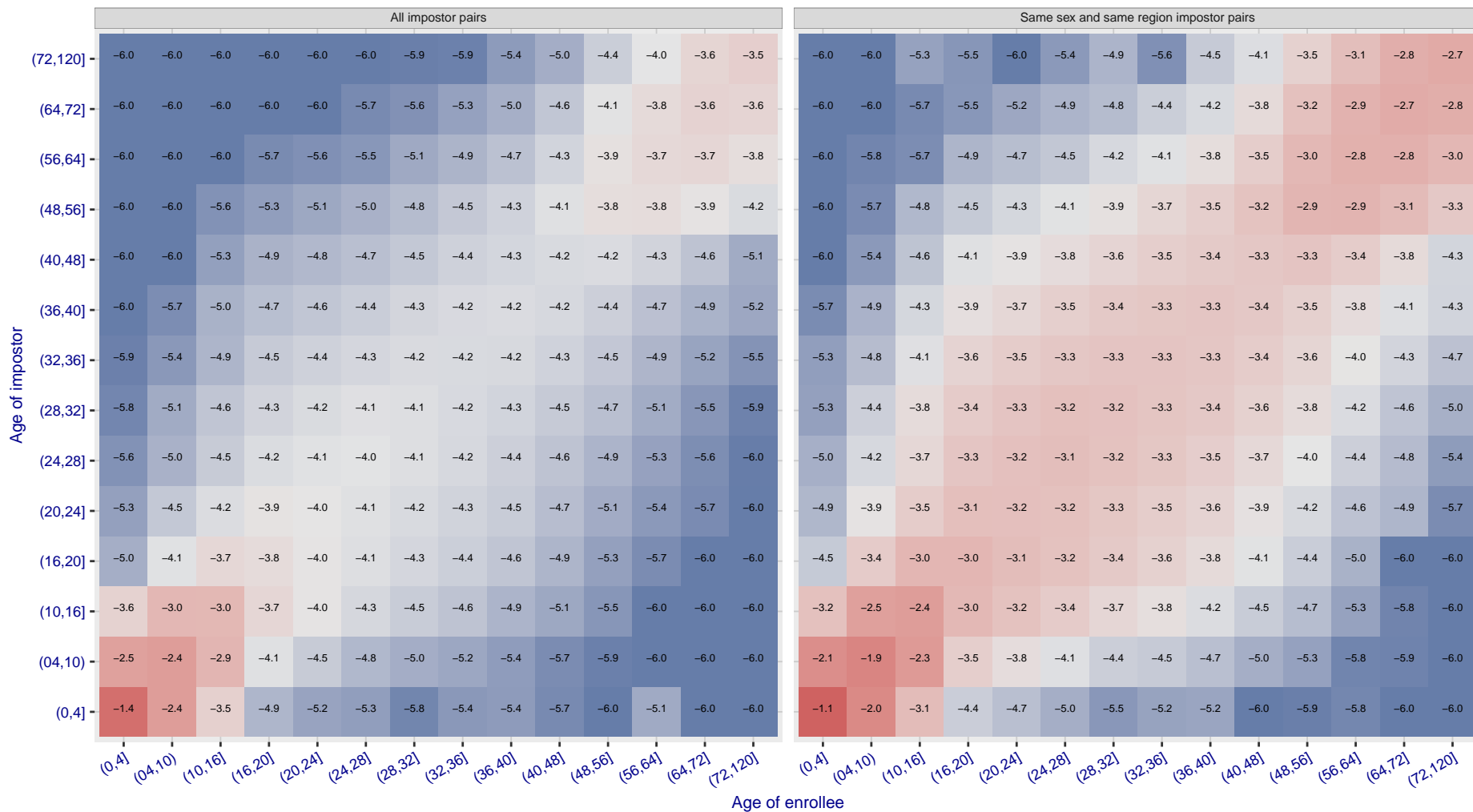
log10 FMR



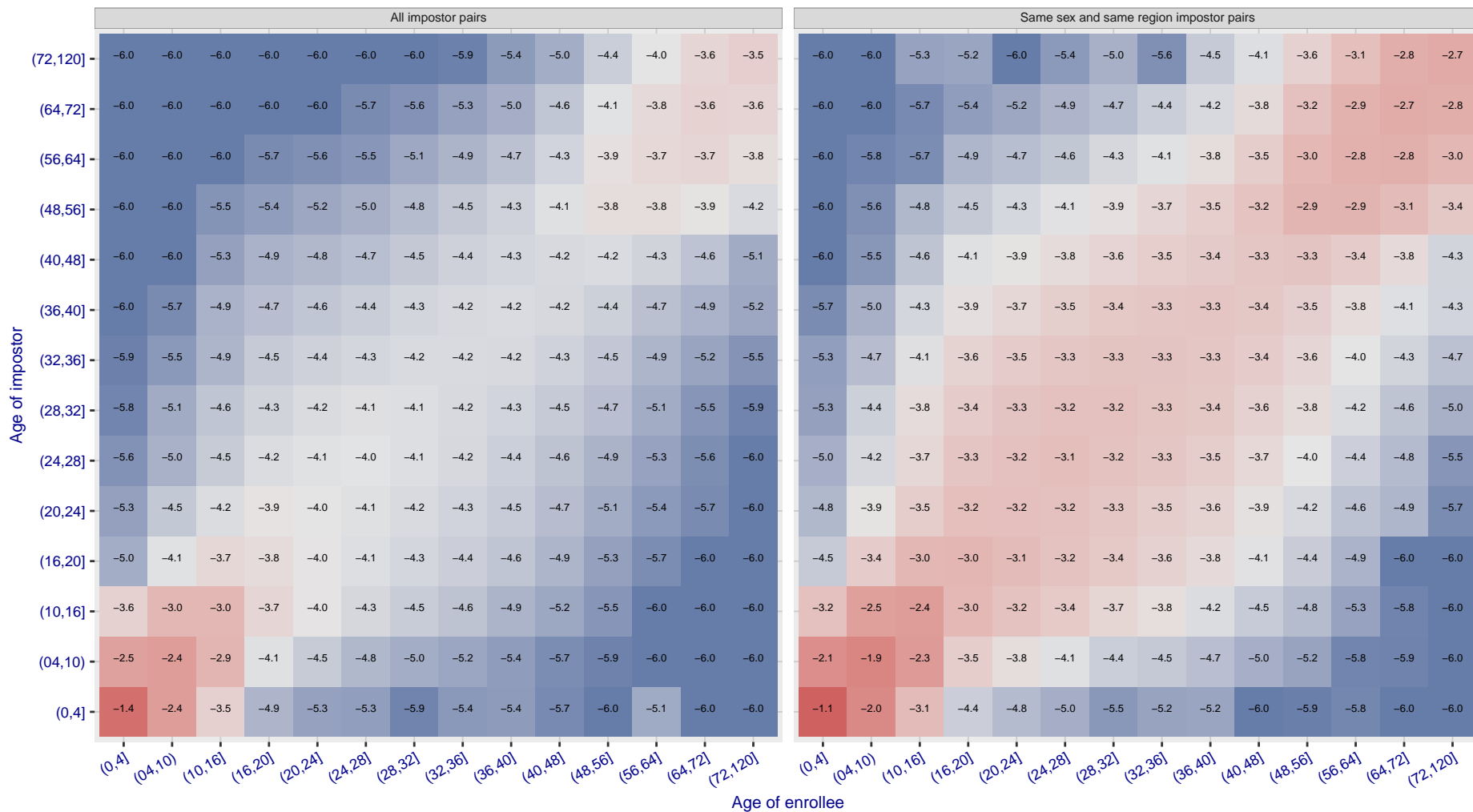
Cross age FMR at threshold $T = 0.886$ for algorithm realnetworks_003, giving $FMR(T) = 0.0001$ globally.



Cross age FMR at threshold $T = 70.373$ for algorithm remarkai_000, giving $FMR(T) = 0.0001$ globally.

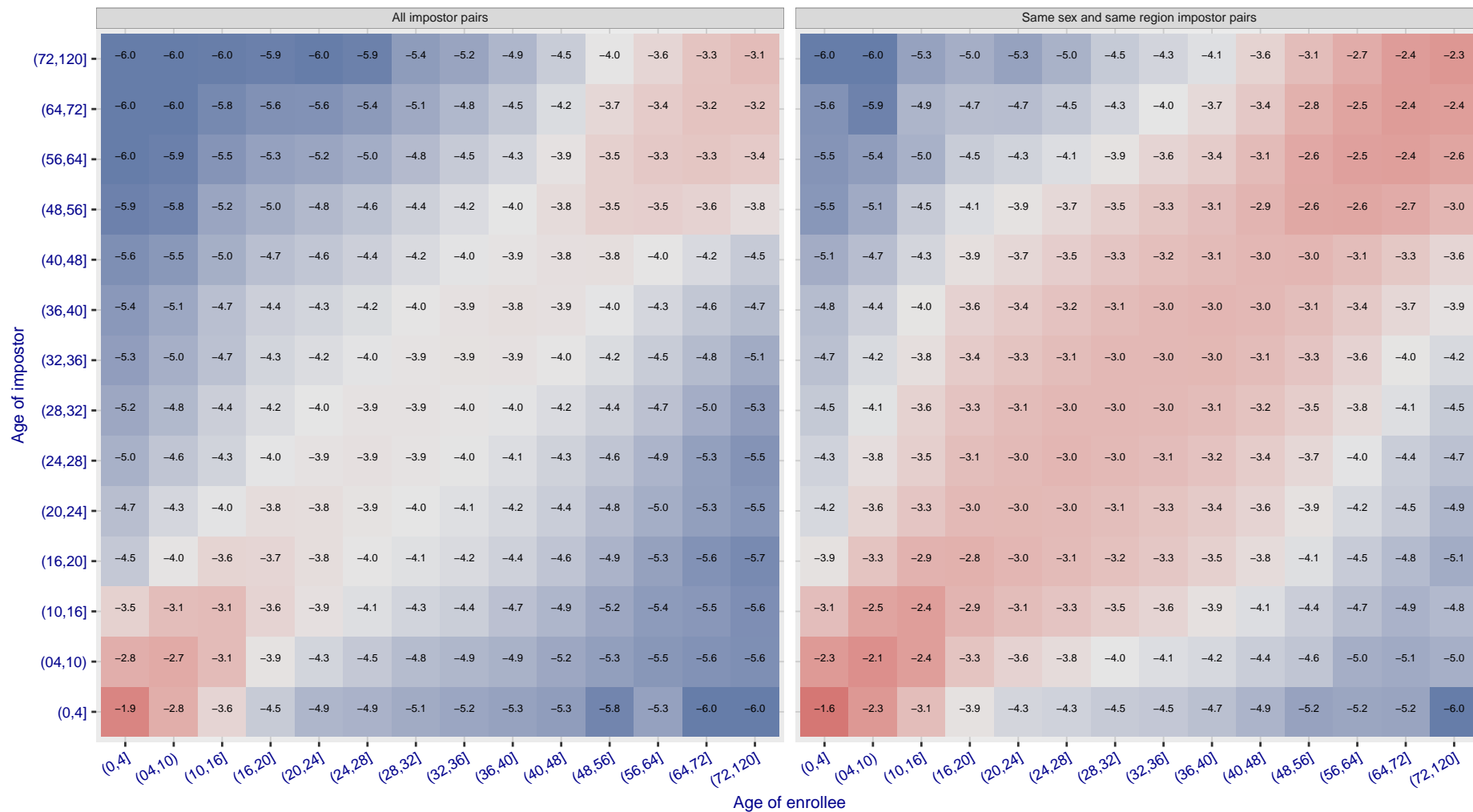


Cross age FMR at threshold $T = 70.384$ for algorithm remarkai_001, giving $FMR(T) = 0.0001$ globally.



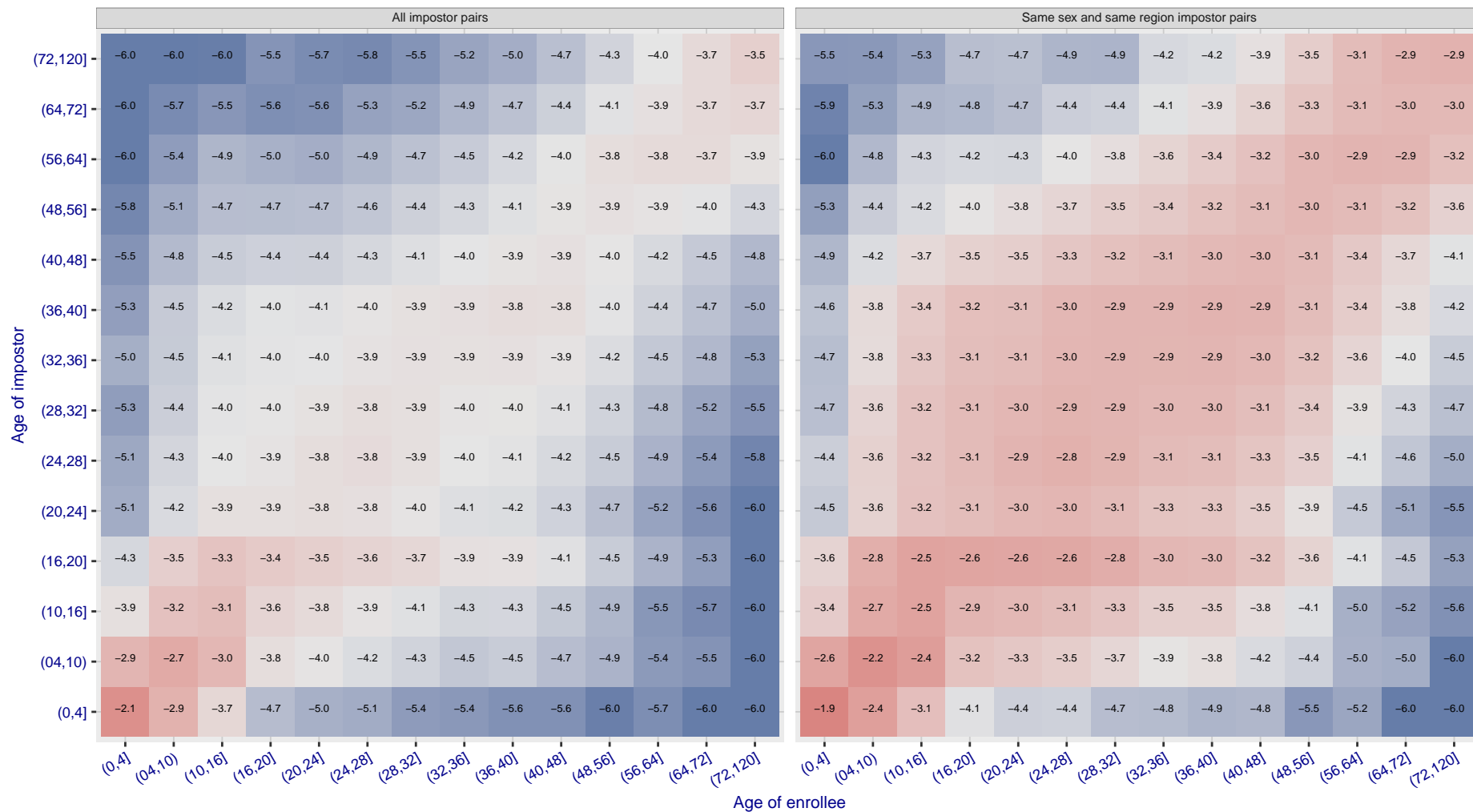
Cross age FMR at threshold $T = 0.663$ for algorithm rokid_000, giving $FMR(T) = 0.0001$ globally.

log10 FMR



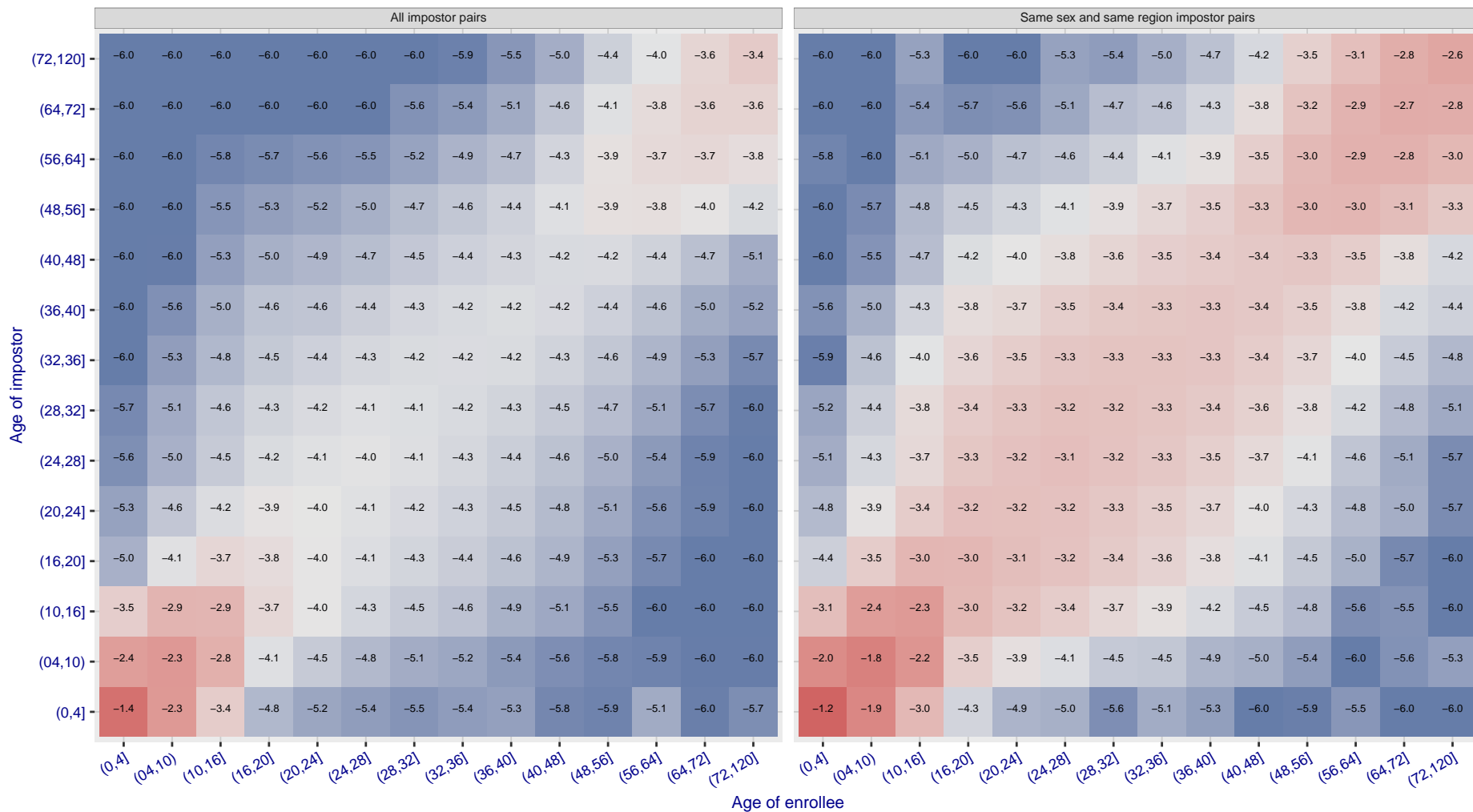
Cross age FMR at threshold $T = 0.682$ for algorithm saffe_001, giving $FMR(T) = 0.0001$ globally.

log₁₀ FMR

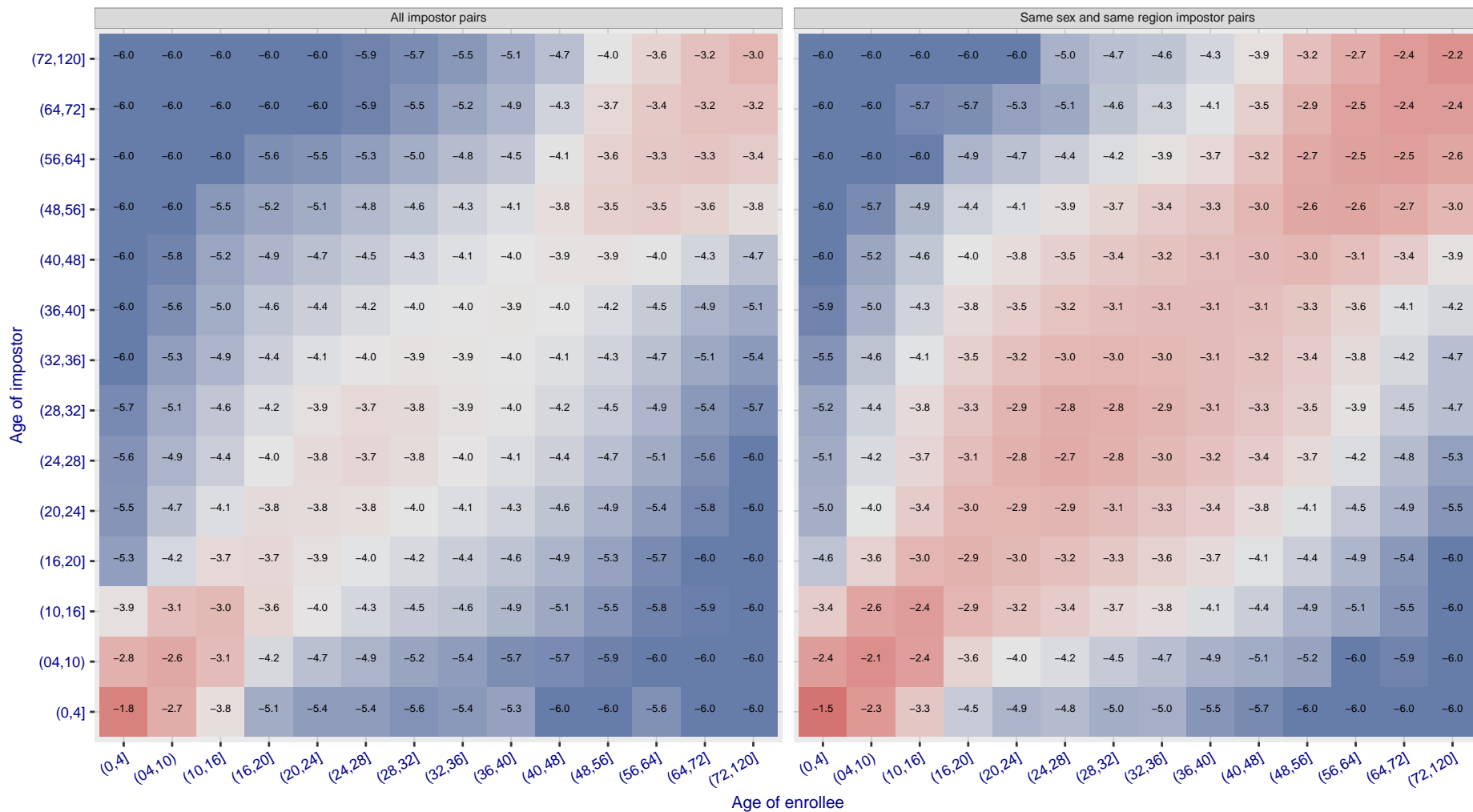


Cross age FMR at threshold $T = 0.383$ for algorithm saffe_002, giving $FMR(T) = 0.0001$ globally.

