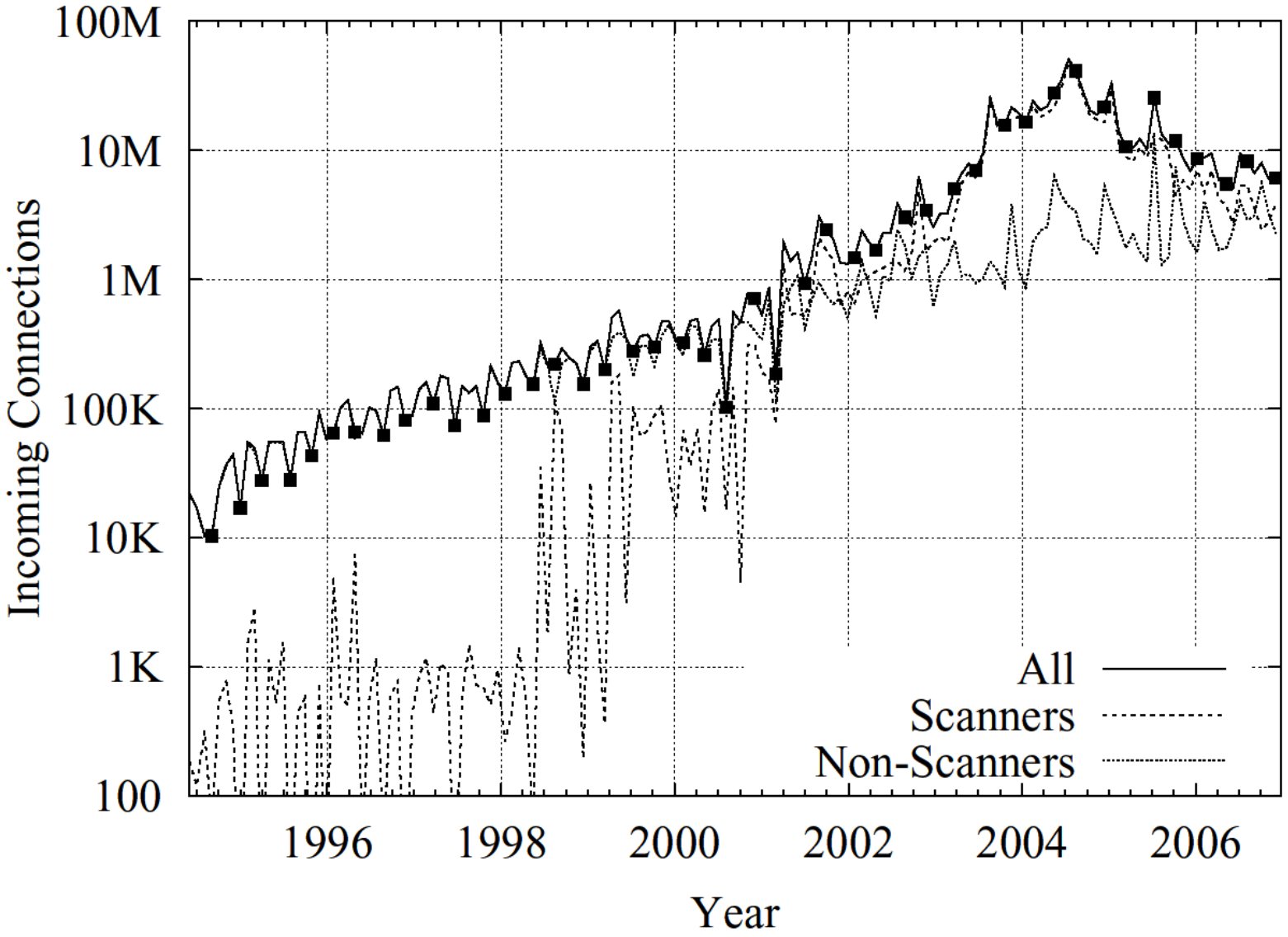
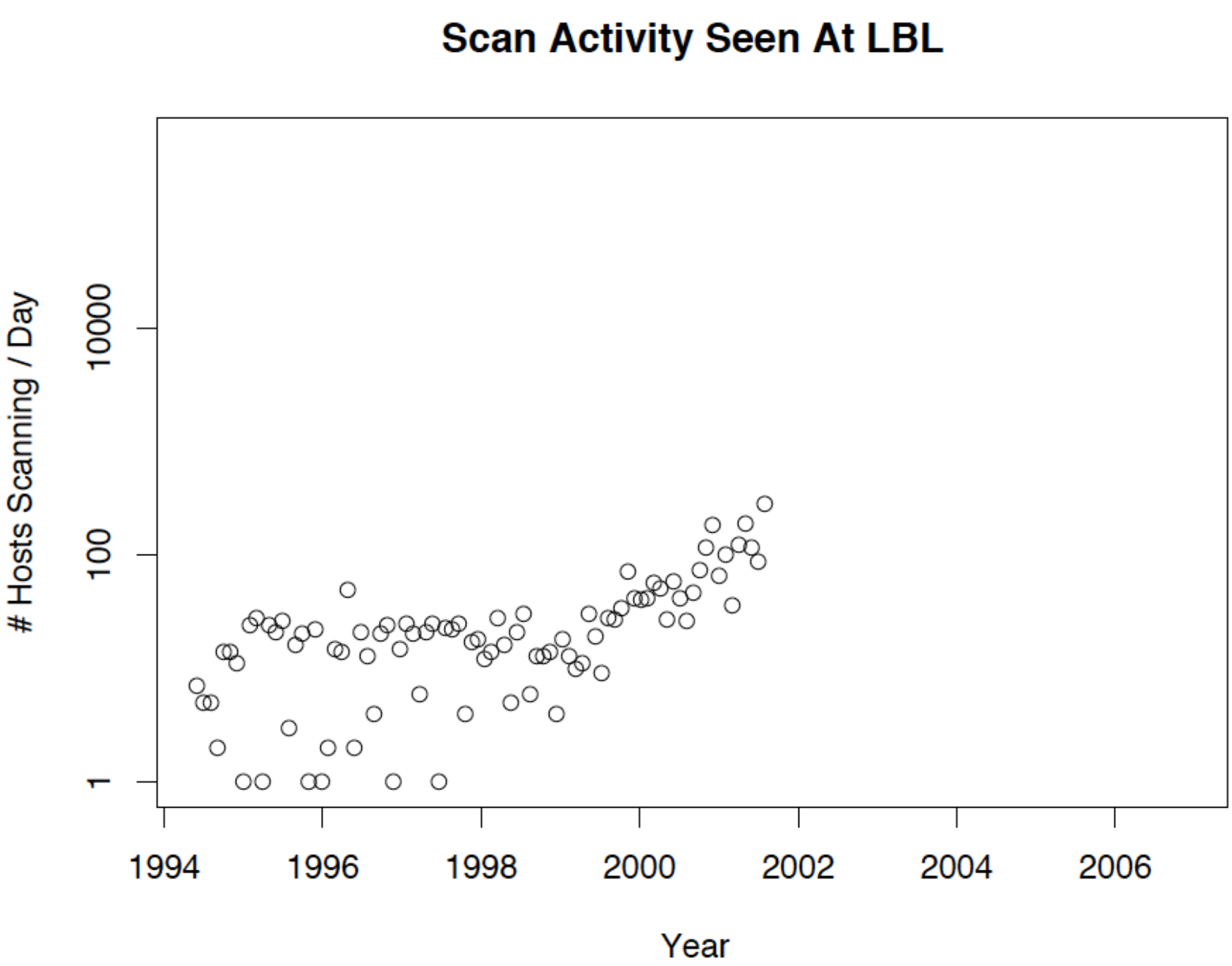
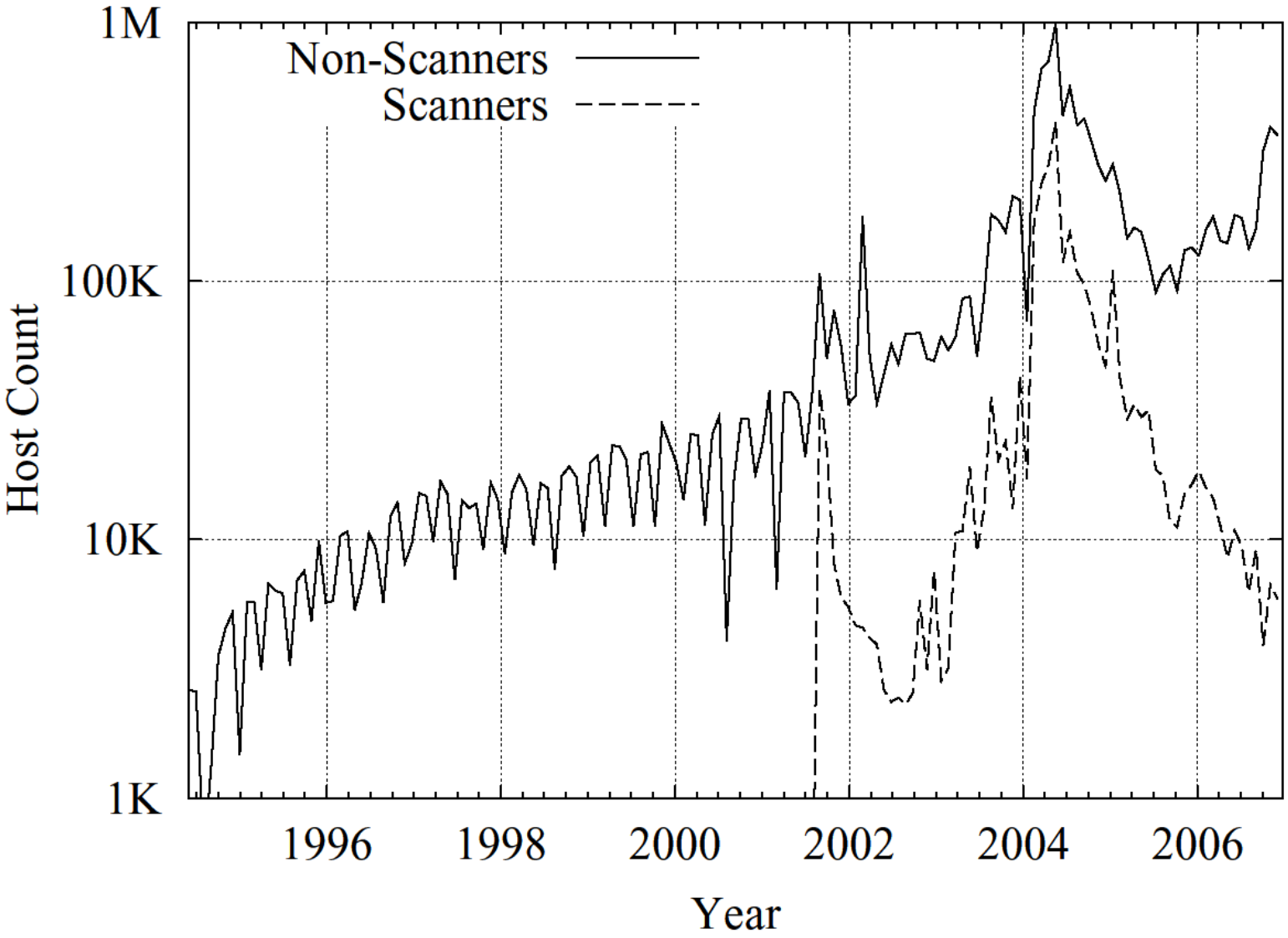
# Scanning Activity Seen @ LBNL

