# Bab 4
# Pengumpulan dan Analisis Data Sistem

## 4.1. Identifikasi Keperluan Data

### 4.1.1. Data Struktural

Data struktural adalah data yang melibatkan objek yang akan dimodelkan dalam simulasi. Dalam perancangan model simulasi gerbang tol cluster 1, data struktural yang diperlukan adalah data mengenai entitas yang terlibat dalam sistem gerbang Tol dan data lokasi-lokasi yang terlibat dalam sistem sesuai dengan ruang lingkup model yang akan dibuat. Data entitas dan lokasi diperlukan sebagai input dalam pembuatan model simulasi. Data lokasi juga digunakan sebagai acuan pembuatan *layout* dari model simulasi yang dibangun.

### 4.1.2. Data Operasional

Data operasional jalannya sistem beroperasi. Data operasional yang diperlukan dalam perancangan model simulasi gerbang tol cluster 1 adalah data mengenai aliran entitas dalam sistem gerbang tol pasteur dan cileunyi. Data aliran entitas diperlukan sebagai input untuk menetapkan alur proses pada model simulasi.

### 4.1.3. Data Numeris

Data numeris yang diperlukan dalam membangun model simulasi adalah data tingkat lalu lintas historis dan data waktu pelayanan gardu tol. Data tingkat lalu lintas diperlukan sebagai input tingkat lalu lintas dan data waktu pelayanan diperlukan sebagai input waktu proses pada model simulasi

.

## 4.2. Identifikasi Sumber Data

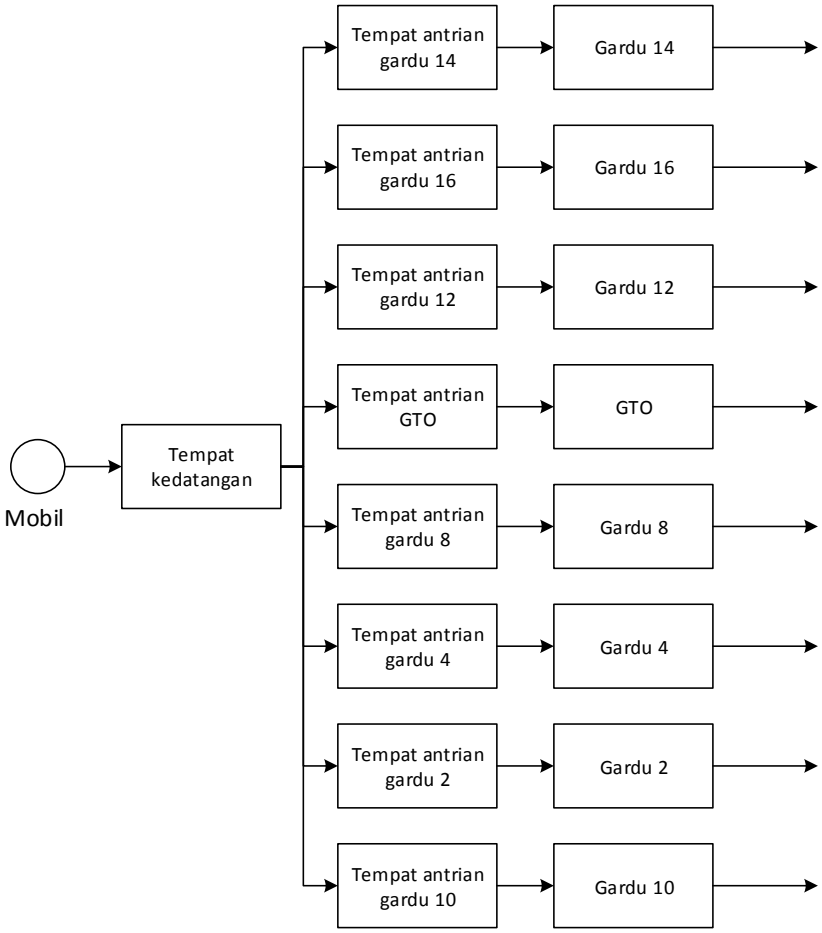
Kebutuhan data yang telah ditetapkan sebelumnya akan dipenuhi melalui beberapa sumber data yaitu:

1. Rekap data operasional PT. Jasamarga
2. Observasi langsung ke gerbang tol cluster 1 ( Pasteur dan Cileunyi)

3. Wawancara dengan pihak PT. Jasamarga, dalam hal ini adalah kepala shift di gerbang tol pasteur dan cileunyi.

## 4.3. Pengumpulan Data

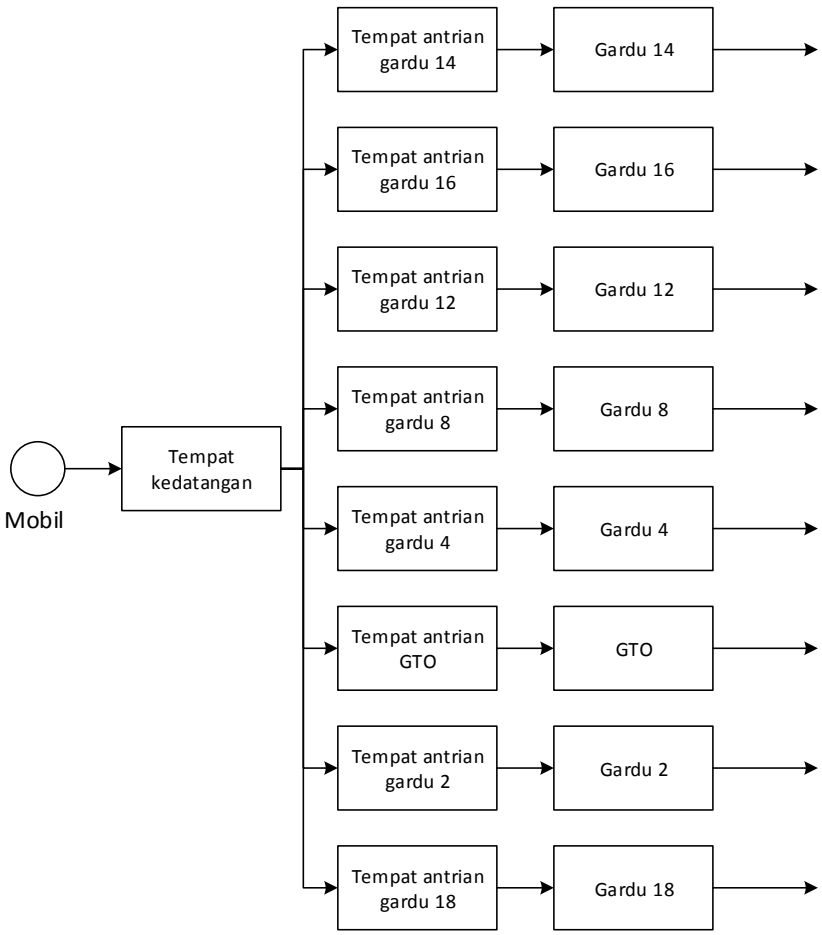
### 4.3.1.1. *Entity Flow Diagram* Gerbang Tol Pasteur




Gambar 4.1. EFD sistem antrian tol Pasteur

(sumber : hasil observasi langsung)

#### 4.3.1.2. *Entity Flow Diagram* Gerbang Tol Cileunyi




Gambar 4.2. EFD sistem antrian tol Cileunyi

(sumber : hasil observasi langsung)

### 4.3.2. Data Struktural

Data struktural adalah data yang melibatkan objek yang akan dimodelkan dalam simulasi, meliputi entitas dan lokasi. Hasil pengumpulan data struktural yang diperoleh adalah sebagai berikut:

1. Lokasi

   Lokasi merupakan tempat dimana suatu aktivitas dalam sistem dilakukan. Lokasi yang terlibat di dalam model simulasi gerbang tol Cluster 1 adalah:

a. Tempat kedatangan

   Merupakan tempat dimana awal mula datangnya entitas ke dalam sistem, dalam sistem antrian gerbang tol Cileunyi dan gerbang tol Pasteur tempat kedatangan adalah tol Purbaleunyi.

b. Lajur antrian

   Merupakan lokasi dimana entitas menunggu untuk masuk ke dalam gardu pembayaran tol. Jumlah lajur antrian sesuai dengan jumlah gardu yang tersedia. Panjang lajur antrian yang dianalisis adalah 250 meter.

c. Gardu pembayaran tol

   Merupakan lokasi dimana entitas melakukan aktivitas pembayaran tol. Di gerbang tol Pasteur dan Cileunyi terdapat 8 gardu pembayaran yang tersedia.

2. Entitas

   Merupakan objek yang diproses di dalam sistem. Entitas dalam model simulasi gerbang tol cluster 1 adalah mobil.

### 4.3.3. Data Operasional

Data operasional menjelaskan bagaimana sistem beroperasi. Terdiri dari waktu, tempat dimana dan bagaimana aktivitas berlangsung. Data operasional dikumpulkan dalam pembangunan model simulasi tol cluster 1 adalah aliran entitas.

1. Aliran Entitas

   Aliran entitas menggambarkan aliran lokasi yang ditempati oleh entitas dalam sistem, didefinisikan dengan mengikuti aliran pergerakan entitas. Aliran entitas digambarkan melalui *Entity Flow Diagram* atau EFD. EFD kemudian dijadikan acuan dalam menjelaskan deskripsi operasional sistem. EFD untuk model simulasi tol cluster 1 digambarkan pada gambar 4.1. Gambar 4.1 dipaparkan lebih lanjut melalui deskripsi operasional yang ditunjukkan pada tabel 4.1

Tabel 4.1. Deskripsi operasional sistem

| ***Location*** | ***Next location*** | ***Move trigger*** | ***Move resource*** |
|---|---|---|---|
| Kedatangan | Tempat antrian gardu 1 | *None* | *None* |
| | Tempat antrian gardu 2 | *None* | *None* |
| | Tempat antrian gardu 3 | *None* | *None* |
| | Tempat antrian GTO | *None* | *None* |
| | Tempat antrian gardu 5 | *None* | *None* |
| | Tempat antrian gardu 6 | *None* | *None* |
| | Tempat antrian gardu 7 | *None* | *None* |
| | Tempat antrian gardu 8 | *None* | *None* |
| Tempat antrian gardu 1 | Gardu 1 | ketika Gardu kosong | *None* |
| Tempat antrian gardu 2 | Gardu 2 | ketika Gardu kosong | *None* |
| Tempat antrian gardu 3 | Gardu 3 | ketika Gardu kosong | *None* |
| Tempat antrian GTO | GTO | ketika Gardu kosong | *None* |
| Tempat antrian gardu 5 | Gardu 5 | ketika Gardu kosong | *None* |
| Tempat antrian gardu 6 | Gardu 6 | ketika Gardu kosong | *None* |
| Tempat antrian gardu 7 | Gardu 7 | ketika Gardu kosong | *None* |
| Tempat antrian gardu 8 | Gardu 8 | ketika Gardu kosong | *None* |

(sumber: hasil observasi langsung)

### 4.3.4. Data Numeris

Data numeris adalah kumpulan informasi kuantitatif mengenai sistem. Data numeris yang dikumpulkan dalam perancangan model simulasi gerbang tol cluster 1 yaitu Pasteur dan Cileunyi adalah sebagai berikut:

1. Lalu lintas mobil Gerbang tol Pasteur

   Data lalu lintas mobil yang digunakan adalah data lalu lintas bulan Maret 2016 dan April 2016. Tabel 4.2 menunjukan data lalu lintas mobil bulan Maret 2016 dan tabel 4.3 menunjukan data lalu lintas mobil bulan April 2016.

