

Anhang zu:

Verkehrssicherheit in Einfahrten auf Autobahnen

von

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**Berichte der
Bundesanstalt für Straßenwesen**

Brücken- und Ingenieurbau Heft V 277 – Anhang

bast

Anhang A

Unfallkenngrößen von Einfahrten, Kategorien 1-6

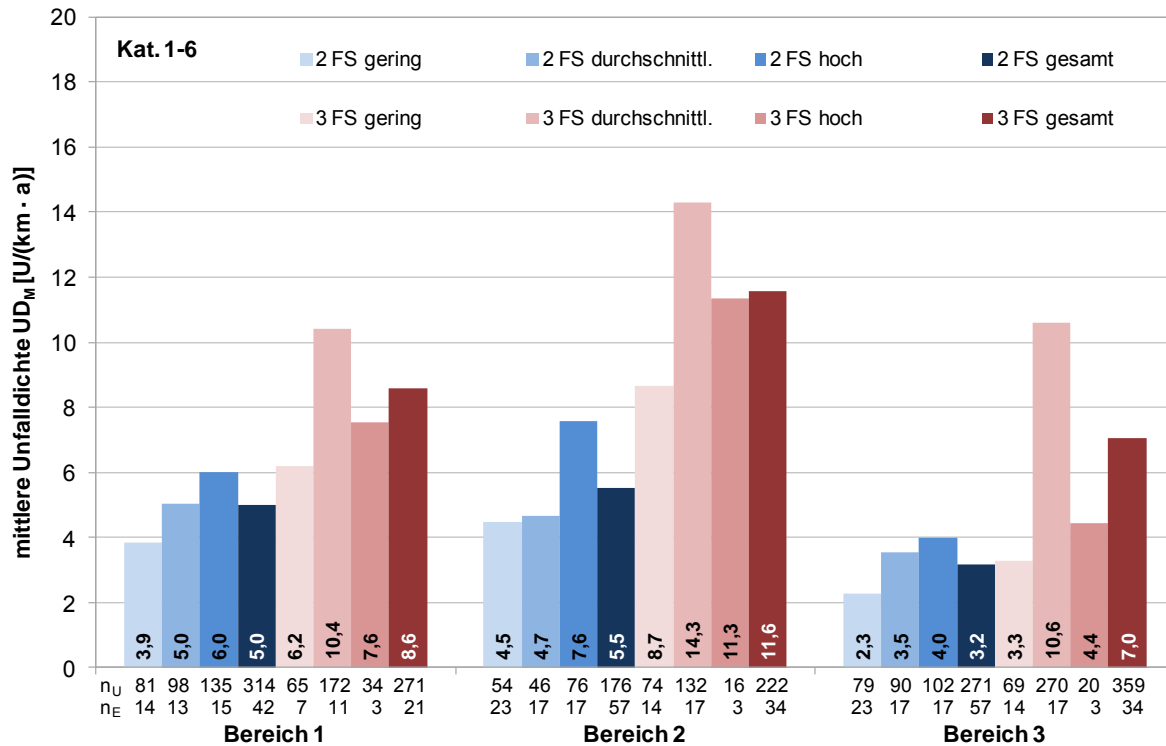


Bild 1: Vergleich der mittleren Unfalldichten, Kategorien 1-6, n_E = 91, n_U = 1.613