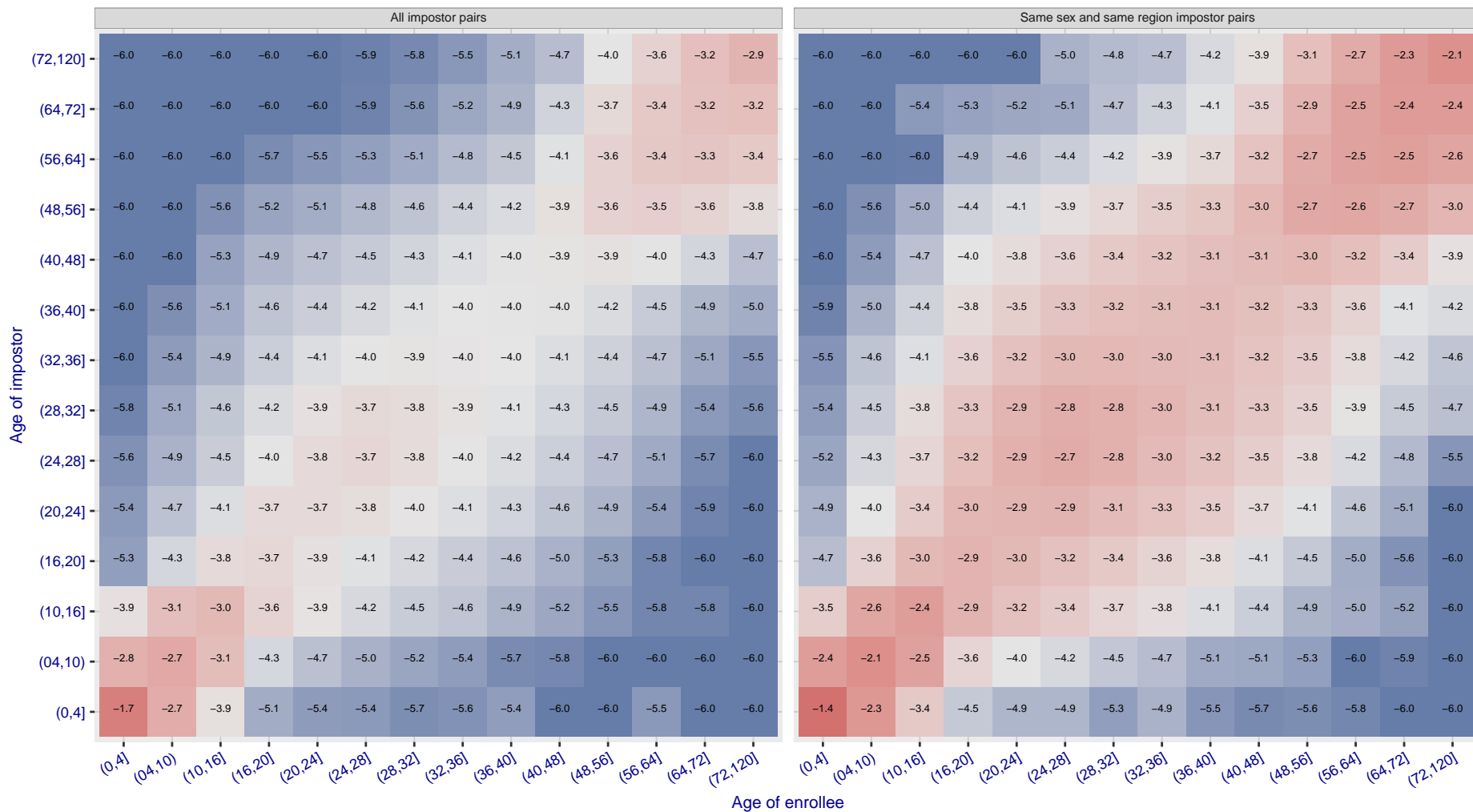
\log_{10} FMR



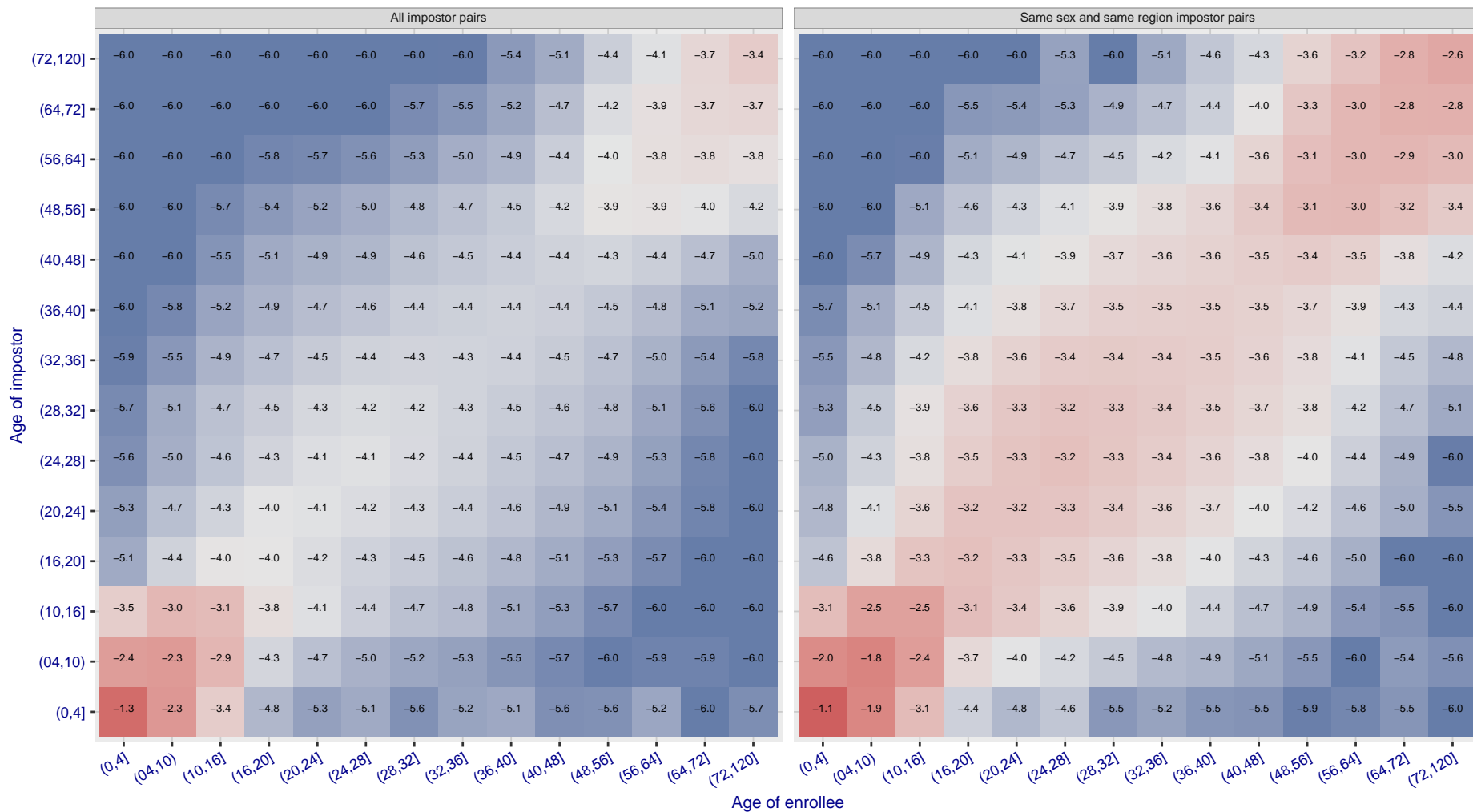
Cross age FMR at threshold $T = 0.390$ for algorithm `sensetime_001`, giving $FMR(T) = 0.0001$ globally.



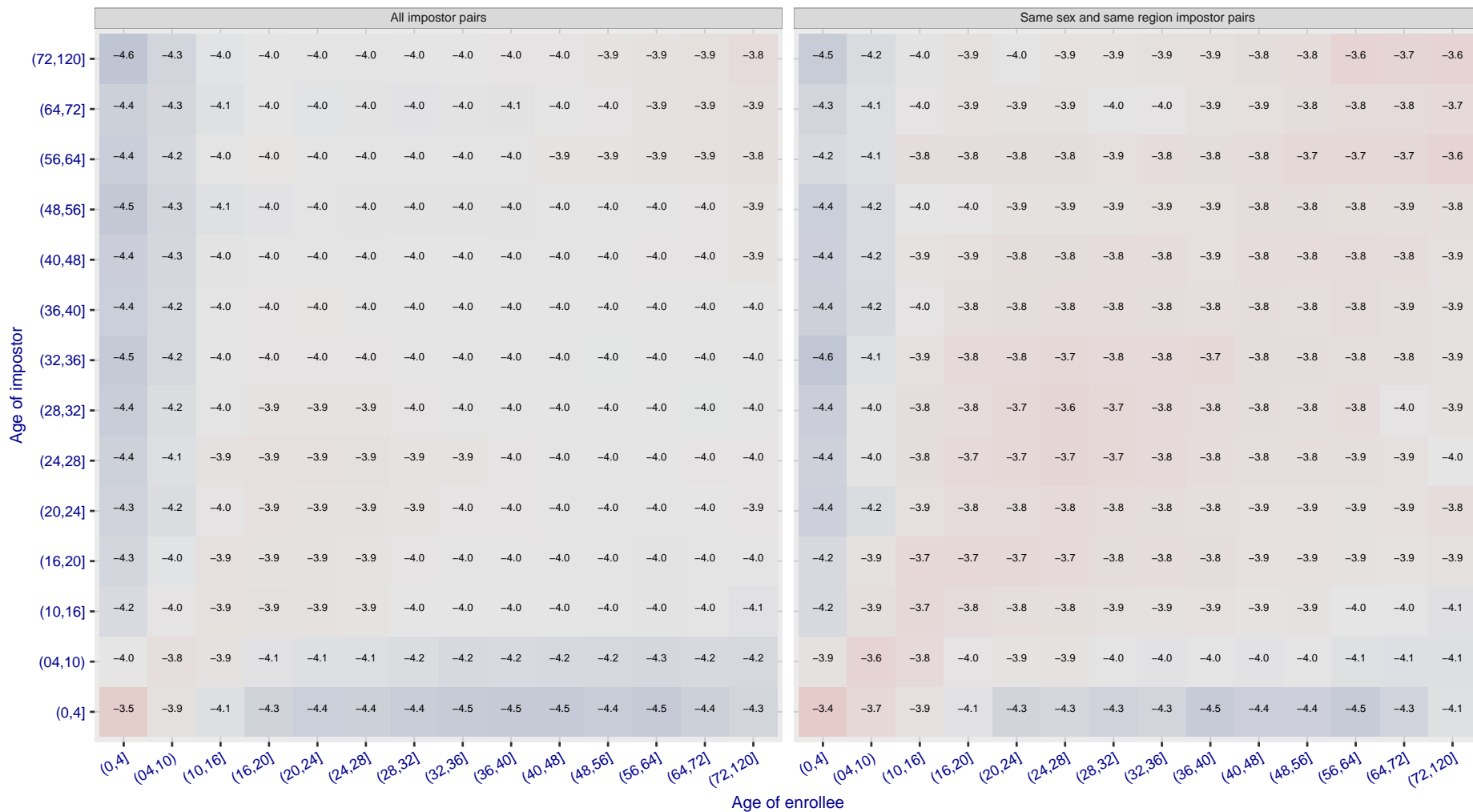
Cross age FMR at threshold $T = 0.390$ for algorithm `sensetime_002`, giving $FMR(T) = 0.0001$ globally.



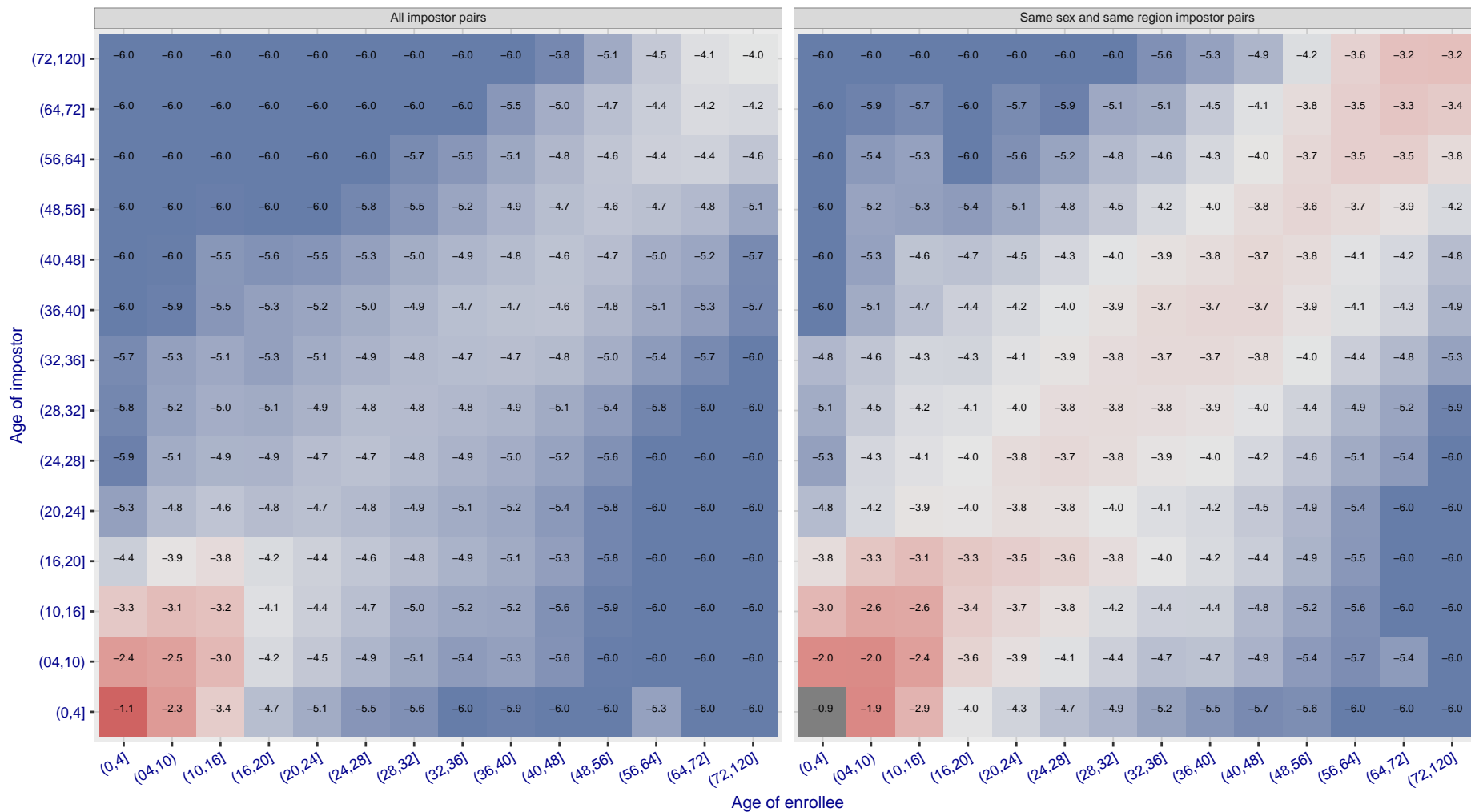
Cross age FMR at threshold $T = 0.713$ for algorithm `sertis_000`, giving $FMR(T) = 0.0001$ globally.



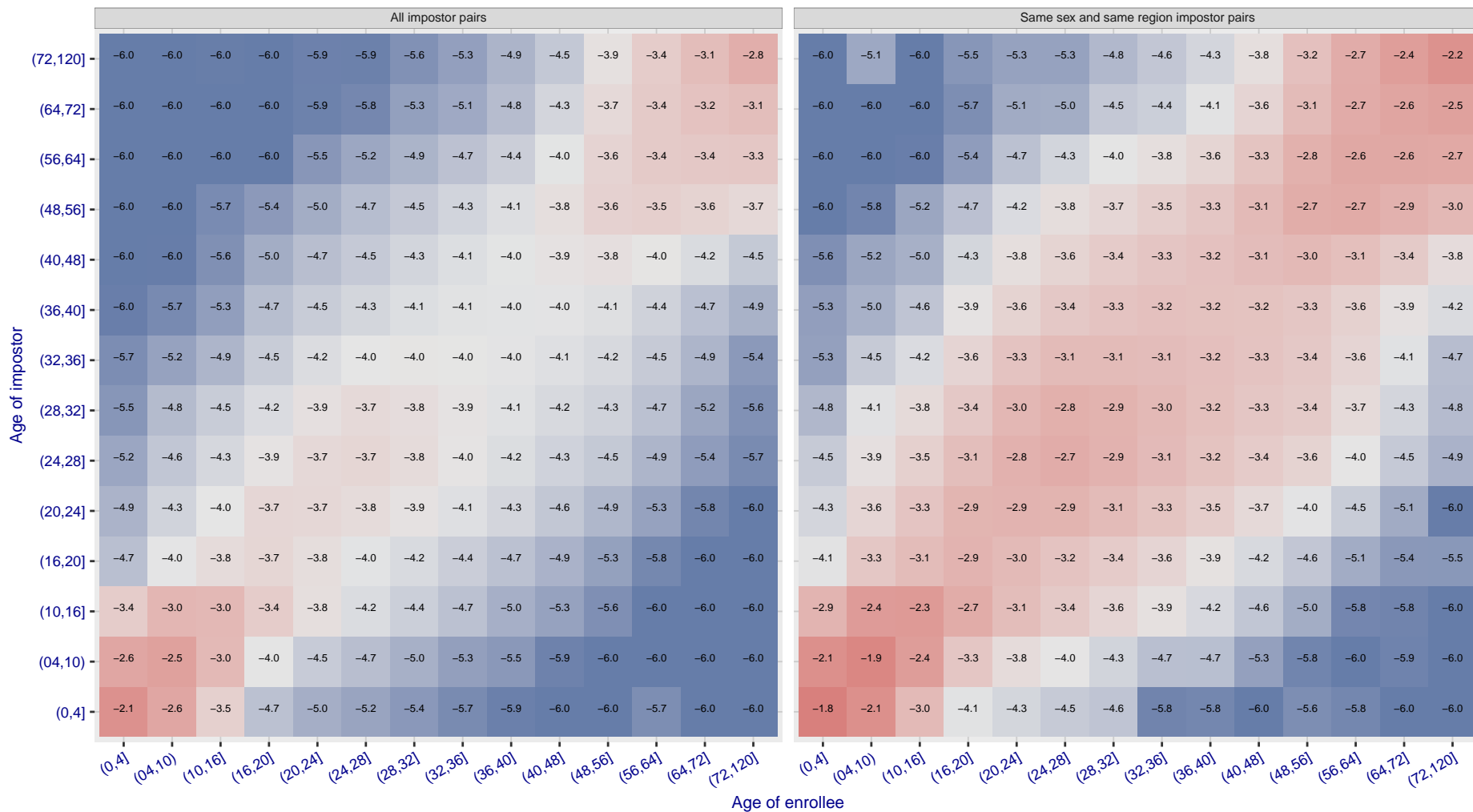
Cross age FMR at threshold $T = 0.970$ for algorithm shaman_000, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



Cross age FMR at threshold $T = 0.725$ for algorithm shaman_001, giving $FMR(T) = 0.0001$ globally.

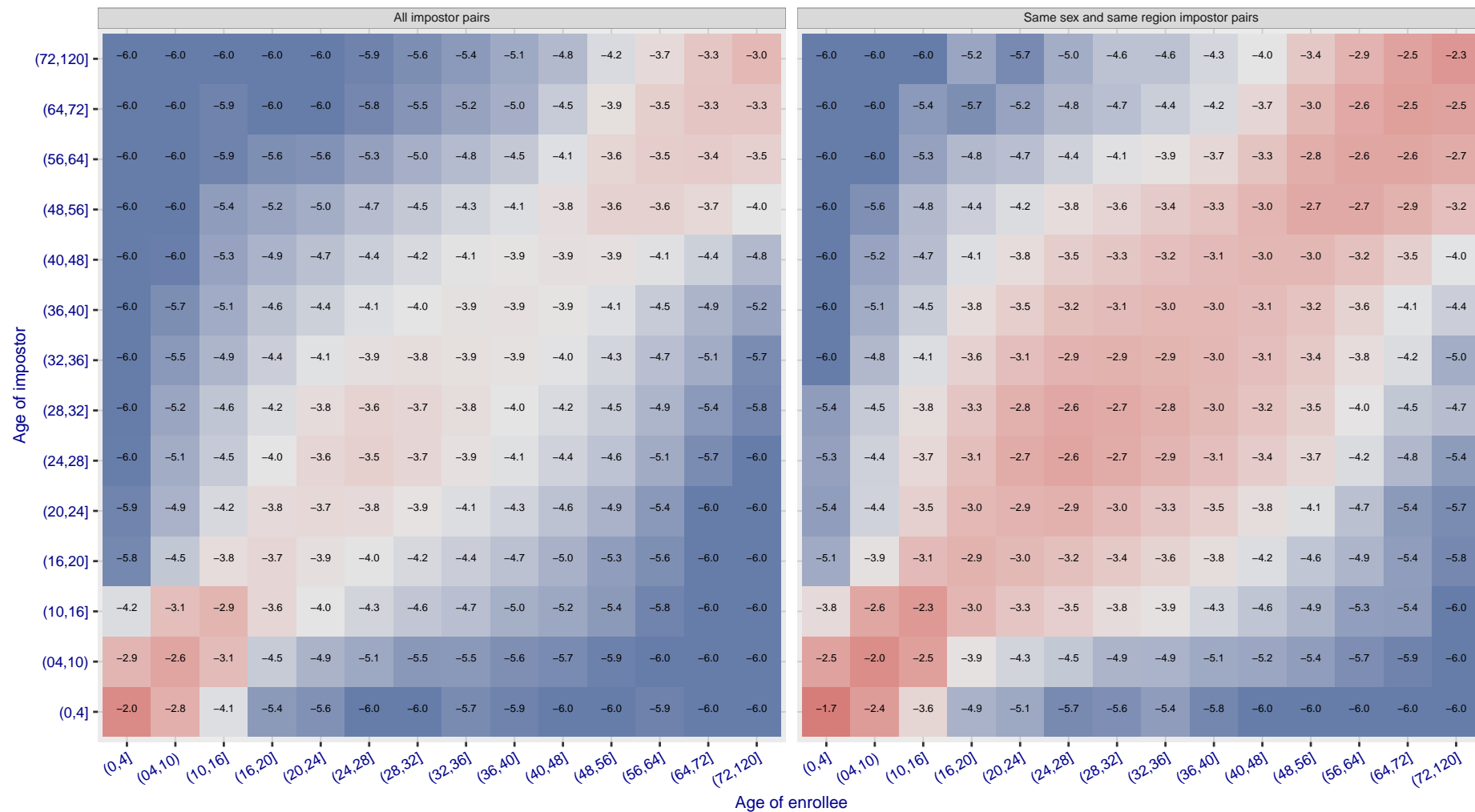


Cross age FMR at threshold $T = 0.400$ for algorithm shu_001, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



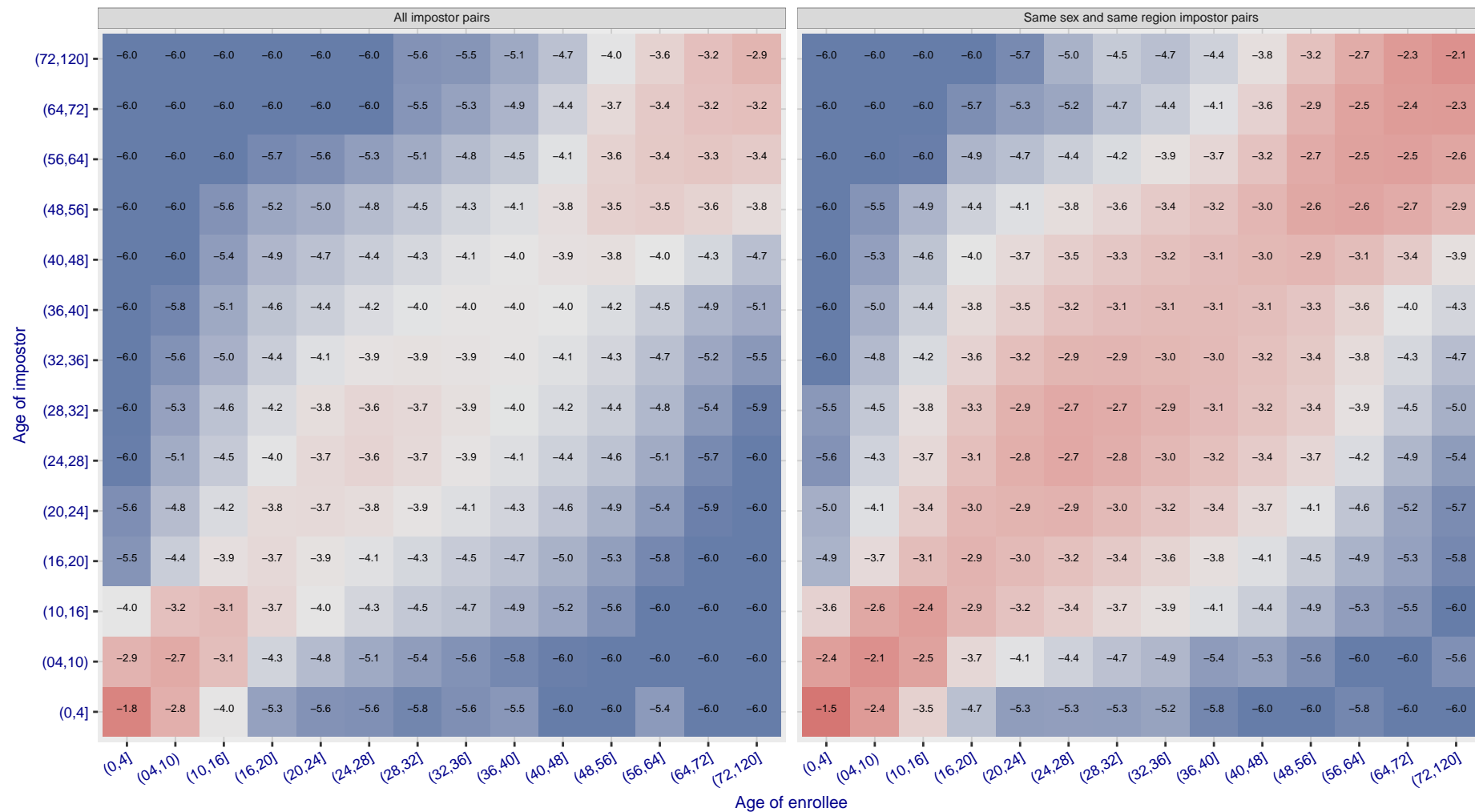
Cross age FMR at threshold $T = 0.390$ for algorithm `siat_002`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