Tabel 4.2. Data lalu lintas mobil per jam Maret 2016

| **JAM** | | **Data Lalu Lintas Bulan Maret (Pasteur)** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Tanggal** | **Total** | **Tanggal** | **Total** | **Tanggal** | **Total** | **Tanggal** | **Total** | **Tanggal** | **Total** | **Tanggal** | **Total** |
| **5:30** | **5:59** | 01-Mar | 439 | 02-Mar | 385 | 03-Mar | 156 | 04-Mar | 435 | 05-Mar | 317 | 06-Mar | 250 |
| **6:00** | **6:59** | | 2307 | | 2247 | | 2330 | | 2290 | | 1416 | | 839 |
| **7:00** | **7:59** | | 2278 | | 2235 | | 2418 | | 2299 | | 1837 | | 1368 |
| **8:00** | **8:59** | | 1947 | | 2281 | | 2188 | | 2109 | | 2089 | | 1775 |
| **9:00** | **9:59** | | 1918 | | 2065 | | 2007 | | 2048 | | 2045 | | 1978 |
| **10:00** | **10:59** | | 1894 | | 1944 | | 2020 | | 2052 | | 1995 | | 1909 |
| **11:00** | **11:59** | | 1942 | | 1936 | | 2057 | | 1966 | | 2015 | | 1917 |
| **12:00** | **12:59** | | 1793 | | 2100 | | 1834 | | 1488 | | 2072 | | 1812 |
| **13:00** | **13:59** | | 1664 | | 1874 | | 1707 | | 1950 | | 2065 | | 1835 |
| **14:00** | **14:59** | | 1850 | | 1846 | | 1854 | | 2036 | | 2119 | | 1902 |
| **15:00** | **15:59** | | 1911 | | 1938 | | 1941 | | 2049 | | 1834 | | 1704 |
| **16:00** | **16:59** | | 2046 | | 1909 | | 2211 | | 2043 | | 1770 | | 1795 |
| **17:00** | **17:59** | | 1907 | | 2067 | | 2086 | | 2059 | | 1815 | | 1581 |
| **18:00** | **18:59** | | 1789 | | 1606 | | 1713 | | 1770 | | 1768 | | 1457 |
| **19:00** | **19:59** | | 1421 | | 1503 | | 1515 | | 1793 | | 1660 | | 1309 |
| **20:00** | **20:59** | | 1089 | | 1222 | | 1151 | | 1533 | | 1491 | | 1418 |

Tabel 4.2. Data lalu lintas mobil per jam Maret 2016 (lanjutan)

| JAM | | Data Lalu Lintas Bulan Maret (Pasteur) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total |
| 21:00 | 21:59 | | 821 | | 867 | | 868 | | 1357 | | 1166 | | 1141 |
| 22:00 | 22:59 | | 623 | | 667 | | 684 | | 1135 | | 981 | | 965 |
| 23:00 | 23:59 | | 544 | | 568 | | 533 | | 920 | | 674 | | 733 |
| 0:00 | 0:59 | | 346 | | 403 | | 383 | | 715 | | 477 | | 476 |
| 1:00 | 1:59 | | 254 | | 236 | | 253 | | 573 | | 338 | | 298 |
| 2:00 | 2:59 | 02-Mar | 168 | 03-Mar | 156 | 04-Mar | 154 | 05-Mar | 443 | 06-Mar | 264 | 07-Mar | 222 |
| 3:00 | 3:59 | | 175 | | 166 | | 172 | | 342 | | 213 | | 227 |
| 4:00 | 4:59 | | 258 | | 192 | | 198 | | 422 | | 243 | | 300 |
| 5:00 | 5:30 | | 165 | | 185 | | 156 | | 209 | | 132 | | 250 |
| Total | | | 31384 | | 32413 | | 32433 | | 35827 | | 32664 | | 29211 |

Tabel 4.2. Data lalu lintas mobil per jam Maret 2016 (lanjutan)

| JAM | | Data Lalu Lintas Bulan Maret (Pasteur) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total |
| 5:30 | 5:59 | | 563 | | 383 | | 222 | | 508 | | 389 | | 336 |
| 6:00 | 6:59 | | 2428 | | 2323 | | 705 | | 2417 | | 2284 | | 1436 |
| 7:00 | 7:59 | | 2436 | | 2278 | | 872 | | 2420 | | 2348 | | 1969 |
| 8:00 | 8:59 | | 2346 | | 2225 | | 1375 | | 2293 | | 2016 | | 2059 |
| 9:00 | 9:59 | | 2152 | | 2107 | | 1823 | | 2180 | | 1824 | | 1991 |
| 10:00 | 10:59 | | 2035 | | 2021 | | 1990 | | 2115 | | 1826 | | 2081 |
| 11:00 | 11:59 | | 2012 | | 1983 | | 2017 | | 2069 | | 1995 | | 2058 |
| 12:00 | 12:59 | | 1827 | | 1880 | | 1981 | | 2083 | | 1669 | | 2100 |
| 13:00 | 13:59 | | 1806 | | 1861 | | 1678 | | 1983 | | 1958 | | 2149 |
| 14:00 | 14:59 | 07-Mar | 1646 | 08-Mar | 1899 | 09-Mar | 1663 | 10-Mar | 1828 | 11-Mar | 2196 | 12-Mar | 1837 |
| 15:00 | 15:59 | | 1681 | | 1943 | | 1536 | | 1850 | | 2092 | | 1762 |
| 16:00 | 16:59 | | 2075 | | 1986 | | 1553 | | 2072 | | 2147 | | 1853 |
| 17:00 | 17:59 | | 1966 | | 1745 | | 1657 | | 1986 | | 1770 | | 1592 |
| 18:00 | 18:59 | | 1714 | | 2037 | | 1474 | | 1925 | | 1859 | | 1458 |
| 19:00 | 19:59 | | 1348 | | 1641 | | 1295 | | 1441 | | 2030 | | 1522 |
| 20:00 | 20:59 | | 1040 | | 1536 | | 1058 | | 1095 | | 1601 | | 1370 |
| 21:00 | 21:59 | | 712 | | 1345 | | 946 | | 923 | | 1457 | | 1105 |
| 22:00 | 22:59 | | 633 | | 1121 | | 770 | | 794 | | 1218 | | 1034 |
| 23:00 | 23:59 | | 521 | | 873 | | 504 | | 622 | | 950 | | 739 |
| 0:00 | 0:59 | | 438 | | 773 | | 330 | | 468 | | 698 | | 559 |
| 1:00 | 1:59 | | 247 | | 558 | | 211 | | 264 | | 596 | | 375 |
| 2:00 | 2:59 | 08-Mar | 173 | 09-Mar | 294 | 10-Mar | 143 | 11-Mar | 199 | 12-Mar | 468 | 13-Mar | 250 |
| 3:00 | 3:59 | | 161 | | 232 | | 157 | | 143 | | 301 | | 173 |
| 4:00 | 4:59 | | 273 | | 258 | | 262 | | 221 | | 303 | | 203 |
| 5:00 | 5:30 | | 174 | | 139 | | 186 | | 161 | | 185 | | 121 |
| Total | | | 32233 | | 35302 | | 26222 | | 33899 | | 35995 | | 32011 |

(sumber: data PT. Jasamarga Maret 2016/Pasteur)

Tabel 4.2. Data lalu lintas mobil per jam Maret 2016 (lanjutan)

| JAM | | Data Lalu Lintas Bulan Maret (Pasteur) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total |
| 5:30 | 5:59 | | 213 | | 550 | | 473 | | 420 | | 468 | | 391 |
| 6:00 | 6:59 | | 761 | | 2466 | | 2347 | | 2352 | | 2344 | | 2308 |
| 7:00 | 7:59 | | 1173 | | 2522 | | 2357 | | 2259 | | 2349 | | 2287 |
| 8:00 | 8:59 | | 1644 | | 2217 | | 1991 | | 1990 | | 2150 | | 2005 |
| 9:00 | 9:59 | 13-Mar | 1845 | 14-Mar | 2080 | 15-Mar | 2051 | 16-Mar | 1950 | 17-Mar | 2087 | 18-Mar | 1879 |
| 10:00 | 10:59 | | 1664 | | 1997 | | 2079 | | 2100 | | 2042 | | 2028 |
| 11:00 | 11:59 | | 1739 | | 1933 | | 1957 | | 2097 | | 2055 | | 1999 |
| 12:00 | 12:59 | | 1727 | | 1782 | | 1908 | | 1873 | | 1832 | | 2118 |
| 13:00 | 13:59 | | 1657 | | 1677 | | 1758 | | 1767 | | 1828 | | 2027 |

Tabel 4.2. Data lalu lintas mobil per jam Maret 2016 (lanjutan)

| JAM | | Data Lalu Lintas Bulan Maret (Pasteur) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total |
| 14:00 | 14:59 | | 1727 | | 1767 | | 1674 | | 1872 | | 1795 | | 2133 |
| 15:00 | 15:59 | | 1651 | | 1845 | | 2028 | | 1978 | | 1877 | | 2097 |
| 16:00 | 16:59 | | 1648 | | 1991 | | 1944 | | 2067 | | 2105 | | 2144 |
| 17:00 | 17:59 | | 1665 | | 1643 | | 1886 | | 2004 | | 1965 | | 2142 |
| 18:00 | 18:59 | | 1429 | | 1910 | | 1557 | | 1644 | | 1764 | | 1831 |
| 19:00 | 19:59 | | 1334 | | 1366 | | 1395 | | 1386 | | 1476 | | 1735 |
| 20:00 | 20:59 | | 1212 | | 980 | | 1021 | | 1148 | | 1190 | | 1527 |
| 21:00 | 21:59 | | 1150 | | 758 | | 874 | | 916 | | 868 | | 1283 |
| 22:00 | 22:59 | | 981 | | 625 | | 736 | | 770 | | 849 | | 1088 |
| 23:00 | 23:59 | | 615 | | 580 | | 551 | | 574 | | 615 | | 890 |
| 0:00 | 0:59 | | 433 | | 333 | | 386 | | 350 | | 429 | | 784 |
| 1:00 | 1:59 | | 308 | | 227 | | 269 | | 245 | | 269 | | 586 |
| 2:00 | 2:59 | 14-Mar | 227 | 15-Mar | 157 | 16-Mar | 157 | 17-Mar | 181 | 18-Mar | 193 | 19-Mar | 445 |
| 3:00 | 3:59 | | 199 | | 156 | | 163 | | 167 | | 171 | | 278 |
| 4:00 | 4:59 | | 314 | | 204 | | 219 | | 232 | | 235 | | 314 |
| 5:00 | 5:30 | | 230 | | 148 | | 150 | | 178 | | 186 | | 163 |
| Total | | | 27316 | | 31766 | | 31781 | | 32342 | | 32956 | | 36319 |

Tabel 4.2. Data lalu lintas mobil per jam Maret 2016 (lanjutan)

| JAM | | Data Lalu Lintas Bulan Maret (Pasteur) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total |
| 5:30 | 5:59 | | 286 | | 274 | | 577 | | 441 | | 407 | | 380 |
| 6:00 | 6:59 | | 1332 | | 892 | | 2528 | | 2352 | | 2330 | | 1971 |
| 7:00 | 7:59 | | 1952 | | 1398 | | 2490 | | 2354 | | 2446 | | 2171 |
| 8:00 | 8:59 | | 2132 | | 1622 | | 2058 | | 2067 | | 2198 | | 1943 |
| 9:00 | 9:59 | | 2079 | | 1856 | | 2072 | | 2004 | | 2112 | | 2010 |
| 10:00 | 10:59 | | 2055 | | 1849 | | 1948 | | 2071 | | 2091 | | 2072 |
| 11:00 | 11:59 | | 2110 | | 1834 | | 1918 | | 1705 | | 2067 | | 2061 |
| 12:00 | 12:59 | | 2138 | | 1685 | | 1807 | | 1801 | | 1812 | | 2099 |
| 13:00 | 13:59 | | 2031 | | 1632 | | 1461 | | 1870 | | 1904 | | 2135 |
| 14:00 | 14:59 | 19-Mar | 2001 | 20-Mar | 1688 | 21-Mar | 1603 | 22-Mar | 1822 | 23-Mar | 1846 | 24-Mar | 2042 |
| 15:00 | 15:59 | | 1722 | | 1566 | | 1811 | | 1814 | | 2005 | | 1704 |
| 16:00 | 16:59 | | 1935 | | 1681 | | 1878 | | 1934 | | 1871 | | 1463 |
| 17:00 | 17:59 | | 1782 | | 1745 | | 1535 | | 1946 | | 2000 | | 1361 |
| 18:00 | 18:59 | | 1630 | | 1489 | | 1770 | | 1939 | | 2069 | | 2076 |
| 19:00 | 19:59 | | 1570 | | 1452 | | 1543 | | 1412 | | 1650 | | 1860 |
| 20:00 | 20:59 | | 1320 | | 1246 | | 1060 | | 1103 | | 1229 | | 1352 |
| 21:00 | 21:59 | | 1078 | | 1046 | | 886 | | 862 | | 893 | | 1266 |
| 22:00 | 22:59 | | 935 | | 840 | | 693 | | 685 | | 813 | | 1196 |
| 23:00 | 23:59 | | 647 | | 646 | | 516 | | 587 | | 621 | | 965 |
| 0:00 | 0:59 | | 540 | | 451 | | 331 | | 324 | | 472 | | 1202 |
| 1:00 | 1:59 | | 295 | | 232 | | 204 | | 225 | | 322 | | 822 |
| 2:00 | 2:59 | 20-Mar | 188 | 21-Mar | 197 | 22-Mar | 143 | 23-Mar | 168 | 24-Mar | 207 | 25-Mar | 556 |
| 3:00 | 3:59 | | 191 | | 168 | | 157 | | 169 | | 176 | | 500 |
| 4:00 | 4:59 | | 190 | | 306 | | 213 | | 234 | | 257 | | 599 |
| 5:00 | 5:30 | | 149 | | 274 | | 177 | | 166 | | 180 | | 285 |
| Total | | | 32139 | | 27795 | | 31202 | | 31889 | | 33798 | | 35806 |