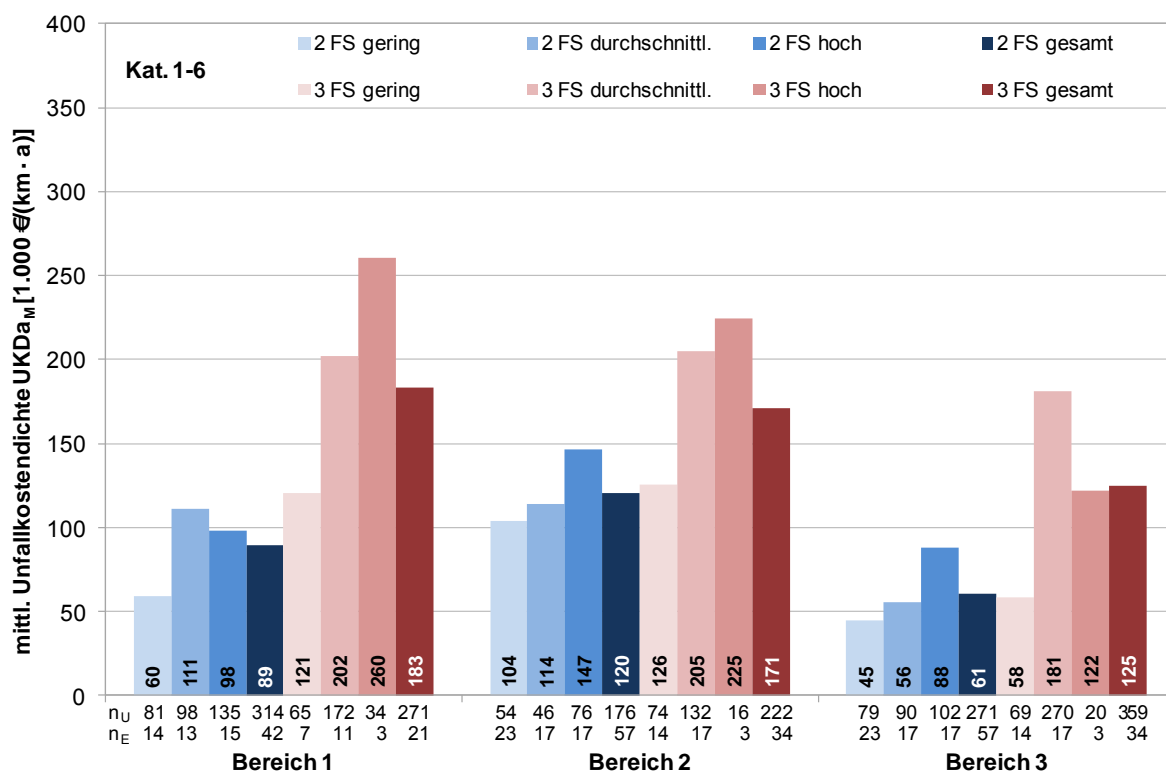


Bild 2: Vergleich der mittleren Unfallkostendichten, Kategorien 1-6, n_E = 91, n_U = 1.613