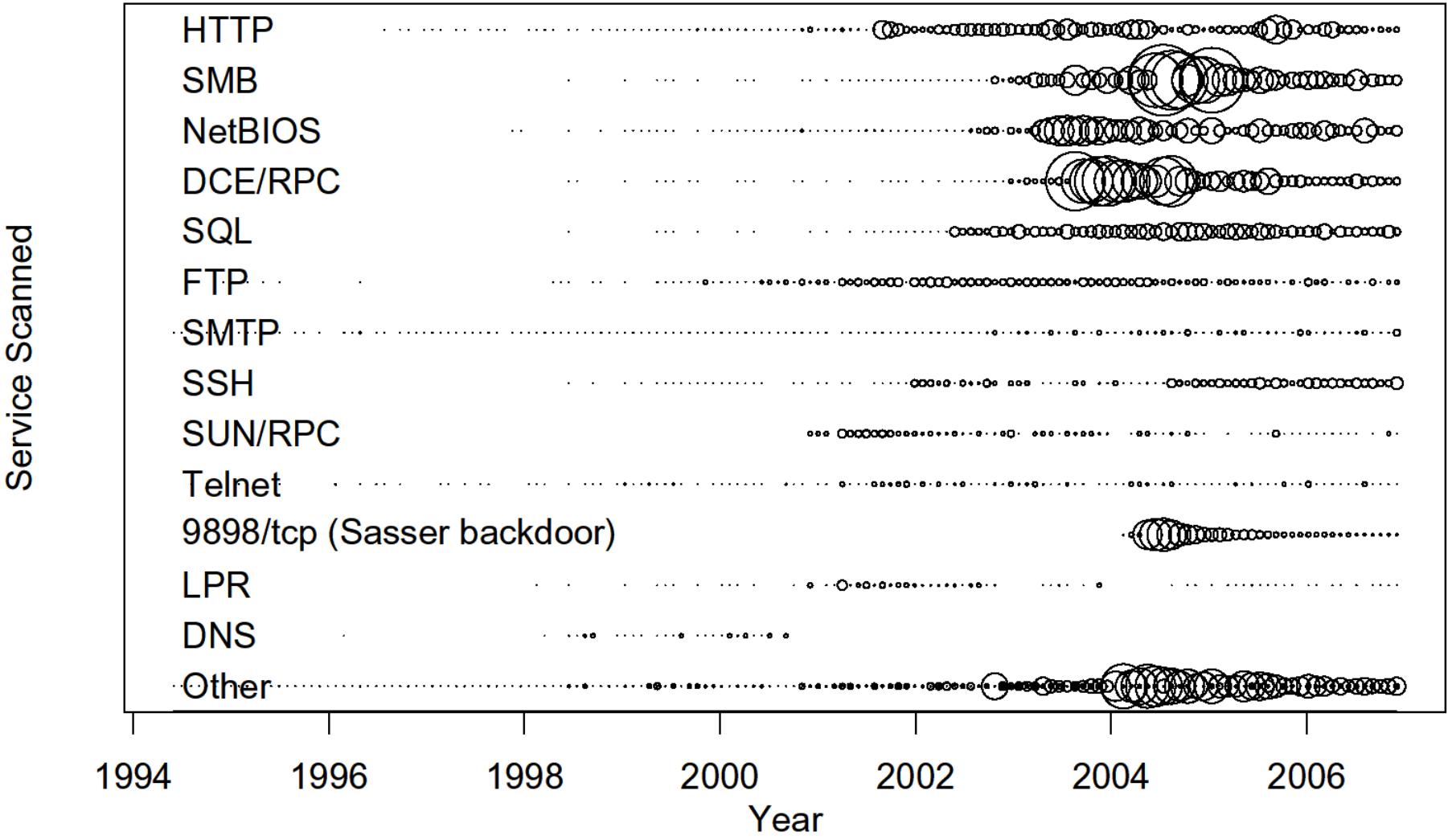


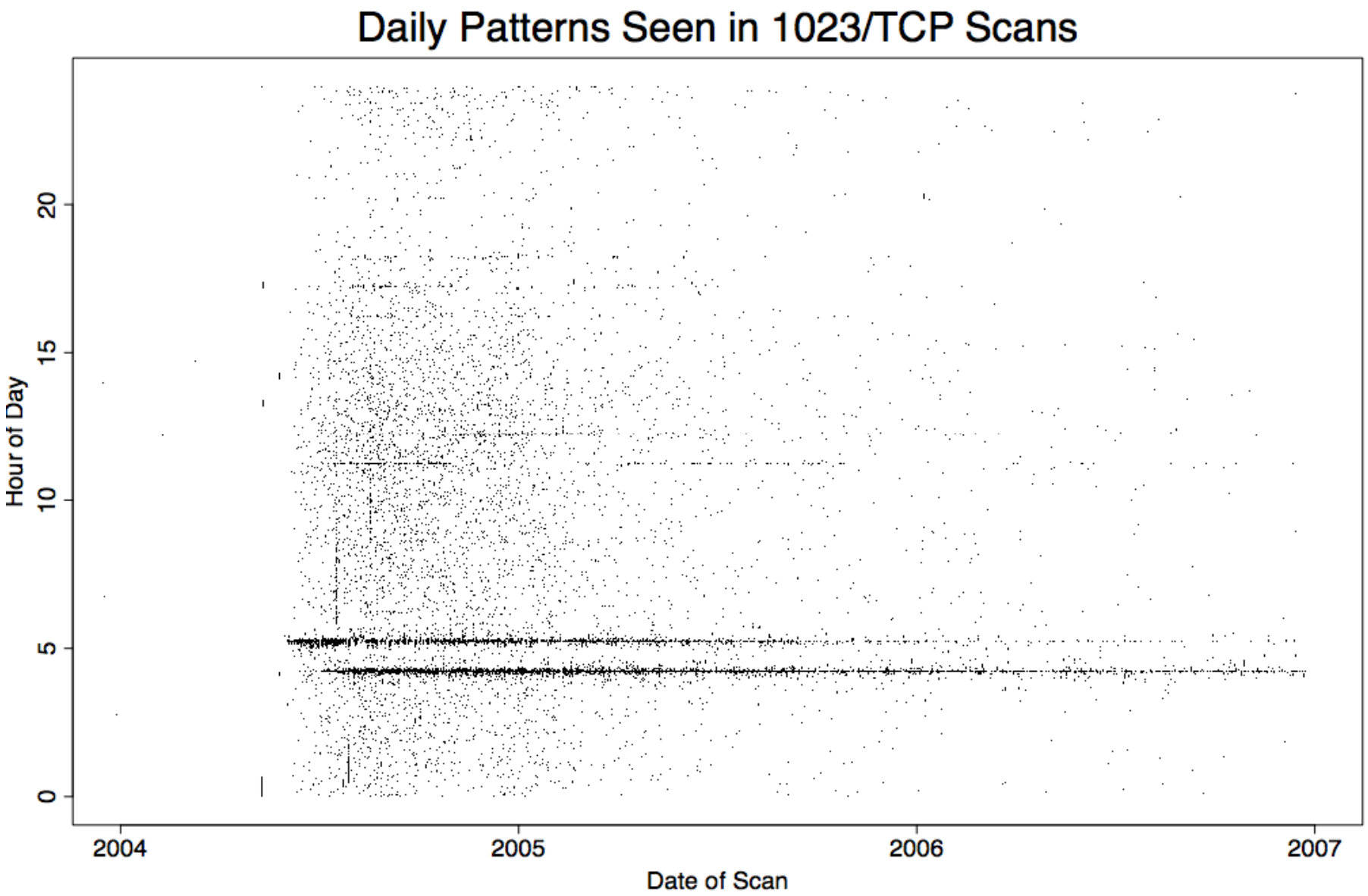

Scan Activity Seen At LBL
# Hosts Scanning / Day
1
100
10000
1994
1996
1998
2000
2002
2004
2006
Year