(sumber: data PT. Jasamarga Maret 2016/Pasteur)

Tabel 4.2. Data lalu lintas mobil per jam Maret 2016 (lanjutan)

| JAM | | Data Lalu Lintas Bulan Maret (Pasteur) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Tgl | Total | Tgl | Total | Tgl | Total | Tgl | Total | Tgl | Total | Tgl | Total | Tgl | Total |
| 5:30 | 5:59 | 25-Mar | 367 | 26-Mar | 332 | 27-Mar | 257 | 28-Mar | 625 | 29-Mar | 424 | 30-Mar | 425 | 31-Mar | 407 |
| 6:00 | 6:59 | | 1080 | | 1144 | | 854 | | 2454 | | 2328 | | 2261 | | 2197 |
| 7:00 | 7:59 | | 1441 | | 1652 | | 1188 | | 2489 | | 2315 | | 2302 | | 2302 |
| 8:00 | 8:59 | | 1756 | | 1969 | | 1455 | | 2306 | | 2046 | | 2077 | | 2076 |
| 9:00 | 9:59 | | 1945 | | 1937 | | 1759 | | 2052 | | 2033 | | 2015 | | 2001 |
| 10:00 | 10:59 | | 1983 | | 2024 | | 1645 | | 2079 | | 2021 | | 2032 | | 2022 |
| 11:00 | 11:59 | | 1957 | | 1648 | | 1742 | | 2121 | | 1983 | | 1978 | | 1945 |
| 12:00 | 12:59 | | 1841 | | 1602 | | 1665 | | 2008 | | 1937 | | 1791 | | 2048 |
| 13:00 | 13:59 | | 1751 | | 1635 | | 1746 | | 1953 | | 1717 | | 1739 | | 1828 |
| 14:00 | 14:59 | | 1946 | | 1366 | | 1734 | | 1833 | | 1818 | | 1795 | | 1793 |
| 15:00 | 15:59 | | 1896 | | 1449 | | 1675 | | 1865 | | 1814 | | 1835 | | 1935 |
| 16:00 | 16:59 | | 1940 | | 1584 | | 1692 | | 1951 | | 1857 | | 2004 | | 2033 |
| 17:00 | 17:59 | | 1808 | | 1459 | | 1734 | | 1703 | | 1878 | | 1884 | | 1733 |
| 18:00 | 18:59 | | 1467 | | 1324 | | 1644 | | 1902 | | 1546 | | 1777 | | 1902 |
| 19:00 | 19:59 | | 1257 | | 1502 | | 1633 | | 1537 | | 1412 | | 1338 | | 1744 |
| 20:00 | 20:59 | | 1017 | | 1360 | | 1423 | | 968 | | 1201 | | 1040 | | 1146 |
| 21:00 | 21:59 | | 931 | | 1034 | | 1199 | | 781 | | 875 | | 811 | | 859 |
| 22:00 | 22:59 | | 831 | | 957 | | 1039 | | 702 | | 648 | | 787 | | 786 |
| 23:00 | 23:59 | | 667 | | 741 | | 766 | | 509 | | 585 | | 545 | | 726 |
| 0:00 | 0:59 | 26-Mar | 508 | 27-Mar | 600 | 28-Mar | 605 | 29-Mar | 337 | 30-Mar | 316 | 31-Mar | 399 | 01-Apr | 489 |
| 1:00 | 1:59 | | 340 | | 381 | | 317 | | 211 | | 239 | | 224 | | 277 |
| 2:00 | 2:59 | | 234 | | 223 | | 249 | | 161 | | 137 | | 172 | | 186 |
| 3:00 | 3:59 | | 199 | | 187 | | 241 | | 144 | | 153 | | 146 | | 170 |
| 4:00 | 4:59 | | 252 | | 222 | | 326 | | 219 | | 202 | | 225 | | 206 |
| 5:00 | 5:30 | | 171 | | 145 | | 238 | | 160 | | 162 | | 165 | | 150 |
| Total | | | 29414 | | 28332 | | 28588 | | 32910 | | 31485 | | 31602 | | 32811 |

(sumber: data PT. Jasamarga Maret 2016/Pasteur)

Tabel 4.3. Data lalu lintas mobil per jam April 2016

| JAM | | Data Lalu Lintas Bulan April (Pasteur) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total |
| 5:30 | 5:59 | 01-Apr | 412 | 02-Apr | 331 | 03-Apr | 251 | 04-Apr | 592 | 05-Apr | 434 | 06-Apr | 443 |
| 6:00 | 6:59 | | 2279 | | 1259 | | 910 | | 2401 | | 2303 | | 2256 |
| 7:00 | 7:59 | | 2373 | | 1858 | | 1383 | | 2434 | | 2420 | | 2405 |
| 8:00 | 8:59 | | 2101 | | 2116 | | 1751 | | 2248 | | 2108 | | 1950 |
| 9:00 | 9:59 | | 1986 | | 2092 | | 2016 | | 2094 | | 1916 | | 1953 |
| 10:00 | 10:59 | | 2088 | | 2047 | | 2027 | | 2021 | | 1933 | | 1969 |
| 11:00 | 11:59 | | 2062 | | 1997 | | 1884 | | 2032 | | 1932 | | 1941 |
| 12:00 | 12:59 | | 1662 | | 1978 | | 1827 | | 1859 | | 1914 | | 1682 |
| 13:00 | 13:59 | | 1902 | | 2048 | | 1724 | | 1853 | | 1785 | | 1848 |
| 14:00 | 14:59 | | 2062 | | 2108 | | 1689 | | 1801 | | 1704 | | 1772 |
| 15:00 | 15:59 | | 1628 | | 1916 | | 1635 | | 1930 | | 1832 | | 1990 |
| 16:00 | 16:59 | | 1783 | | 1883 | | 1785 | | 2029 | | 1979 | | 1987 |
| 17:00 | 17:59 | | 1432 | | 1794 | | 1446 | | 1939 | | 1541 | | 1340 |
| 18:00 | 18:59 | | 2052 | | 1543 | | 1704 | | 1676 | | 1936 | | 1796 |
| 19:00 | 19:59 | | 2109 | | 1487 | | 1426 | | 1431 | | 1698 | | 1942 |
| 20:00 | 20:59 | | 1775 | | 1270 | | 1187 | | 1062 | | 1083 | | 1102 |
| 21:00 | 21:59 | | 1336 | | 1184 | | 1025 | | 837 | | 879 | | 879 |
| 22:00 | 22:59 | | 1064 | | 1002 | | 837 | | 694 | | 756 | | 744 |
| 23:00 | 23:59 | | 902 | | 893 | | 691 | | 521 | | 503 | | 594 |
| 0:00 | 0:59 | 02-Apr | 599 | 03-Apr | 659 | 04-Apr | 417 | 05-Apr | 321 | 06-Apr | 353 | 07-Apr | 416 |
| 1:00 | 1:59 | | 690 | | 409 | | 372 | | 239 | | 218 | | 215 |
| 2:00 | 2:59 | | 511 | | 265 | | 445 | | 172 | | 174 | | 164 |
| 3:00 | 3:59 | | 419 | | 211 | | 341 | | 173 | | 161 | | 154 |
| 4:00 | 4:59 | | 326 | | 251 | | 308 | | 210 | | 245 | | 190 |
| 5:00 | 5:30 | | 214 | | 167 | | 226 | | 170 | | 149 | | 184 |
| Total | | | 35553 | | 32601 | | 29081 | | 32569 | | 31807 | | 31732 |

Tabel 4.3. Data lalu lintas mobil per jam April 2016 (lanjutan)

| JAM | | Data Lalu Lintas Bulan April (Pasteur) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total |
| 5:30 | 5:59 | | 458 | | 448 | | 366 | | 250 | | 538 | | 428 |
| 6:00 | 6:59 | | 2270 | | 2307 | | 1162 | | 832 | | 2504 | | 2278 |
| 7:00 | 7:59 | | 2371 | | 2352 | | 1806 | | 1339 | | 2495 | | 2308 |
| 8:00 | 8:59 | | 2206 | | 2149 | | 2172 | | 1683 | | 2070 | | 2015 |
| 9:00 | 9:59 | | 2125 | | 1996 | | 2096 | | 1891 | | 1940 | | 2105 |
| 10:00 | 10:59 | | 2091 | | 2048 | | 2078 | | 1926 | | 2029 | | 2098 |
| 11:00 | 11:59 | | 2141 | | 2021 | | 2041 | | 1772 | | 1923 | | 2130 |
| 12:00 | 12:59 | | 1905 | | 1798 | | 2133 | | 1703 | | 2028 | | 1818 |
| 13:00 | 13:59 | | 1978 | | 1993 | | 1946 | | 1845 | | 1907 | | 1777 |
| 14:00 | 14:59 | 07-Apr | 1810 | 08-Apr | 2155 | 09-Apr | 2133 | 10-Apr | 1811 | 11-Apr | 1612 | 12-Apr | 1892 |
| 15:00 | 15:59 | | 1828 | | 2052 | | 2075 | | 1477 | | 2065 | | 1881 |
| 16:00 | 16:59 | | 1262 | | 1882 | | 1703 | | 1886 | | 1938 | | 2073 |
| 17:00 | 17:59 | | 1709 | | 1415 | | 1528 | | 1873 | | 1843 | | 1833 |
| 18:00 | 18:59 | | 1894 | | 1578 | | 1619 | | 1522 | | 1622 | | 1705 |
| 19:00 | 19:59 | | 1864 | | 2104 | | 1478 | | 1494 | | 1291 | | 1319 |
| 20:00 | 20:59 | | 1065 | | 1745 | | 1335 | | 1427 | | 1048 | | 1112 |
| 21:00 | 21:59 | | 916 | | 1432 | | 1229 | | 1199 | | 855 | | 940 |
| 22:00 | 22:59 | | 767 | | 1103 | | 1014 | | 1004 | | 659 | | 722 |
| 23:00 | 23:59 | | 663 | | 943 | | 842 | | 896 | | 450 | | 582 |
| 0:00 | 0:59 | | 459 | | 695 | | 617 | | 560 | | 331 | | 363 |
| 1:00 | 1:59 | | 287 | | 610 | | 381 | | 335 | | 206 | | 260 |
| 2:00 | 2:59 | 08-Apr | 204 | 09-Apr | 409 | 10-Apr | 259 | 11-Apr | 213 | 12-Apr | 157 | 13-Apr | 238 |
| 3:00 | 3:59 | | 160 | | 359 | | 234 | | 201 | | 150 | | 189 |
| 4:00 | 4:59 | | 221 | | 349 | | 271 | | 343 | | 218 | | 274 |
| 5:00 | 5:30 | | 166 | | 178 | | 138 | | 237 | | 166 | | 198 |
| Total | | | 32654 | | 35943 | | 32518 | | 29482 | | 31879 | | 32340 |