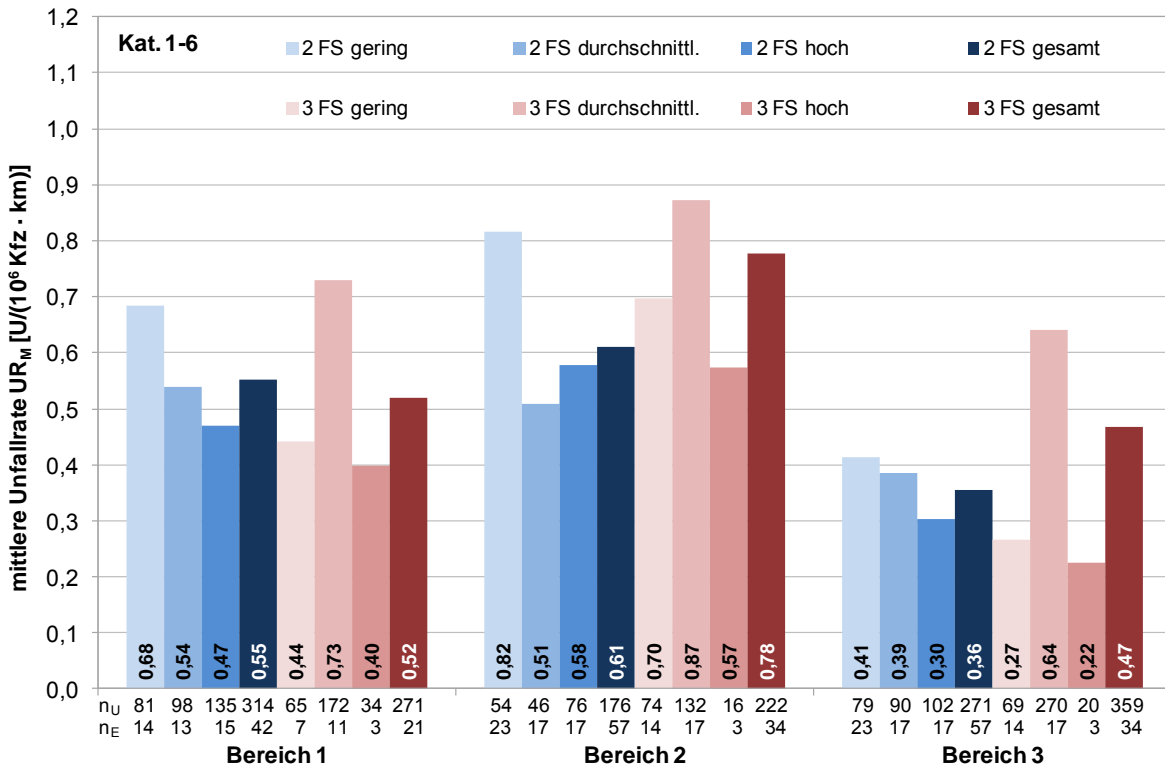


Bild 3: Vergleich der mittleren Unfallraten, Kategorien 1-6, n_E = 91, n_U = 1.613

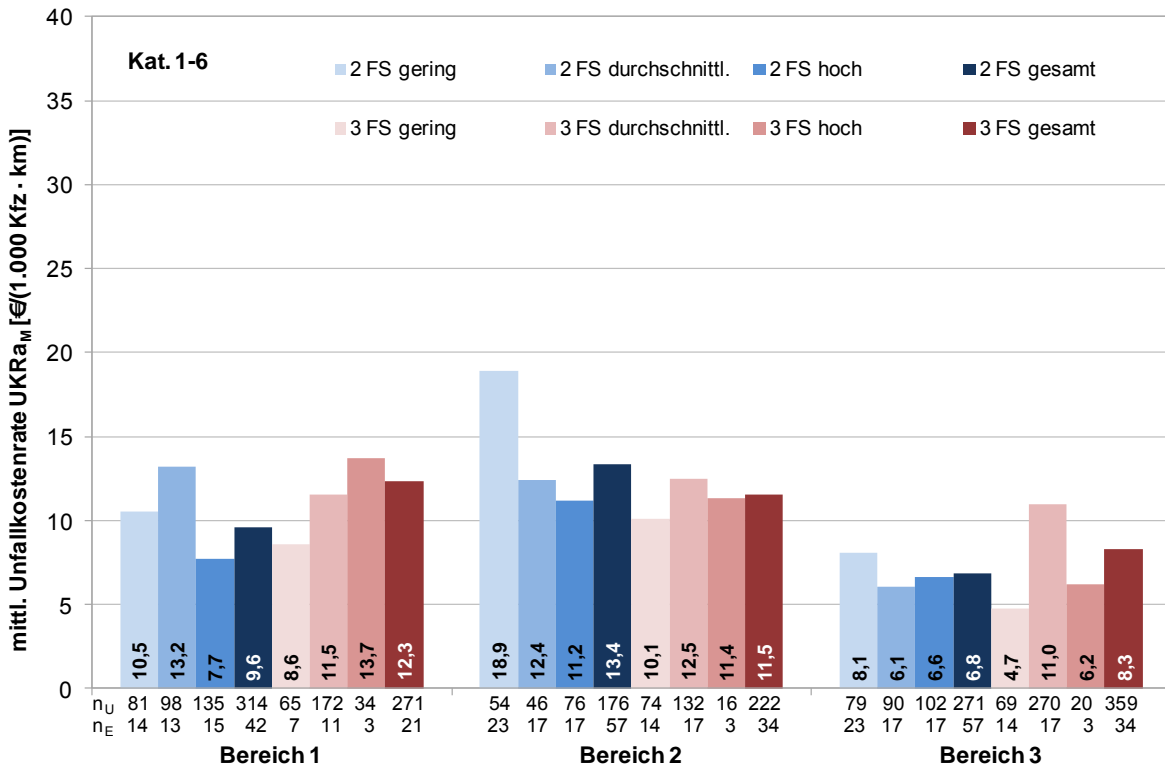
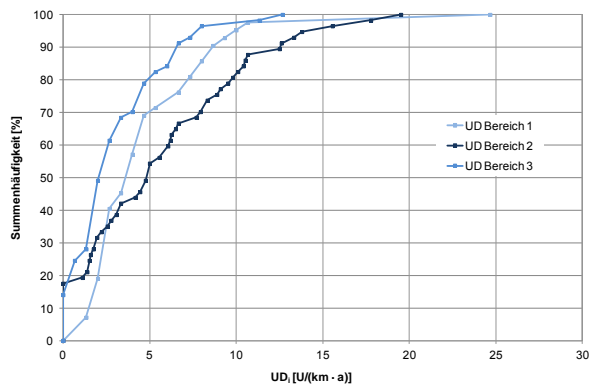
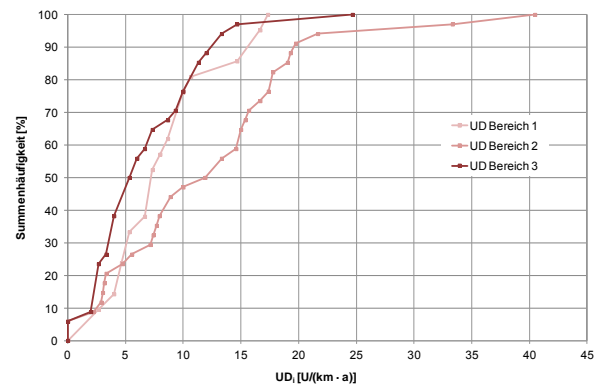


