1. **Hasil Run Level Null**

. xi: gllamm i.pemuda\_pertanian, i(id\_ruta kode\_kab) link(logit) f(binom) adapt trace

i.pemuda\_pert~n \_Ipemuda\_pe\_0-1 (naturally coded; \_Ipemuda\_pe\_0 omitted)

General model information

------------------------------------------------------------------------------

dependent variable: \_Ipemuda\_pe\_1

family: binom

link: logit

denominator: 1

equation for fixed effects \_cons

Random effects information for 3 level model

------------------------------------------------------------------------------

\*\*\*level 2 (id\_ruta) equation(s):

 standard deviation of random effect

 id\_r1: \_cons

\*\*\*level 3 (kode\_kab) equation(s):

 standard deviation of random effect

 kode2: \_cons

number of level 1 units = 1524

number of level 2 units = 1198

number of level 3 units = 13

Initial values for fixed effects

Iteration 0: log likelihood = -984.58726

Logistic regression Number of obs = 1524

 LR chi2(0) = -0.00

 Prob > chi2 = .

Log likelihood = -984.58726 Pseudo R2 = -0.0000

------------------------------------------------------------------------------

\_Ipemuda\_p~1 | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-------------+----------------------------------------------------------------

 \_cons | -.6288602 .053785 -11.69 0.000 -.7342769 -.5234435

------------------------------------------------------------------------------

------------------------------------------------------------------------------

start running on 5 Jun 2020 at 10:09:13

Running adaptive quadrature

------------------------------------------------------------------------------

Iteration 0 of adaptive quadrature:

Initial parameters:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -.6288602 .5 .5

Updated log likelihood:

 -921.6878 -921.57729 -921.5231 -921.5231

 log likelihood = -921.5231

------------------------------------------------------------------------------

Iteration 1 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -.8812209 2.812228 .8675029

Updated log likelihood:

-943.53688 -889.77838 -884.69761 -884.73229 -884.73309 -884.73303

-884.73304

 log likelihood = -884.73304

------------------------------------------------------------------------------

Iteration 2 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.529747 2.852979 1.282813

Updated log likelihood:

-880.54778 -880.28454 -880.17683 -880.17939 -880.17972 -880.1797

-880.17971

 log likelihood = -880.17971

------------------------------------------------------------------------------

Iteration 3 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.532008 3.293606 1.601708

Updated log likelihood:

 -879.7255 -879.69426 -880.3455 -880.35487 -880.35453 -880.35462

-880.35461 -880.35461

 log likelihood = -880.35461

------------------------------------------------------------------------------

Iteration 4 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.52857 3.027391 1.534273

Updated log likelihood:

 -880.1874 -880.18246 -880.02072 -880.02184 -880.02191 -880.0219

 -880.0219

 log likelihood = -880.0219

------------------------------------------------------------------------------

Iteration 5 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.480042 3.139515 1.574804

Updated log likelihood:

 -879.9899 -879.98922 -880.12418 -880.12546 -880.12534 -880.12536

-880.12536

 log likelihood = -880.12536

------------------------------------------------------------------------------

Iteration 6 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.517345 3.063226 1.537532

Updated log likelihood:

-880.11996 -880.11158 -880.03703 -880.03681 -880.03687 -880.03686

 log likelihood = -880.03686

------------------------------------------------------------------------------

Iteration 7 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.486606 3.115878 1.556724

Updated log likelihood:

 -880.0289 -880.02866 -880.09123 -880.09181 -880.09175 -880.09176

-880.09176

 log likelihood = -880.09176

------------------------------------------------------------------------------

Iteration 8 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.486416 3.105359 1.565076

Updated log likelihood:

-880.09202 -880.09167 -880.08587 -880.08589 -880.0859 -880.0859

 log likelihood = -880.0859

------------------------------------------------------------------------------

Iteration 9 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.497818 3.099584 1.544594

Updated log likelihood:

-880.08368 -880.08352 -880.06907 -880.0689 -880.06891

 log likelihood = -880.06891

------------------------------------------------------------------------------

Iteration 10 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.497818 3.099584 1.544594

Updated log likelihood:

-880.06891

 log likelihood = -880.06891

------------------------------------------------------------------------------

Adaptive quadrature has converged, running Newton-Raphson

------------------------------------------------------------------------------

Iteration 0:

Coefficient vector:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.497818 3.099584 1.544594

 log likelihood = -880.06891

------------------------------------------------------------------------------

Iteration 1:

Coefficient vector:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.497818 3.099584 1.544594

 log likelihood = -880.06891

 (backed up)

------------------------------------------------------------------------------

Iteration 2:

Coefficient vector:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.485896 3.083731 1.533748

 log likelihood = -880.06808

------------------------------------------------------------------------------

Iteration 3:

Coefficient vector:

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -1.486006 3.083893 1.533896

 log likelihood = -880.06808

------------------------------------------------------------------------------

finish running on 5 Jun 2020 at 10:10:39

number of level 1 units = 1524

number of level 2 units = 1198

number of level 3 units = 13

Condition Number = 1.8606914

gllamm model

log likelihood = -880.06808

-------------------------------------------------------------------------------

\_Ipemuda\_pe\_1 | Coef. Std. Err. z P>|z| [95% Conf. Interval]

--------------+----------------------------------------------------------------

 \_cons | -1.486006 .4775906 -3.11 0.002 -2.422066 -.5499455

-------------------------------------------------------------------------------

Variances and covariances of random effects

------------------------------------------------------------------------------

\*\*\*level 2 (id\_ruta)

 var(1): 9.5103961 (2.9205574)

\*\*\*level 3 (kode\_kab)

 var(1): 2.3528383 (1.2096361)

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.

end of do-file

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1. **Hasil Run Level 1**

. xi: gllamm i.pemuda\_pertanian i.tingkat\_pendidikan i.jenis\_kelamin umur, i(id\_ruta kode\_kab) link(logit) f(binom

> ) adapt trace

i.pemuda\_pert~n \_Ipemuda\_pe\_0-1 (naturally coded; \_Ipemuda\_pe\_0 omitted)

i.tingkat\_pen~n \_Itingkat\_p\_1-2 (naturally coded; \_Itingkat\_p\_1 omitted)

i.jenis\_kelamin \_Ijenis\_kel\_1-2 (naturally coded; \_Ijenis\_kel\_1 omitted)

General model information

------------------------------------------------------------------------------

dependent variable: \_Ipemuda\_pe\_1

family: binom

link: logit

denominator: 1

equation for fixed effects \_Itingkat\_p\_2 \_Ijenis\_kel\_2 umur \_cons

Random effects information for 3 level model

------------------------------------------------------------------------------

\*\*\*level 2 (id\_ruta) equation(s):

 standard deviation of random effect

 id\_r1: \_cons

\*\*\*level 3 (kode\_kab) equation(s):

 standard deviation of random effect

 kode2: \_cons

number of level 1 units = 1524

number of level 2 units = 1198

number of level 3 units = 13

Initial values for fixed effects

Iteration 0: log likelihood = -984.58726

Iteration 1: log likelihood = -858.55934

Iteration 2: log likelihood = -855.32824

Iteration 3: log likelihood = -855.31222

Iteration 4: log likelihood = -855.31222

Logistic regression Number of obs = 1524

 LR chi2(3) = 258.55

 Prob > chi2 = 0.0000

Log likelihood = -855.31222 Pseudo R2 = 0.1313

------------------------------------------------------------------------------

\_Ipemuda\_p~1 | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-------------+----------------------------------------------------------------

\_Itingkat\_~2 | 1.564871 .1250152 12.52 0.000 1.319846 1.809896

\_Ijenis\_ke~2 | .7777817 .1322786 5.88 0.000 .5185205 1.037043

 umur | -.0141268 .0140438 -1.01 0.314 -.0416521 .0133984

 \_cons | -1.721853 .3658094 -4.71 0.000 -2.438826 -1.00488

------------------------------------------------------------------------------

------------------------------------------------------------------------------

start running on 5 Jun 2020 at 10:14:52

Running adaptive quadrature

------------------------------------------------------------------------------

Iteration 0 of adaptive quadrature:

Initial parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 umur \_cons \_cons \_cons

y1 1.564871 .7777817 -.0141268 -1.721853 .5 .5

Updated log likelihood:

 -815.9999 -816.32631 -816.31515 -816.31515

 log likelihood = -816.31515

------------------------------------------------------------------------------

Iteration 1 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 umur \_cons \_cons \_cons

y1 1.673764 .9332464 -.0398143 -1.489698 1.902189 .6904128

Updated log likelihood:

-809.34572 -795.58892 -795.33595 -795.3382 -795.3382

 log likelihood = -795.3382

------------------------------------------------------------------------------

Iteration 2 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 umur \_cons \_cons \_cons

y1 2.651686 1.698298 -.0356485 -3.164693 2.607675 1.07903

Updated log likelihood:

-788.79123 -786.65967 -786.73038 -786.73006 -786.73012 -786.73011

 log likelihood = -786.73011

------------------------------------------------------------------------------

Iteration 3 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 umur \_cons \_cons \_cons

y1 2.60641 1.67434 -.0447311 -3.04455 2.83092 1.271904

Updated log likelihood:

-786.12971 -786.1083 -786.17955 -786.18146 -786.18141 -786.18142

 log likelihood = -786.18142

------------------------------------------------------------------------------

Iteration 4 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 umur \_cons \_cons \_cons

y1 2.610073 1.676362 -.0447825 -3.05028 2.823984 1.28397

Updated log likelihood:

-786.18034 -786.18021 -786.18055 -786.18041 -786.18042

 log likelihood = -786.18042

------------------------------------------------------------------------------

Iteration 5 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 umur \_cons \_cons \_cons

y1 2.610141 1.676686 -.0448206 -3.048432 2.82543 1.282119

Updated log likelihood:

-786.18036 -786.18036 -786.18034 -786.18037 -786.18036

 log likelihood = -786.18036

------------------------------------------------------------------------------

Adaptive quadrature has converged, running Newton-Raphson

------------------------------------------------------------------------------

Iteration 0:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 umur \_cons \_cons \_cons

y1 2.610141 1.676686 -.0448206 -3.048432 2.82543 1.282119

 log likelihood = -786.18036

------------------------------------------------------------------------------

Iteration 1:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 umur \_cons \_cons \_cons

y1 2.610529 1.67494 -.0446825 -3.053761 2.820412 1.2814

 log likelihood = -786.18004

------------------------------------------------------------------------------

Iteration 2:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 umur \_cons \_cons \_cons

y1 2.59846 1.666369 -.0444497 -3.034968 2.802931 1.26656

 log likelihood = -786.1787

------------------------------------------------------------------------------

Iteration 3:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 umur \_cons \_cons \_cons

y1 2.598599 1.666483 -.0444532 -3.035227 2.803158 1.266845

 log likelihood = -786.1787

------------------------------------------------------------------------------

finish running on 5 Jun 2020 at 10:16:17

number of level 1 units = 1524

number of level 2 units = 1198

number of level 3 units = 13

Condition Number = 62.631772

gllamm model

log likelihood = -786.1787

-------------------------------------------------------------------------------

\_Ipemuda\_pe\_1 | Coef. Std. Err. z P>|z| [95% Conf. Interval]

--------------+----------------------------------------------------------------

\_Itingkat\_p\_2 | 2.598599 .3440156 7.55 0.000 1.924341 3.272857

\_Ijenis\_kel\_2 | 1.666483 .3152376 5.29 0.000 1.048628 2.284337

 umur | -.0444532 .028747 -1.55 0.122 -.1007963 .0118899

 \_cons | -3.035227 .8496484 -3.57 0.000 -4.700507 -1.369947

-------------------------------------------------------------------------------

Variances and covariances of random effects

------------------------------------------------------------------------------

\*\*\*level 2 (id\_ruta)

 var(1): 7.8576945 (2.3983219)

\*\*\*level 3 (kode\_kab)

 var(1): 1.6048971 (.85763823)

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.

end of do-file

.