# Scanning Hosts Seen @ LBNL

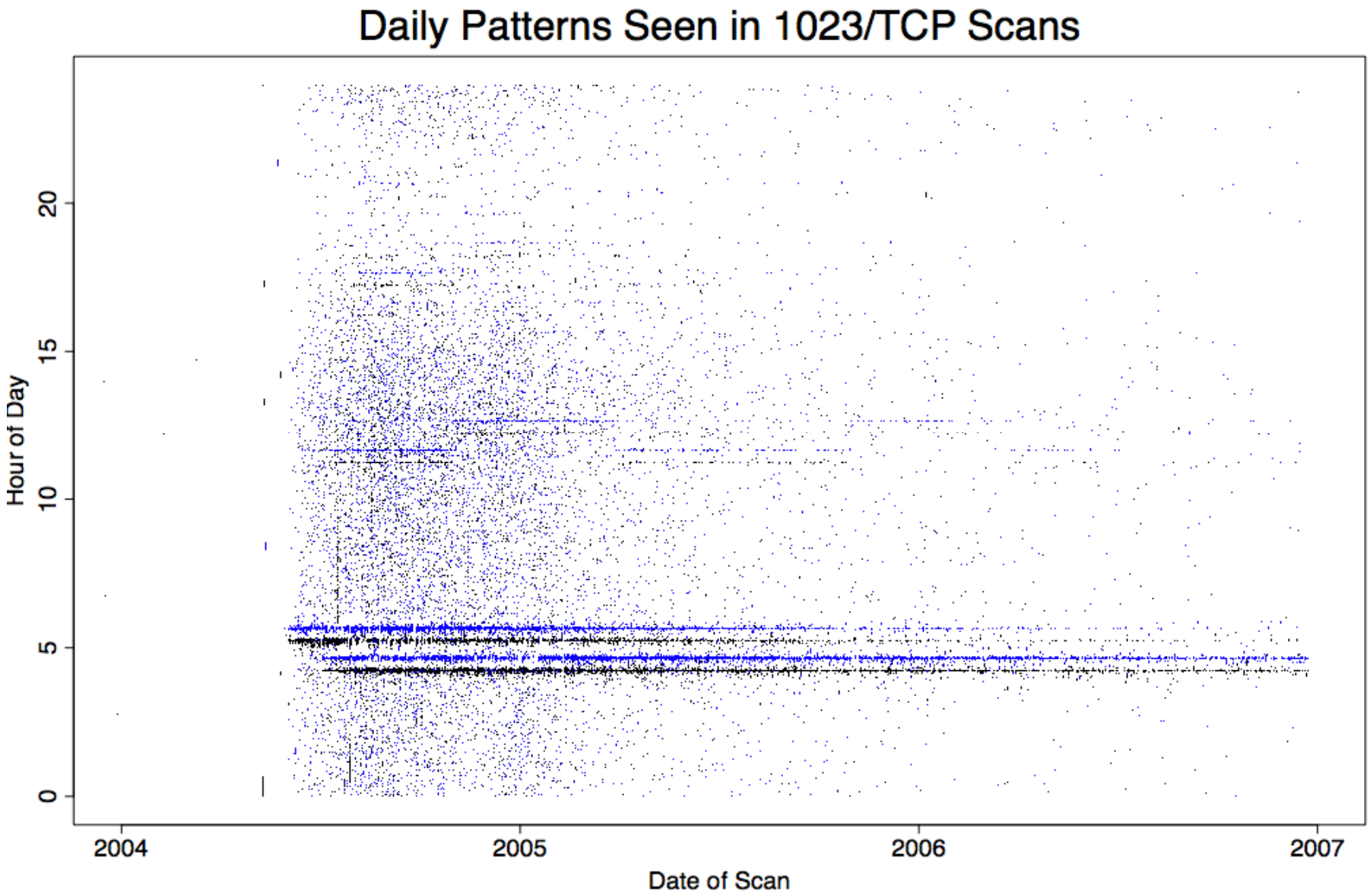


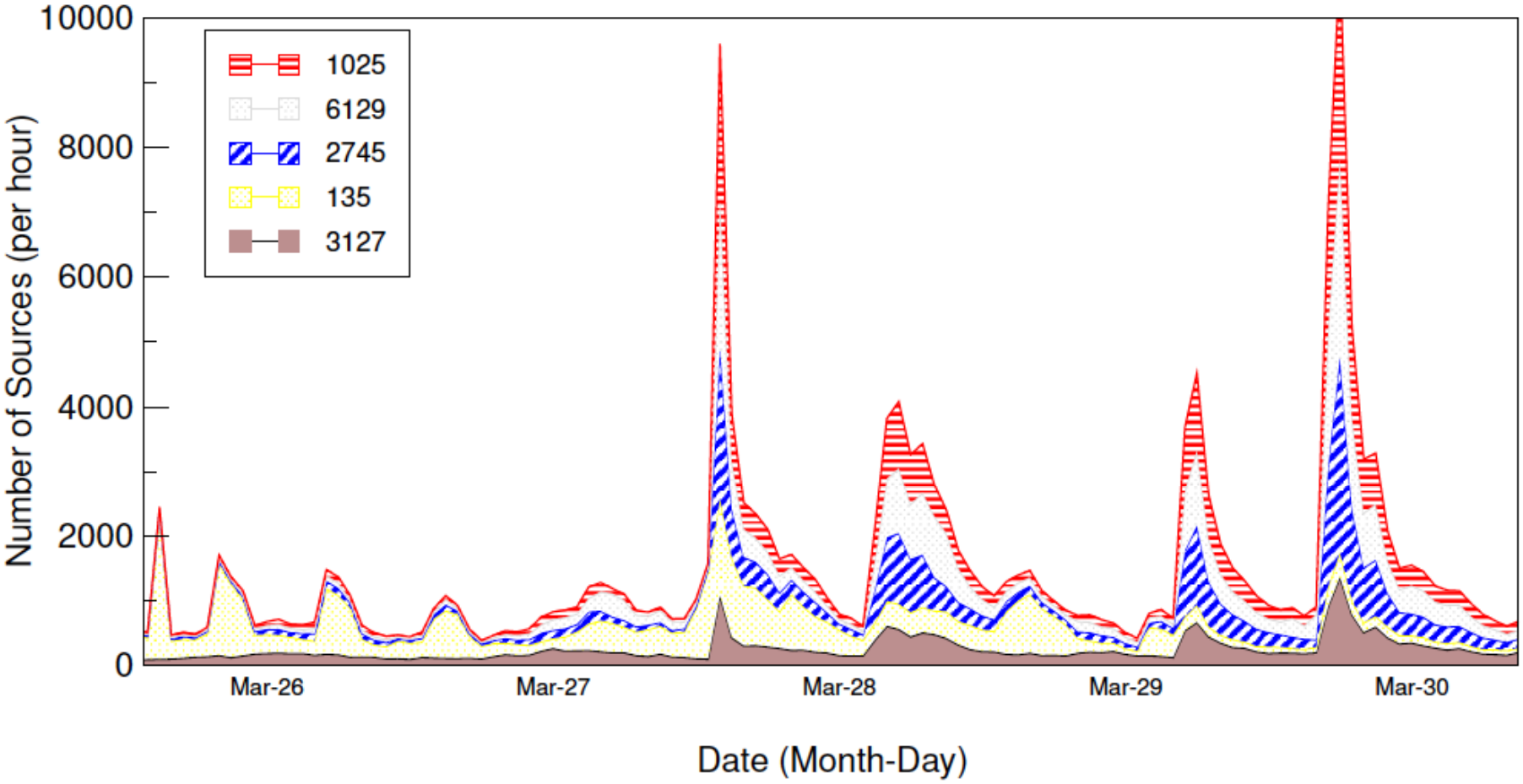
# Services Scanned Over Time



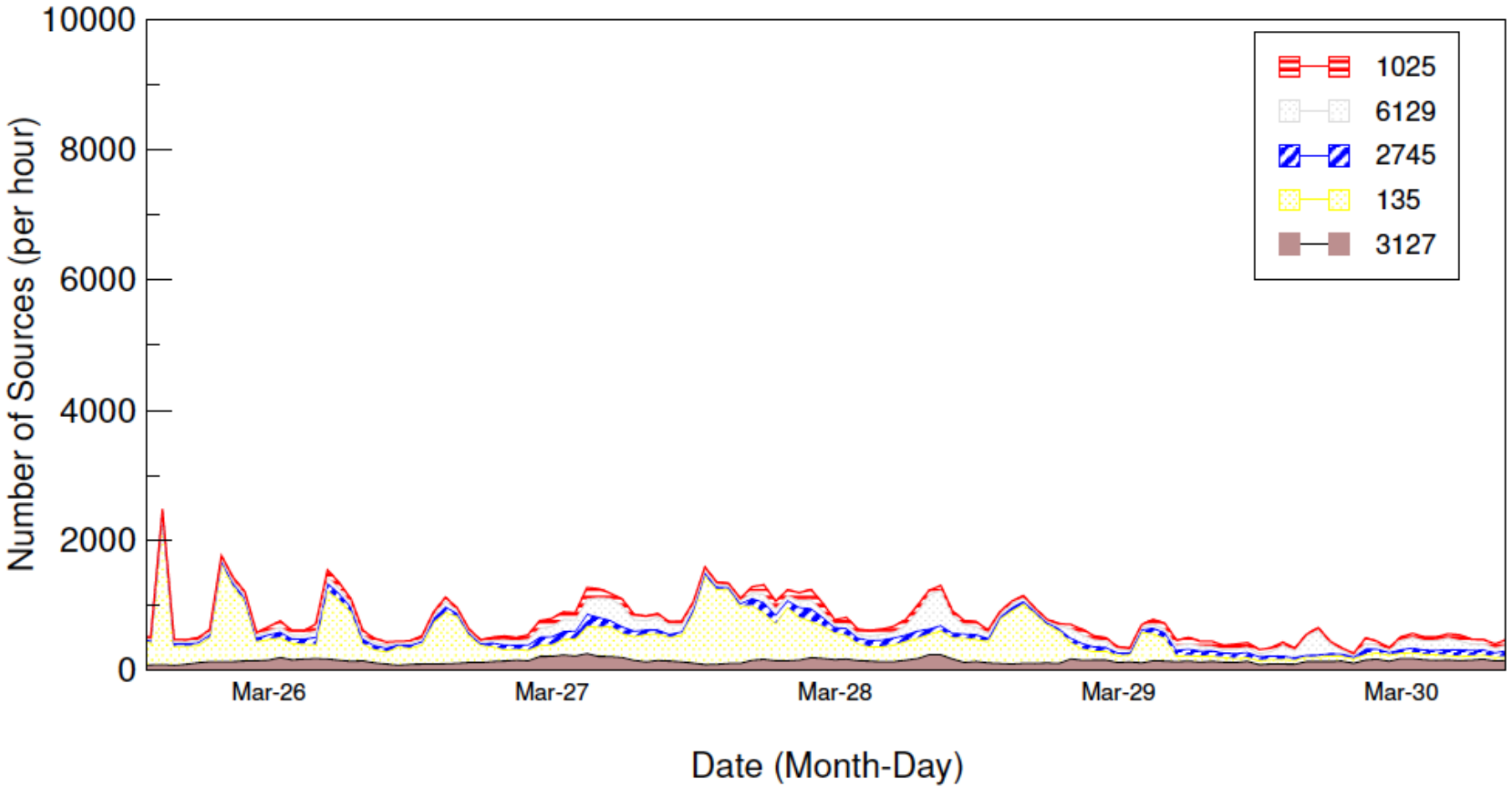



/16 at LBL, sampled 1-in-1K


Daily Patterns Seen in 1023/TCP Scans
Hour of Day
0
5
10
15
20
2004
2005
2006
2007
Date of Scan
/16 at LBL, sampled 1-in-1K
2nd /16, sampled 1-in-1K