(sumber: data PT. Jasamarga April 2016/Pasteur)

Tabel 4.3. Data lalu lintas mobil per jam April 2016 (lanjutan)

| JAM | | Data Lalu Lintas Bulan April (Pasteur) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total |
| 5:30 | 5:59 | | 512 | | 415 | | 404 | | 389 | | 267 | | 634 |
| 6:00 | 6:59 | | 2332 | | 2320 | | 2172 | | 1398 | | 891 | | 2379 |
| 7:00 | 7:59 | | 2240 | | 2363 | | 2307 | | 1943 | | 1430 | | 2287 |
| 8:00 | 8:59 | | 2045 | | 2183 | | 2108 | | 2095 | | 1724 | | 2374 |
| 9:00 | 9:59 | | 1970 | | 2148 | | 1911 | | 2100 | | 1951 | | 2129 |
| 10:00 | 10:59 | | 2044 | | 1970 | | 1912 | | 2084 | | 1787 | | 2065 |
| 11:00 | 11:59 | | 1732 | | 2036 | | 2091 | | 1996 | | 1804 | | 1857 |
| 12:00 | 12:59 | | 1994 | | 2004 | | 1814 | | 2091 | | 1803 | | 1880 |
| 13:00 | 13:59 | | 1864 | | 1764 | | 2030 | | 2079 | | 1798 | | 1804 |
| 14:00 | 14:59 | 13-Apr | 1794 | 14-Apr | 1806 | 15-Apr | 2178 | 16-Apr | 2002 | 17-Apr | 1723 | 18-Apr | 1845 |
| 15:00 | 15:59 | | 1902 | | 2022 | | 1983 | | 1904 | | 1785 | | 1936 |
| 16:00 | 16:59 | | 1827 | | 2127 | | 2060 | | 1787 | | 1580 | | 1892 |
| 17:00 | 17:59 | | 1697 | | 1973 | | 2030 | | 1869 | | 1466 | | 1824 |
| 18:00 | 18:59 | | 1804 | | 1598 | | 1863 | | 1632 | | 1978 | | 1705 |
| 19:00 | 19:59 | | 1508 | | 1426 | | 1835 | | 1567 | | 1401 | | 1359 |
| 20:00 | 20:59 | | 1130 | | 1148 | | 1585 | | 1354 | | 1208 | | 1061 |
| 21:00 | 21:59 | | 971 | | 1041 | | 1347 | | 1238 | | 1171 | | 813 |
| 22:00 | 22:59 | | 766 | | 780 | | 1328 | | 989 | | 961 | | 633 |
| 23:00 | 23:59 | | 640 | | 649 | | 1028 | | 781 | | 728 | | 490 |
| 0:00 | 0:59 | | 394 | | 410 | | 852 | | 546 | | 496 | | 319 |
| 1:00 | 1:59 | | 215 | | 359 | | 647 | | 341 | | 334 | | 283 |
| 2:00 | 2:59 | 14-Apr | 151 | 15-Apr | 230 | 16-Apr | 453 | 17-Apr | 251 | 18-Apr | 225 | 19-Apr | 176 |
| 3:00 | 3:59 | | 156 | | 198 | | 351 | | 184 | | 217 | | 181 |
| 4:00 | 4:59 | | 229 | | 252 | | 351 | | 221 | | 355 | | 223 |
| 5:00 | 5:30 | | 162 | | 165 | | 209 | | 141 | | 244 | | 174 |
| Total | | | 31917 | | 33222 | | 36640 | | 32841 | | 29083 | | 32149 |

Tabel 4.3. Data lalu lintas mobil per jam April 2016 (lanjutan)

| JAM | | Data Lalu Lintas Bulan April (Pasteur) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total |
| 5:30 | 5:59 | | 425 | | 393 | | 435 | | 419 | | 404 | | 268 |
| 6:00 | 6:59 | | 2345 | | 2380 | | 2330 | | 2312 | | 1524 | | 1113 |
| 7:00 | 7:59 | | 2502 | | 2384 | | 2386 | | 2411 | | 1409 | | 1493 |
| 8:00 | 8:59 | | 2083 | | 2166 | | 1829 | | 2244 | | 1200 | | 1825 |
| 9:00 | 9:59 | | 2058 | | 2173 | | 1824 | | 2111 | | 1249 | | 1929 |
| 10:00 | 10:59 | | 2000 | | 2103 | | 2152 | | 2073 | | 1304 | | 1973 |
| 11:00 | 11:59 | | 1984 | | 1955 | | 2154 | | 1777 | | 1187 | | 1712 |
| 12:00 | 12:59 | | 1842 | | 1889 | | 1999 | | 1653 | | 1224 | | 1643 |
| 13:00 | 13:59 | | 1694 | | 1729 | | 1884 | | 1985 | | 1428 | | 1736 |
| 14:00 | 14:59 | 19-Apr | 1824 | 20-Apr | 1715 | 21-Apr | 1925 | 22-Apr | 2047 | 23-Apr | 1577 | 24-Apr | 1694 |
| 15:00 | 15:59 | | 1912 | | 1776 | | 1774 | | 2095 | | 1606 | | 1642 |
| 16:00 | 16:59 | | 2070 | | 2078 | | 1995 | | 1624 | | 1750 | | 1618 |
| 17:00 | 17:59 | | 1987 | | 1988 | | 1980 | | 963 | | 1279 | | 1496 |
| 18:00 | 18:59 | | 1668 | | 1906 | | 1989 | | 2159 | | 1814 | | 1285 |
| 19:00 | 19:59 | | 1438 | | 1434 | | 1597 | | 2041 | | 1384 | | 1600 |
| 20:00 | 20:59 | | 1213 | | 1118 | | 1211 | | 1645 | | 1288 | | 1342 |
| 21:00 | 21:59 | | 874 | | 872 | | 992 | | 1384 | | 1132 | | 1151 |
| 22:00 | 22:59 | | 644 | | 720 | | 770 | | 1125 | | 939 | | 921 |
| 23:00 | 23:59 | | 483 | | 561 | | 611 | | 908 | | 737 | | 636 |
| 0:00 | 0:59 | | 332 | | 422 | | 497 | | 761 | | 515 | | 425 |
| 1:00 | 1:59 | | 238 | | 366 | | 399 | | 585 | | 400 | | 299 |
| 2:00 | 2:59 | 20-Apr | 183 | 21-Apr | 243 | 22-Apr | 252 | 23-Apr | 441 | 24-Apr | 220 | 25-Apr | 212 |
| 3:00 | 3:59 | | 162 | | 208 | | 250 | | 398 | | 207 | | 193 |
| 4:00 | 4:59 | | 202 | | 249 | | 262 | | 389 | | 202 | | 294 |
| 5:00 | 5:30 | | 182 | | 190 | | 172 | | 216 | | 162 | | 222 |
| Total | | | 32163 | | 32828 | | 33497 | | 35550 | | 25979 | | 28500 |

(sumber: data PT. Jasamarga April 2016/Pasteur)

Tabel 4.3. Data lalu lintas mobil per jam April 2016 (lanjutan)

| JAM | | Data Lalu Lintas Bulan April (Pasteur) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total | Tanggal | Total |
| 5:30 | 5:59 | | 644 | | 443 | | 456 | | 457 | | 427 | | 378 |
| 6:00 | 6:59 | | 2492 | | 2266 | | 2338 | | 2327 | | 2307 | | 1387 |
| 7:00 | 7:59 | | 2466 | | 2407 | | 2410 | | 2381 | | 2373 | | 1932 |
| 8:00 | 8:59 | | 2336 | | 2182 | | 2206 | | 2058 | | 1974 | | 2110 |
| 9:00 | 9:59 | | 2014 | | 2167 | | 2042 | | 1975 | | 1834 | | 2005 |
| 10:00 | 10:59 | | 2150 | | 2102 | | 2145 | | 1927 | | 1847 | | 2017 |
| 11:00 | 11:59 | | 1923 | | 2056 | | 2127 | | 2140 | | 2061 | | 2047 |
| 12:00 | 12:59 | | 1885 | | 1805 | | 1962 | | 2094 | | 1877 | | 2094 |
| 13:00 | 13:59 | | 1712 | | 1858 | | 1915 | | 1760 | | 1976 | | 2048 |
| 14:00 | 14:59 | 25-Apr | 1752 | 26-Apr | 1910 | 27-Apr | 1871 | 28-Apr | 1788 | 29-Apr | 2108 | 30-Apr | 2033 |
| 15:00 | 15:59 | | 1927 | | 1946 | | 1970 | | 1803 | | 1902 | | 1867 |
| 16:00 | 16:59 | | 1777 | | 1972 | | 2024 | | 1213 | | 2108 | | 1818 |
| 17:00 | 17:59 | | 1437 | | 1929 | | 1820 | | 2269 | | 1849 | | 1886 |
| 18:00 | 18:59 | | 1974 | | 1572 | | 1642 | | 1897 | | 1726 | | 1503 |
| 19:00 | 19:59 | | 1483 | | 1354 | | 1394 | | 2003 | | 1903 | | 1475 |
| 20:00 | 20:59 | | 1045 | | 1064 | | 1040 | | 1201 | | 1545 | | 1264 |
| 21:00 | 21:59 | | 856 | | 833 | | 863 | | 928 | | 1151 | | 1163 |
| 22:00 | 22:59 | | 672 | | 673 | | 724 | | 798 | | 997 | | 1145 |
| 23:00 | 23:59 | | 490 | | 548 | | 605 | | 663 | | 929 | | 762 |
| 0:00 | 0:59 | | 371 | | 335 | | 421 | | 431 | | 691 | | 663 |
| 1:00 | 1:59 | | 196 | | 260 | | 245 | | 298 | | 637 | | 467 |
| 2:00 | 2:59 | 26-Apr | 169 | 27-Apr | 191 | 28-Apr | 201 | 29-Apr | 191 | 30-Apr | 536 | 01-Mei | 333 |
| 3:00 | 3:59 | | 134 | | 189 | | 156 | | 152 | | 506 | | 272 |
| 4:00 | 4:59 | | 233 | | 251 | | 235 | | 246 | | 330 | | 266 |
| 5:00 | 5:30 | | 160 | | 184 | | 156 | | 178 | | 225 | | 160 |
| Total | | | 32138 | | 32313 | | 32812 | | 33000 | | 35594 | | 32935 |

(sumber: data PT. Jasamarga April 2016/Pasteur)

2. Lalu lintas mobil Gerbang tol Cileunyi

   Data lalu lintas mobil yang digunakan adalah data lalu lintas bulan Maret 2016 dan April 2016. Tabel 4.4 menunjukan data lalu lintas mobil bulan Maret 2016 dan tabel 4.5 menunjukan data lalu lintas mobil bulan April 2016.