1. **Hasil Run Level 2**

. xi: gllamm i.pemuda\_pertanian i.tingkat\_pendidikan i.jenis\_kelamin i.pendidikan\_krt i.pekerjaan\_krt jumlah\_art,

> i(id\_ruta kode\_kab) link(logit) f(binom) adapt trace

i.pemuda\_pert~n \_Ipemuda\_pe\_0-1 (naturally coded; \_Ipemuda\_pe\_0 omitted)

i.tingkat\_pen~n \_Itingkat\_p\_1-2 (naturally coded; \_Itingkat\_p\_1 omitted)

i.jenis\_kelamin \_Ijenis\_kel\_1-2 (naturally coded; \_Ijenis\_kel\_1 omitted)

i.pendidikan\_~t \_Ipendidika\_1-2 (naturally coded; \_Ipendidika\_1 omitted)

i.pekerjaan\_krt \_Ipekerjaan\_1-3 (naturally coded; \_Ipekerjaan\_1 omitted)

General model information

------------------------------------------------------------------------------

dependent variable: \_Ipemuda\_pe\_1

family: binom

link: logit

denominator: 1

equation for fixed effects \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art \_cons

Random effects information for 3 level model

------------------------------------------------------------------------------

\*\*\*level 2 (id\_ruta) equation(s):

 standard deviation of random effect

 id\_r1: \_cons

\*\*\*level 3 (kode\_kab) equation(s):

 standard deviation of random effect

 kode2: \_cons

number of level 1 units = 1524

number of level 2 units = 1198

number of level 3 units = 13

Initial values for fixed effects

Iteration 0: log likelihood = -984.58726

Iteration 1: log likelihood = -695.71083

Iteration 2: log likelihood = -673.19853

Iteration 3: log likelihood = -671.94377

Iteration 4: log likelihood = -671.93756

Logistic regression Number of obs = 1524

 LR chi2(6) = 625.30

 Prob > chi2 = 0.0000

Log likelihood = -671.93756 Pseudo R2 = 0.3175

------------------------------------------------------------------------------

\_Ipemuda\_p~1 | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-------------+----------------------------------------------------------------

\_Itingkat\_~2 | 1.225902 .1487271 8.24 0.000 .9344025 1.517402

\_Ijenis\_ke~2 | .9466763 .1533585 6.17 0.000 .6460991 1.247254

\_Ipendidik~2 | .464987 .1845122 2.52 0.012 .1033497 .8266242

\_Ipekerjaa~2 | 2.463161 .159594 15.43 0.000 2.150363 2.77596

\_Ipekerjaa~3 | .5139414 .288138 1.78 0.074 -.0507986 1.078681

 jumlah\_art | -.0843084 .0363897 -2.32 0.021 -.1556309 -.0129859

 \_cons | -3.343095 .2657991 -12.58 0.000 -3.864052 -2.822139

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start running on 5 Jun 2020 at 10:18:49

Running adaptive quadrature

------------------------------------------------------------------------------

Iteration 0 of adaptive quadrature:

Initial parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.225902 .9466763 .464987 2.463161 .5139414 -.0843084

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -3.343095 .5 .5

Updated log likelihood:

-658.35604 -658.09221 -658.09218 -658.09218

 log likelihood = -658.09218

------------------------------------------------------------------------------

Iteration 1 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.237162 .9886165 .5144645 2.561968 .5025891 -.129941

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -3.290808 1.122233 .5643284

Updated log likelihood:

-653.89908 -652.85908 -652.85983 -652.85983

 log likelihood = -652.85983

------------------------------------------------------------------------------

Iteration 2 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.687809 1.526023 .7662841 3.622193 .7734082 -.1250243

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -5.181931 1.967469 .7370995

Updated log likelihood:

-646.26718 -645.8295 -645.85131 -645.85206 -645.85205

 log likelihood = -645.85205

------------------------------------------------------------------------------

Iteration 3 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.742948 1.567932 .8081704 3.769836 .7780508 -.1329335

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -5.342157 2.092021 .8093172

Updated log likelihood:

-645.75318 -645.75308 -645.75565 -645.75564 -645.75564

 log likelihood = -645.75564

------------------------------------------------------------------------------

Iteration 4 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.744627 1.569838 .8094613 3.774291 .7788349 -.1330772

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -5.348745 2.095904 .8142516

Updated log likelihood:

-645.75544 -645.75544 -645.75556 -645.75556

 log likelihood = -645.75556

------------------------------------------------------------------------------

Adaptive quadrature has converged, running Newton-Raphson

------------------------------------------------------------------------------

Iteration 0:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.744627 1.569838 .8094613 3.774291 .7788349 -.1330772

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -5.348745 2.095904 .8142516

 log likelihood = -645.75556

------------------------------------------------------------------------------

Iteration 1:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.746561 1.57145 .8108382 3.779874 .778925 -.1332561

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -5.353457 2.099669 .8177607

 log likelihood = -645.75552

------------------------------------------------------------------------------

Iteration 2:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.7438 1.567699 .809051 3.773822 .7779117 -.1330709

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -5.340178 2.092122 .8135752

 log likelihood = -645.7552

------------------------------------------------------------------------------

Iteration 3:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.743816 1.56772 .8090623 3.773859 .777919 -.1330722

 \_Ipemuda\_pe\_1: id\_r1: kode2:

 \_cons \_cons \_cons

y1 -5.340264 2.092161 .8136092

 log likelihood = -645.7552

------------------------------------------------------------------------------

finish running on 5 Jun 2020 at 10:20:52

number of level 1 units = 1524

number of level 2 units = 1198

number of level 3 units = 13

Condition Number = 24.181016

gllamm model

log likelihood = -645.7552

-------------------------------------------------------------------------------

\_Ipemuda\_pe\_1 | Coef. Std. Err. z P>|z| [95% Conf. Interval]

--------------+----------------------------------------------------------------

\_Itingkat\_p\_2 | 1.743816 .2924919 5.96 0.000 1.170543 2.31709

\_Ijenis\_kel\_2 | 1.56772 .2960455 5.30 0.000 .987481 2.147958

\_Ipendidika\_2 | .8090623 .3197836 2.53 0.011 .1822979 1.435827

\_Ipekerjaan\_2 | 3.773859 .4849662 7.78 0.000 2.823342 4.724375

\_Ipekerjaan\_3 | .777919 .4878753 1.59 0.111 -.178299 1.734137

 jumlah\_art | -.1330722 .0655192 -2.03 0.042 -.2614874 -.004657

 \_cons | -5.340264 .7736868 -6.90 0.000 -6.856662 -3.823866

-------------------------------------------------------------------------------

Variances and covariances of random effects

------------------------------------------------------------------------------

\*\*\*level 2 (id\_ruta)

 var(1): 4.3771361 (1.6402493)

\*\*\*level 3 (kode\_kab)

 var(1): .66196001 (.40335769)

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.

end of do-file

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1. **Hasil Run Level 3**

. xi: gllamm i.pemuda\_pertanian i.tingkat\_pendidikan i.jenis\_kelamin i.pendidikan\_krt i.pekerjaan\_krt jumlah\_art k

> epadatan\_pend pdrb\_kap persentase\_lahan, i(id\_ruta kode\_kab) link(logit) f(binom) adapt trace

i.pemuda\_pert~n \_Ipemuda\_pe\_0-1 (naturally coded; \_Ipemuda\_pe\_0 omitted)

i.tingkat\_pen~n \_Itingkat\_p\_1-2 (naturally coded; \_Itingkat\_p\_1 omitted)

i.jenis\_kelamin \_Ijenis\_kel\_1-2 (naturally coded; \_Ijenis\_kel\_1 omitted)

i.pendidikan\_~t \_Ipendidika\_1-2 (naturally coded; \_Ipendidika\_1 omitted)

i.pekerjaan\_krt \_Ipekerjaan\_1-3 (naturally coded; \_Ipekerjaan\_1 omitted)

General model information

------------------------------------------------------------------------------

dependent variable: \_Ipemuda\_pe\_1

family: binom

link: logit

denominator: 1

equation for fixed effects \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art kepad