(a) Agobot Sources: UW I

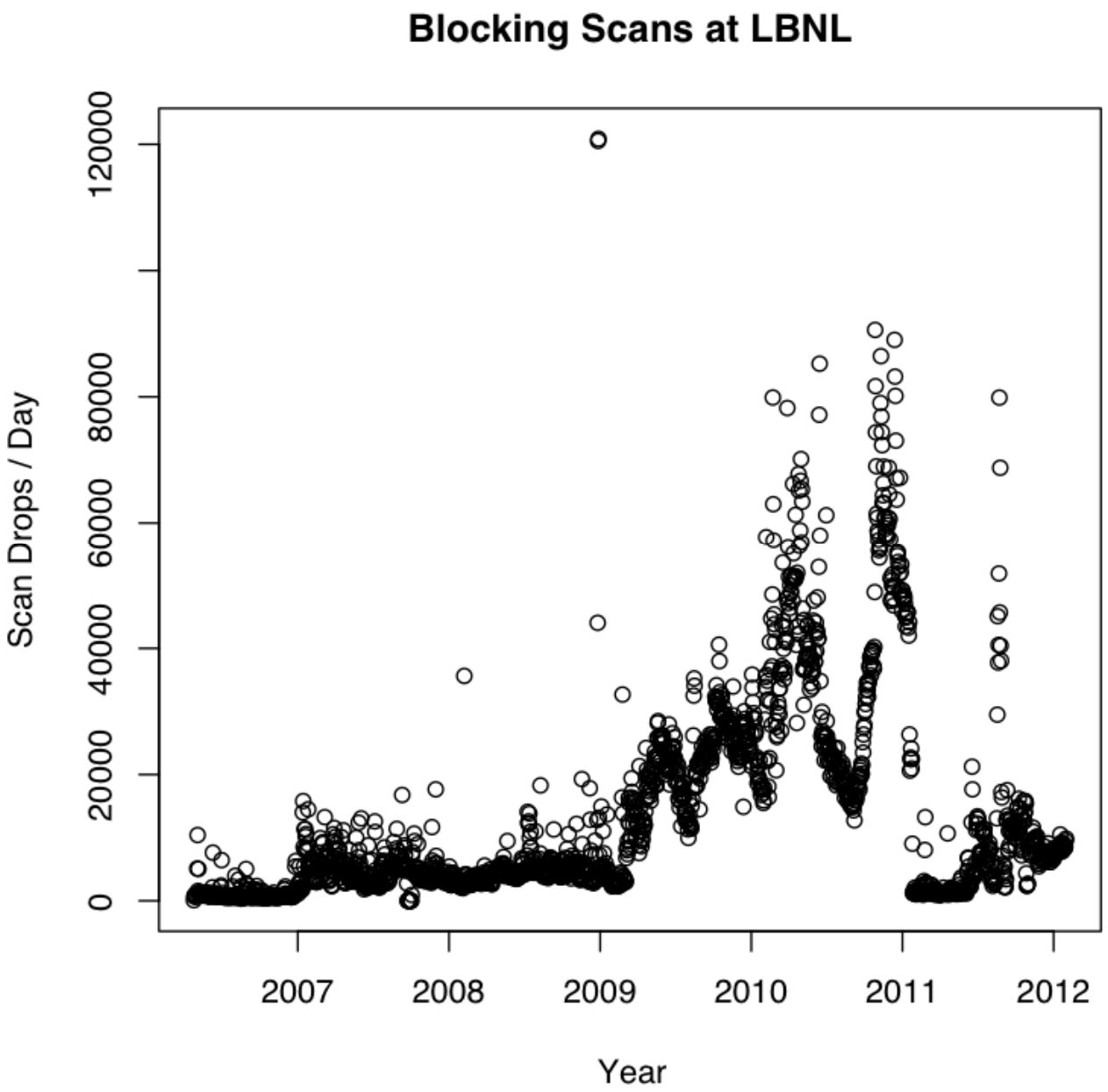


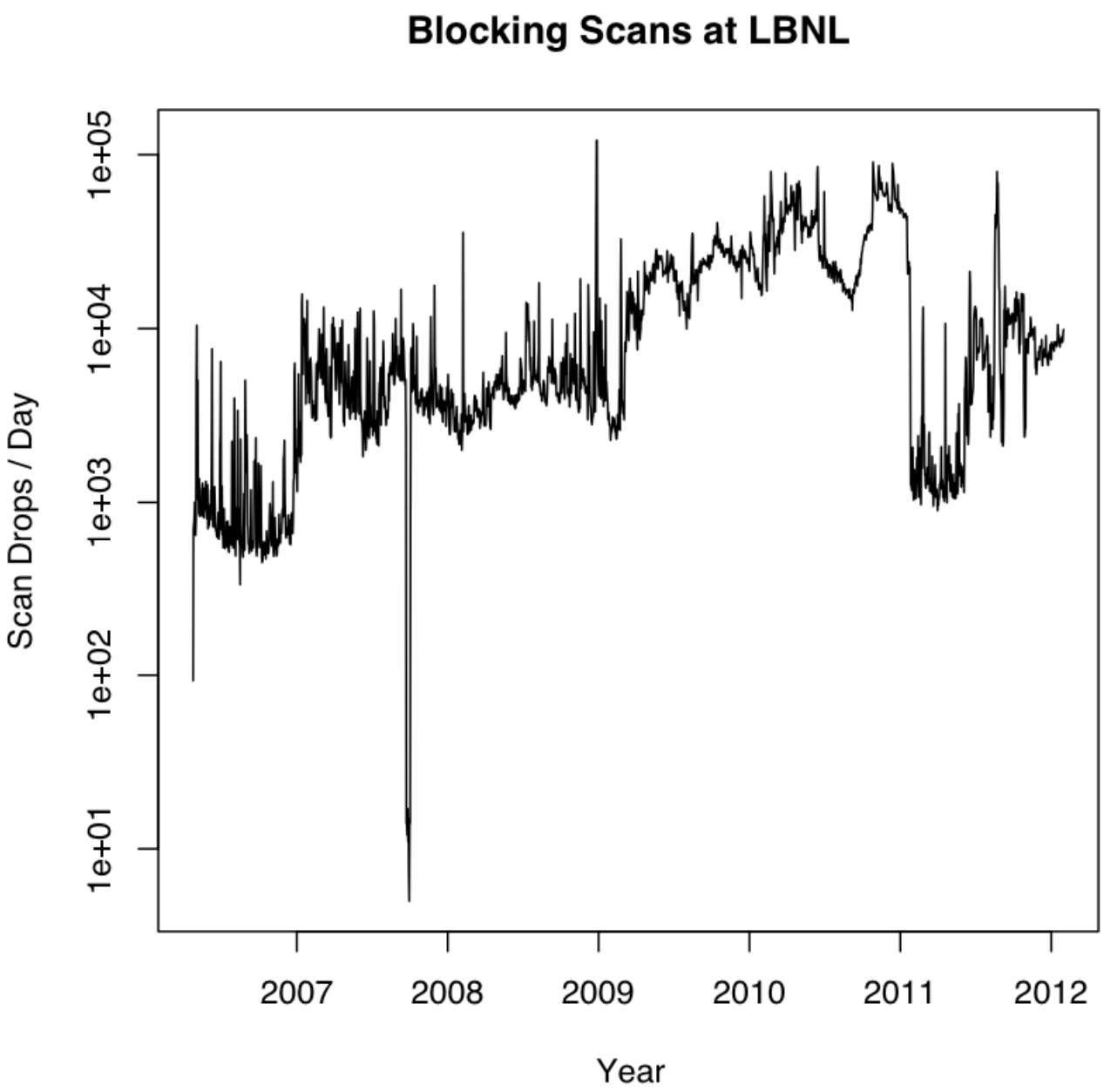

(b) Agobot Sources: UW II

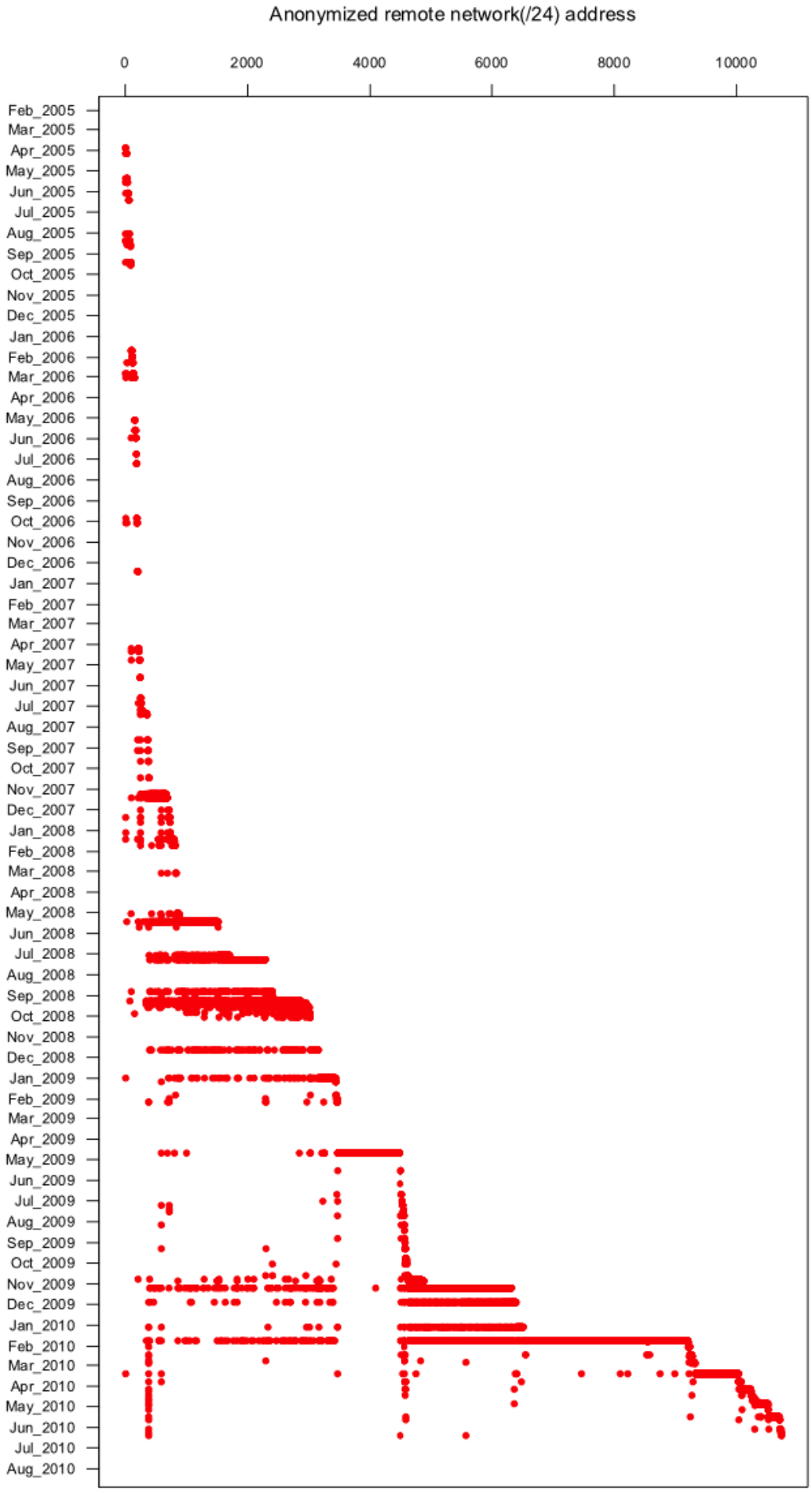
# MAP OF THE INTERNET

## THE IPv4 SPACE, 2006

[Interactive Map]


Blocking Scans at LBNL
Scan Drops / Day
0
20000
40000
60000
80000
120000
2007
2008
2009
2010