Tabel 4.4. Data lalu lintas mobil per jam Maret 2016

| JAM | | TANGGAL | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 0:00:00 | 0:59:00 | 471 | 479 | 536 | 529 | 795 | 695 | 583 | 527 | 692 | 499 | 610 |
| 1:00:00 | 1:59:00 | 415 | 420 | 478 | 447 | 719 | 598 | 475 | 491 | 609 | 404 | 518 |
| 2:00:00 | 2:59:00 | 415 | 418 | 391 | 446 | 677 | 484 | 400 | 433 | 501 | 330 | 462 |
| 3:00:00 | 3:59:00 | 418 | 386 | 416 | 495 | 587 | 427 | 393 | 415 | 439 | 393 | 494 |
| 4:00:00 | 4:59:00 | 448 | 397 | 411 | 539 | 630 | 463 | 443 | 448 | 464 | 401 | 542 |
| 5:00:00 | 5:59:00 | 625 | 590 | 650 | 691 | 803 | 611 | 827 | 642 | 599 | 680 | 688 |
| 6:00:00 | 6:59:00 | 981 | 990 | 1041 | 1025 | 1035 | 959 | 1120 | 1038 | 823 | 1083 | 1026 |
| 7:00:00 | 7:59:00 | 1447 | 1350 | 1428 | 1423 | 1325 | 1169 | 1505 | 1497 | 861 | 1485 | 1384 |
| 8:00:00 | 8:59:00 | 1315 | 1380 | 1443 | 1465 | 1449 | 1296 | 1452 | 1388 | 1082 | 1523 | 1343 |
| 9:00:00 | 9:59:00 | 1565 | 1557 | 1664 | 1565 | 1558 | 1307 | 1596 | 1555 | 1481 | 1650 | 1403 |
| 10:00:00 | 10:59:00 | 1539 | 1732 | 1425 | 1663 | 1503 | 1359 | 1666 | 1483 | 1619 | 1667 | 1479 |
| 11:00:00 | 11:59:00 | 1606 | 1613 | 1824 | 1527 | 1893 | 1226 | 1563 | 1600 | 1485 | 1684 | 1472 |
| 12:00:00 | 12:59:00 | 1448 | 1484 | 1492 | 1204 | 1871 | 1204 | 1516 | 1450 | 1327 | 1513 | 1180 |
| 13:00:00 | 13:59:00 | 1362 | 1462 | 1377 | 1303 | 1626 | 1394 | 1271 | 1335 | 1148 | 1424 | 1188 |
| 14:00:00 | 14:59:00 | 1505 | 1478 | 1639 | 1757 | 1832 | 1655 | 1731 | 1757 | 1339 | 1512 | 1529 |
| 15:00:00 | 15:59:00 | 1497 | 1625 | 1571 | 1689 | 1850 | 1500 | 1546 | 1651 | 1222 | 1579 | 1682 |
| 16:00:00 | 16:59:00 | 1687 | 1625 | 1780 | 1813 | 1756 | 1644 | 1833 | 1689 | 1201 | 1825 | 1923 |
| 17:00:00 | 17:59:00 | 1653 | 1759 | 1825 | 1773 | 1730 | 1549 | 1961 | 1839 | 1489 | 1862 | 1957 |
| 18:00:00 | 18:59:00 | 1467 | 1461 | 1513 | 1694 | 1736 | 1262 | 1632 | 1686 | 1081 | 1502 | 1892 |
| 19:00:00 | 19:59:00 | 1307 | 1334 | 1461 | 1731 | 1828 | 1213 | 1470 | 1611 | 1147 | 1496 | 1827 |
| 20:00:00 | 20:59:00 | 1147 | 1198 | 1199 | 1577 | 1467 | 1305 | 1177 | 1500 | 955 | 1140 | 1571 |
| 21:00:00 | 21:59:00 | 960 | 952 | 1030 | 1382 | 1227 | 1157 | 929 | 1253 | 912 | 948 | 1362 |
| 22:00:00 | 22:59:00 | 744 | 777 | 814 | 1364 | 1144 | 952 | 787 | 1075 | 715 | 823 | 1278 |
| 23:00:00 | 23:59:00 | 576 | 587 | 642 | 949 | 837 | 658 | 555 | 743 | 553 | 679 | 870 |
| Total | | 26598 | 27054 | 28050 | 30051 | 31878 | 26087 | 28431 | 29106 | 23744 | 28102 | 29680 |

(sumber: data PT. Jasamarga Maret 2016/ Cileunyi)

Tabel 4.4. Data lalu lintas mobil per jam Maret 2016 (lanjutan)

| JAM | | TANGGAL | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 0:00:00 | 0:59:00 | 816 | 856 | 565 | 524 | 543 | 538 | 651 | 704 | 640 | 636 | 491 |
| 1:00:00 | 1:59:00 | 685 | 646 | 502 | 500 | 490 | 535 | 391 | 665 | 546 | 434 | 466 |
| 2:00:00 | 2:59:00 | 728 | 476 | 372 | 378 | 450 | 409 | 386 | 613 | 425 | 380 | 421 |
| 3:00:00 | 3:59:00 | 656 | 529 | 433 | 412 | 416 | 443 | 453 | 619 | 445 | 437 | 406 |
| 4:00:00 | 4:59:00 | 533 | 477 | 444 | 490 | 301 | 465 | 494 | 554 | 421 | 436 | 447 |
| 5:00:00 | 5:59:00 | 736 | 631 | 740 | 703 | 763 | 709 | 682 | 689 | 645 | 767 | 642 |
| 6:00:00 | 6:59:00 | 1105 | 1018 | 1218 | 985 | 676 | 1047 | 988 | 986 | 1101 | 1118 | 995 |
| 7:00:00 | 7:59:00 | 1186 | 1125 | 1523 | 1382 | 764 | 1370 | 1295 | 1140 | 1062 | 1612 | 1453 |
| 8:00:00 | 8:59:00 | 1349 | 1256 | 1430 | 1519 | 1818 | 1459 | 1277 | 1447 | 1113 | 1437 | 1500 |
| 9:00:00 | 9:59:00 | 1513 | 1320 | 1599 | 1544 | 1243 | 1600 | 1445 | 1596 | 1235 | 1578 | 1544 |
| 10:00:00 | 10:59:00 | 1708 | 1384 | 1617 | 1546 | 1437 | 1633 | 1541 | 1664 | 1300 | 1621 | 1555 |

Tabel 4.4. Data lalu lintas mobil per jam Maret 2016 (lanjutan)

| JAM | | TANGGAL | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 11:00:00 | 11:59:00 | 1805 | 1327 | 1568 | 1585 | 1344 | 1535 | 1378 | 1637 | 1208 | 1627 | 1428 |
| 12:00:00 | 12:59:00 | 1660 | 1230 | 1523 | 1513 | 1245 | 1413 | 1110 | 1631 | 1213 | 1521 | 1376 |
| 13:00:00 | 13:59:00 | 1509 | 1349 | 1413 | 1383 | 1278 | 1406 | 1244 | 1620 | 1286 | 1415 | 1338 |
| 14:00:00 | 14:59:00 | 1810 | 1497 | 1613 | 1593 | 1555 | 1420 | 1606 | 1758 | 1394 | 1401 | 1483 |
| 15:00:00 | 15:59:00 | 1702 | 1554 | 1686 | 1624 | 1387 | 1534 | 1538 | 1713 | 1389 | 1468 | 1444 |
| 16:00:00 | 16:59:00 | 1712 | 1545 | 1896 | 1610 | 1527 | 1716 | 1765 | 1772 | 1463 | 1685 | 1622 |
| 17:00:00 | 17:59:00 | 1675 | 1502 | 1928 | 1623 | 1617 | 1734 | 1812 | 1880 | 1520 | 1697 | 1755 |
| 18:00:00 | 18:59:00 | 1605 | 1319 | 1564 | 1437 | 1378 | 1492 | 1722 | 1742 | 1164 | 1499 | 1551 |
| 19:00:00 | 19:59:00 | 1681 | 1253 | 1324 | 1183 | 1374 | 1372 | 1734 | 1445 | 1260 | 1504 | 1626 |
| 20:00:00 | 20:59:00 | 1478 | 1287 | 1131 | 1171 | 1168 | 1161 | 1480 | 1418 | 1131 | 1100 | 1072 |
| 21:00:00 | 21:59:00 | 1256 | 1098 | 938 | 1006 | 940 | 922 | 1247 | 1171 | 941 | 919 | 1001 |
| 22:00:00 | 22:59:00 | 1390 | 997 | 758 | 821 | 843 | 790 | 1060 | 1212 | 783 | 815 | 699 |
| 23:00:00 | 23:59:00 | 1017 | 672 | 623 | 706 | 623 | 660 | 781 | 792 | 571 | 570 | 625 |
| Total | | 31315 | 26348 | 28408 | 27238 | 25180 | 27363 | 28080 | 30468 | 24256 | 27677 | 26940 |

(sumber: data PT. Jasamarga Maret 2016/ Cileunyi)

Tabel 4.4. Data lalu lintas mobil per jam Maret 2016 (lanjutan)

| JAM | | TANGGAL | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| 0:00:00 | 0:59:00 | 545 | 626 | 1165 | 593 | 732 | 559 | 548 | 538 | 548 |
| 1:00:00 | 1:59:00 | 441 | 476 | 1208 | 573 | 659 | 526 | 459 | 419 | 466 |
| 2:00:00 | 2:59:00 | 396 | 514 | 957 | 508 | 509 | 445 | 408 | 417 | 391 |
| 3:00:00 | 3:59:00 | 401 | 478 | 1232 | 444 | 454 | 437 | 449 | 440 | 470 |
| 4:00:00 | 4:59:00 | 433 | 481 | 1066 | 484 | 442 | 501 | 474 | 480 | 490 |
| 5:00:00 | 5:59:00 | 672 | 697 | 1266 | 654 | 600 | 816 | 732 | 624 | 662 |
| 6:00:00 | 6:59:00 | 1017 | 1055 | 1993 | 1045 | 989 | 1209 | 1061 | 944 | 993 |
| 7:00:00 | 7:59:00 | 1387 | 1456 | 2010 | 1097 | 1094 | 1485 | 1520 | 1330 | 1400 |
| 8:00:00 | 8:59:00 | 1446 | 1368 | 1992 | 1324 | 1189 | 1494 | 1526 | 1372 | 1342 |
| 9:00:00 | 9:59:00 | 1637 | 1544 | 1839 | 1383 | 1205 | 1609 | 1605 | 1604 | 1535 |
| 10:00:00 | 10:59:00 | 1619 | 1560 | 1882 | 1450 | 1300 | 1637 | 1598 | 1607 | 1661 |
| 11:00:00 | 11:59:00 | 1562 | 1435 | 1706 | 1416 | 1319 | 1560 | 1555 | 1512 | 1573 |
| 12:00:00 | 12:59:00 | 1477 | 1363 | 1435 | 1324 | 1306 | 1643 | 1505 | 1543 | 1462 |
| 13:00:00 | 13:59:00 | 1343 | 1523 | 1366 | 1295 | 1293 | 1484 | 1411 | 1353 | 1389 |
| 14:00:00 | 14:59:00 | 1566 | 1882 | 2020 | 1539 | 1615 | 1613 | 1500 | 1509 | 1452 |
| 15:00:00 | 15:59:00 | 1570 | 1800 | 1945 | 1305 | 1510 | 1487 | 1479 | 1569 | 1552 |
| 16:00:00 | 16:59:00 | 1631 | 1934 | 1702 | 1560 | 1500 | 1767 | 1648 | 1616 | 1814 |
| 17:00:00 | 17:59:00 | 1693 | 1764 | 1732 | 1419 | 1495 | 1916 | 1614 | 1706 | 1793 |
| 18:00:00 | 18:59:00 | 1503 | 1923 | 1258 | 1195 | 1279 | 1533 | 1399 | 1353 | 1549 |
| 19:00:00 | 19:59:00 | 1436 | 2096 | 1435 | 1226 | 1327 | 1434 | 1347 | 1269 | 1389 |
| 20:00:00 | 20:59:00 | 1346 | 1991 | 1157 | 1366 | 1188 | 1113 | 1102 | 1087 | 1191 |
| 21:00:00 | 21:59:00 | 1069 | 1729 | 1045 | 1153 | 1031 | 962 | 1008 | 956 | 976 |

Tabel 4.4. Data lalu lintas mobil per jam Maret 2016 (lanjutan)

| JAM | | TANGGAL | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| 22:00:00 | 22:59:00 | 885 | 1523 | 1025 | 970 | 903 | 779 | 767 | 872 | 702 |
| 23:00:00 | 23:59:00 | 699 | 1246 | 861 | 853 | 686 | 651 | 571 | 720 | 621 |
| Total | | 27774 | 32464 | 35297 | 26176 | 25625 | 28660 | 27286 | 26840 | 27421 |

(sumber: data PT. Jasamarga Maret 2016/Cileunyi)