> atan\_pend pdrb\_kap persentase\_lahan \_cons

Random effects information for 3 level model

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\*\*\*level 2 (id\_ruta) equation(s):

 standard deviation of random effect

 id\_r1: \_cons

\*\*\*level 3 (kode\_kab) equation(s):

 standard deviation of random effect

 kode2: \_cons

number of level 1 units = 1524

number of level 2 units = 1198

number of level 3 units = 13

Initial values for fixed effects

Iteration 0: log likelihood = -984.58726

Iteration 1: log likelihood = -685.30762

Iteration 2: log likelihood = -654.20147

Iteration 3: log likelihood = -650.09026

Iteration 4: log likelihood = -649.88717

Iteration 5: log likelihood = -649.88589

Logistic regression Number of obs = 1524

 LR chi2(9) = 669.40

 Prob > chi2 = 0.0000

Log likelihood = -649.88589 Pseudo R2 = 0.3399

------------------------------------------------------------------------------

\_Ipemuda\_p~1 | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-------------+----------------------------------------------------------------

\_Itingkat\_~2 | 1.183819 .1507659 7.85 0.000 .888323 1.479315

\_Ijenis\_ke~2 | .9844859 .1560798 6.31 0.000 .6785751 1.290397

\_Ipendidik~2 | .4692016 .1879112 2.50 0.013 .1009024 .8375009

\_Ipekerjaa~2 | 2.362077 .1625743 14.53 0.000 2.043437 2.680717

\_Ipekerjaa~3 | .6101477 .2950682 2.07 0.039 .0318246 1.188471

 jumlah\_art | -.094764 .037695 -2.51 0.012 -.1686448 -.0208833

kepadatan\_~d | -.0020809 .0004728 -4.40 0.000 -.0030076 -.0011541

 pdrb\_kap | -.0076336 .0027112 -2.82 0.005 -.0129474 -.0023197

persentase~n | .0079841 .0090035 0.89 0.375 -.0096624 .0256306

 \_cons | -2.845037 .3619124 -7.86 0.000 -3.554372 -2.135701

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start running on 5 Jun 2020 at 10:23:38

Running adaptive quadrature

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Iteration 0 of adaptive quadrature:

Initial parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.183819 .9844859 .4692016 2.362077 .6101477 -.094764

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 kepadatan\_pend pdrb\_kap persentase\_lahan \_cons \_cons \_cons

y1 -.0020809 -.0076336 .0079841 -2.845037 .5 .5

Updated log likelihood:

-651.98238 -651.71767 -651.7058 -651.7058

 log likelihood = -651.7058

------------------------------------------------------------------------------

Iteration 1 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.182104 .9924616 .5524981 2.432177 .5206686 -.1150295

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 kepadatan\_pend pdrb\_kap persentase\_lahan \_cons \_cons \_cons

y1 -.0026407 -.0119026 -.0207425 -2.071009 .7992544 .2613813

Updated log likelihood:

-647.84767 -646.2168 -646.03078 -646.03077 -646.03077

 log likelihood = -646.03077

------------------------------------------------------------------------------

Iteration 2 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.47722 1.243045 .5856041 2.97453 .6328392 -.1170543

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 kepadatan\_pend pdrb\_kap persentase\_lahan \_cons \_cons \_cons

y1 -.002531 -.0050293 .0522285 -4.642767 1.528658 -.1577934

Updated log likelihood:

-642.78446 -641.68165 -641.54982 -641.54987 -641.54987

 log likelihood = -641.54987

------------------------------------------------------------------------------

Iteration 3 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.803486 1.624261 .8147848 3.711881 .8379034 -.0636543

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 kepadatan\_pend pdrb\_kap persentase\_lahan \_cons \_cons \_cons

y1 -.003347 -.0091885 .0164496 -5.174368 2.081466 .1936792

Updated log likelihood:

-635.92296 -635.92296 -635.94733 -635.94778 -635.94778

 log likelihood = -635.94778

------------------------------------------------------------------------------

Iteration 4 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.717139 1.52081 .7307746 3.593779 .7778242 -.1322288

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 kepadatan\_pend pdrb\_kap persentase\_lahan \_cons \_cons \_cons

y1 -.0033598 -.0115404 .0130924 -4.341967 1.958125 .1406119

Updated log likelihood:

-635.26008 -635.20702 -635.20644 -635.20648 -635.20648

 log likelihood = -635.20648

------------------------------------------------------------------------------

Iteration 5 of adaptive quadrature:

Updated parameters:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.717139 1.52081 .7307746 3.593779 .7778242 -.1322288

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 kepadatan\_pend pdrb\_kap persentase\_lahan \_cons \_cons \_cons

y1 -.0033598 -.0115404 .0130924 -4.341967 1.958125 .1406119

Updated log likelihood:

-635.20648

 log likelihood = -635.20648

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Adaptive quadrature has converged, running Newton-Raphson

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Iteration 0:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.717139 1.52081 .7307746 3.593779 .7778242 -.1322288

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 kepadatan\_pend pdrb\_kap persentase\_lahan \_cons \_cons \_cons

y1 -.0033598 -.0115404 .0130924 -4.341967 1.958125 .1406119

 log likelihood = -635.20648

------------------------------------------------------------------------------

Iteration 1:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.717139 1.52081 .7307746 3.593779 .7778242 -.1322288

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 kepadatan\_pend pdrb\_kap persentase\_lahan \_cons \_cons \_cons

y1 -.0033598 -.0115404 .0130924 -4.341967 1.958125 .1406119

 log likelihood = -635.20648

 (backed up)

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Iteration 2:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.749117 1.557394 .7564845 3.673694 .7981527 -.1296599

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 kepadatan\_pend pdrb\_kap persentase\_lahan \_cons \_cons \_cons

y1 -.0034202 -.0114456 .0131888 -4.492423 2.032952 .1872483

 log likelihood = -635.16202

------------------------------------------------------------------------------

Iteration 3:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.752135 1.559774 .7573249 3.678984 .7990323 -.1294475

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 kepadatan\_pend pdrb\_kap persentase\_lahan \_cons \_cons \_cons

y1 -.003421 -.0114385 .0134315 -4.506901 2.037507 .1804227

 log likelihood = -635.16106

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Iteration 4:

Coefficient vector:

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1:

 \_Itingkat\_p\_2 \_Ijenis\_kel\_2 \_Ipendidika\_2 \_Ipekerjaan\_2 \_Ipekerjaan\_3 jumlah\_art

y1 1.752188 1.559808 .7573245 3.679058 .7990375 -.1294457

 \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: \_Ipemuda\_pe\_1: id\_r1: kode2:

 kepadatan\_pend pdrb\_kap persentase\_lahan \_cons \_cons \_cons

y1 -.003421 -.0114393 .0134348 -4.507016 2.037578 .18024

 log likelihood = -635.16106

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finish running on 5 Jun 2020 at 10:27:58

number of level 1 units = 1524

number of level 2 units = 1198

number of level 3 units = 13

Condition Number = 1362.3736

gllamm model

log likelihood = -635.16106

----------------------------------------------------------------------------------

 \_Ipemuda\_pe\_1 | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-----------------+----------------------------------------------------------------

 \_Itingkat\_p\_2 | 1.752188 .2904186 6.03 0.000 1.182978 2.321399

 \_Ijenis\_kel\_2 | 1.559808 .292353 5.34 0.000 .9868064 2.132809

 \_Ipendidika\_2 | .7573245 .3138555 2.41 0.016 .142179 1.37247

 \_Ipekerjaan\_2 | 3.679058 .4730159 7.78 0.000 2.751964 4.606152

 \_Ipekerjaan\_3 | .7990375 .4821423 1.66 0.097 -.145944 1.744019

 jumlah\_art | -.1294457 .0643001 -2.01 0.044 -.2554716 -.0034197

 kepadatan\_pend | -.003421 .0008879 -3.85 0.000 -.0051613 -.0016808

 pdrb\_kap | -.0114393 .0049221 -2.32 0.020 -.0210865 -.0017921

persentase\_lahan | .0134348 .0170711 0.79 0.431 -.020024 .0468935

 \_cons | -4.507016 .8030898 -5.61 0.000 -6.081043 -2.932989

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Variances and covariances of random effects

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\*\*\*level 2 (id\_ruta)

 var(1): 4.1517251 (1.5834161)

\*\*\*level 3 (kode\_kab)

 var(1): .03248647 (.06770062)

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end of do-file

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