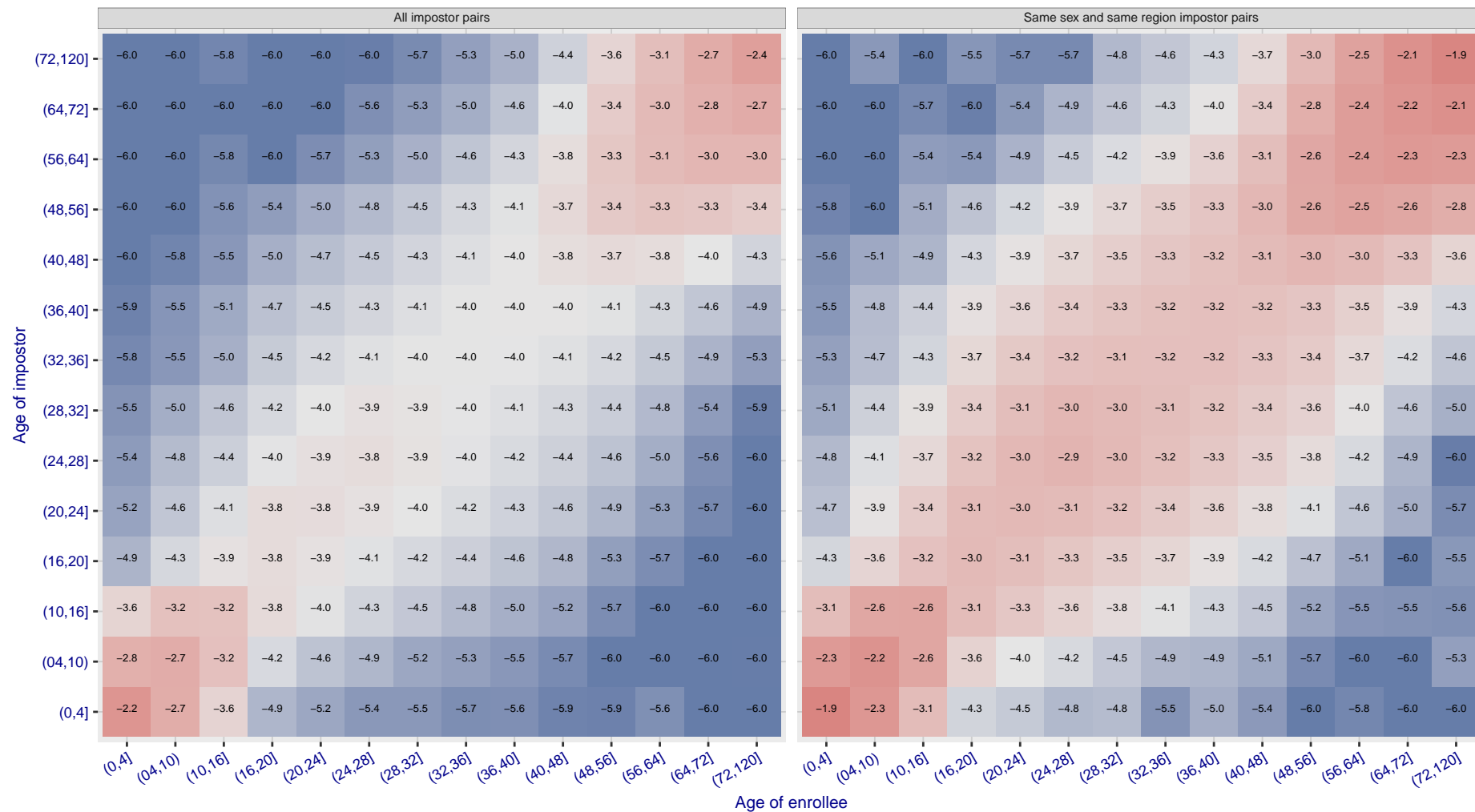
Cross age FMR at threshold $T = 0.393$ for algorithm `siat_004`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

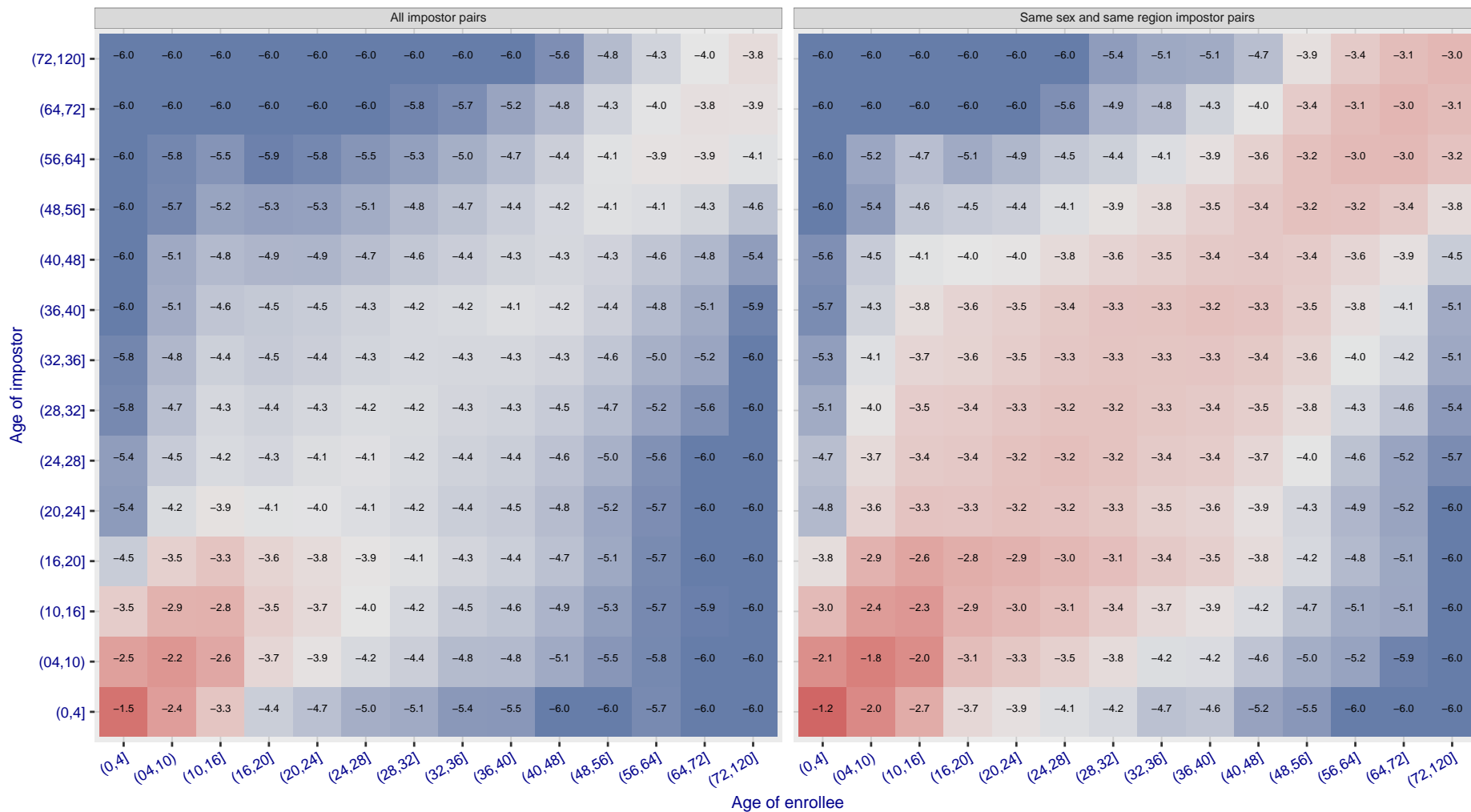


Cross age FMR at threshold $T = 1.206$ for algorithm `sju_001`, giving $FMR(T) = 0.0001$ globally.

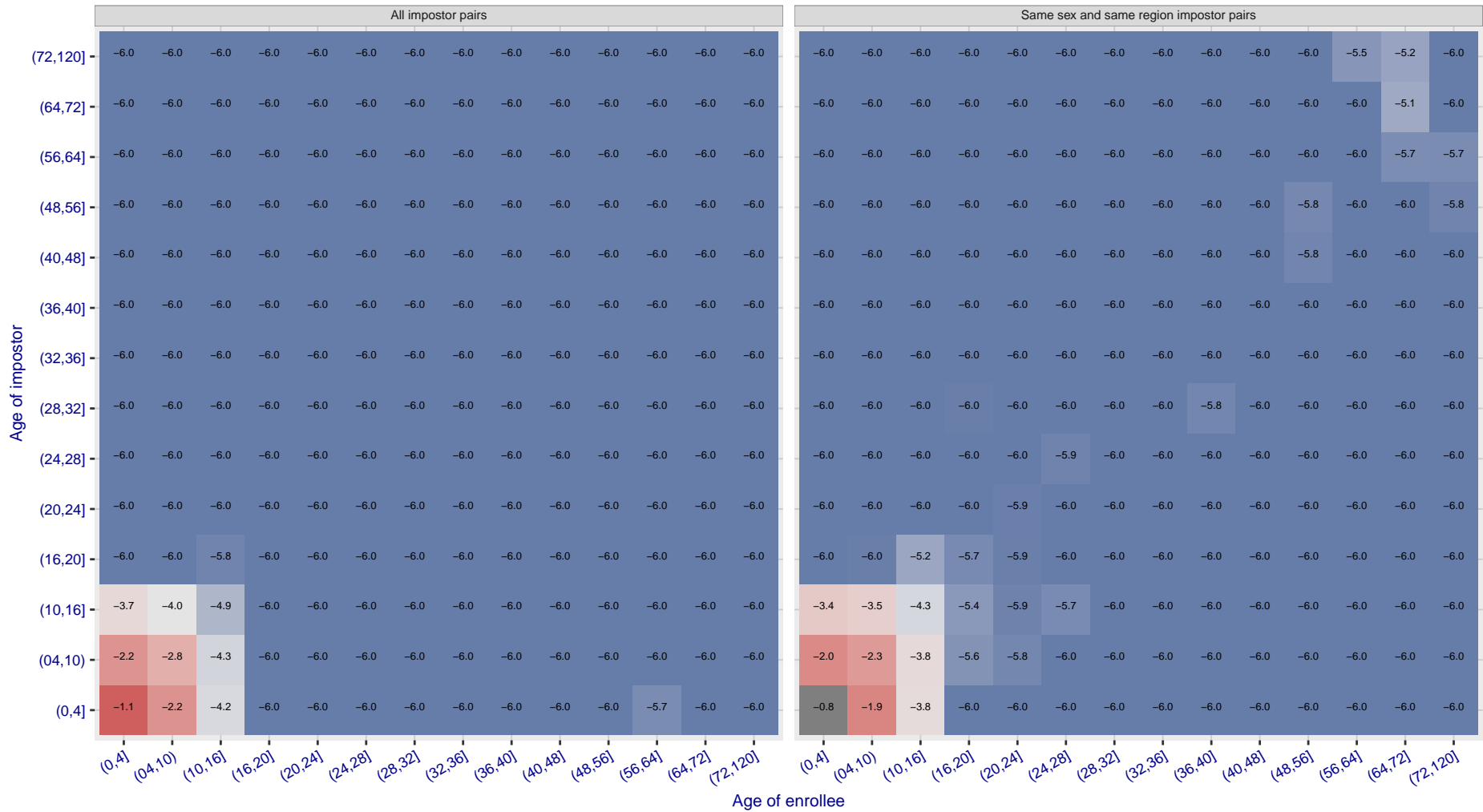
\log_{10} FMR



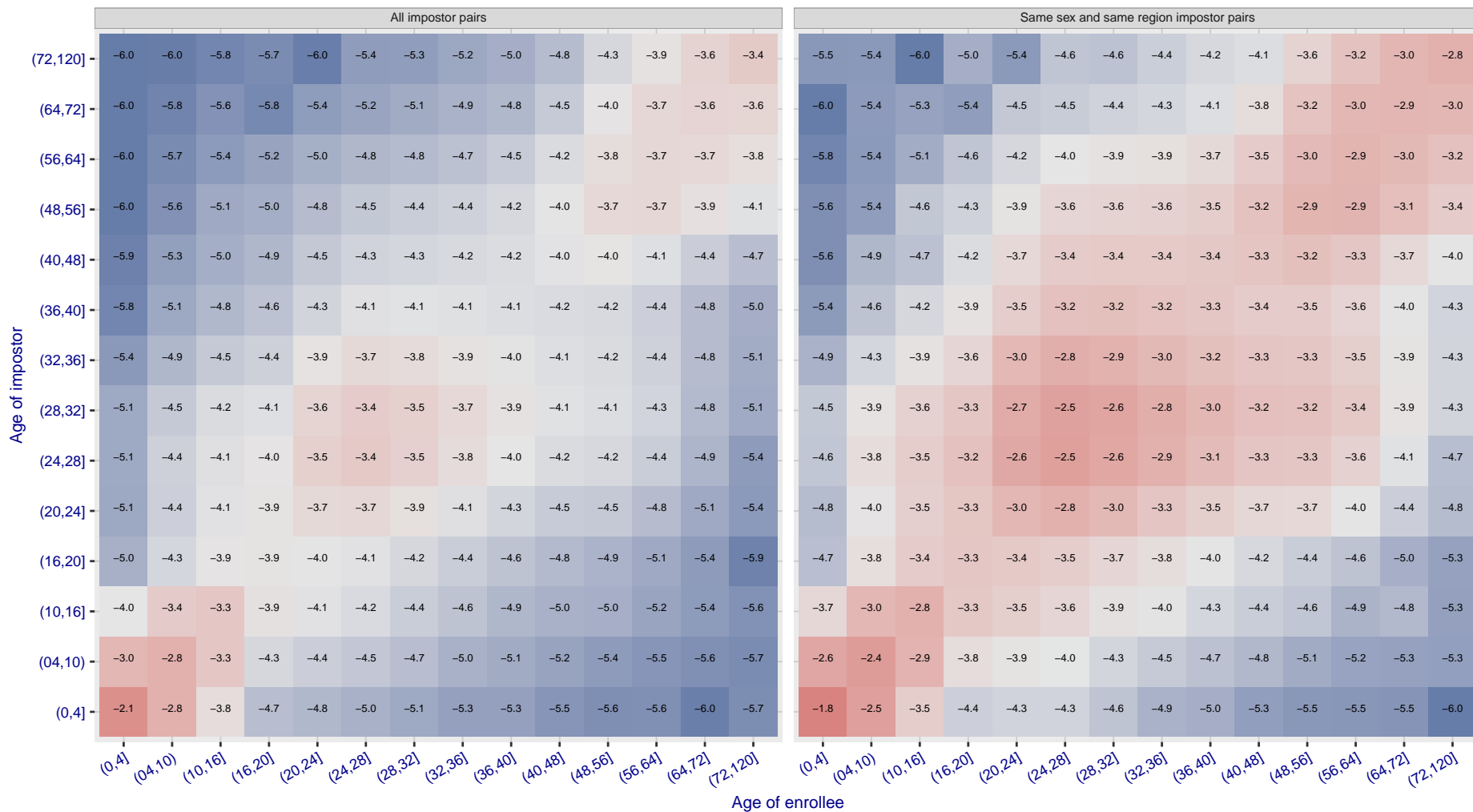
Cross age FMR at threshold $T = 0.598$ for algorithm `smilart_002`, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



Cross age FMR at threshold $T = 0.654$ for algorithm simlart_003, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR

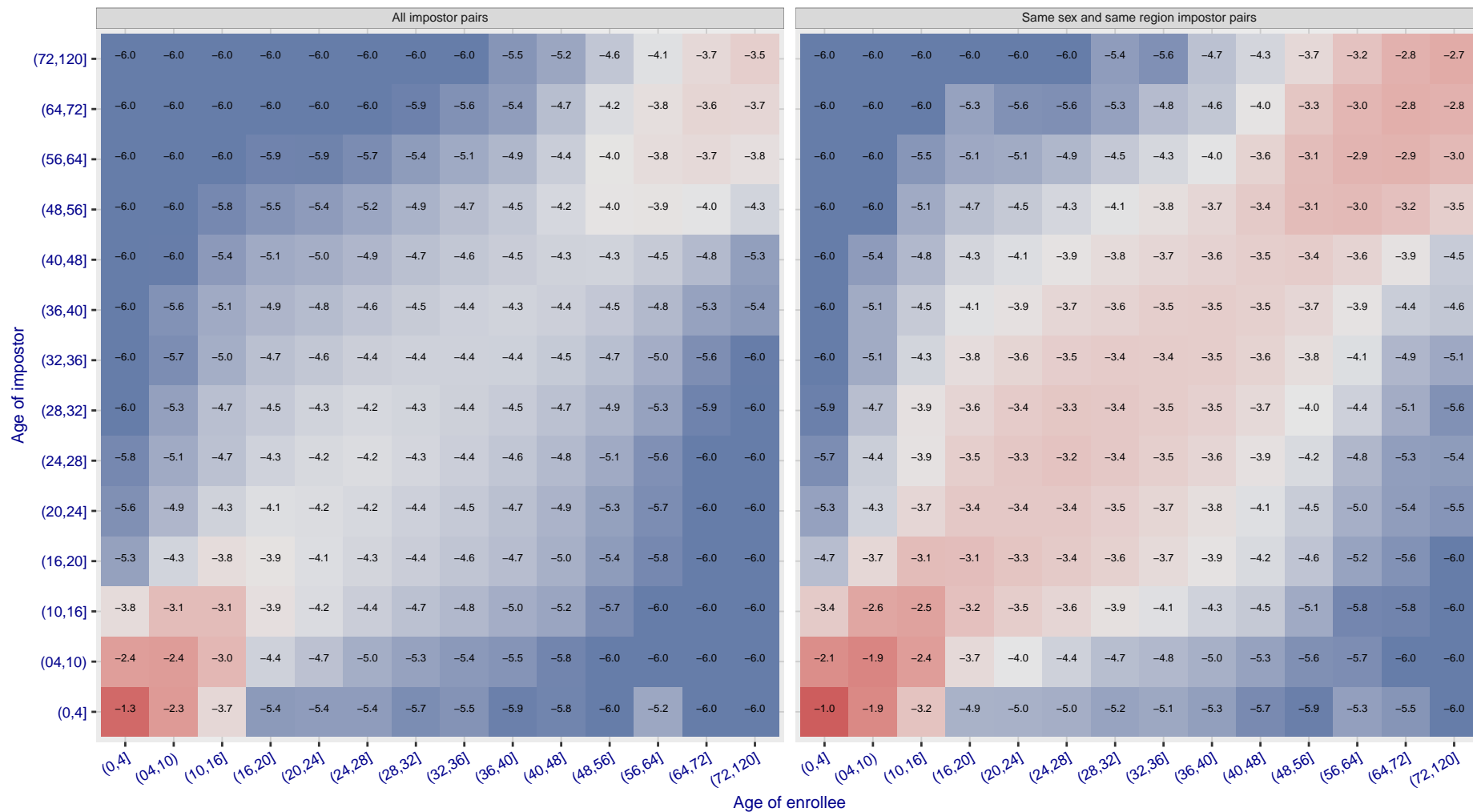


Cross age FMR at threshold $T = 0.314$ for algorithm starhybrid_001, giving $FMR(T) = 0.0001$ globally.



