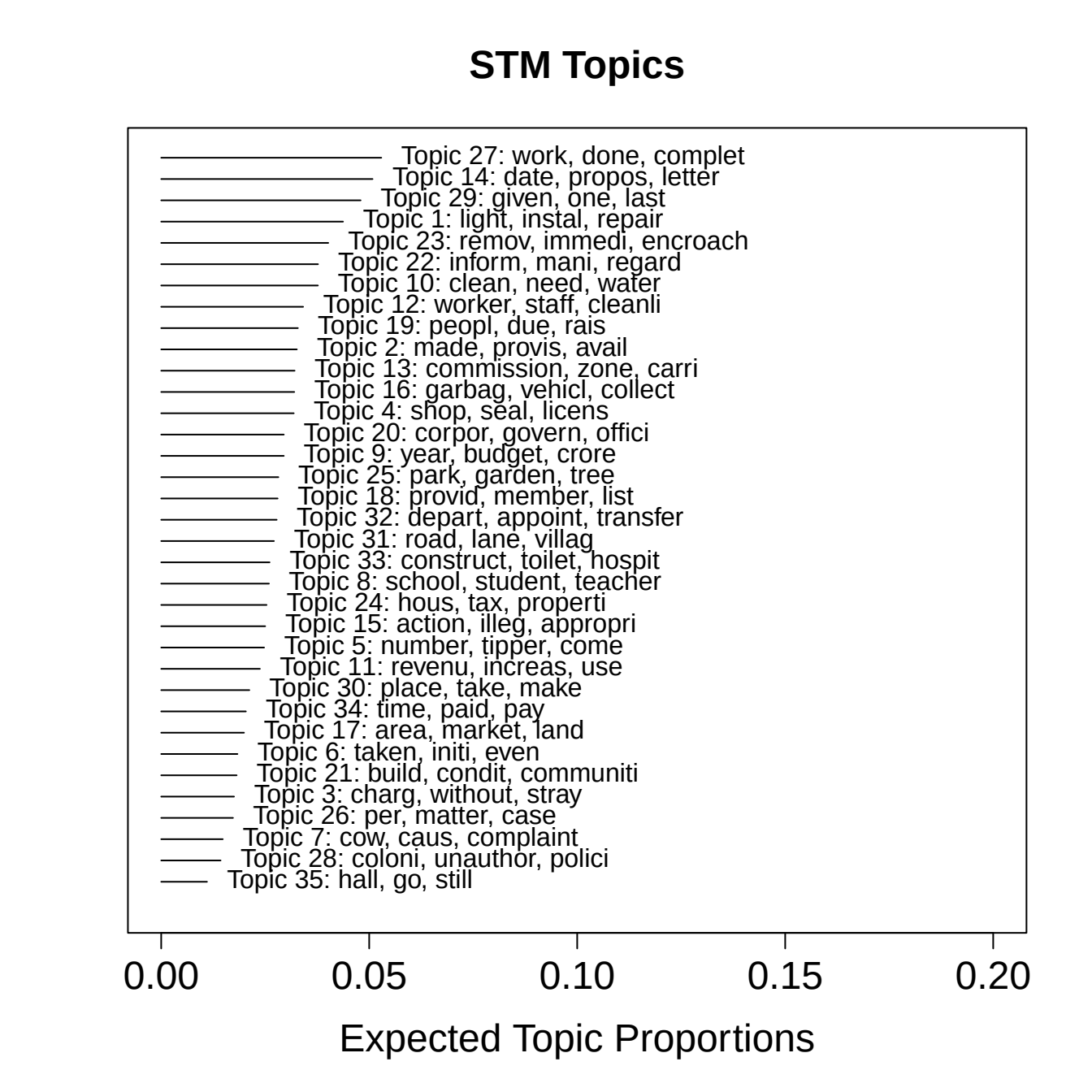
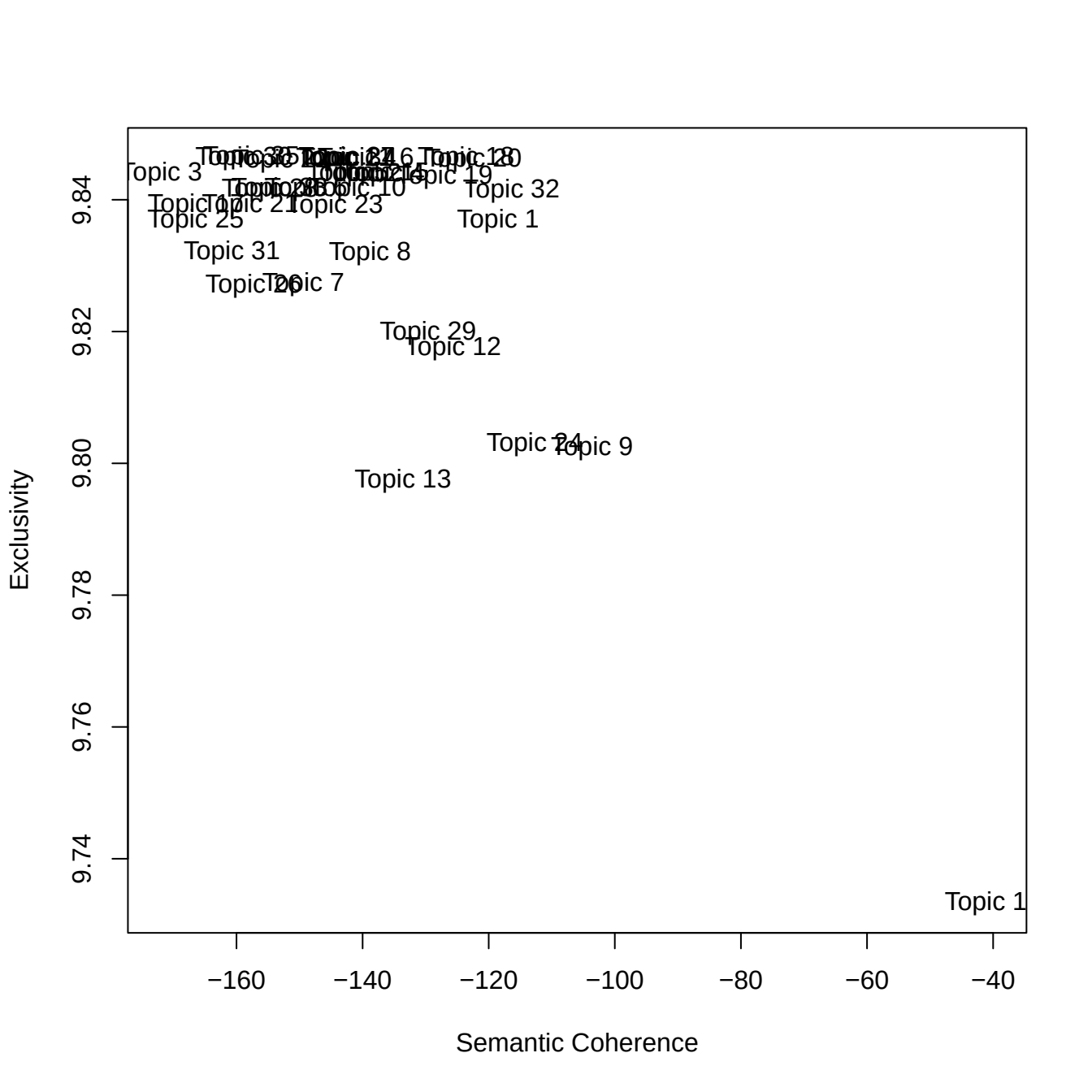
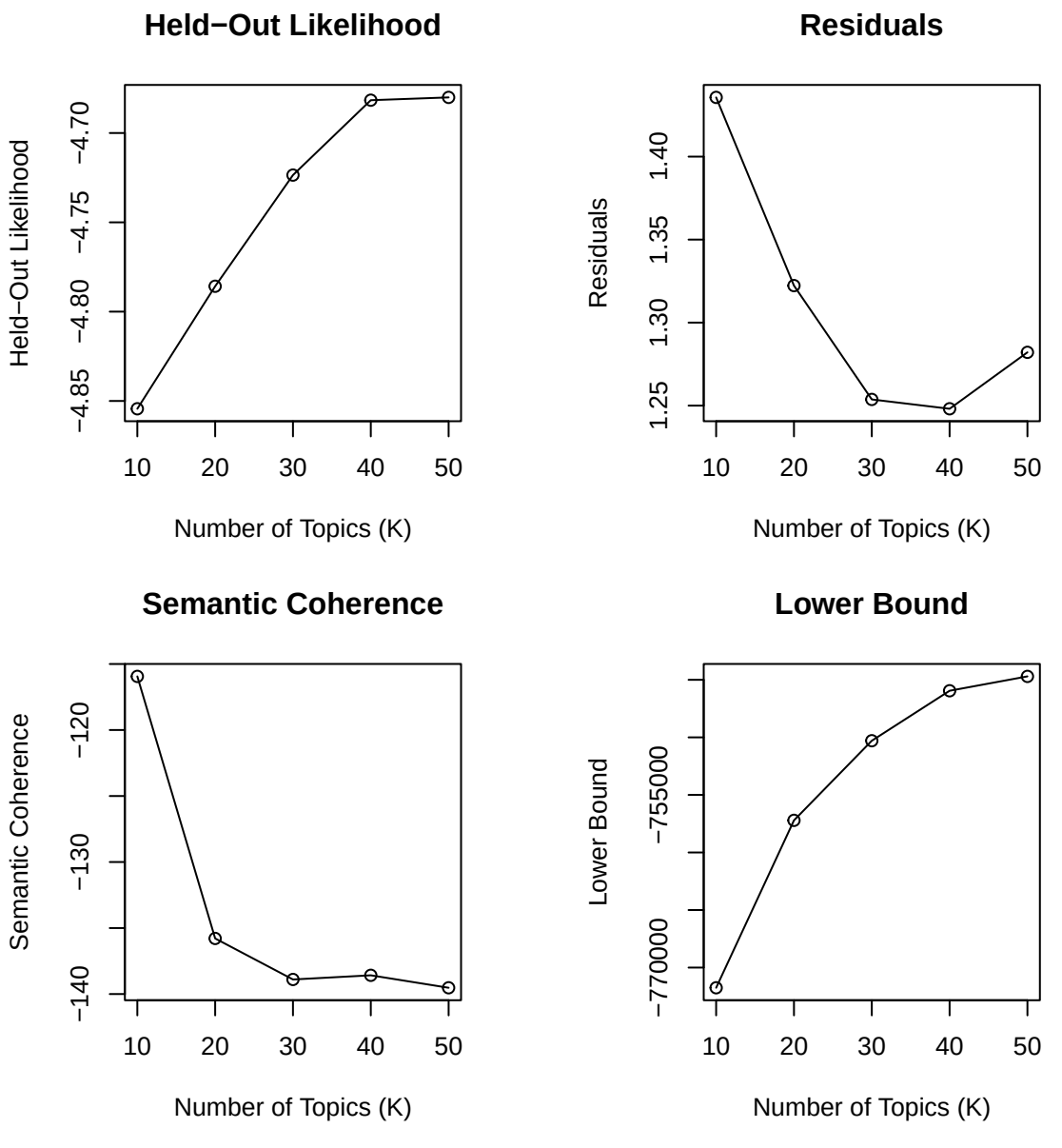
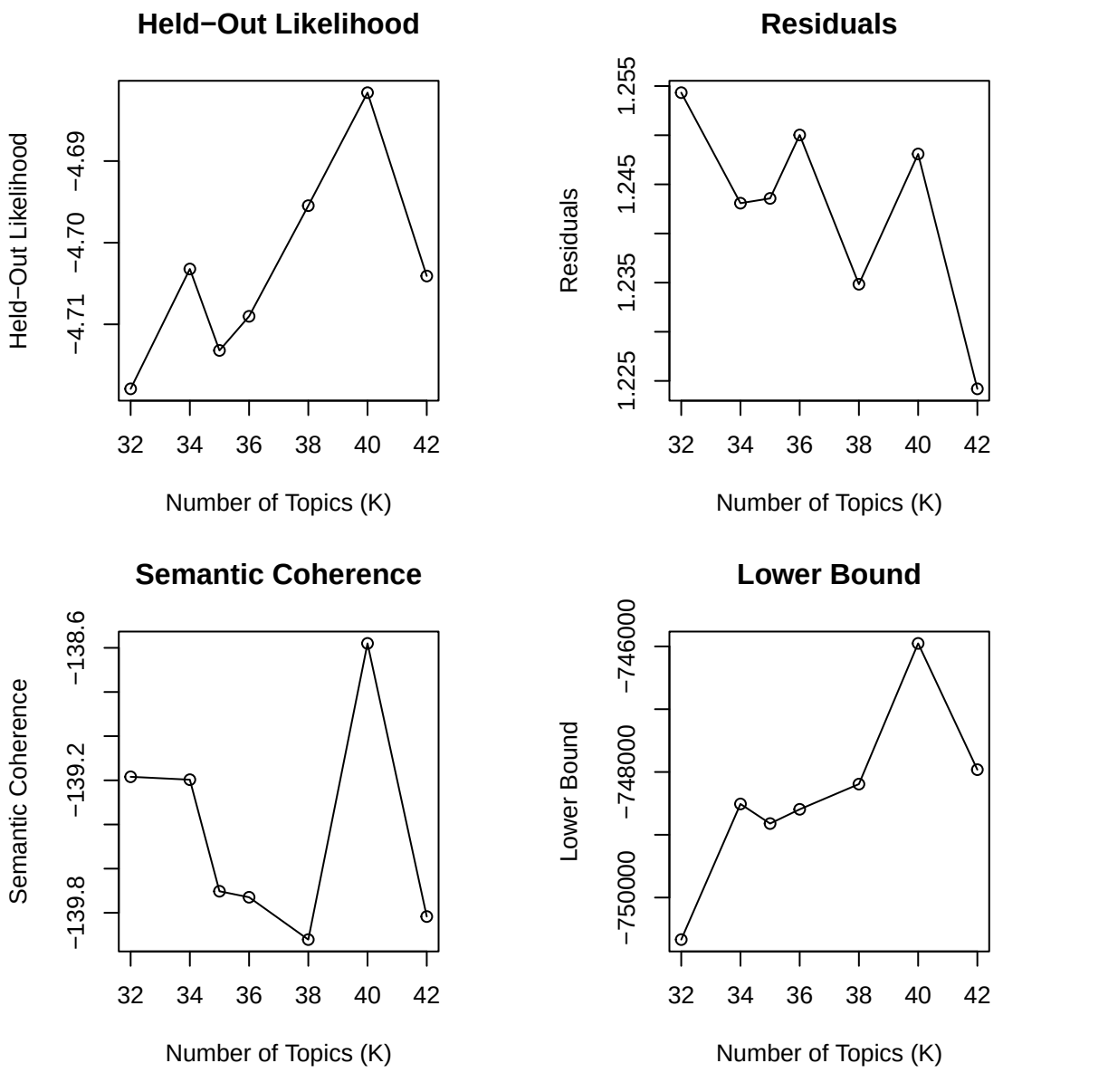
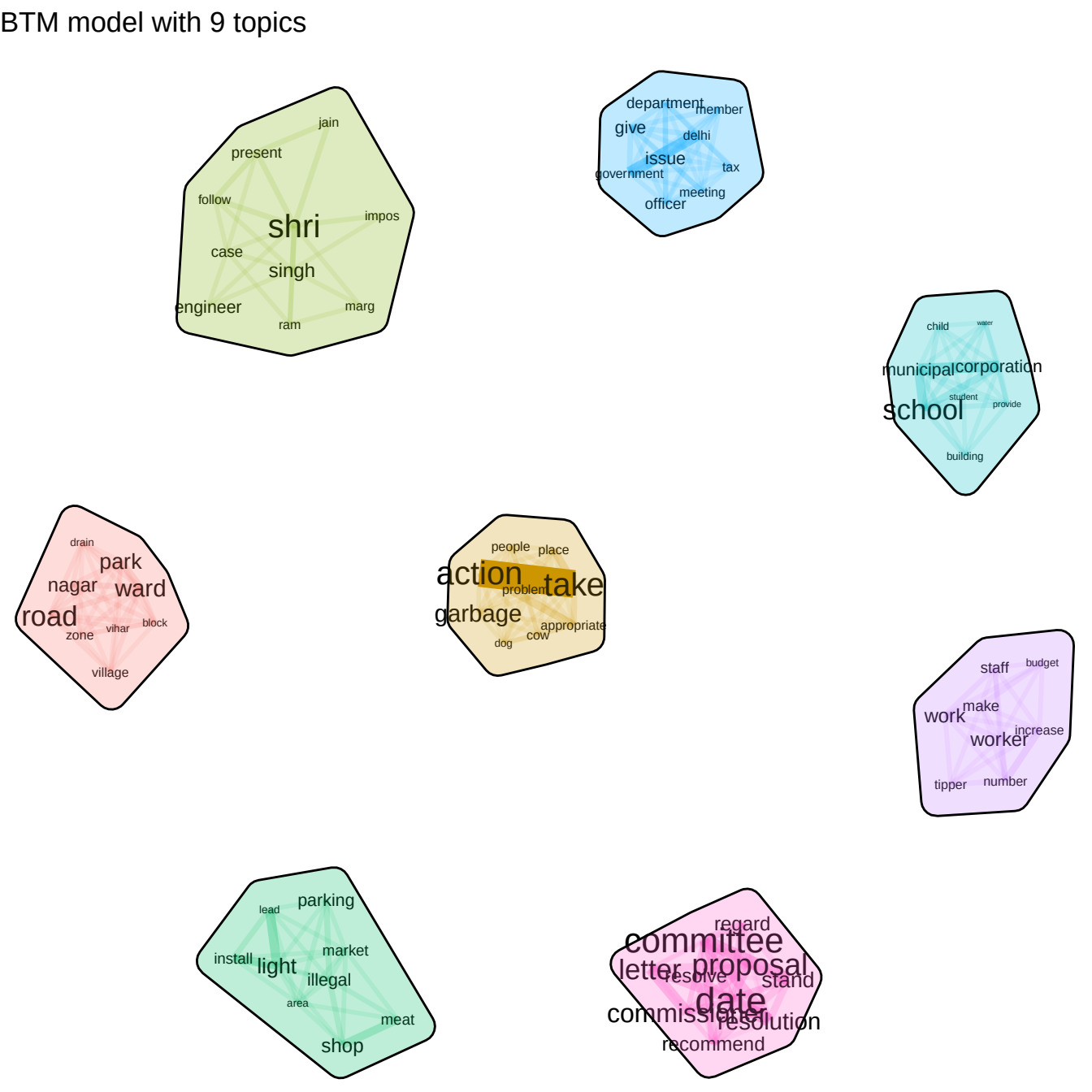

STM Topics
Topic 27: work, done, complet
Topic 14: date, propos, letter
Topic 29: given, one, last
Topic 1: light, instal, repair
Topic 23: remov, immedi, encroach
Topic 22: inform, mani, regard
Topic 10: clean, need, water
Topic 12: worker, staff, cleanli