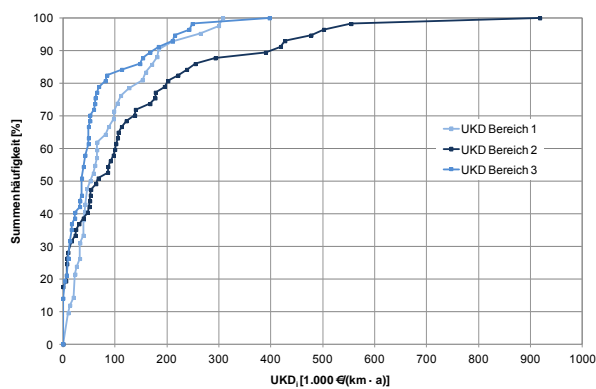
Bild 4: Vergleich der mittleren Unfallkostenraten, Kategorien 1-6, n_E = 91, n_U = 1.613



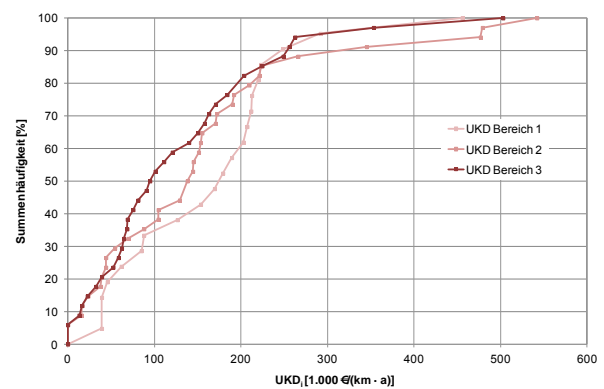
Unfalldichte von E1 an zweistreifigen RFB, Kat. 1-6, $n_E = 91$, $n_U = 1.613$



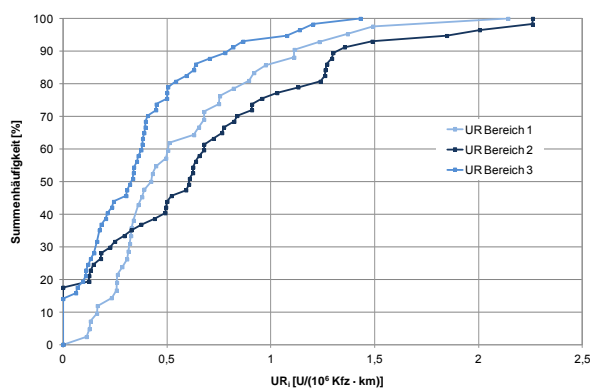
Unfalldichte von E1 an dreistreifigen RFB, Kat. 1-6, $n_E = 91$, $n_U = 1.613$