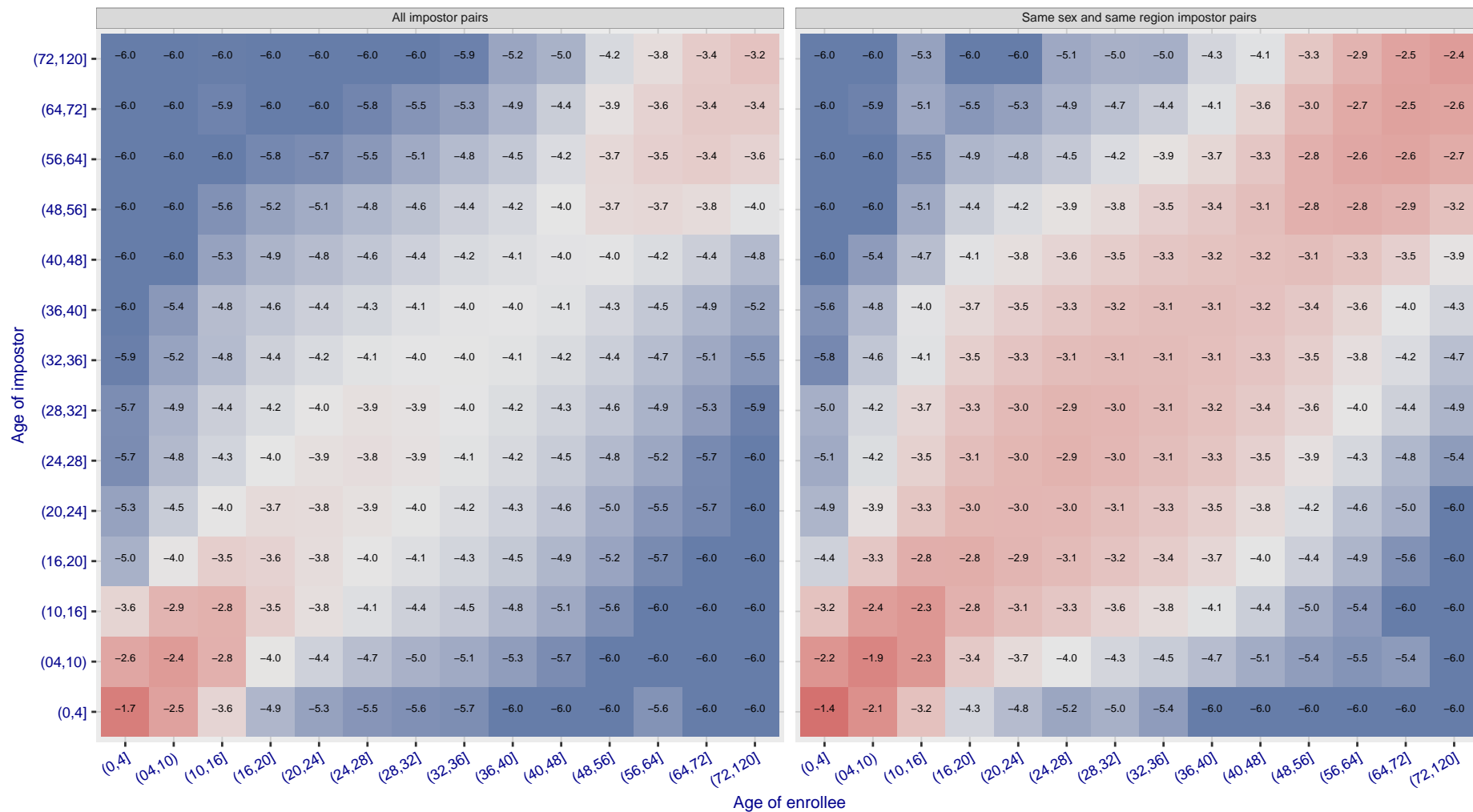
Cross age FMR at threshold $T = 0.221$ for algorithm `synesis_004`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



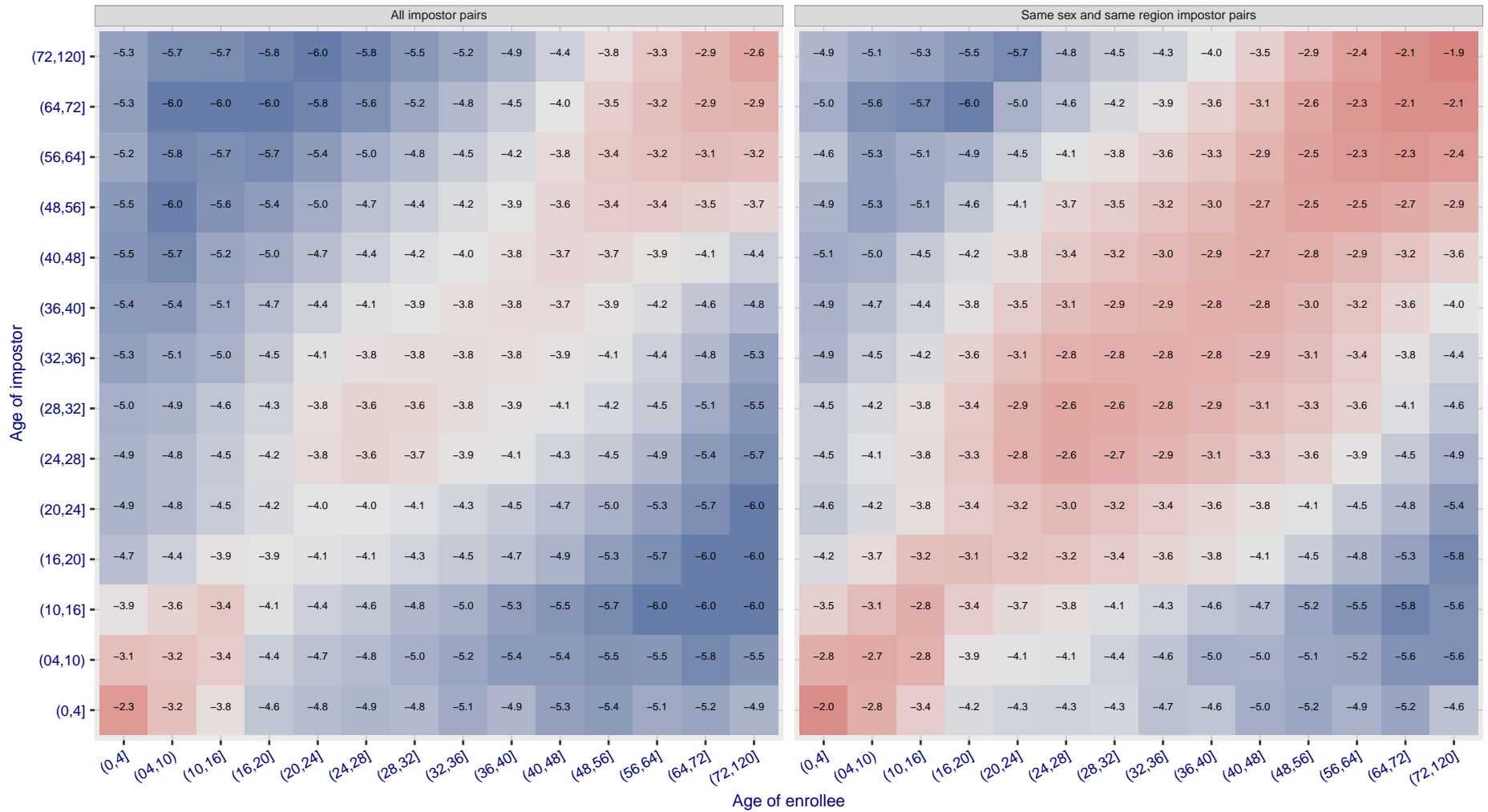
Cross age FMR at threshold $T = 0.356$ for algorithm `synesis_005`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



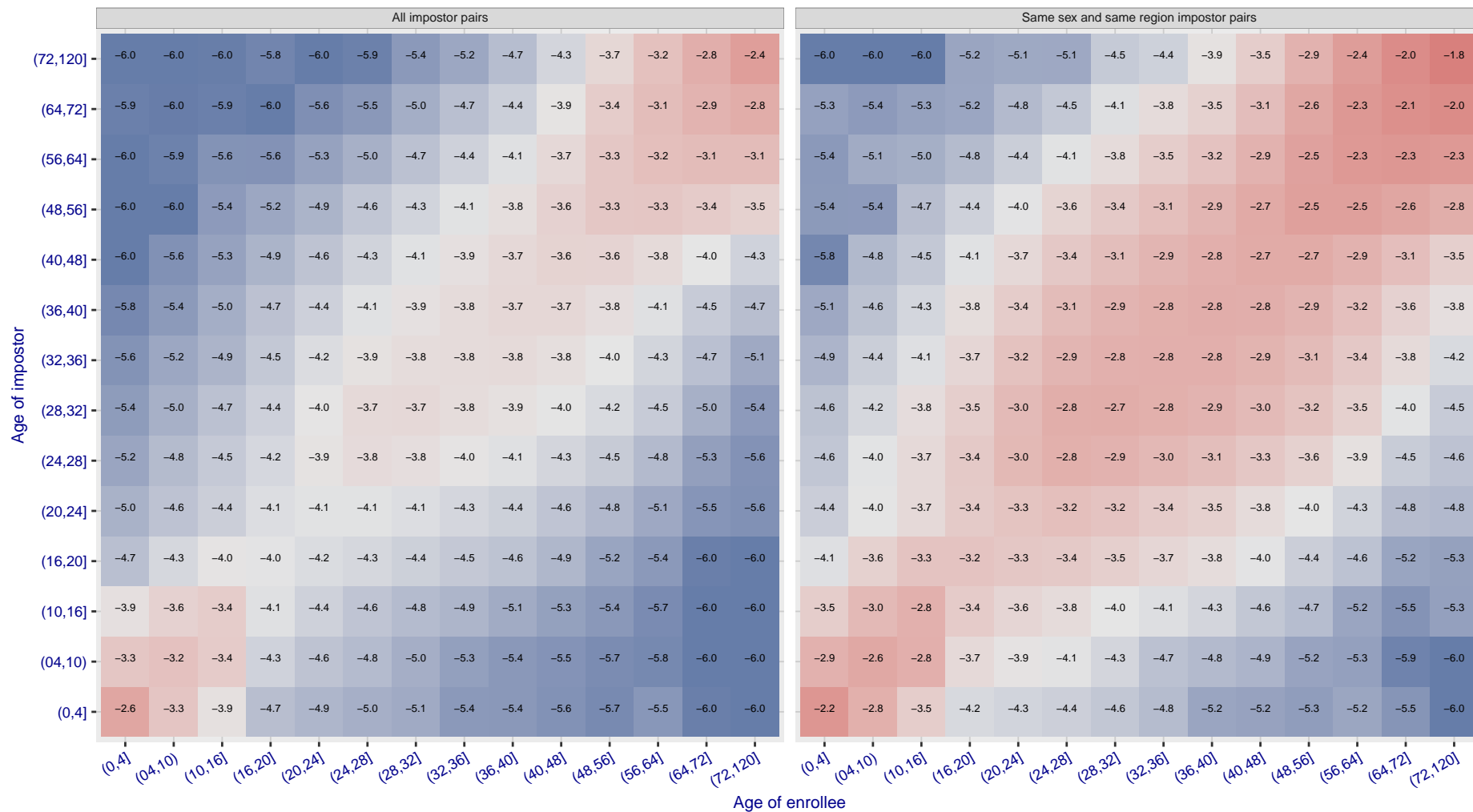
Cross age FMR at threshold $T = 147.661$ for algorithm tech5_002, giving $FMR(T) = 0.0001$ globally.

log10 FMR



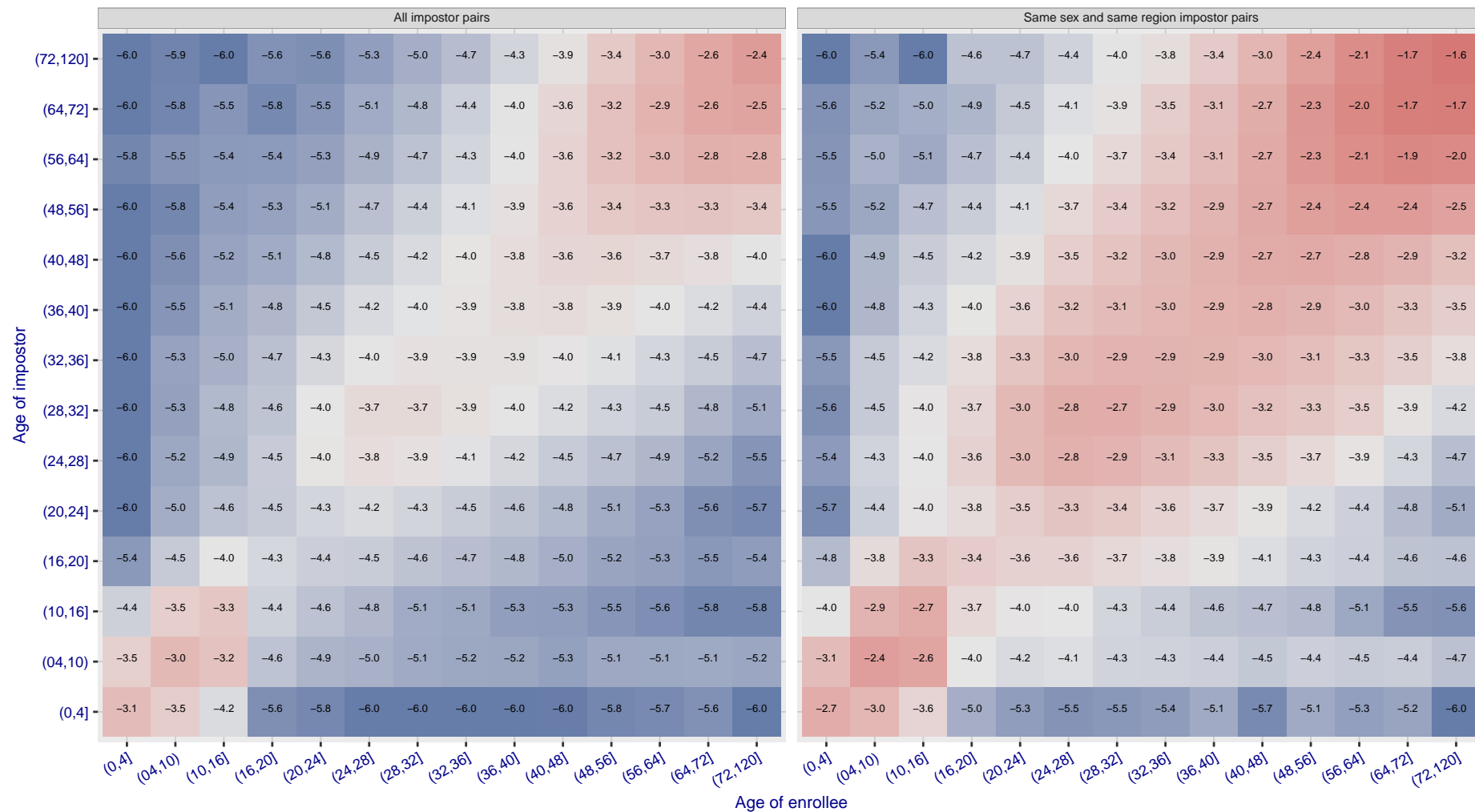
Cross age FMR at threshold $T = 147.080$ for algorithm tech5_003, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



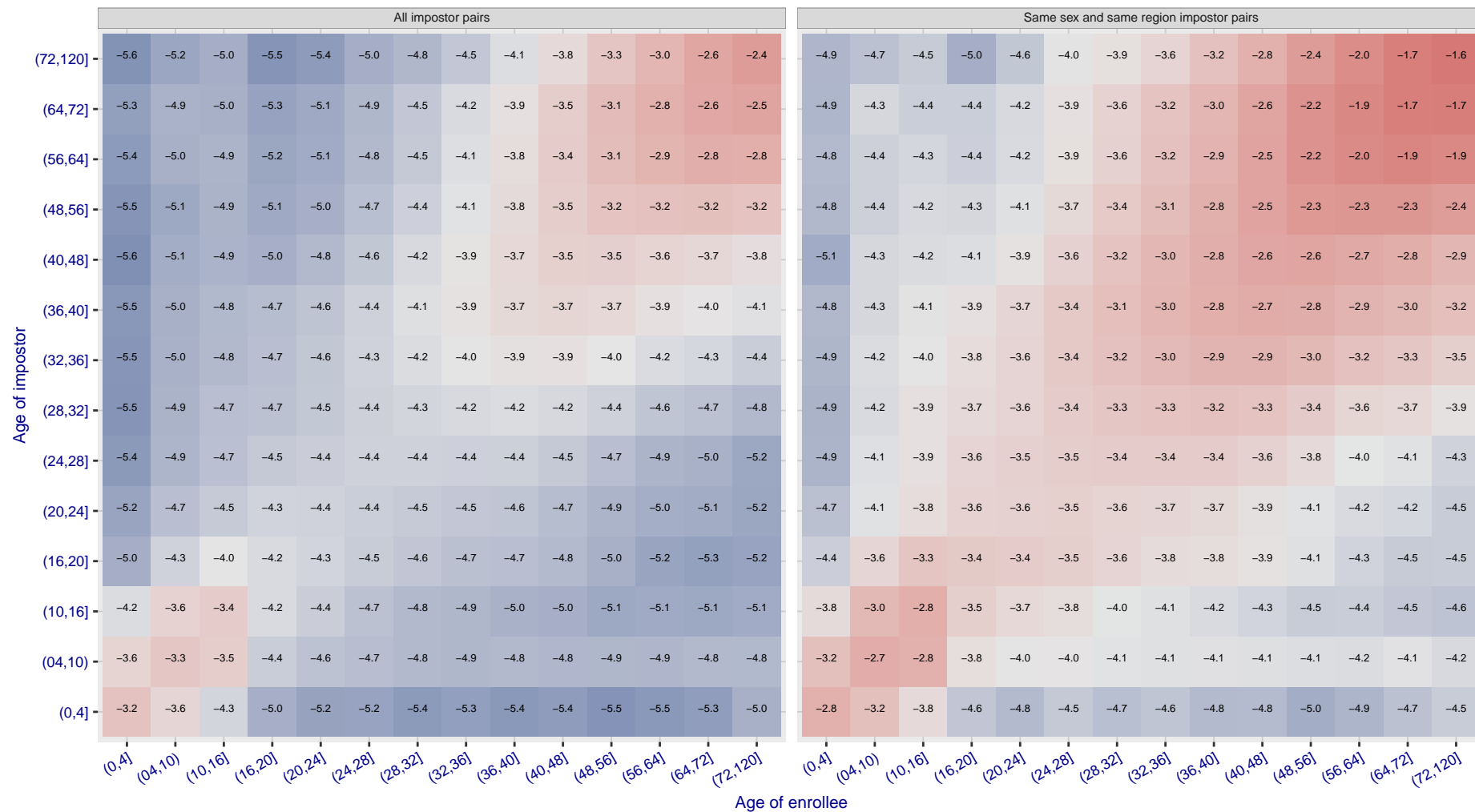
Cross age FMR at threshold $T = 0.896$ for algorithm `tevia_n_004`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

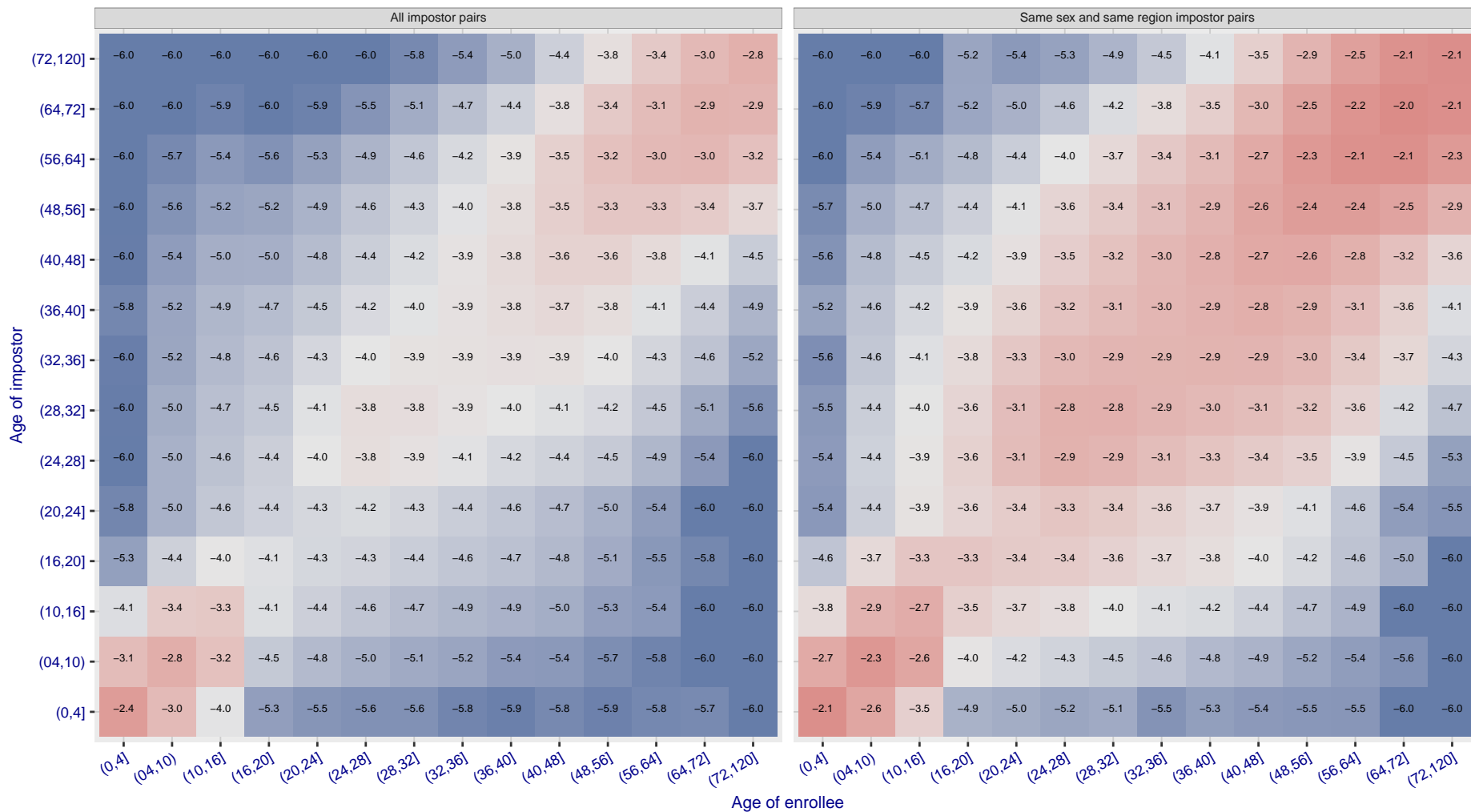


Cross age FMR at threshold $T = 0.854$ for algorithm `tevia_n_005`, giving $FMR(T) = 0.0001$ globally.

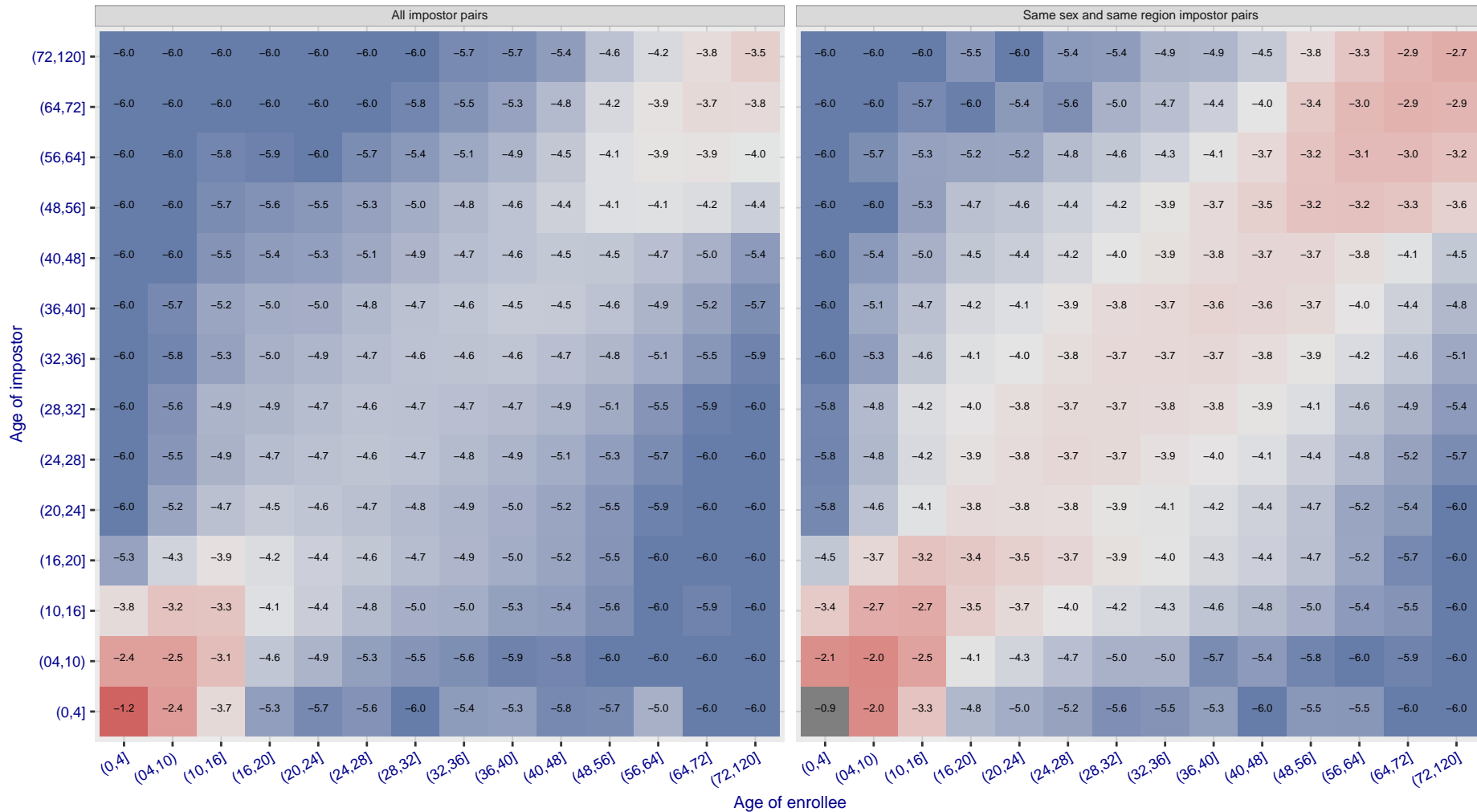
\log_{10} FMR



Cross age FMR at threshold $T = 151.011$ for algorithm tiger_002, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR

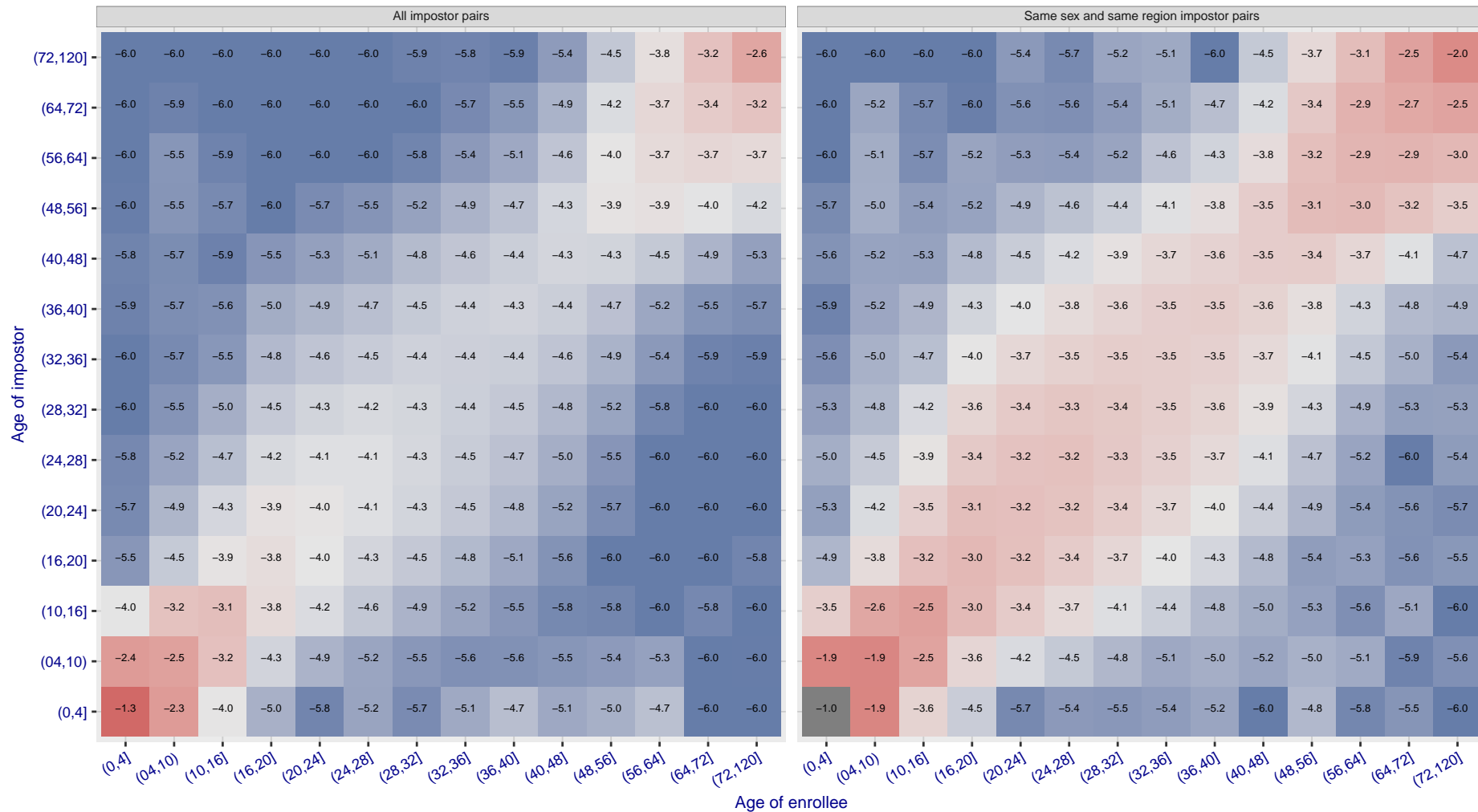


Cross age FMR at threshold $T = 149.313$ for algorithm tiger_003, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



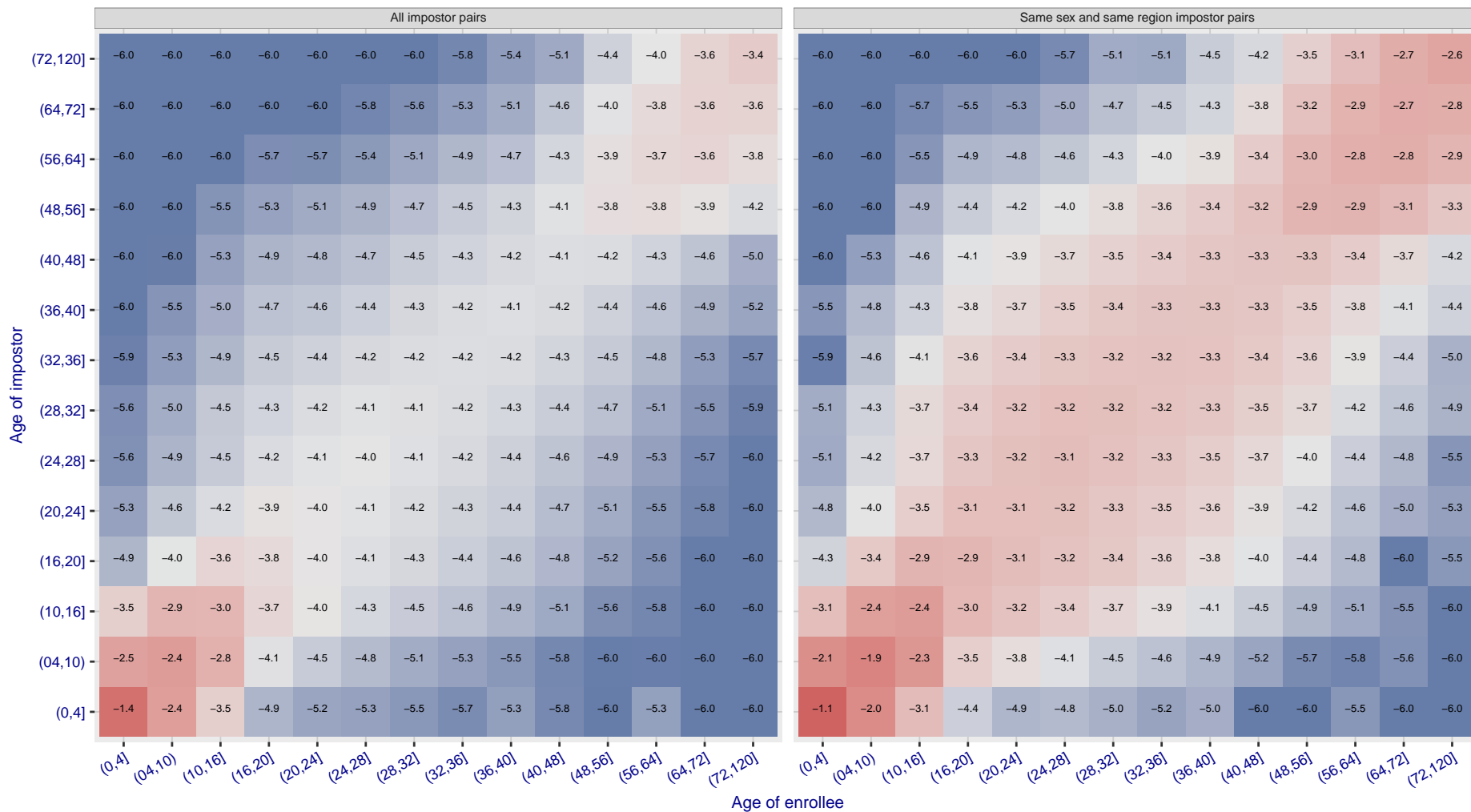
Cross age FMR at threshold $T = 43.677$ for algorithm tongyi_005, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



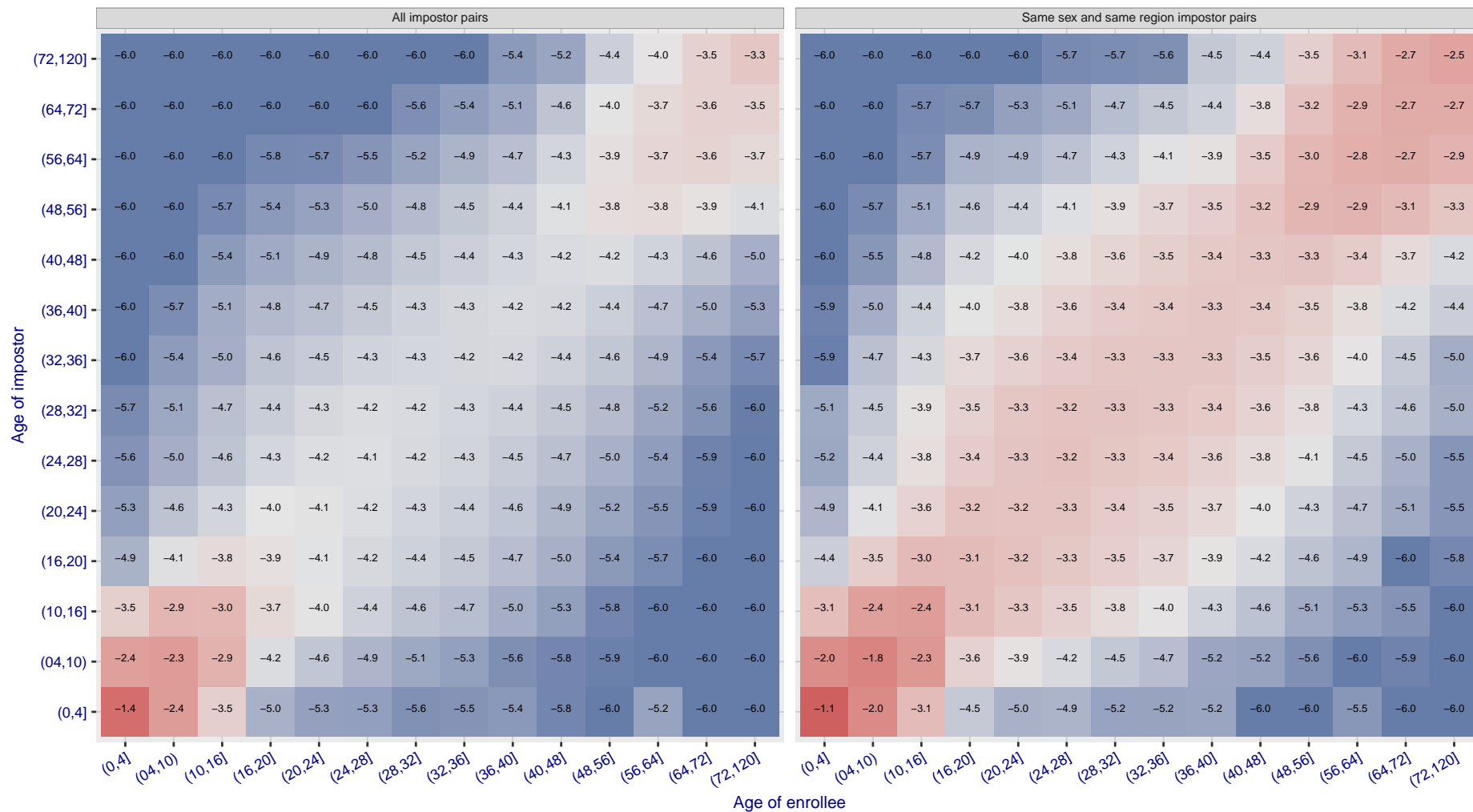
Cross age FMR at threshold $T = 0.628$ for algorithm toshiba_002, giving $FMR(T) = 0.0001$ globally.

log10 FMR

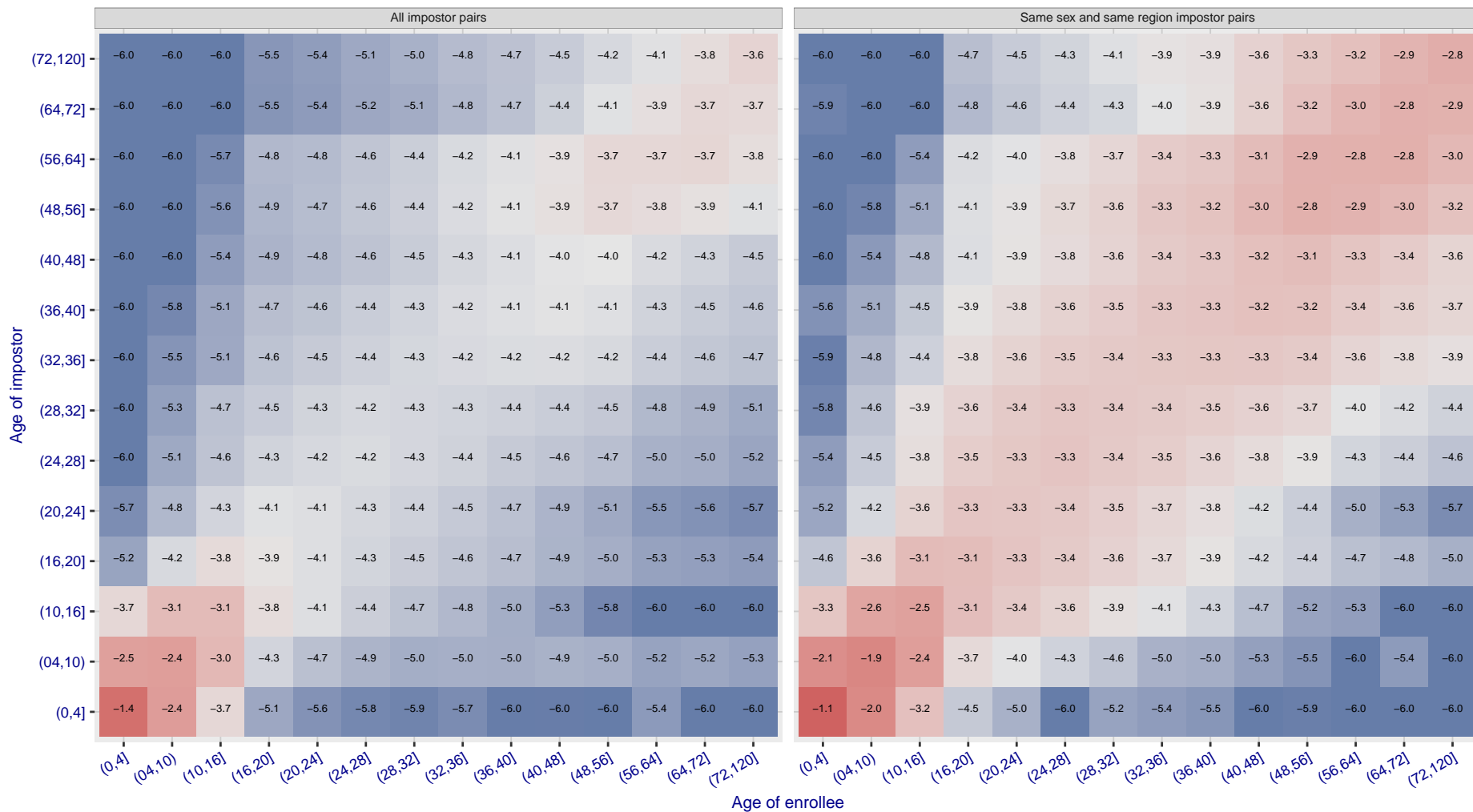


Cross age FMR at threshold $T = 0.626$ for algorithm toshiba_003, giving $FMR(T) = 0.0001$ globally.

log₁₀ FMR

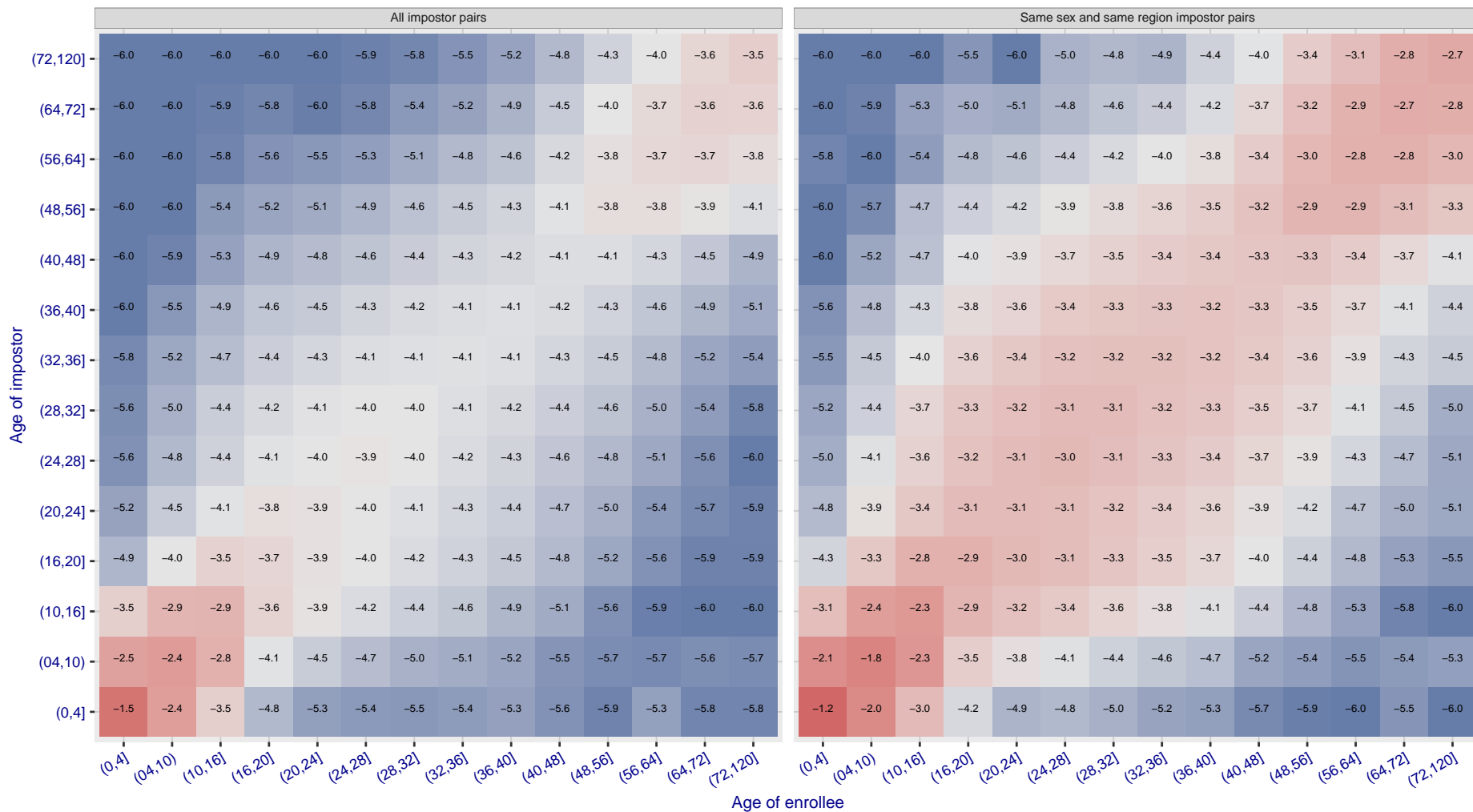


Cross age FMR at threshold $T = 0.368$ for algorithm trueface_000, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



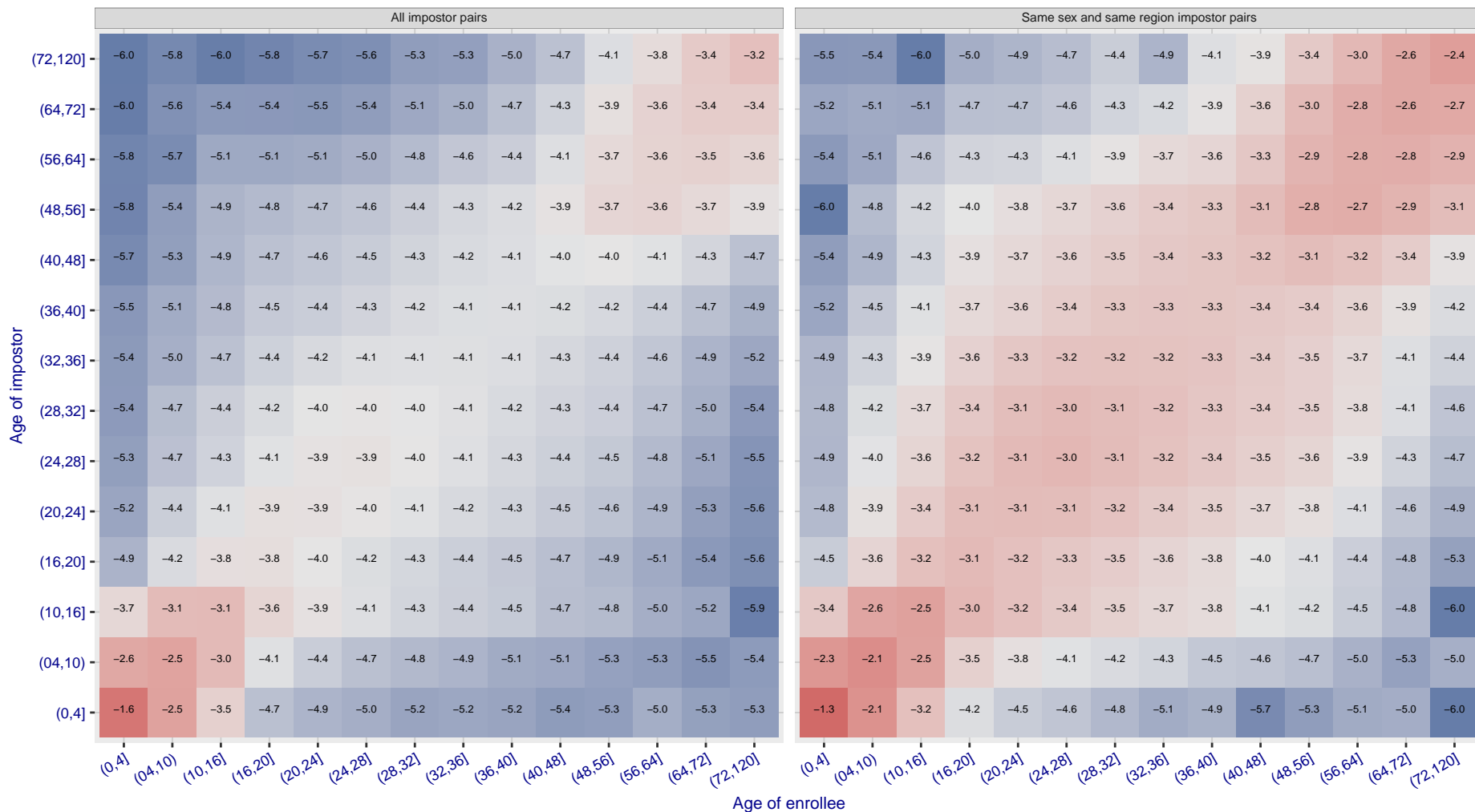
Cross age FMR at threshold $T = 0.151$ for algorithm `ulsee_001`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

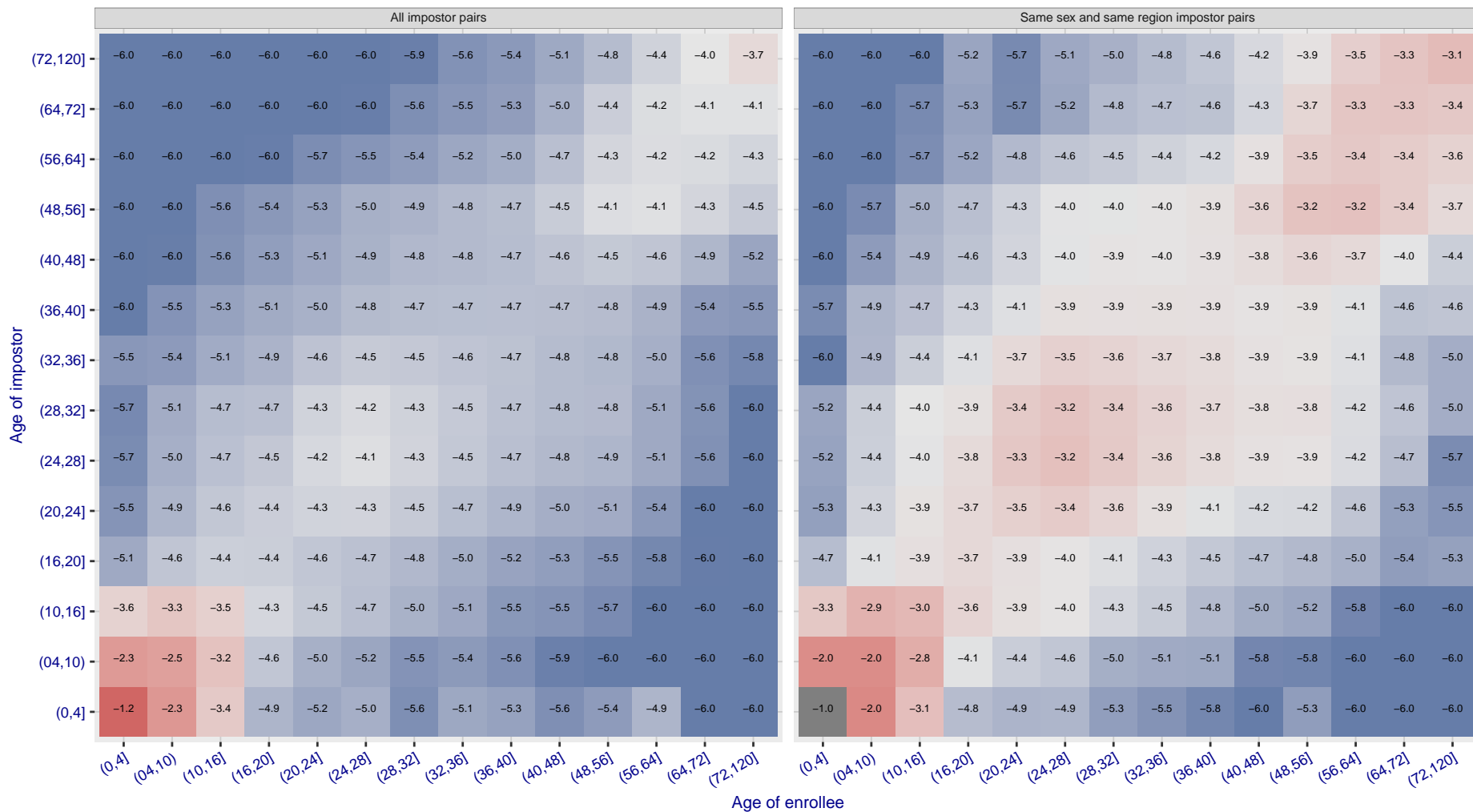


Cross age FMR at threshold $T = 0.771$ for algorithm ulface_002, giving $FMR(T) = 0.0001$ globally.