2011
2012
Year


Blocking Scans at LBNL
Scan Drops / Day
1e+01
1e+02
1e+03
1e+04
1e+05
2007
2008
2009
2010
2011
2012
Year


Anonymized remote network(/24) address
0
2000
4000
6000
8000
10000
Feb_2005
Mar_2005
Apr_2005
May_2005
Jun_2005
Jul_2005
Aug_2005
Sep_2005
Oct_2005
Nov_2005
Dec_2005
Jan_2006
Feb_2006
Mar_2006
Apr_2006
May_2006
Jun_2006
Jul_2006
Aug_2006
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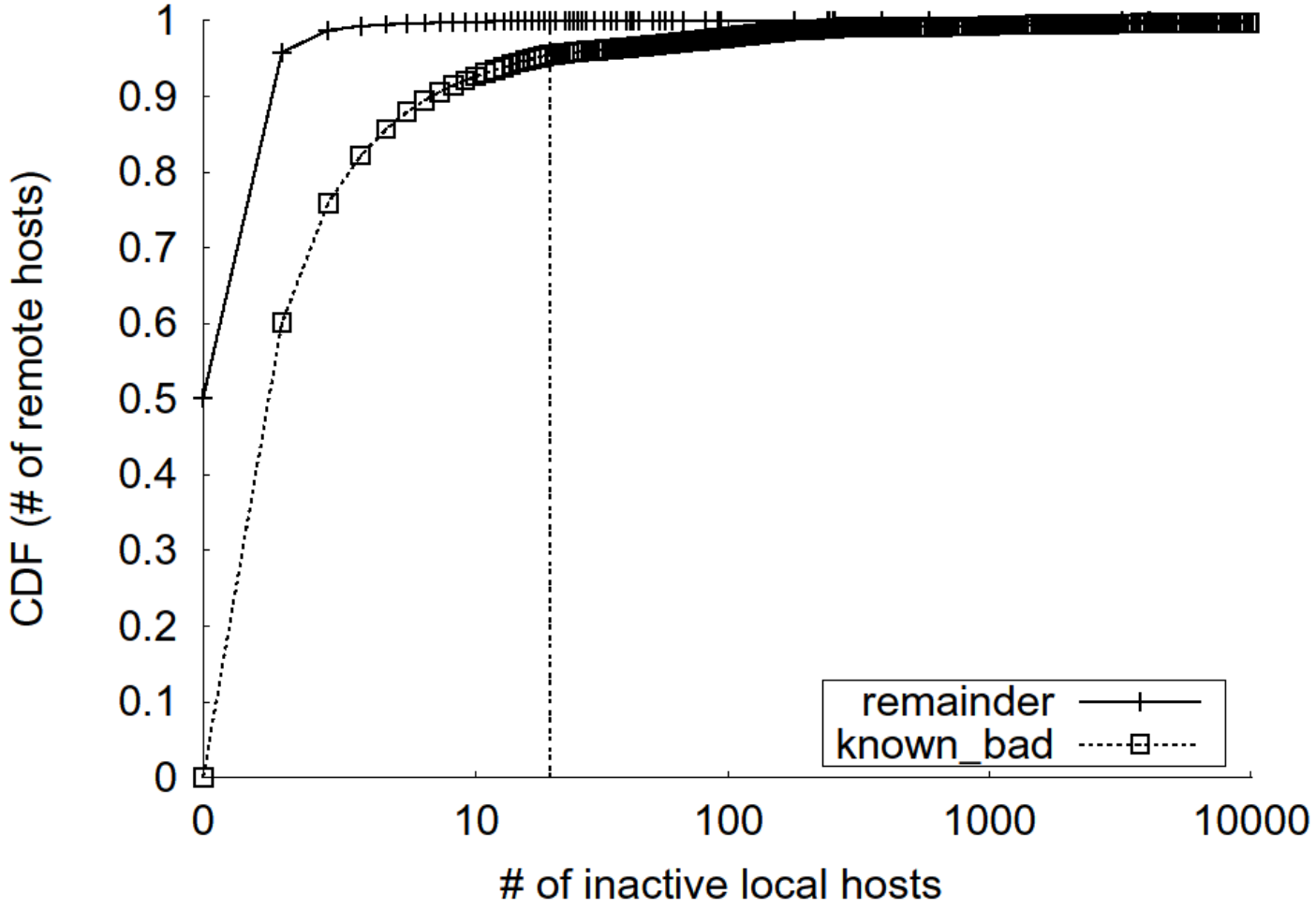
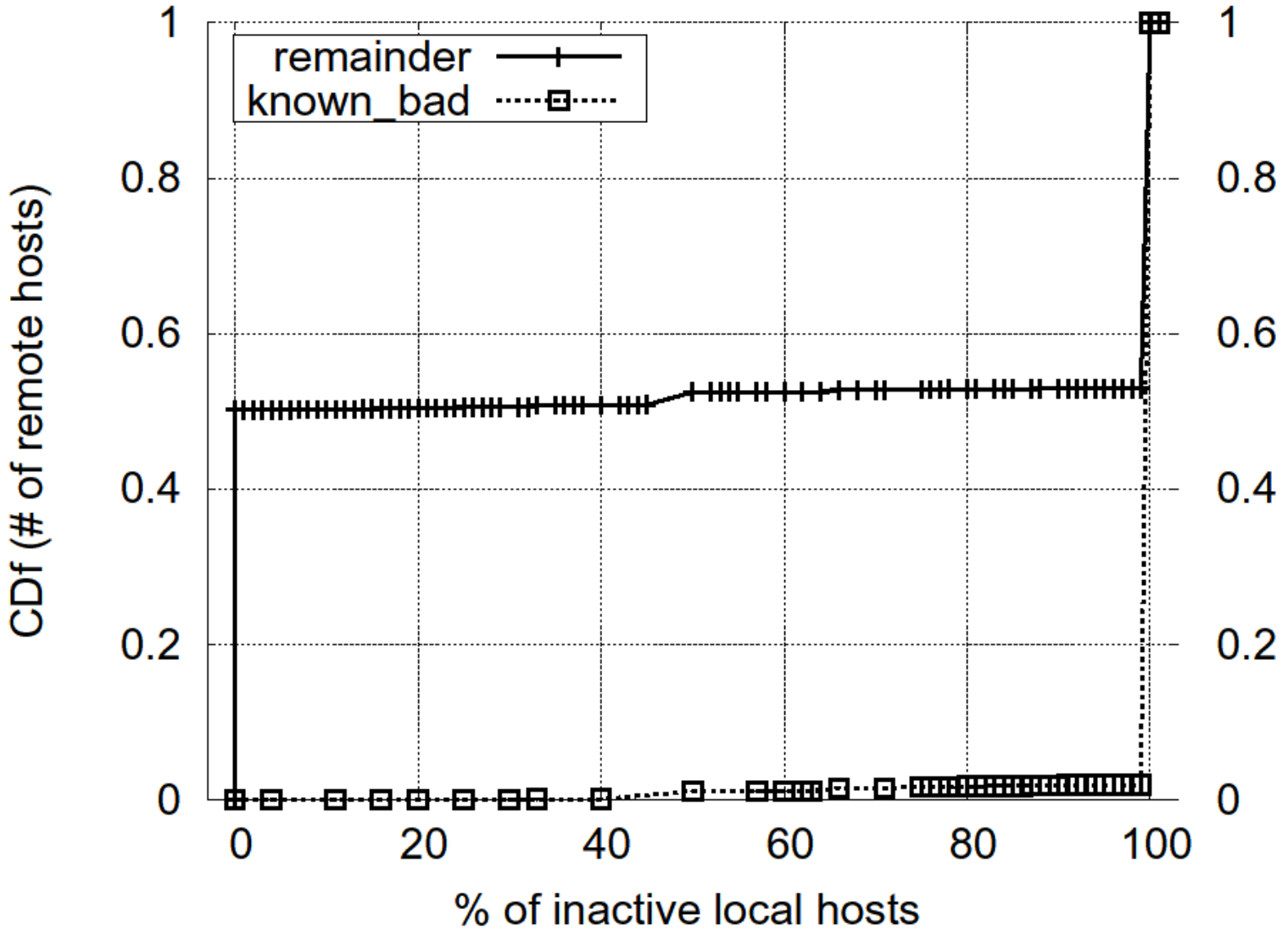
Dec_2008
Jan_2009
Feb_2009
Mar_2009
Apr_2009
May_2009
Jun_2009
Jul_2009
Aug_2009
Sep_2009
Oct_2009
Nov_2009
Dec_2009
Jan_2010
Feb_2010
Mar_2010
Apr_2010
May_2010
Jun_2010
Jul_2010
Aug_2010