Topic 19: peopl, due, rais
Topic 2: made, provis, avail
Topic 13: commission, zone, carri
Topic 16: garbag, vehicl, collect
Topic 4: shop, seal, licens
Topic 20: corpor, govern, offici
Topic 9: year, budget, crore
Topic 25: park, garden, tree
Topic 18: provid, member, list
Topic 32: depart, appoint, transfer
Topic 31: road, lane, villag
Topic 33: construct, toilet, hospit
Topic 8: school, student, teacher
Topic 24: hous, tax, properti
Topic 15: action, illeg, appropri
Topic 5: number, tipper, come
Topic 11: revenu, increas, use
Topic 30: place, take, make
Topic 34: time, paid, pay
Topic 17: area, market, land
Topic 6: taken, initi, even
Topic 21: build, condit, communiti
Topic 3: charg, without, stray
Topic 26: per, matter, case
Topic 7: cow, caus, complaint
Topic 28: coloni, unauthor, polici
Topic 35: hall, go, still
0.00
0.05
0.10
0.15
0.20
Expected Topic Proportions

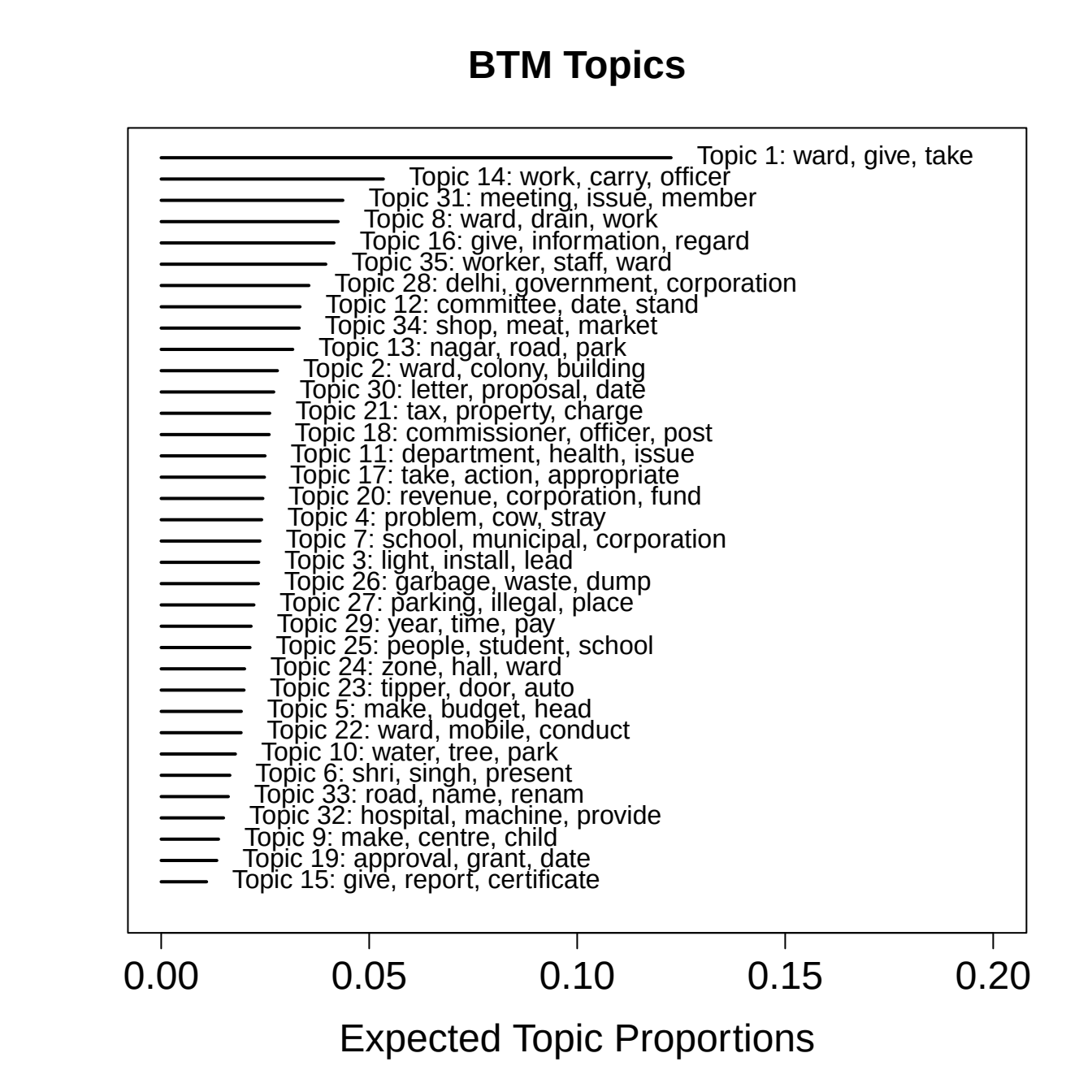

Topic 3
Topic 25