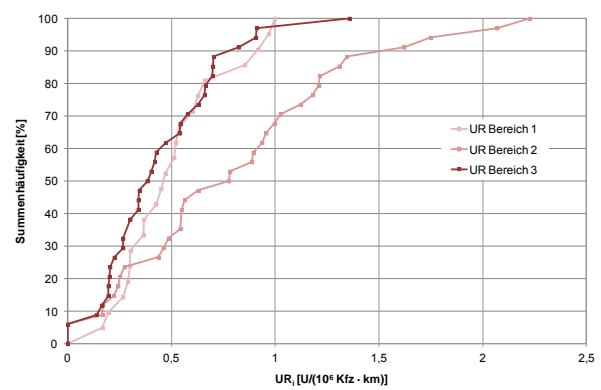
Unfallkostendichte von E1 an zweistreifigen RFB, Kat. 1-6, $n_E = 91$, $n_U = 1.613$



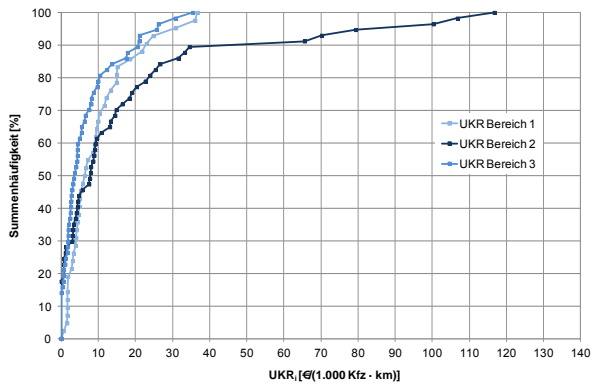
Unfallkostendichte von E1 an dreistreifigen RFB, Kat. 1-6, $n_E = 91$, $n_U = 1.613$



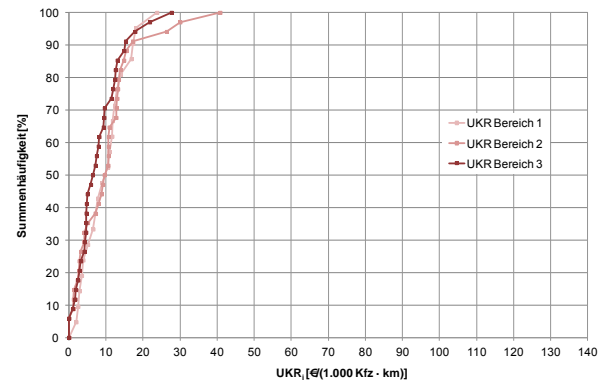
Unfallrate von E1 an zweistreifigen RFB, Kat. 1-6, $n_E = 91$, $n_U = 1.613$



Unfallrate von E1 an dreistreifigen RFB, Kat. 1-6, $n_E = 91$, $n_U = 1.613$



Unfallkostenrate von E1 an zweistreifigen RFB, Kat. 1-6, $n_E = 91$, $n_U = 1.613$



Unfallkostenrate von E1 an dreistreifigen RFB, Kat. 1-6, $n_E = 91$, $n_U = 1.613$