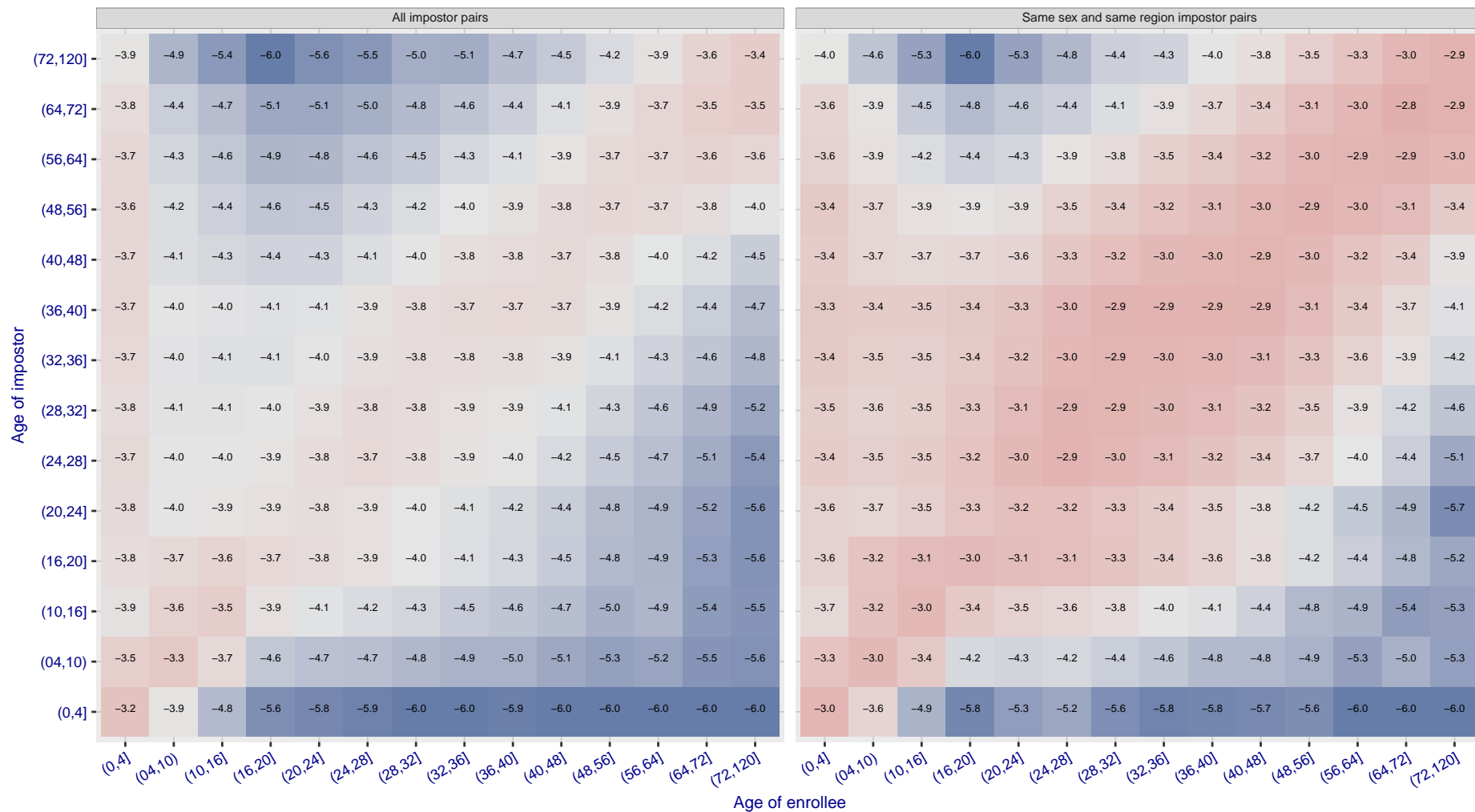
log10 FMR



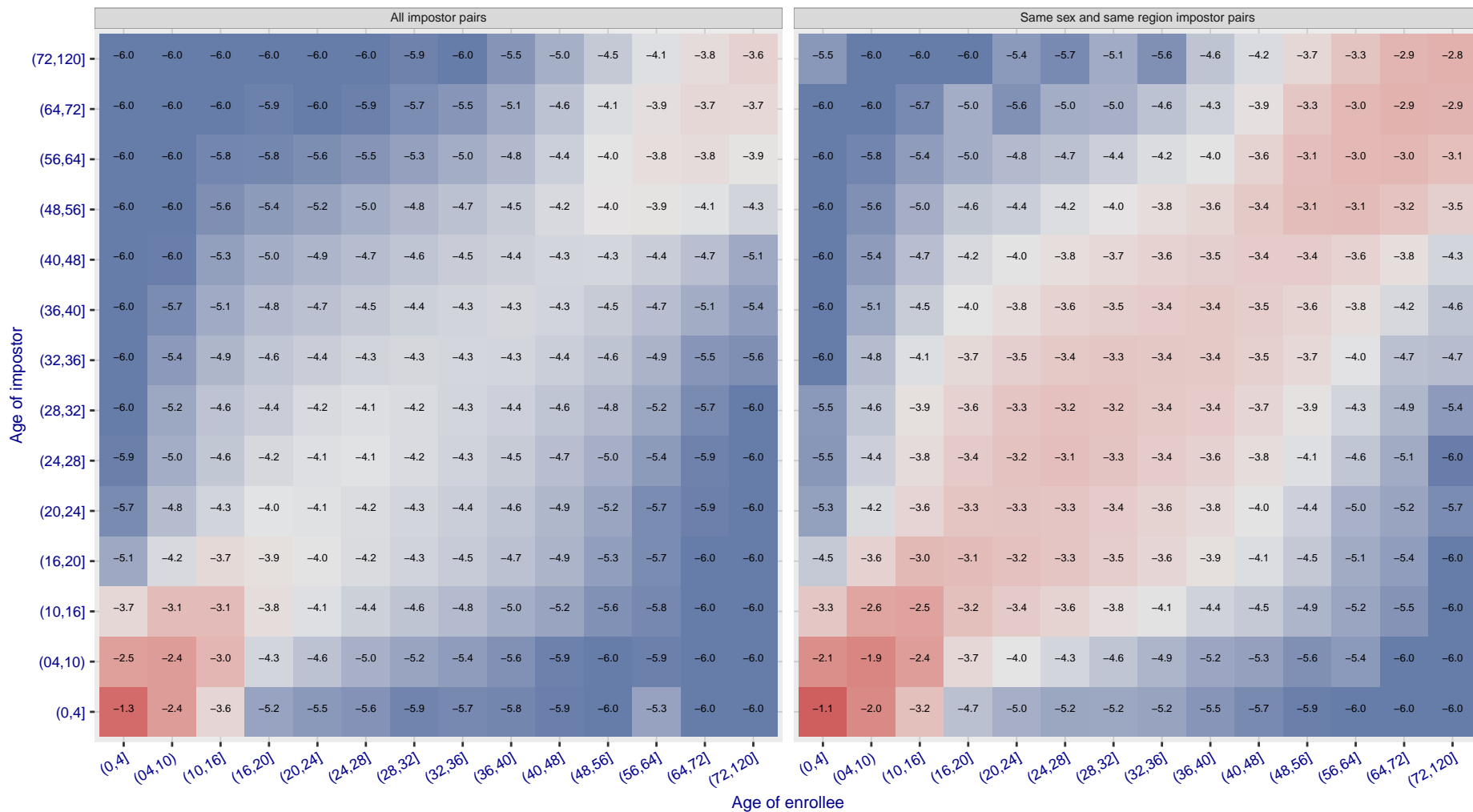
Cross age FMR at threshold $T = 0.482$ for algorithm upc_001, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



Cross age FMR at threshold $T = 0.428$ for algorithm `vcog_002`, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR

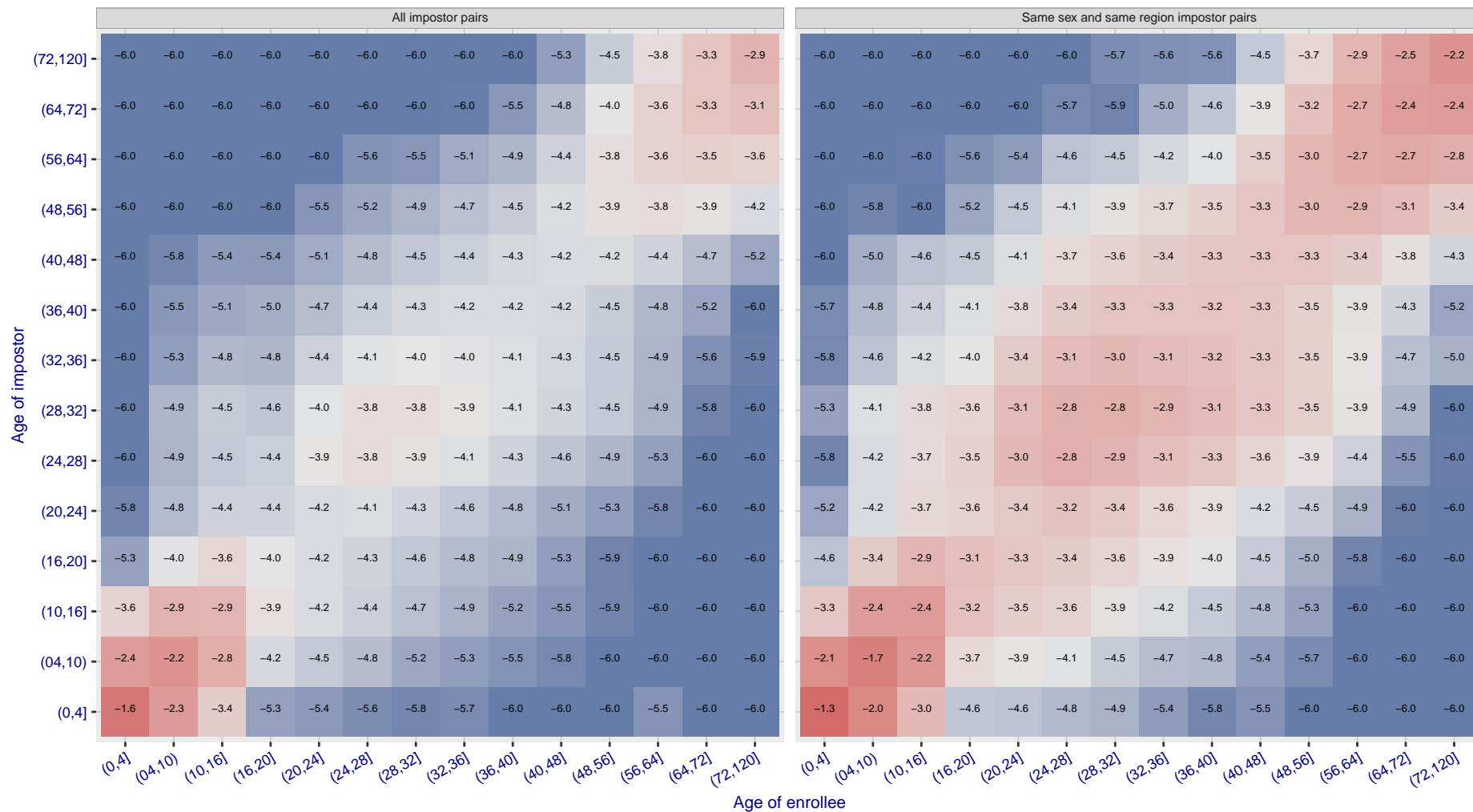


Cross age FMR at threshold $T = 71.529$ for algorithm vd_001, giving $FMR(T) = 0.0001$ globally. \log_{10} FMR



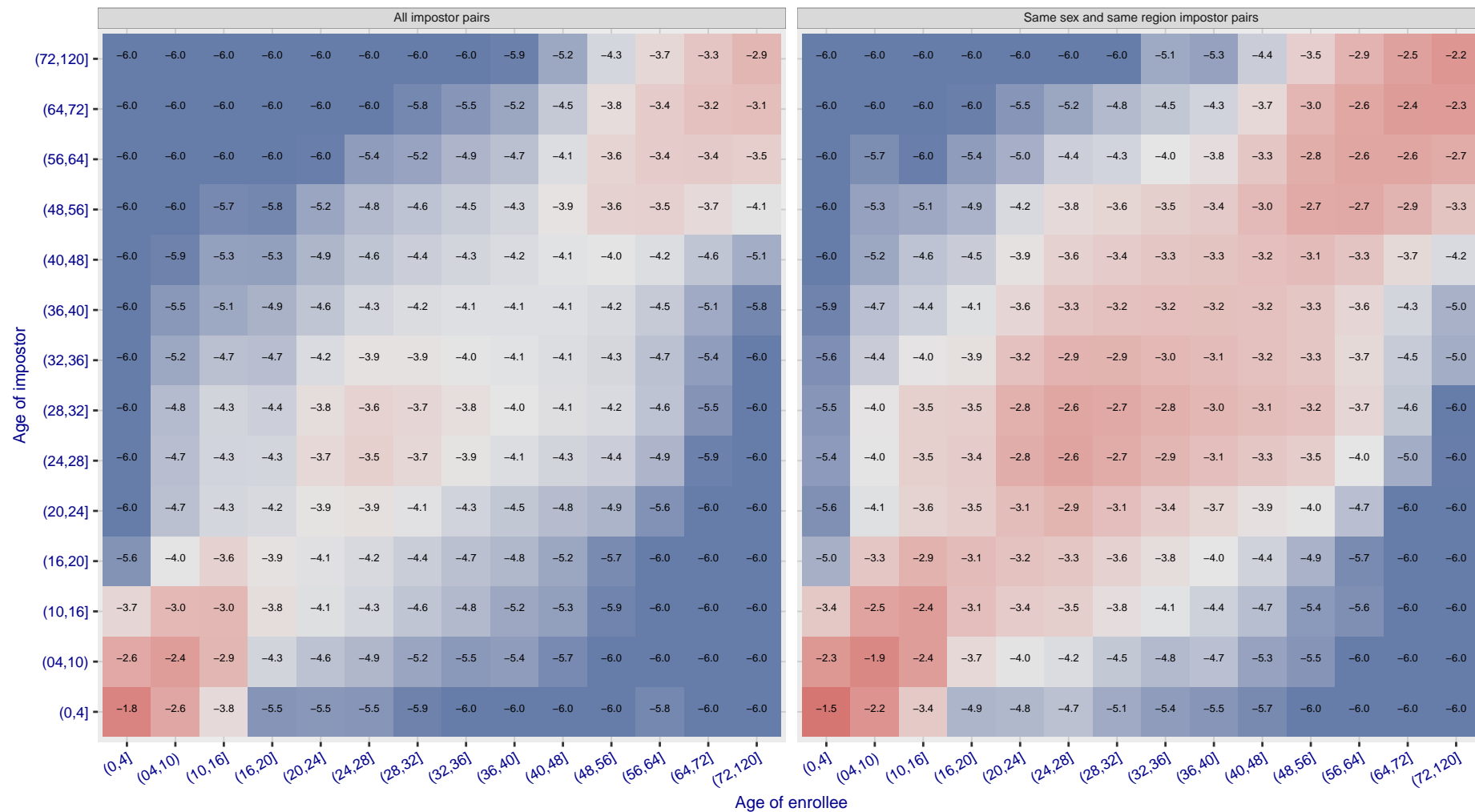
Cross age FMR at threshold $T = 3.325$ for algorithm veridas_001, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR

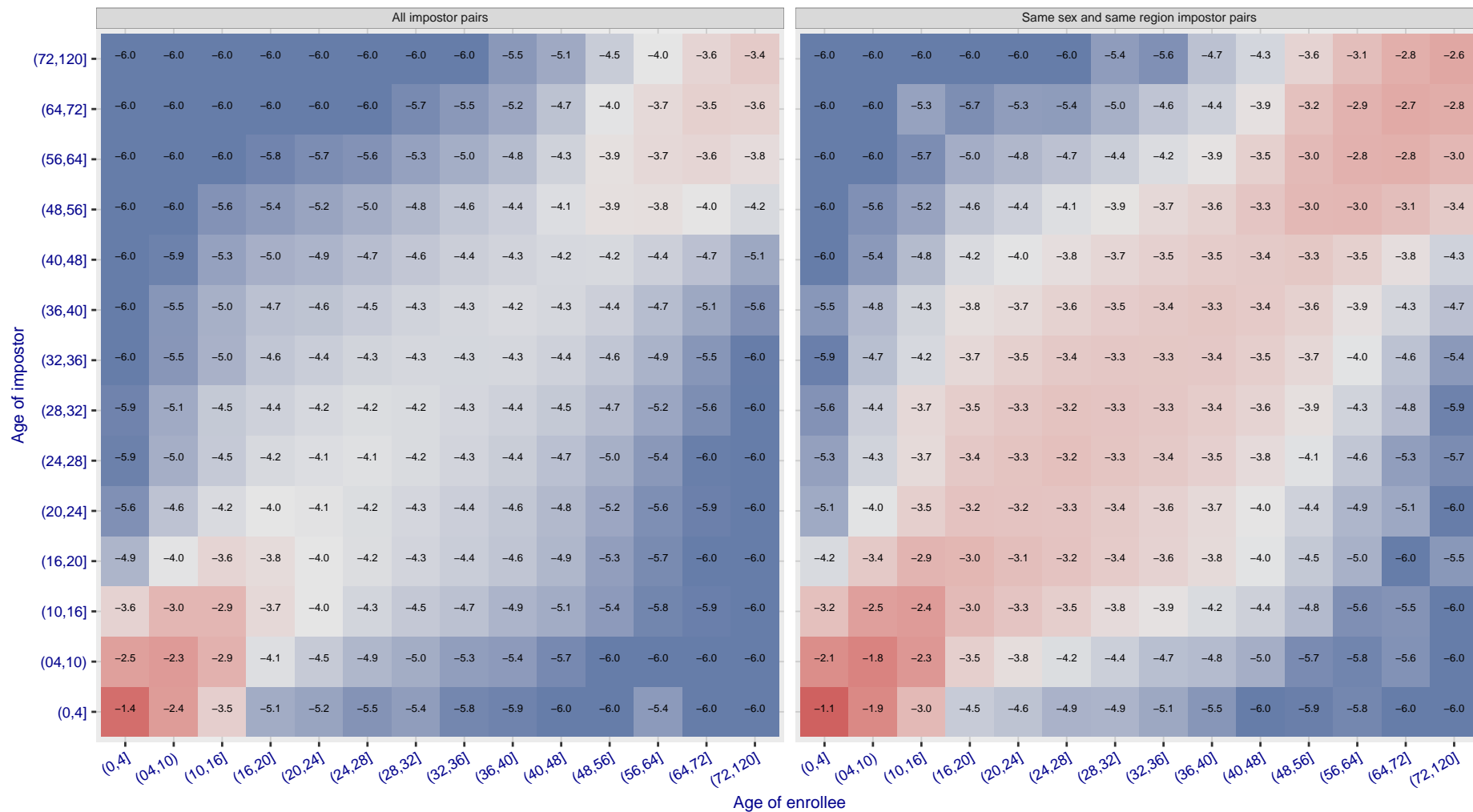


Cross age FMR at threshold $T = 3.389$ for algorithm veridas_002, giving $FMR(T) = 0.0001$ globally.

log10 FMR

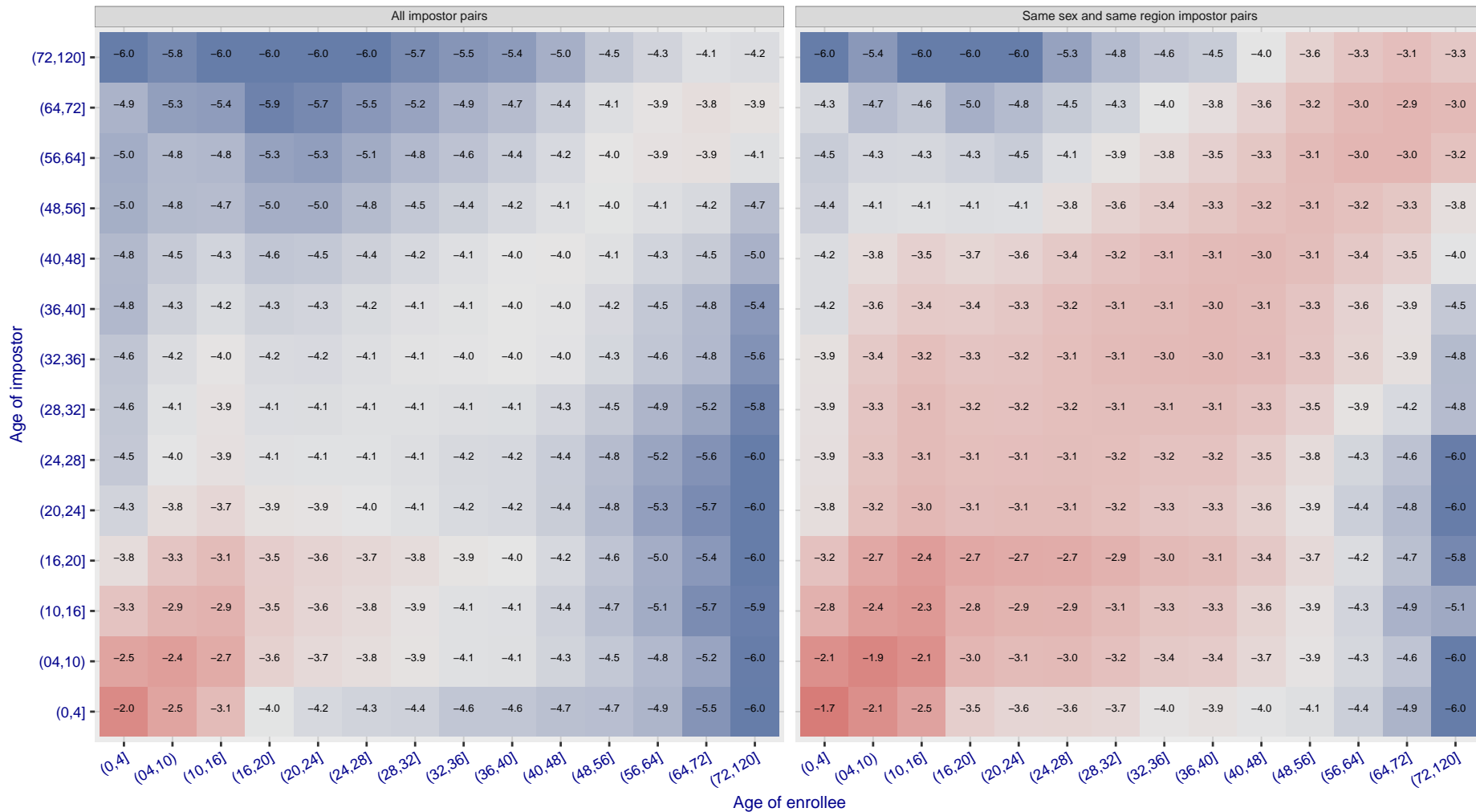


Cross age FMR at threshold $T = 2.859$ for algorithm via_000, giving $FMR(T) = 0.0001$ globally.