Tabel 4.5. Data lalu lintas mobil per jam April 2016

| JAM | | TANGGAL | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| 0:00:00 | 0:59:00 | 622 | 748 | 813 | 610 | 564 | 516 | 533 | 568 | 785 | 778 | 631 |
| 1:00:00 | 1:59:00 | 544 | 666 | 659 | 440 | 482 | 480 | 476 | 566 | 726 | 572 | 523 |
| 2:00:00 | 2:59:00 | 457 | 645 | 489 | 399 | 418 | 404 | 444 | 471 | 641 | 473 | 431 |
| 3:00:00 | 3:59:00 | 523 | 642 | 471 | 487 | 401 | 384 | 425 | 537 | 700 | 477 | 422 |
| 4:00:00 | 4:59:00 | 571 | 618 | 444 | 471 | 452 | 418 | 516 | 604 | 618 | 520 | 505 |
| 5:00:00 | 5:59:00 | 673 | 820 | 623 | 786 | 687 | 635 | 642 | 720 | 787 | 732 | 789 |
| 6:00:00 | 6:59:00 | 976 | 1069 | 1066 | 1125 | 1075 | 988 | 1088 | 1034 | 1124 | 1081 | 1187 |
| 7:00:00 | 7:59:00 | 1393 | 1265 | 1199 | 1473 | 1421 | 1406 | 1475 | 1422 | 1340 | 1221 | 1486 |
| 8:00:00 | 8:59:00 | 1371 | 1422 | 1281 | 1452 | 1472 | 1499 | 1426 | 1395 | 1429 | 1451 | 1436 |
| 9:00:00 | 9:59:00 | 1499 | 1585 | 1258 | 1596 | 1608 | 1682 | 1537 | 1481 | 1598 | 1447 | 1540 |
| 10:00:00 | 10:59:00 | 1562 | 1685 | 1342 | 1565 | 1541 | 1626 | 1746 | 1701 | 1653 | 1526 | 1605 |
| 11:00:00 | 11:59:00 | 1506 | 1727 | 1292 | 1486 | 1528 | 1620 | 1609 | 1625 | 1696 | 1428 | 1684 |
| 12:00:00 | 12:59:00 | 1255 | 1646 | 1312 | 1505 | 1440 | 1425 | 1518 | 1256 | 1597 | 1326 | 1407 |
| 13:00:00 | 13:59:00 | 1319 | 1620 | 1271 | 1387 | 1449 | 1396 | 1394 | 1297 | 1634 | 1455 | 1409 |
| 14:00:00 | 14:59:00 | 1560 | 1715 | 1588 | 1536 | 1526 | 1598 | 1623 | 1747 | 1890 | 1648 | 1563 |
| 15:00:00 | 15:59:00 | 1714 | 1866 | 1569 | 1814 | 1497 | 1610 | 1666 | 1773 | 1914 | 1493 | 1583 |
| 16:00:00 | 16:59:00 | 1713 | 1823 | 1507 | 1550 | 1500 | 1790 | 1826 | 1884 | 1677 | 1559 | 1676 |
| 17:00:00 | 17:59:00 | 1840 | 1870 | 1540 | 1968 | 1684 | 1705 | 1797 | 1758 | 1867 | 1596 | 1938 |
| 18:00:00 | 18:59:00 | 1549 | 1594 | 1315 | 1666 | 1533 | 1429 | 1679 | 1664 | 1769 | 1414 | 1569 |
| 19:00:00 | 19:59:00 | 1758 | 1563 | 1286 | 1483 | 1560 | 1472 | 1515 | 1787 | 1823 | 1352 | 1461 |
| 20:00:00 | 20:59:00 | 1473 | 1418 | 1060 | 1113 | 1219 | 1183 | 1198 | 1792 | 1639 | 1330 | 1162 |
| 21:00:00 | 21:59:00 | 1326 | 1146 | 864 | 927 | 987 | 1034 | 1018 | 1395 | 1106 | 1188 | 1041 |
| 22:00:00 | 22:59:00 | 1186 | 1185 | 686 | 756 | 837 | 753 | 842 | 1229 | 1362 | 898 | 886 |
| 23:00:00 | 23:59:00 | 851 | 866 | 783 | 667 | 660 | 654 | 667 | 930 | 859 | 738 | 676 |
| Total | | 29241 | 31204 | 25718 | 28262 | 27541 | 27707 | 28660 | 30636 | 32234 | 27703 | 28610 |

(sumber: data PT. Jasamarga April 2016/ Cileunyi)

Tabel 4.5. Data lalu lintas mobil per jam April 2016 (lanjutan)

| JAM | | TANGGAL | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 0:00:00 | 0:59:00 | 526 | 467 | 613 | 556 | 813 | 749 | 518 | 516 | 524 | 489 | 563 |
| 1:00:00 | 1:59:00 | 480 | 454 | 471 | 461 | 755 | 645 | 438 | 521 | 474 | 481 | 561 |
| 2:00:00 | 2:59:00 | 414 | 427 | 401 | 446 | 673 | 506 | 418 | 407 | 430 | 442 | 466 |
| 3:00:00 | 3:59:00 | 422 | 395 | 451 | 525 | 639 | 446 | 451 | 422 | 442 | 443 | 514 |

Tabel 4.5. Data lalu lintas mobil per jam April 2016 (lanjutan)

| JAM | | TANGGAL | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
| 4:00:00 | 4:59:00 | 471 | 489 | 505 | 561 | 623 | 472 | 498 | 505 | 499 | 485 | 609 |
| 5:00:00 | 5:59:00 | 673 | 674 | 702 | 793 | 845 | 723 | 818 | 732 | 677 | 756 | 774 |
| 6:00:00 | 6:59:00 | 1061 | 974 | 1062 | 1023 | 1171 | 1096 | 1174 | 990 | 1030 | 1038 | 1000 |
| 7:00:00 | 7:59:00 | 1424 | 1388 | 1470 | 1386 | 1379 | 1183 | 1456 | 1395 | 1344 | 1402 | 1465 |
| 8:00:00 | 8:59:00 | 1473 | 1435 | 1445 | 1369 | 1597 | 1420 | 1591 | 1404 | 1489 | 1493 | 1443 |
| 9:00:00 | 9:59:00 | 1645 | 1529 | 1584 | 1494 | 1716 | 1484 | 1668 | 1507 | 1616 | 1629 | 1519 |
| 10:00:00 | 10:59:00 | 1621 | 1535 | 1620 | 1522 | 1808 | 1448 | 1611 | 1648 | 1617 | 1684 | 1610 |
| 11:00:00 | 11:59:00 | 1601 | 1571 | 1499 | 1546 | 2052 | 1425 | 1667 | 1621 | 1534 | 1655 | 1481 |
| 12:00:00 | 12:59:00 | 1473 | 1439 | 1532 | 1286 | 1910 | 1353 | 1586 | 1456 | 1524 | 1450 | 1288 |
| 13:00:00 | 13:59:00 | 1382 | 1342 | 1471 | 1365 | 1804 | 1409 | 1554 | 1358 | 1528 | 1391 | 1361 |
| 14:00:00 | 14:59:00 | 1577 | 1439 | 1587 | 1657 | 1964 | 1518 | 1583 | 1491 | 1489 | 1489 | 1615 |
| 15:00:00 | 15:59:00 | 1567 | 1640 | 1647 | 1640 | 1709 | 1561 | 1654 | 1658 | 1566 | 1576 | 1695 |
| 16:00:00 | 16:59:00 | 1599 | 1718 | 1755 | 1742 | 1984 | 1508 | 1767 | 1698 | 1644 | 1709 | 1815 |
| 17:00:00 | 17:59:00 | 1783 | 1513 | 1928 | 1907 | 2156 | 1594 | 1765 | 1678 | 1721 | 1805 | 1915 |
| 18:00:00 | 18:59:00 | 1533 | 1499 | 1521 | 1706 | 1612 | 1343 | 1488 | 1452 | 1475 | 1546 | 1809 |
| 19:00:00 | 19:59:00 | 1316 | 1698 | 1372 | 1708 | 1556 | 1365 | 1429 | 1419 | 1409 | 1402 | 1609 |
| 20:00:00 | 20:59:00 | 1004 | 1553 | 1161 | 1608 | 1410 | 1263 | 1161 | 1193 | 1126 | 1173 | 1525 |
| 21:00:00 | 21:59:00 | 880 | 1464 | 959 | 1350 | 1342 | 1046 | 1034 | 1033 | 935 | 992 | 1359 |
| 22:00:00 | 22:59:00 | 703 | 1068 | 833 | 1190 | 1150 | 833 | 786 | 726 | 751 | 819 | 1057 |
| 23:00:00 | 23:59:00 | 620 | 706 | 647 | 1014 | 866 | 663 | 676 | 584 | 585 | 613 | 845 |
| Total | | 27248 | 28417 | 28236 | 29855 | 33534 | 27053 | 28791 | 27414 | 27429 | 27962 | 29898 |

(sumber: data PT. Jasamarga April 2016/ Cileunyi)

Tabel 4.5. Data lalu lintas mobil per jam April 2016 (lanjutan)

| JAM | | TANGGAL | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 |
| 5:00:00 | 5:59:00 | 566 | 490 | 804 | 627 | 612 | 635 | 652 | 538 |
| 6:00:00 | 6:59:00 | 1524 | 1113 | 2492 | 2266 | 2338 | 2327 | 2307 | 1387 |
| 7:00:00 | 7:59:00 | 1409 | 1493 | 2466 | 2407 | 2410 | 2381 | 2373 | 1932 |
| 8:00:00 | 8:59:00 | 1200 | 1825 | 2336 | 2182 | 2206 | 2058 | 1974 | 2110 |
| 9:00:00 | 9:59:00 | 1249 | 1929 | 2014 | 2167 | 2042 | 1975 | 1834 | 2005 |
| 10:00:00 | 10:59:00 | 1304 | 1973 | 2150 | 2102 | 2145 | 1927 | 1847 | 2017 |
| 11:00:00 | 11:59:00 | 1187 | 1712 | 1923 | 2056 | 2127 | 2140 | 2061 | 2047 |
| 12:00:00 | 12:59:00 | 1224 | 1643 | 1885 | 1805 | 1962 | 2094 | 1877 | 2094 |
| 13:00:00 | 13:59:00 | 1428 | 1736 | 1712 | 1858 | 1915 | 1760 | 1976 | 2048 |
| 14:00:00 | 14:59:00 | 1577 | 1694 | 1752 | 1910 | 1871 | 1788 | 2108 | 2033 |
| 15:00:00 | 15:59:00 | 1606 | 1642 | 1927 | 1946 | 1970 | 1803 | 1902 | 1867 |
| 16:00:00 | 16:59:00 | 1750 | 1618 | 1777 | 1972 | 2024 | 1213 | 2108 | 1818 |
| 17:00:00 | 17:59:00 | 1279 | 1496 | 1437 | 1929 | 1820 | 2269 | 1849 | 1886 |
| 18:00:00 | 18:59:00 | 1814 | 1285 | 1974 | 1572 | 1642 | 1897 | 1726 | 1503 |
| 19:00:00 | 19:59:00 | 1384 | 1600 | 1483 | 1354 | 1394 | 2003 | 1903 | 1475 |
| 20:00:00 | 20:59:00 | 1288 | 1342 | 1045 | 1064 | 1040 | 1201 | 1545 | 1264 |
| 21:00:00 | 21:59:00 | 1132 | 1151 | 856 | 833 | 863 | 928 | 1151 | 1163 |
| 22:00:00 | 22:59:00 | 939 | 921 | 672 | 673 | 724 | 798 | 997 | 1145 |

Tabel 4.5. Data lalu lintas mobil per jam April 2016 (lanjutan)

| JAM | | TANGGAL | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** |
| **23:00:00** | **23:59:00** | 737 | 636 | 490 | 548 | 605 | 663 | 929 | 762 |
| **0:00:00** | **0:59:00** | 515 | 425 | 371 | 335 | 421 | 431 | 691 | 663 |
| **1:00:00** | **1:59:00** | 400 | 299 | 196 | 260 | 245 | 298 | 637 | 467 |
| **2:00:00** | **2:59:00** | 220 | 212 | 169 | 191 | 201 | 191 | 536 | 333 |
| **3:00:00** | **3:59:00** | 207 | 193 | 134 | 189 | 156 | 152 | 506 | 272 |
| **4:00:00** | **4:59:00** | 202 | 294 | 233 | 251 | 235 | 246 | 330 | 266 |
| **Total** | | **26141** | **28722** | **32298** | **32497** | **32968** | **33178** | **35819** | **33095** |

(sumber: data PT. Jasamarga April 2016/Cileunyi)