Topic 31
Topic 26
Topic 7
Topic 8
Topic 23
Topic 1
Topic 32
Topic 19
Topic 29
Topic 12
Topic 9
Topic 13
Topic 1
9.84
9.82
9.80
9.78
9.76
9.74
Exclusivity
−160
−140
−120
−100
−80
−60
−40
Semantic Coherence

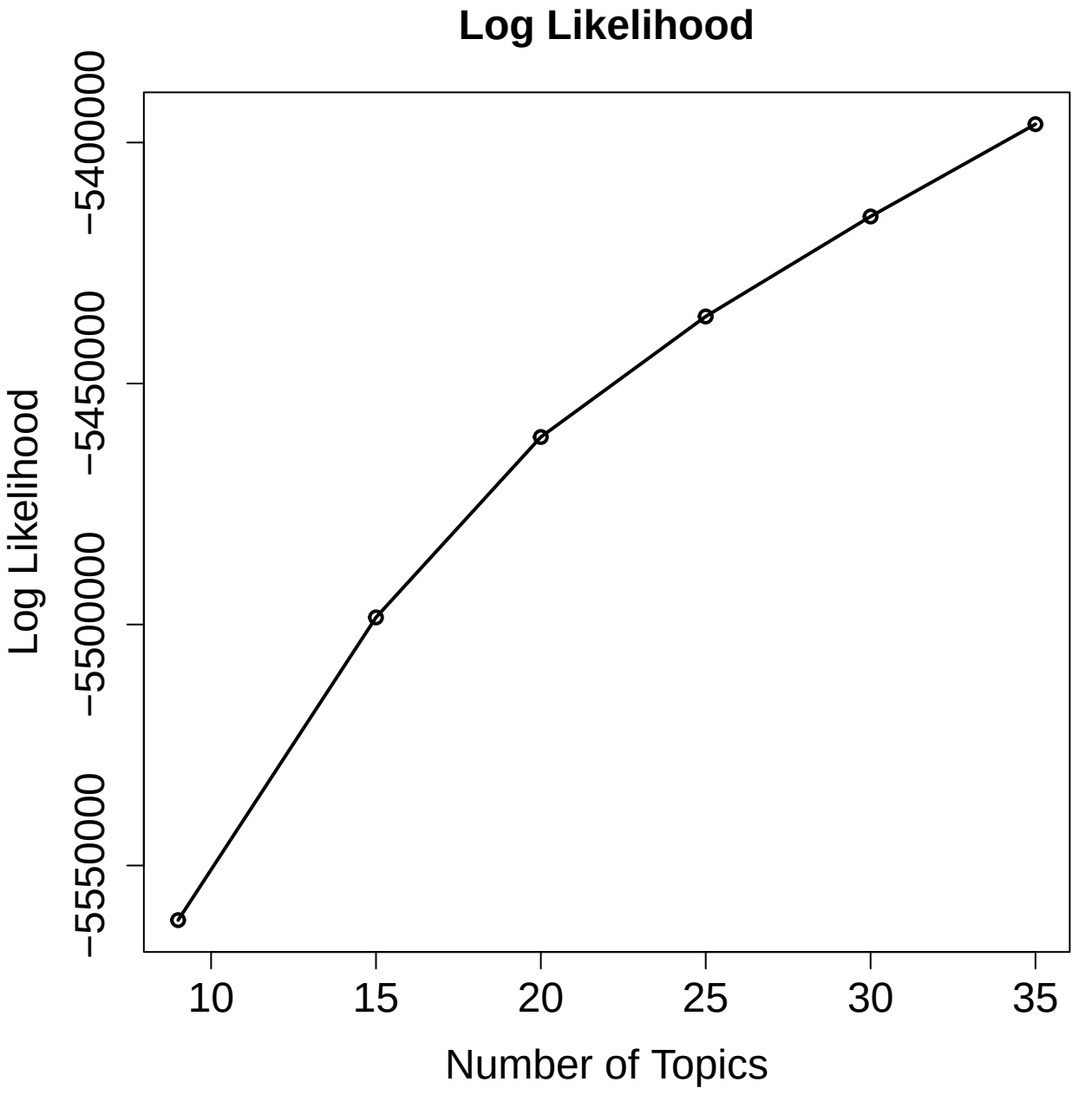

Diagnostic Values by Number of Topics
Held−Out Likelihood
Held−Out Likelihood
−4.85
−4.80
−4.75
−4.70
10
20
30
40
50
Number of Topics (K)
Residuals
Residuals
1.25
1.30
1.35
1.40
10
20
30
40
50
Number of Topics (K)