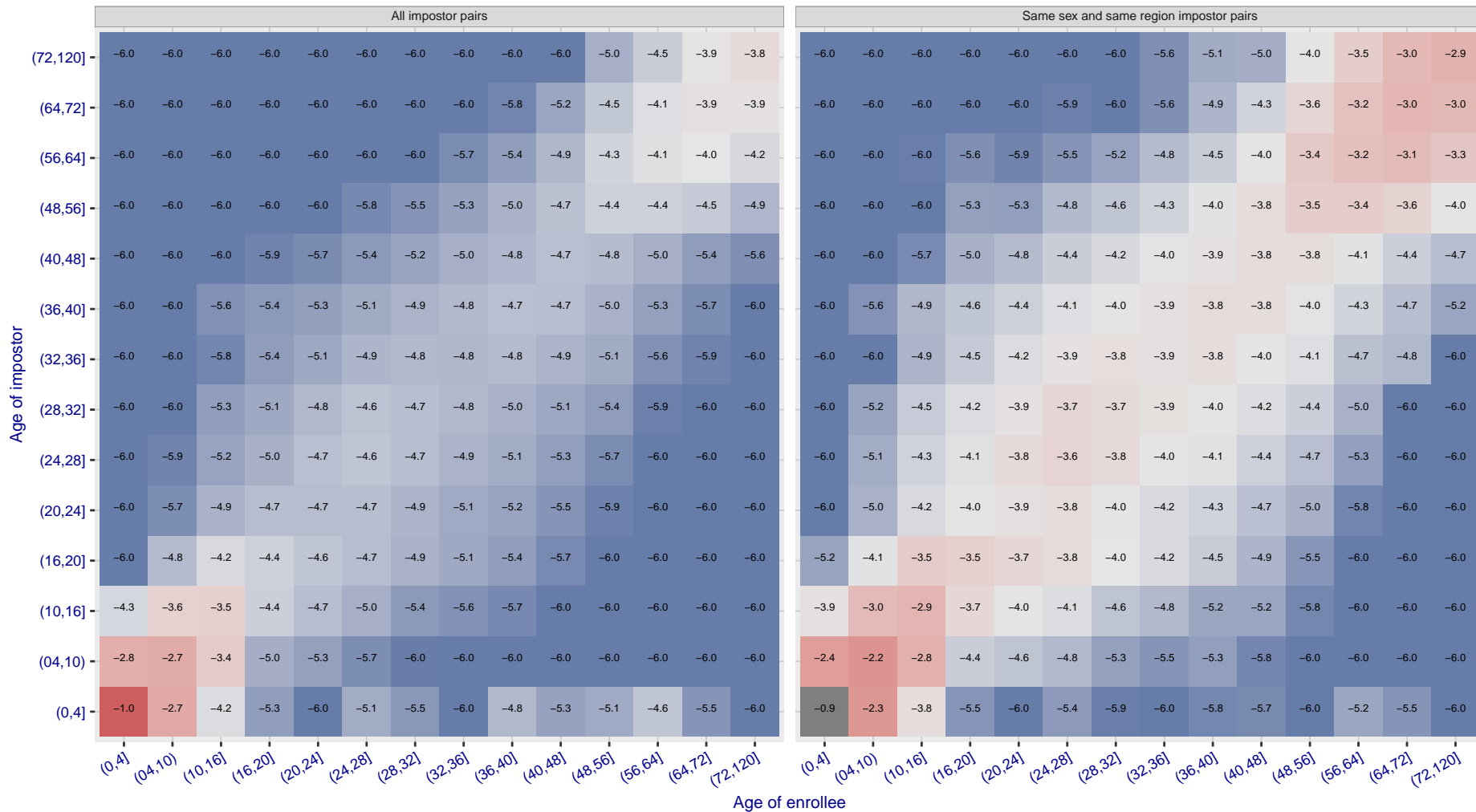
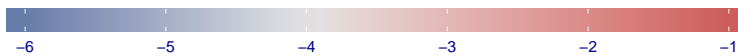


Cross age FMR at threshold $T = 0.842$ for algorithm videonetics_001, giving $FMR(T) = 0.0001$ globally.

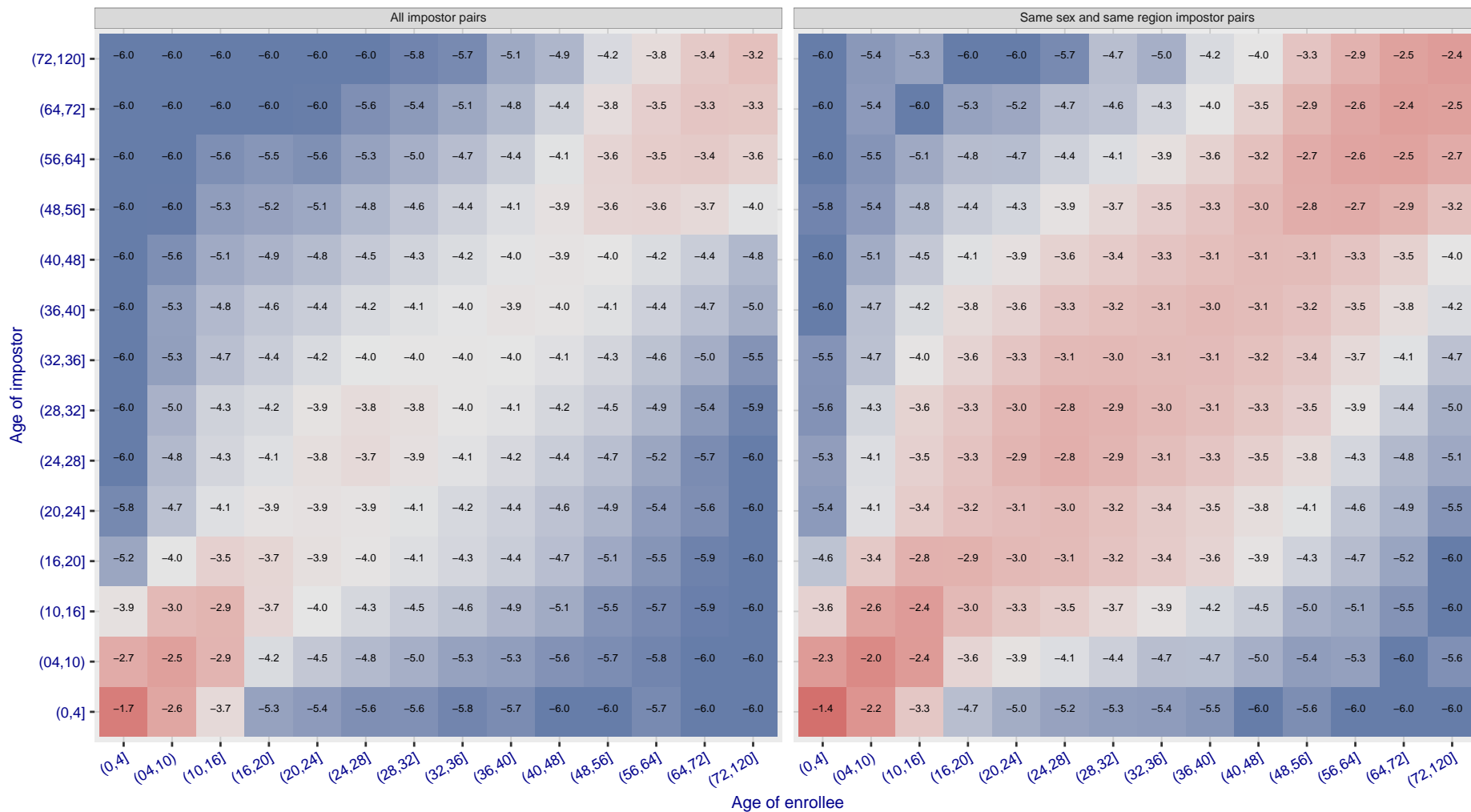
\log_{10} FMR



Cross age FMR at threshold $T = 3.057$ for algorithm `vigilantsolutions_006`, giving $FMR(T) = 0.0001$ globally.

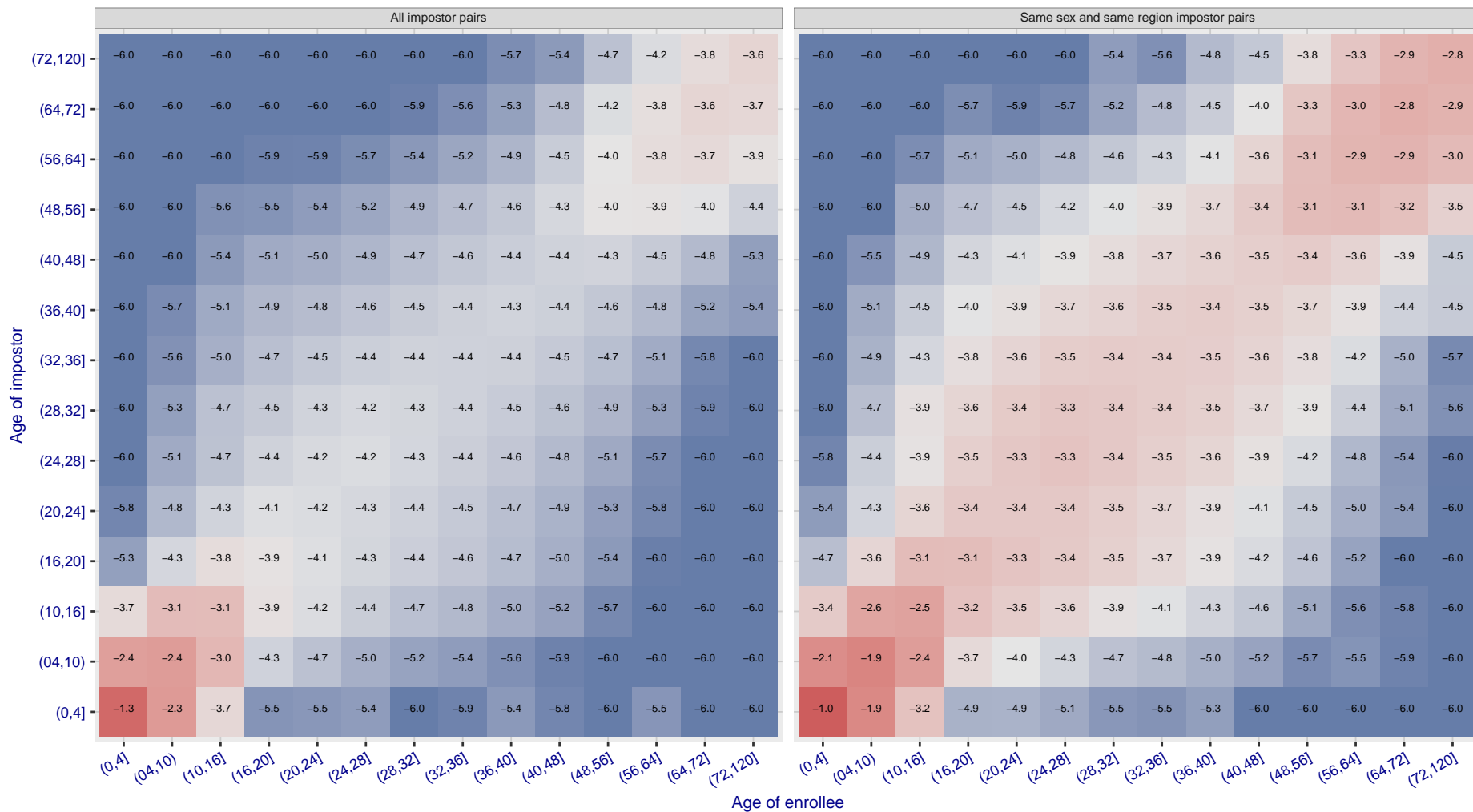


Cross age FMR at threshold $T = 2.926$ for algorithm `vigilantsolutions_007`, giving $FMR(T) = 0.0001$ globally.



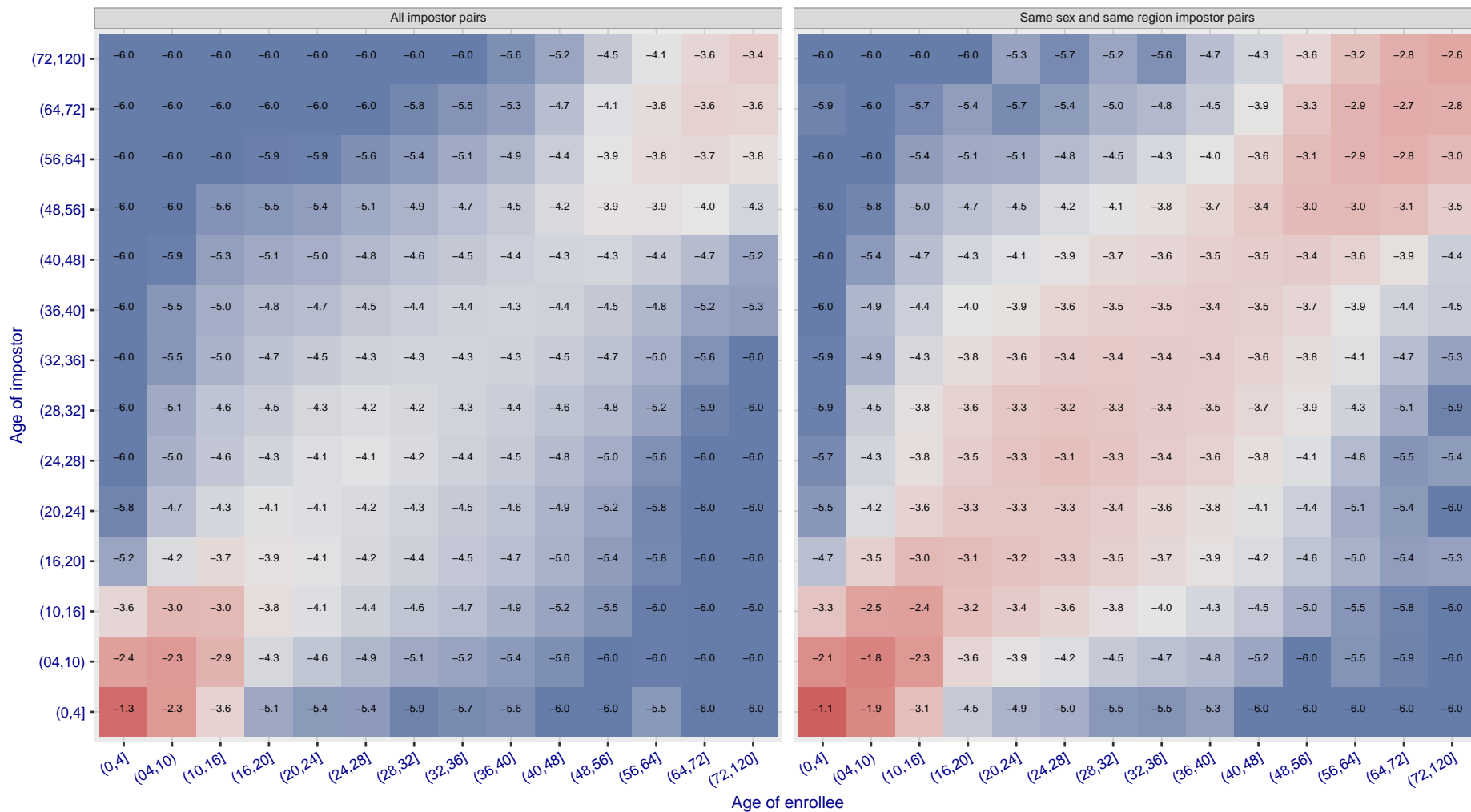
Cross age FMR at threshold $T = 0.432$ for algorithm `vion_000`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



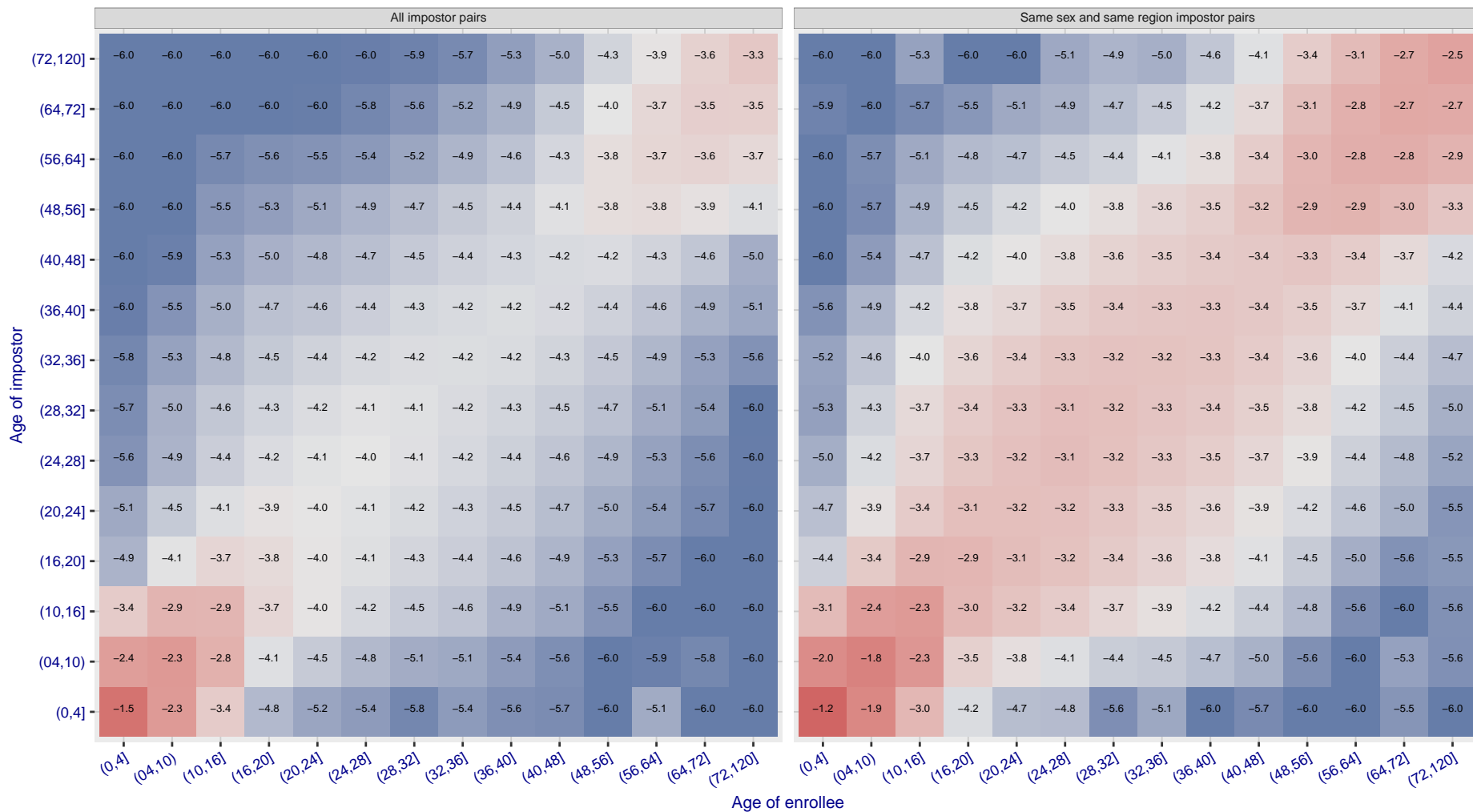
Cross age FMR at threshold $T = 0.433$ for algorithm visionbox_000, giving $FMR(T) = 0.0001$ globally.

log10 FMR

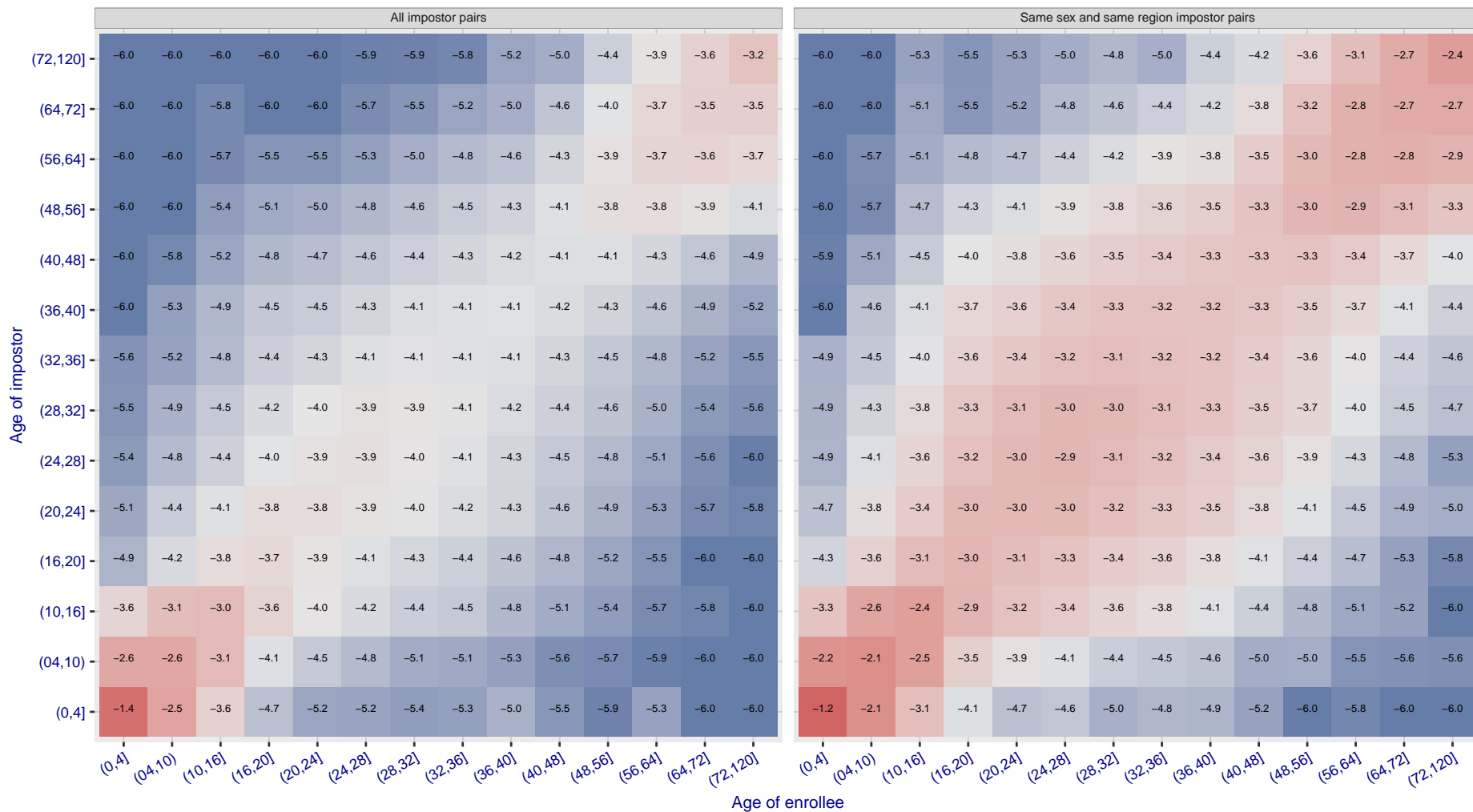


Cross age FMR at threshold $T = 0.382$ for algorithm visionbox_001, giving $FMR(T) = 0.0001$ globally.