Anhang B

Einzelfalluntersuchung der Einfahrten mit hohen Unfallkostentraten

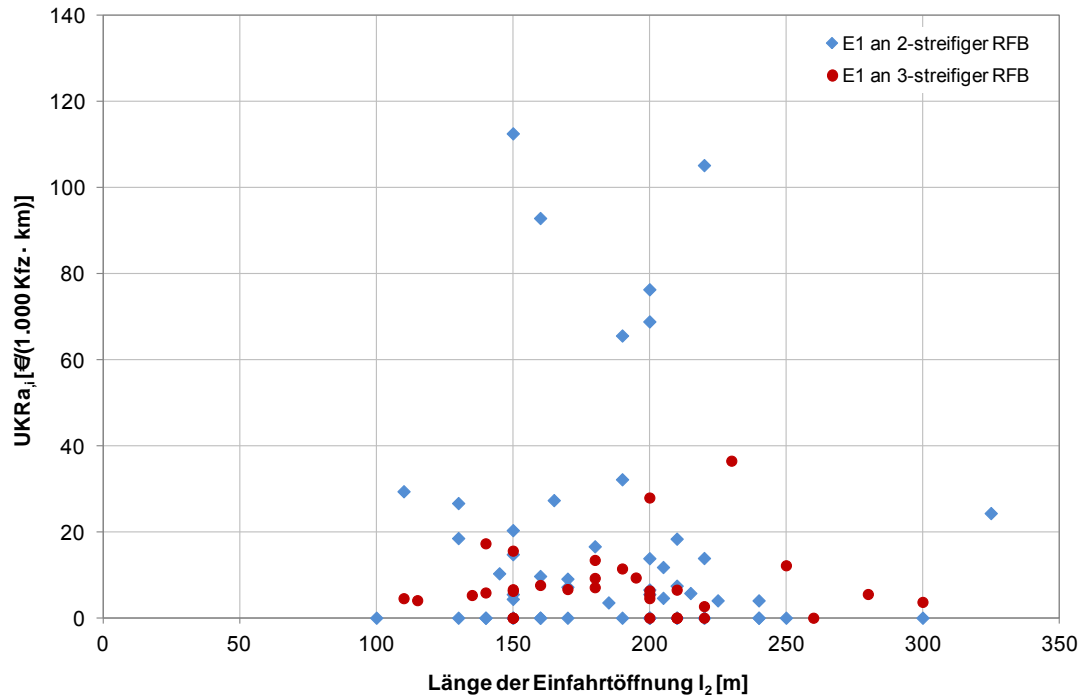
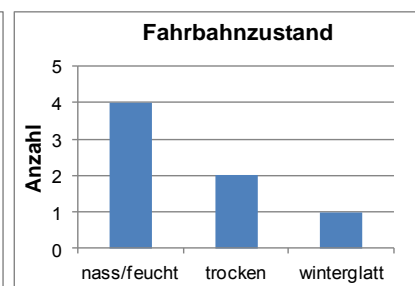
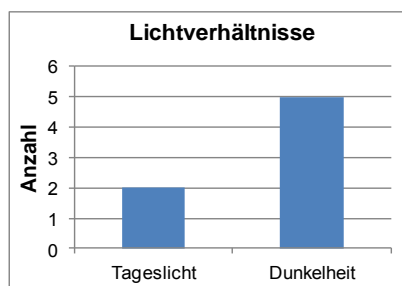
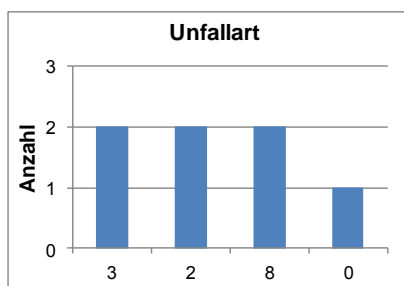


Bild 5: Unfallkostenraten (Kat. 1-4,6) im Verhältnis zur Länge der Einfahrtöffnung I_2 , getrennte Betrachtung von U(SP) und U(LV)