3. Data lalu lintas per gardu gerbang tol pasteur

Tabel 4.5. Data lalu lintas mobil per gardu maret 2016

| Tanggal | GD02 | GTO | GD06 | GD08 | GD10 | GD12 | GD14 | GD16 | Total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 4355 | 4571 | 4787 | 4528 | 3783 | 3587 | 3330 | 2608 | 31549 |
| 2 | 4437 | 4606 | 4533 | 4325 | 3955 | 3843 | 3639 | 3260 | 32598 |
| 3 | 4101 | 4656 | 4735 | 4634 | 4107 | 3854 | 3586 | 3181 | 32854 |
| 4 | 4892 | 5148 | 5122 | 5049 | 4131 | 4258 | 3884 | 3552 | 36036 |
| 5 | 4286 | 4611 | 4928 | 4373 | 4093 | 3932 | 3395 | 3178 | 32796 |
| 6 | 4018 | 4118 | 4858 | 4602 | 3350 | 3284 | 2877 | 2308 | 29415 |
| 7 | 4304 | 4904 | 4798 | 4609 | 3928 | 3644 | 3347 | 2873 | 32407 |
| 8 | 4743 | 5280 | 4893 | 4927 | 4174 | 4030 | 3896 | 3498 | 35441 |
| 9 | 3632 | 3742 | 4280 | 4249 | 3207 | 2888 | 2577 | 1833 | 26408 |
| 10 | 4479 | 5127 | 4929 | 4644 | 3944 | 3657 | 3800 | 3480 | 34060 |
| 11 | 4923 | 5313 | 4816 | 4895 | 4296 | 4156 | 3984 | 3797 | 36180 |
| 12 | 4406 | 4714 | 4981 | 4538 | 3758 | 3565 | 3331 | 2839 | 32132 |
| 13 | 4015 | 3904 | 4665 | 4480 | 3397 | 2946 | 2468 | 1671 | 27546 |
| 14 | 4159 | 4741 | 4677 | 4449 | 3869 | 3614 | 3487 | 2918 | 31914 |
| 15 | 4310 | 4890 | 4591 | 4676 | 3769 | 3562 | 3228 | 2905 | 31931 |
| 16 | 4411 | 4937 | 4711 | 4397 | 3890 | 3745 | 3524 | 2905 | 32520 |
| 17 | 4416 | 5017 | 4738 | 4631 | 3947 | 3646 | 3572 | 3175 | 33142 |
| 18 | 4779 | 5336 | 5097 | 4841 | 4413 | 4207 | 4066 | 3743 | 36482 |
| 19 | 4393 | 4659 | 4782 | 4735 | 3610 | 3738 | 3332 | 3039 | 32288 |
| 20 | 4050 | 4015 | 4542 | 4643 | 3513 | 3118 | 2457 | 1691 | 28029 |
| 21 | 4285 | 4715 | 4723 | 4588 | 3819 | 3506 | 3180 | 2563 | 31379 |
| 22 | 4216 | 4942 | 4701 | 4526 | 3990 | 3572 | 3267 | 2841 | 32055 |
| 23 | 4607 | 5130 | 4655 | 4627 | 3969 | 3901 | 3748 | 3341 | 33978 |
| 24 | 5067 | 5103 | 5080 | 5047 | 4427 | 4059 | 3808 | 3473 | 36064 |
| 25 | 3835 | 3934 | 4520 | 4383 | 3558 | 3222 | 3205 | 2928 | 29585 |
| 26 | 4459 | 2419 | 4460 | 4311 | 3799 | 3630 | 3222 | 2177 | 28477 |
| 27 | 4235 | 3942 | 4947 | 4720 | 3551 | 3123 | 2734 | 1574 | 28826 |
| 28 | 4459 | 4873 | 4621 | 4592 | 3855 | 3937 | 3601 | 3132 | 33070 |
| 29 | 4162 | 4795 | 4637 | 4546 | 3930 | 3512 | 3295 | 2770 | 31647 |
| 30 | 4347 | 4759 | 4560 | 4518 | 3813 | 3639 | 3209 | 2922 | 31767 |
| 31 | 4383 | 4966 | 4530 | 4399 | 4028 | 3844 | 3707 | 3104 | 32961 |

Tabel 4.5. Data lalu lintas mobil per gardu april 2016

| Tanggal | GD02 | GTO | GD06 | GD08 | GD10 | GD12 | GD14 | GD16 | Total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 4847 | 5340 | 4971 | 4927 | 4176 | 3855 | 3946 | 3705 | 35767 |
| 2 | 4184 | 4724 | 4894 | 4843 | 3706 | 3843 | 3509 | 3065 | 32768 |
| 3 | 4252 | 4165 | 4500 | 4677 | 3340 | 3178 | 2826 | 2369 | 29307 |
| 4 | 4542 | 4959 | 4997 | 3731 | 4234 | 3823 | 3420 | 3033 | 32739 |
| 5 | 4183 | 4733 | 4556 | 4264 | 3998 | 3672 | 3570 | 2980 | 31956 |
| 6 | 4254 | 4841 | 4550 | 4435 | 3870 | 3701 | 3452 | 2813 | 31916 |
| 7 | 4372 | 4887 | 4486 | 4540 | 3712 | 3786 | 3756 | 3281 | 32820 |
| 8 | 4949 | 5097 | 4846 | 4745 | 4335 | 4335 | 4165 | 3649 | 36121 |
| 9 | 4290 | 4682 | 4760 | 4867 | 3734 | 3646 | 3530 | 3147 | 32656 |
| 10 | 4255 | 4140 | 4502 | 4555 | 3623 | 3396 | 2950 | 2298 | 29719 |
| 11 | 4400 | 4854 | 4636 | 4340 | 3892 | 3631 | 3335 | 2957 | 32045 |
| 12 | 4582 | 5091 | 4727 | 4421 | 3982 | 3522 | 3365 | 2848 | 32538 |
| 13 | 4303 | 4926 | 4506 | 4429 | 3977 | 3606 | 3505 | 2827 | 32079 |
| 14 | 4387 | 4975 | 4577 | 4871 | 4009 | 3900 | 3525 | 3143 | 33387 |
| 15 | 5009 | 5309 | 5114 | 5087 | 4442 | 4183 | 4019 | 3686 | 36849 |

Tabel 4.5. Data lalu lintas mobil per gardu 2016(lanjutan)

| Tanggal | GD02 | GTO | GD06 | GD08 | GD10 | GD12 | GD14 | GD16 | Total |
|---|---|---|---|---|---|---|---|---|---|
| 16 | 4345 | 4922 | 4788 | 4604 | 4013 | 3802 | 3369 | 3139 | 32982 |
| 17 | 4036 | 4246 | 4684 | 4378 | 3508 | 3183 | 2901 | 2391 | 29327 |
| 18 | 4459 | 4972 | 4666 | 4678 | 3746 | 3790 | 3286 | 2726 | 32323 |
| 19 | 4302 | 4895 | 4747 | 4334 | 3978 | 3721 | 3511 | 2857 | 32345 |
| 20 | 4512 | 5088 | 4856 | 4694 | 3881 | 3585 | 3385 | 3017 | 33018 |
| 21 | 4492 | 5046 | 4792 | 4710 | 4179 | 3833 | 3527 | 3090 | 33669 |
| 22 | 4896 | 5478 | 4984 | 4922 | 4229 | 3913 | 3915 | 3429 | 35766 |
| 23 | 3756 | 3775 | 3977 | 3692 | 2875 | 2943 | 2826 | 2297 | 26141 |
| 24 | 3989 | 4219 | 4601 | 4444 | 3330 | 3095 | 2835 | 2209 | 28722 |
| 25 | 4605 | 4799 | 4332 | 4155 | 3647 | 3833 | 3635 | 3292 | 32298 |
| 26 | 4442 | 5047 | 4657 | 4473 | 3953 | 3668 | 3357 | 2900 | 32497 |
| 27 | 4401 | 4945 | 4428 | 4555 | 4240 | 3685 | 3498 | 3216 | 32968 |
| 28 | 4408 | 5053 | 4737 | 4545 | 3957 | 3685 | 3605 | 3188 | 33178 |
| 29 | 4947 | 5367 | 5022 | 5082 | 4310 | 4015 | 3658 | 3418 | 35819 |
| 30 | 4557 | 4765 | 4936 | 5021 | 3836 | 3750 | 3425 | 2805 | 33095 |

4. Data lalu lintas per gardu gerbang tol cileunyi

Tabel 4.5. Data lalu lintas mobil per gardu maret 2016

| Tanggal | GD02 | GD04 | GD08 | GTO | GD12 | GD14 | GD16 | GD18 | Total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3165 | 3473 | 3498 | 2810 | 4227 | 3367 | 3321 | 2737 | 26598 |
| 2 | 3761 | 3927 | 3587 | 2796 | 3531 | 3400 | 3205 | 2847 | 27054 |
| 3 | 3257 | 4085 | 3456 | 2804 | 3732 | 4077 | 3402 | 3237 | 28050 |
| 4 | 3571 | 4365 | 3227 | 3280 | 4127 | 3950 | 3853 | 3678 | 30051 |
| 5 | 4437 | 4360 | 3712 | 3060 | 4350 | 3841 | 4057 | 3688 | 31505 |
| 6 | 2718 | 3060 | 3425 | 2253 | 3765 | 3496 | 3914 | 3456 | 26087 |
| 7 | 3479 | 3922 | 3377 | 3037 | 4091 | 3526 | 3659 | 3340 | 28431 |
| 8 | 3567 | 3866 | 3558 | 3079 | 4567 | 3787 | 3378 | 3304 | 29106 |
| 9 | 2939 | 2923 | 3196 | 2814 | 3106 | 3305 | 2811 | 2280 | 23374 |
| 10 | 3249 | 3765 | 3317 | 2964 | 4203 | 3965 | 3507 | 3132 | 28102 |
| 11 | 3194 | 4886 | 3497 | 3244 | 3731 | 4123 | 3798 | 3207 | 29680 |
| 12 | 4084 | 4225 | 3621 | 2979 | 4444 | 4067 | 4270 | 3625 | 31315 |
| 13 | 3063 | 3952 | 2882 | 2310 | 3965 | 3655 | 3050 | 3471 | 26348 |
| 14 | 3807 | 3906 | 3447 | 3000 | 4047 | 3700 | 3520 | 2981 | 28408 |
| 15 | 3135 | 3672 | 3284 | 2820 | 4128 | 3848 | 3553 | 2798 | 27238 |
| 16 | 3236 | 3567 | 3179 | 2437 | 3366 | 3065 | 3487 | 2843 | 25180 |
| 17 | 3785 | 3881 | 3466 | 2787 | 3417 | 3457 | 3472 | 3098 | 27363 |
| 18 | 3708 | 4269 | 3427 | 2881 | 3915 | 3585 | 3175 | 3120 | 28080 |
| 19 | 4300 | 4587 | 3567 | 2850 | 4343 | 3691 | 3815 | 3315 | 30468 |
| 20 | 2957 | 3650 | 3454 | 2202 | 3595 | 3079 | 2932 | 2387 | 24256 |
| 21 | 3375 | 3728 | 3477 | 2928 | 4055 | 3571 | 3483 | 3060 | 27677 |
| 22 | 3461 | 3729 | 3220 | 2835 | 3649 | 3577 | 3315 | 3154 | 26940 |
| 23 | 3526 | 3814 | 3439 | 2854 | 3880 | 3683 | 3449 | 3129 | 27774 |
| 24 | 3902 | 4277 | 3774 | 3491 | 4423 | 4342 | 3694 | 3856 | 31759 |
| 25 | 4284 | 4610 | 3831 | 317 | 4501 | 4463 | 4168 | 3963 | 30137 |
| 26 | 3684 | 3673 | 3308 | 2302 | 3494 | 3645 | 3058 | 3012 | 26176 |
| 27 | 3194 | 4233 | 3343 | 2219 | 3690 | 3517 | 2751 | 2678 | 25625 |
| 28 | 4142 | 4286 | 3591 | 2986 | 3655 | 3719 | 2956 | 3325 | 28660 |
| 29 | 3564 | 4107 | 3358 | 2815 | 3677 | 3467 | 3558 | 2740 | 27286 |
| 30 | 3559 | 3686 | 3297 | 2720 | 3919 | 3455 | 3115 | 3089 | 26840 |
| 31 | 3287 | 4175 | 3545 | 2817 | 3844 | 3852 | 3032 | 2869 | 27421 |