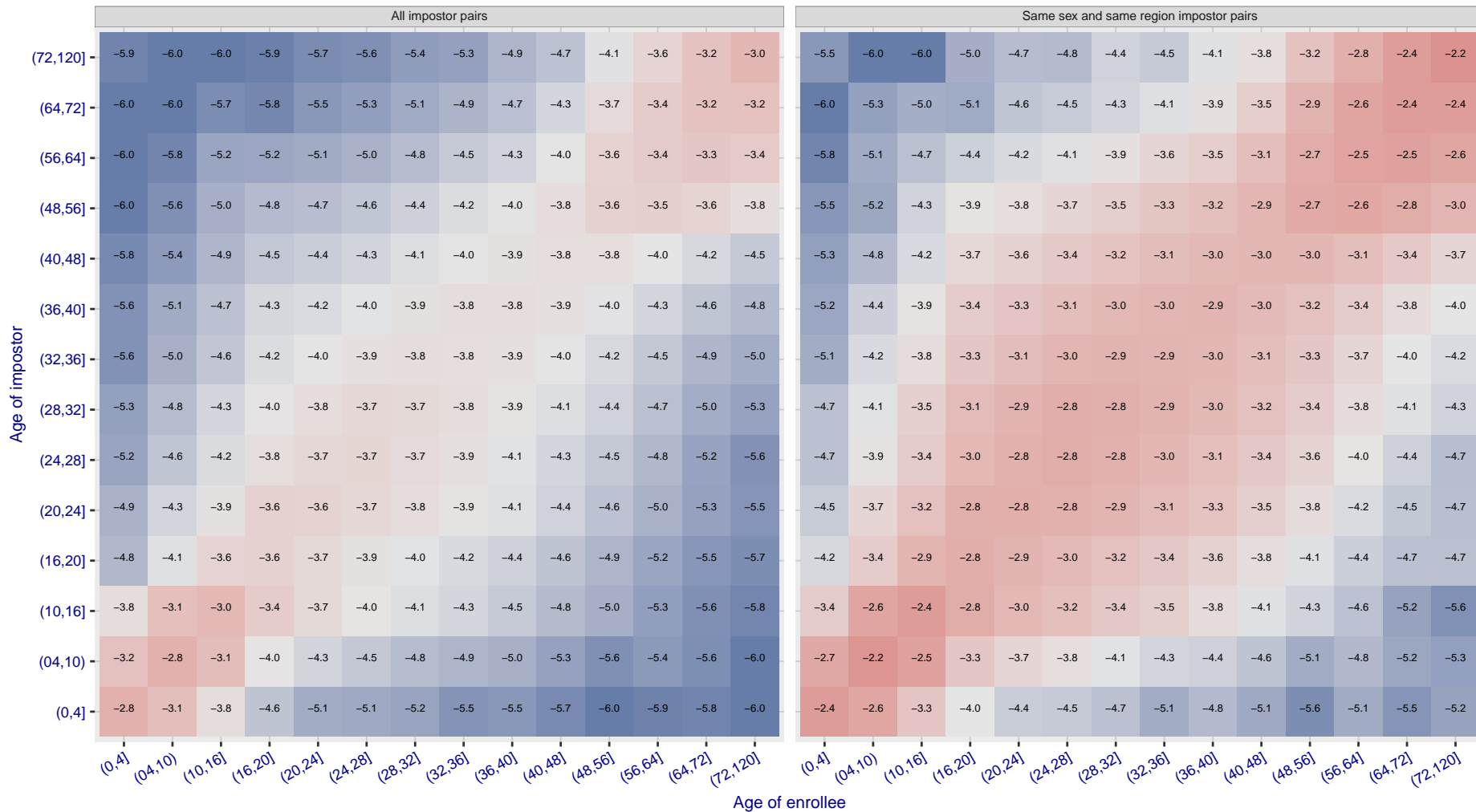
log10 FMR



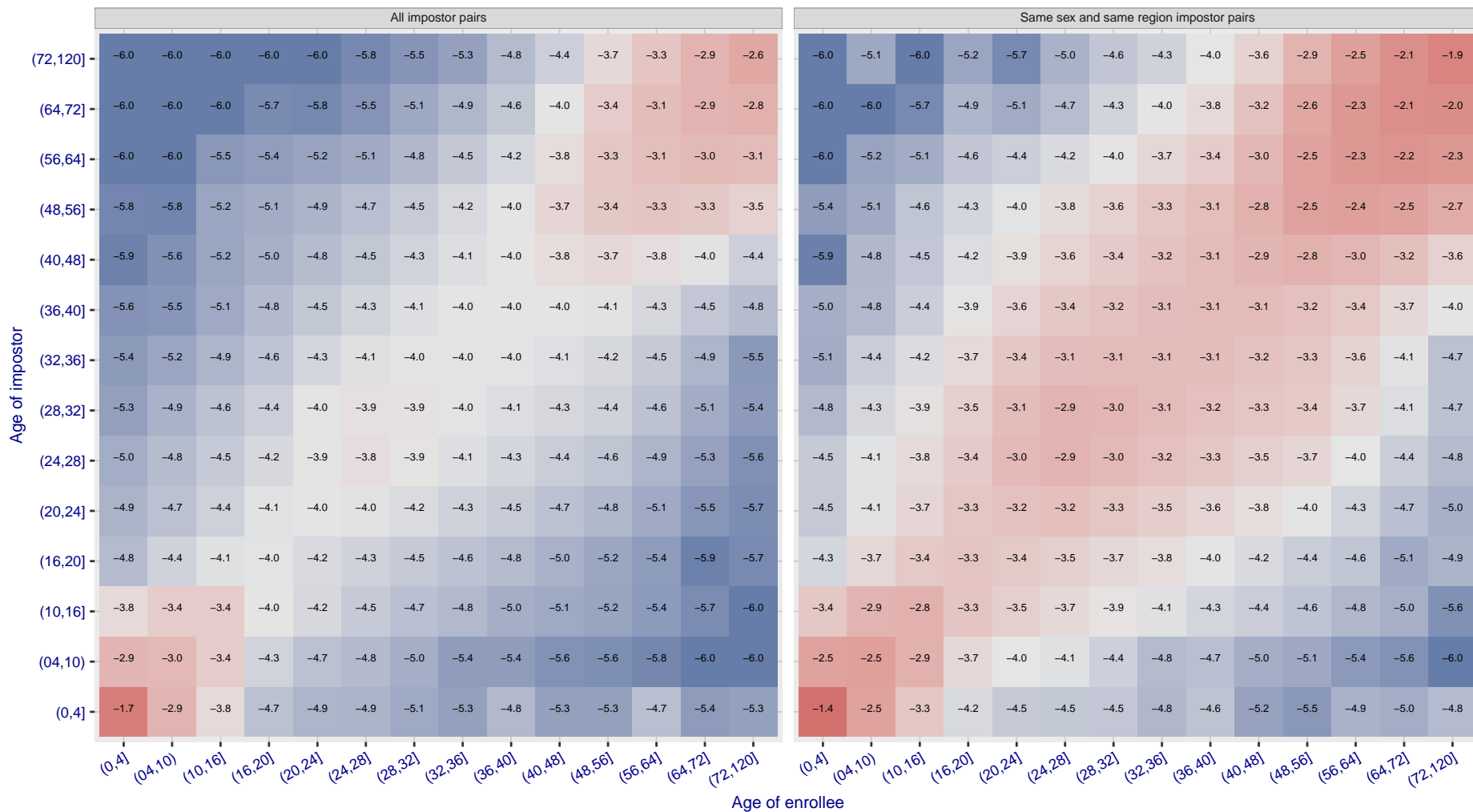
Cross age FMR at threshold $T = 0.669$ for algorithm visionlabs_006, giving $FMR(T) = 0.0001$ globally.



Cross age FMR at threshold $T = 0.657$ for algorithm visionlabs_007, giving $FMR(T) = 0.0001$ globally.

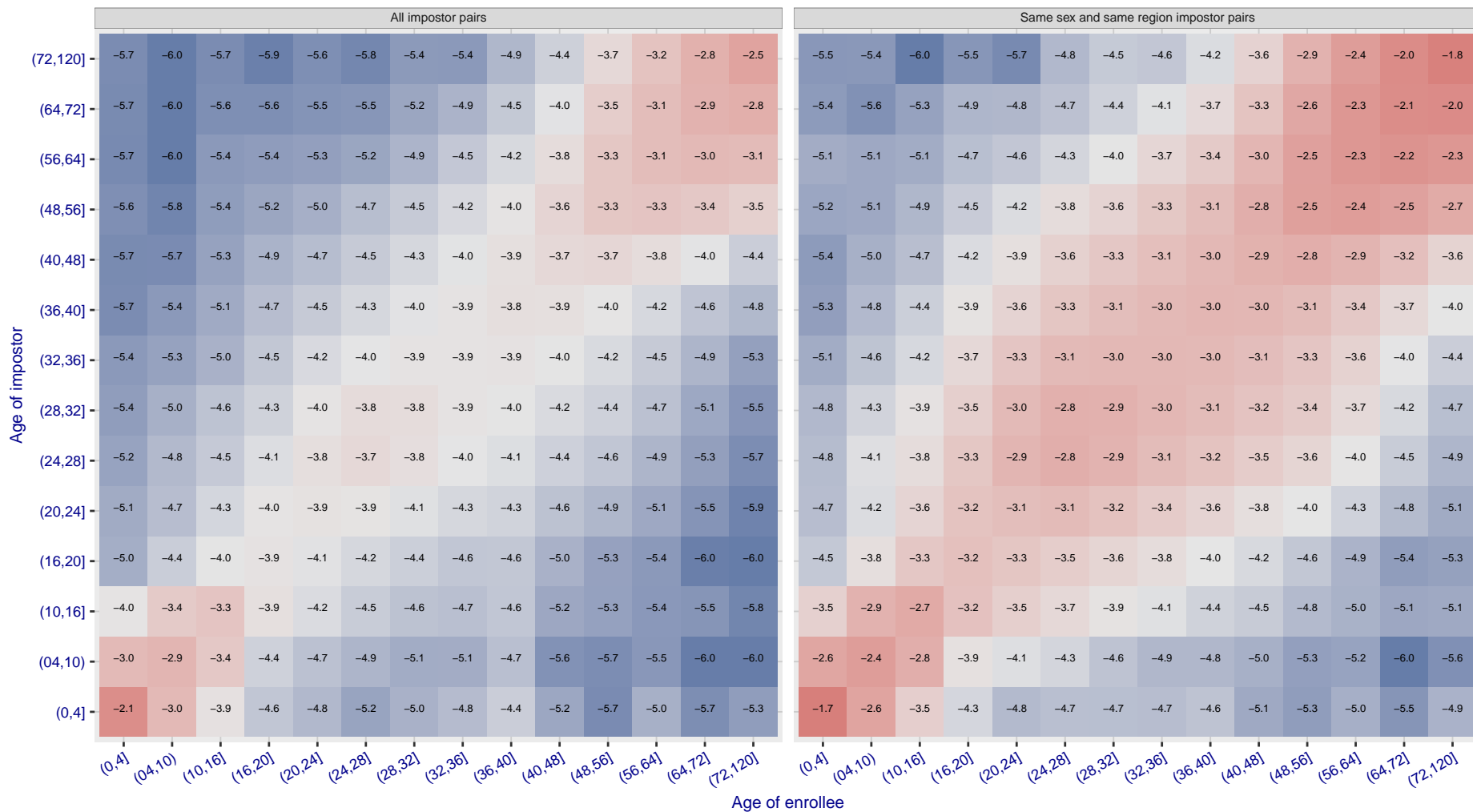


Cross age FMR at threshold $T = 995.898$ for algorithm vocord_006, giving $FMR(T) = 0.0001$ globally.

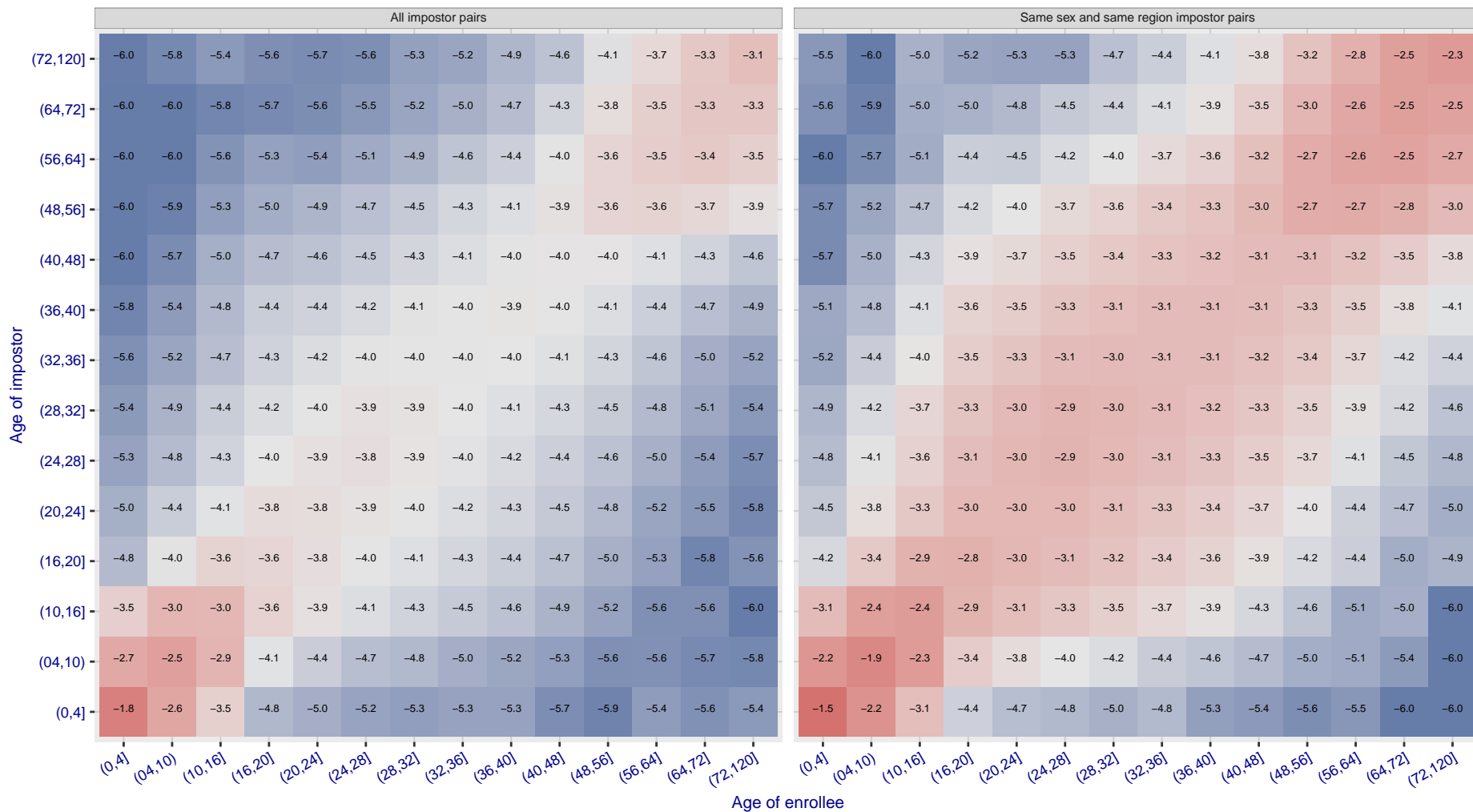


Cross age FMR at threshold $T = 995.241$ for algorithm vocord_007, giving $FMR(T) = 0.0001$ globally.

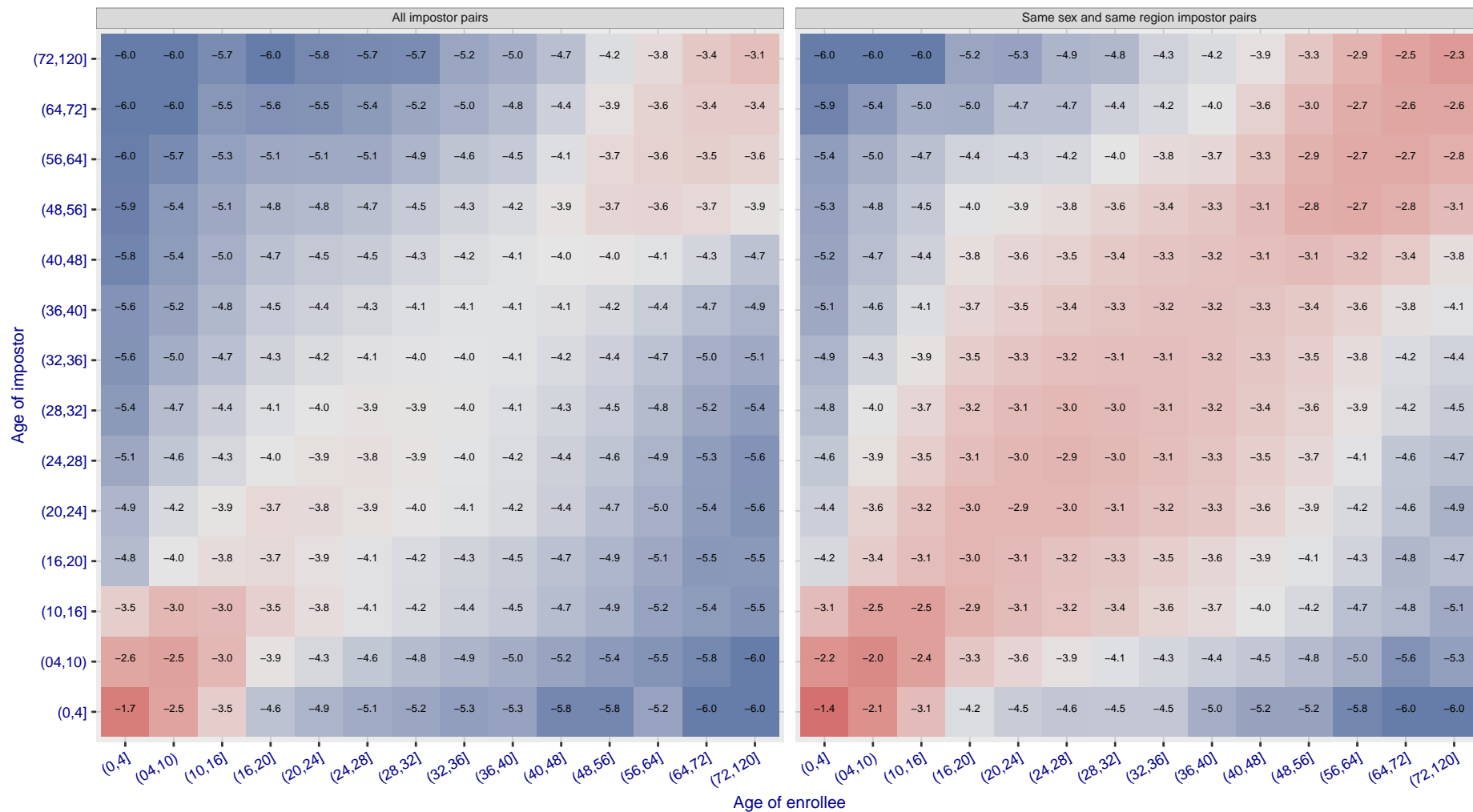
log10 FMR



Cross age FMR at threshold $T = 0.400$ for algorithm winsense_000, giving $\text{FMR}(T) = 0.0001$ globally. \log_{10} FMR

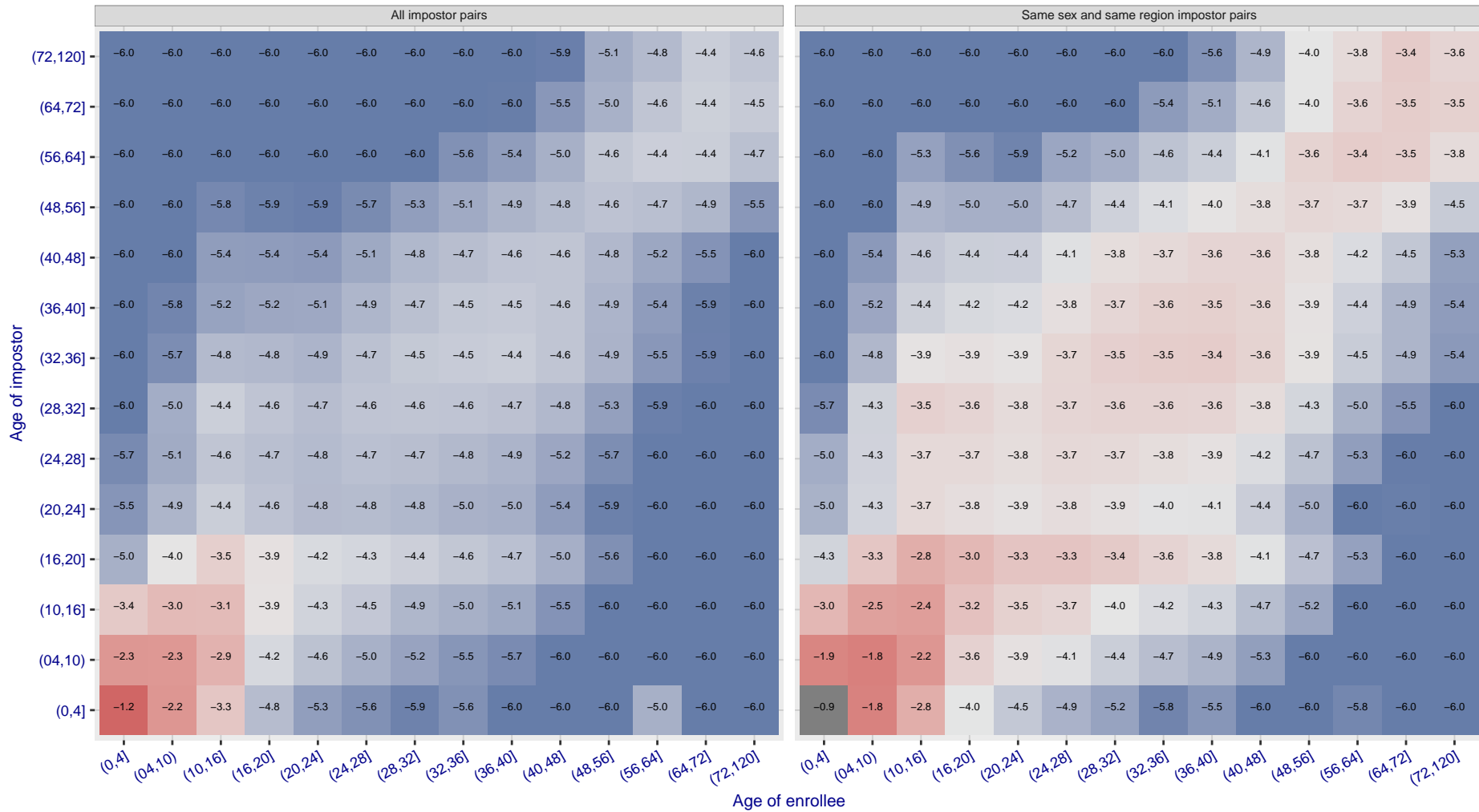


Cross age FMR at threshold $T = 0.404$ for algorithm x-laboratory_000, giving $FMR(T) = 0.0001$ globally.



Cross age FMR at threshold $T = 5.544$ for algorithm `yisheng_004`, giving $FMR(T) = 0.0001$ globally.

\log_{10} FMR



Cross age FMR at threshold $T = 37.698$ for algorithm yitu_003, giving $FMR(T) = 0.0001$ globally.