Semantic Coherence
Semantic Coherence
−140
−130
−120
10
20
30
40
50
Number of Topics (K)
Lower Bound
Lower Bound
−770000
−755000
10
20
30
40
50
Number of Topics (K)


Diagnostic Values by Number of Topics
Held−Out Likelihood
Held−Out Likelihood
−4.71
−4.70
−4.69
32
34
36
38
40
42
Number of Topics (K)
Residuals
Residuals
1.225
1.235
1.245
1.255
32
34
36
38
40
42
Number of Topics (K)
Semantic Coherence
Semantic Coherence
−139.8
−139.2
−138.6
32
34
36
38
40
42
Number of Topics (K)
Lower Bound
Lower Bound
−750000
−748000
−746000
32
34
36
38
40
42
Number of Topics (K)

BTM model with 9 topics




BTM Topics
Topic 1: ward, give, take
Topic 14: work, carry, officer
Topic 31: meeting, issue, member
Topic 8: ward, drain, work
Topic 16: give, information, regard
Topic 35: worker, staff, ward
Topic 28: delhi, government, corporation
Topic 12: committee, date, stand
Topic 34: shop, meat, market
Topic 13: nagar, road, park
Topic 2: ward, colony, building
Topic 30: letter, proposal, date
Topic 21: tax, property, charge
Topic 18: commissioner, officer, post
Topic 11: department, health, issue
Topic 17: take, action, appropriate
Topic 20: revenue, corporation, fund
Topic 4: problem, cow, stray
Topic 7: school, municipal, corporation
Topic 3: light, install, lead
Topic 26: garbage, waste, dump
Topic 27: parking, illegal, place
Topic 29: year, time, pay
Topic 25: people, student, school
Topic 24: zone, hall, ward
Topic 23: tipper, door, auto
Topic 5: make, budget, head
Topic 22: ward, mobile, conduct
Topic 10: water, tree, park
Topic 6: shri, singh, present
Topic 33: road, name, renam
Topic 32: hospital, machine, provide
Topic 9: make, centre, child
Topic 19: approval, grant, date
Topic 15: give, report, certificate
0.00
0.05
0.10
0.15
0.20
Expected Topic Proportions


Log Likelihood
Log Likelihood
−5400000
−5450000
−5500000
−5550000
10
15
20
25
30
35
Number of Topics