Tabel 4.5. Data lalu lintas mobil per gardu april 2016

| Tanggal | GD02 | GD04 | GD08 | GTO | GD12 | GD14 | GD16 | GD18 | Total |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 3691 | 4217 | 3510 | 3020 | 4257 | 4108 | 3320 | 3118 | 29241 |
| 2 | 4490 | 4585 | 3475 | 3059 | 3987 | 4460 | 3478 | 3670 | 31204 |
| 3 | 3164 | 3542 | 3305 | 2360 | 3707 | 3450 | 3325 | 2865 | 25718 |
| 4 | 4095 | 4016 | 3473 | 2915 | 3571 | 3747 | 3361 | 3084 | 28262 |
| 5 | 3794 | 3588 | 3677 | 2768 | 3650 | 3384 | 3545 | 3135 | 27541 |
| 6 | 3563 | 4296 | 3489 | 2692 | 3708 | 3729 | 3155 | 3075 | 27707 |
| 7 | 3451 | 4428 | 3446 | 2791 | 4074 | 3744 | 3720 | 3006 | 28660 |
| 8 | 3858 | 4377 | 3431 | 3282 | 4270 | 4073 | 3832 | 3513 | 30636 |
| 9 | 4054 | 4721 | 3218 | 3117 | 4242 | 4021 | 3950 | 3631 | 30954 |
| 10 | 3468 | 4170 | 3751 | 2419 | 3932 | 3686 | 3361 | 2916 | 27703 |
| 11 | 3478 | 3981 | 4029 | 2979 | 3928 | 3707 | 3482 | 3026 | 28610 |
| 12 | 3334 | 3611 | 3937 | 2852 | 3965 | 3695 | 3019 | 2835 | 27248 |
| 13 | 3784 | 4339 | 3558 | 2866 | 3803 | 3649 | 3491 | 2927 | 28417 |
| 14 | 3595 | 4066 | 3973 | 2870 | 3866 | 3685 | 3276 | 2905 | 28236 |

Tabel 4.5. Data lalu lintas mobil per gardu april 2016(lanjutan)

| Tanggal | GD02 | GD04 | GD08 | GTO | GD12 | GD14 | GD16 | GD18 | Total |
|---|---|---|---|---|---|---|---|---|---|
| 15 | 3889 | 4484 | 4120 | 3196 | 3869 | 3760 | 3306 | 3231 | 29855 |
| 16 | 4263 | 4880 | 3890 | 3249 | 4374 | 4261 | 4155 | 3522 | 32594 |
| 17 | 3552 | 3853 | 3444 | 2445 | 3677 | 3951 | 3284 | 2847 | 27053 |
| 18 | 3764 | 4202 | 3827 | 3058 | 4137 | 3651 | 2980 | 3172 | 28791 |
| 19 | 3438 | 4039 | 3960 | 2991 | 3673 | 3315 | 3252 | 2746 | 27414 |
| 20 | 3436 | 3652 | 4221 | 2862 | 4037 | 3360 | 3115 | 2746 | 27429 |
| 21 | 3330 | 4123 | 3903 | 2811 | 4115 | 3506 | 2991 | 3183 | 27962 |
| 22 | 4120 | 4054 | 3932 | 3111 | 4384 | 3753 | 3304 | 3240 | 29898 |
| 23 | 3691 | 4536 | 4284 | 3094 | 4571 | 3954 | 3800 | 3617 | 31547 |
| 24 | 3039 | 3878 | 4383 | 2144 | 3574 | 3112 | 2770 | 2364 | 25264 |
| 25 | 3484 | 4293 | 3938 | 3061 | 3835 | 3685 | 3281 | 2957 | 28534 |
| 26 | 3644 | 3812 | 3169 | 2823 | 4117 | 3573 | 3680 | 2845 | 27663 |
| 27 | 3650 | 4022 | 3289 | 2729 | 4011 | 3424 | 3288 | 3070 | 27483 |
| 28 | 3733 | 4061 | 3392 | 2879 | 4130 | 3848 | 3390 | 2982 | 28415 |
| 29 | 3630 | 4266 | 3703 | 3128 | 3868 | 3752 | 3560 | 3457 | 29364 |
| 30 | 4016 | 4299 | 3850 | 3020 | 4279 | 3997 | 4111 | 3655 | 31227 |

5. Waktu proses pembayaran tol

   Data waktu proses pembayaran tol diperoleh melalui laporan kepala shift di gerbang tol Pasteur dan Cileunyi. Waktu proses pembayaran tol dibagi menjadi dua, yaitu waktu proses gardu reguler dan waktu proses GTO. Sampel yang diambil sebanyak 100 data untuk gardu reguler dan gardu GTO. Data waktu pembayaran diperlukan untuk menentukan distribusi data waktu pembayaran yang akan digunakan sebagai waktu aktivitas menunggu di lokasi loket pembayaran pada model simulasi. Data waktu pembayaran gardu reguler dan GTO pada gerbang tol Pasteur ditunjukan pada tabel 4.6 dan tabel 4.7 dan Data waktu pembayaran gardu reguler dan GTO pada gerbang tol Cileunyi pada tabel 4.8 dan 4.9.

Tabel 4.6. Data waktu pembayaran gardu reguler tol gerbang tol Pasteur (detik)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 13.08 | 17.10 | 15.03 | 14.80 | 16.98 | 5.88 | 8.32 | 5.89 | 11.54 | 20.78 |
| 12.29 | 4.18 | 18.92 | 11.28 | 9.50 | 13.74 | 25.74 | 2.56 | 6.84 | 17.71 |
| 15.60 | 18.08 | 7.16 | 20.35 | 11.71 | 6.83 | 6.44 | 11.19 | 18.51 | 13.89 |
| 8.43 | 12.91 | 18.71 | 9.84 | 11.71 | 10.89 | 5.14 | 12.26 | 12.98 | 4.34 |
| 8.81 | 16.23 | 2.90 | 15.38 | 13.99 | 14.90 | 9.16 | 7.57 | 11.94 | 5.53 |
| 11.40 | 5.35 | 17.86 | 5.91 | 5.27 | 12.40 | 11.71 | 15.93 | 20.37 | 22.81 |
| 14.66 | 13.20 | 10.77 | 10.51 | 11.82 | 12.54 | 15.73 | 3.16 | 11.39 | 13.47 |
| 12.43 | 12.69 | 7.26 | 14.14 | 14.75 | 3.14 | 13.31 | 7.06 | 19.70 | 6.17 |
| 16.87 | 7.45 | 9.43 | 6.16 | 5.60 | 12.70 | 4.10 | 9.80 | 11.22 | 14.51 |
| 16.78 | 15.78 | 3.03 | 5.64 | 14.23 | 16.15 | 23.90 | 9.43 | 9.18 | 21.35 |

(sumber: data PT. Jasamarga April 2016/ {Pasteur)

Tabel 4.7. Data waktu pembayaran GTO tol gerbang tol Pasteur (detik)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4.58 | 3.42 | 6.90 | 5.15 | 5.97 | 4.36 | 5.60 | 4.56 | 5.57 | 4.74 |
| 3.84 | 3.16 | 6.30 | 5.45 | 5.64 | 4.03 | 5.11 | 6.22 | 3.92 | 3.91 |
| 5.78 | 3.02 | 3.71 | 5.24 | 4.51 | 6.46 | 5.88 | 4.43 | 4.88 | 5.25 |
| 5.33 | 4.21 | 3.43 | 5.89 | 4.15 | 3.24 | 4.24 | 5.83 | 4.52 | 3.75 |
| 4.80 | 6.28 | 4.55 | 6.37 | 5.23 | 4.18 | 4.08 | 4.99 | 3.43 | 5.04 |
| 4.14 | 3.64 | 4.70 | 3.55 | 3.62 | 4.59 | 3.02 | 4.46 | 4.15 | 3.82 |
| 3.48 | 3.53 | 5.31 | 3.75 | 4.47 | 4.92 | 4.83 | 5.21 | 3.28 | 2.09 |
| 4.79 | 5.40 | 4.23 | 3.07 | 2.83 | 4.54 | 3.75 | 3.96 | 6.20 | 5.08 |
| 4.47 | 3.98 | 3.24 | 5.57 | 3.21 | 5.63 | 3.38 | 3.36 | 5.96 | 5.52 |
| 5.98 | 3.47 | 4.38 | 5.12 | 3.28 | 2.81 | 3.29 | 3.72 | 2.89 | 3.73 |

(sumber: data PT. Jasamarga April 2016/ {Pasteur)

Tabel 4.8. Data waktu pembayaran gardu reguler tol gerbang tol Cileunyi (detik)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 7.61 | 3.60 | 13.61 | 18.54 | 5.50 | 10.82 | 11.10 | 10.55 | 7.92 | 15.56 |
| 18.80 | 11.05 | 16.18 | 3.09 | 19.20 | 14.44 | 19.66 | 10.85 | 18.90 | 15.39 |
| 13.90 | 13.82 | 6.60 | 8.02 | 9.52 | 12.03 | 13.44 | 6.20 | 8.50 | 19.27 |
| 11.63 | 8.29 | 12.68 | 2.92 | 0.20 | 14.23 | 7.57 | 10.25 | 15.36 | 10.26 |
| 13.27 | 10.60 | 21.28 | 17.68 | 14.96 | 6.00 | 2.66 | 18.83 | 19.07 | 12.87 |
| 10.65 | 16.57 | 16.39 | 4.66 | 15.73 | 14.66 | 9.73 | 10.32 | 11.22 | 5.17 |
| 9.18 | 8.45 | 20.09 | 11.24 | 9.25 | 9.04 | 10.08 | 7.58 | 12.00 | 15.20 |
| 5.99 | 9.13 | 6.00 | 19.99 | 17.32 | 11.86 | 21.75 | 4.52 | 5.11 | 4.55 |
| 4.00 | 15.72 | 16.73 | 2.51 | 3.10 | 14.00 | 15.58 | 3.99 | 22.11 | 12.47 |
| 15.26 | 4.08 | 12.25 | 16.59 | 6.99 | 9.07 | 4.26 | 13.33 | 7.93 | 9.18 |

(sumber: data PT. Jasamarga April 2016/ {Cileunyi)

Tabel 4.9. Data waktu pembayaran GTO tol gerbang tol Cileunyi (detik)

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 3.76 | 3.93 | 2.36 | 4.24 | 3.75 | 3.27 | 3.59 | 3.87 | 4.21 | 3.58 |
| 4.04 | 3.06 | 4.24 | 4.07 | 3.45 | 3.03 | 3.90 | 3.71 | 3.14 | 3.17 |
| 4.61 | 2.72 | 3.12 | 2.81 | 4.49 | 3.34 | 2.96 | 3.78 | 3.79 | 3.90 |
| 4.04 | 3.30 | 3.64 | 4.02 | 3.06 | 3.11 | 3.63 | 3.90 | 3.01 | 3.81 |
| 4.32 | 4.08 | 4.14 | 3.35 | 3.73 | 4.01 | 3.74 | 3.98 | 3.66 | 3.60 |
| 3.79 | 2.70 | 4.11 | 2.88 | 4.22 | 2.56 | 4.40 | 2.65 | 3.15 | 3.59 |
| 3.56 | 3.76 | 4.03 | 3.67 | 2.33 | 3.68 | 3.41 | 3.42 | 4.53 | 3.37 |
| 3.45 | 3.12 | 3.91 | 4.01 | 3.50 | 3.70 | 3.44 | 3.59 | 4.02 | 3.68 |
| 3.97 | 3.30 | 3.98 | 3.73 | 3.75 | 3.67 | 2.49 | 3.27 | 2.97 | 4.16 |
| 3.45 | 3.65 | 3.60 | 3.64 | 4.05 | 2.61 | 3.21 | 3.42 | 3.80 | 3.72 |

(sumber: data PT. Jasamarga April 2016/ {Cileunyi)