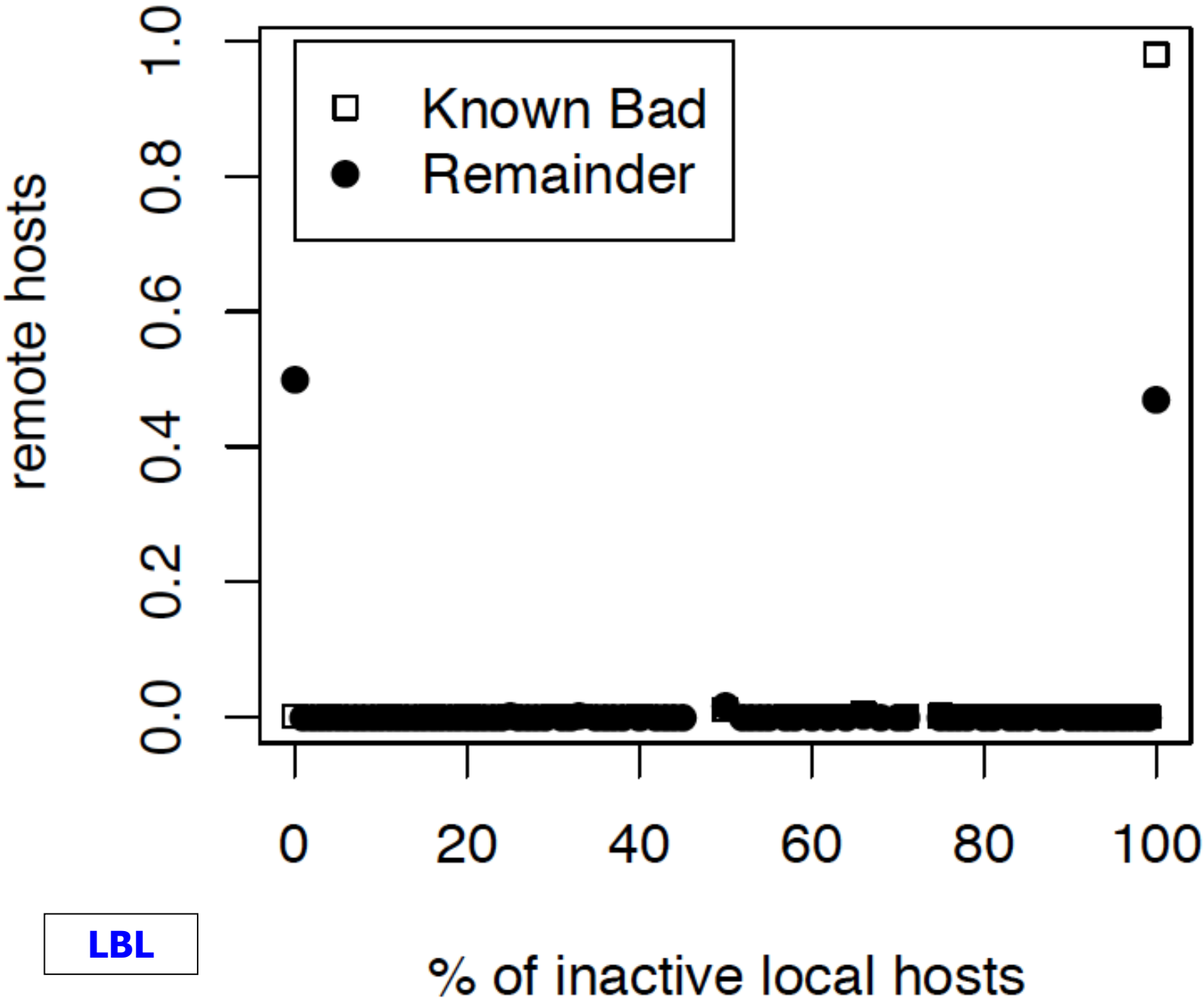
# # Failed Conn's Not Enough Info




(a) LBL

# Failure *Ratio* Much More Distinctive




Known Bad
Remainder
remote hosts
0.0
0.2
0.4
0.6
0.8
1.0
0
20
40
60
80
100
% of inactive local hosts

LBL