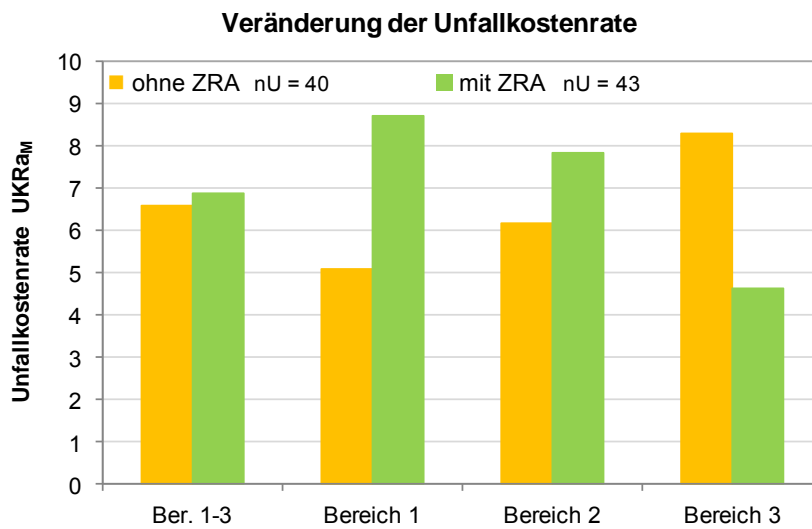
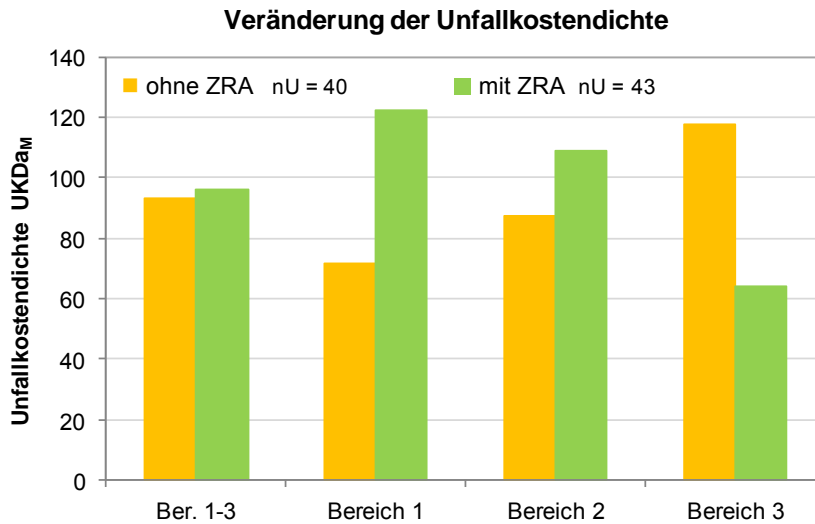
| ID Land_BAB_E-Nr_FR | DTV- | | Fahrtrichtung | | Länge Bereich 2 | | DTV ₁ [Kfz/h] | DTV ₂₊₃ [Kfz/h] | Rampenform | | |
|------------------------|--------|-----|----------------|-------|--------------------|----------------|-----------------------------|-------------------------------|------------|--------|-------------------|
| | Klasse | BAB | Name | AS | 1="auf" 2="ab" | Name | | | | [km] | [m] |
| NI_A029_12_S | 1 | 29 | Rastede | keine | 2 | Osnabrück | 0,190 | 190 | 14.300 | 16.300 | Schleife abwärts |
| NW_A033_30_N | 1 | 33 | Borchen-Etteln | keine | 1 | Bielefeld | 0,200 | 200 | 15.150 | 16.350 | Tangente abwärts |
| NW_A033_30_N | 1 | 33 | Borchen-Etteln | keine | 1 | Bielefeld | 0,200 | 200 | 15.150 | 16.350 | Tangente abwärts |
| HE_A045_38_S | 1 | 45 | Florstadt | keine | 1 | Hanauer Kreuz | 0,160 | 160 | 13.450 | 15.150 | Schleife aufwärts |
| RP_A063_13_N | 1 | 63 | Winnweiler | keine | 2 | Mainz | 0,220 | 220 | 14.300 | 12.250 | Tangente abwärts |
| RP_A063_14_S | 1 | 63 | Sembach | keine | 1 | Kaiserslautern | 0,200 | 200 | 14.300 | 14.750 | Tangente aufwärts |
| HE_A049_09_N | 2 | 49 | Baunatal-Mitte | keine | 2 | Kassel | 0,150 | 150 | 19.250 | 21.550 | Tangente abwärts |

| ID Land_BAB_E-Nr_FR | v_{zul} [km/h] | | Tag | Datum | Uhrzeit | Unfall- typ | Unfall- art | Licht- verhält- nisse | Fahr-bahn- zustand | Aufprall auf Hindernis am FBR |
|------------------------|------------------|-------------|-----|------------|---------|----------------|----------------|-----------------------------|-----------------------|----------------------------------|
| | Bereich 1 | Bereich 2+3 | | | | | | | | |
| NI_A029_12_S | keine | keine | | 10.7.2008 | 07:56 | 141 | 3 | Tageslicht | nass/feucht | kein Hindernis |
| NW_A033_30_N | keine | keine | Fr | 01.10.2010 | 01:20 | 601 | 2 | Dunkelheit | nass/feucht | Baum |
| NW_A033_30_N | keine | keine | Sa | 16.04.2011 | 23:36 | 141 | 8 | Dunkelheit | trocken | sonstige Hindernis |
| HE_A045_38_S | keine | keine | Fr | 6.3.2009 | 16:34 | 1 | 0 | Tageslicht | nass/feucht | Schutzplanke |
| RP_A063_13_N | 130 | 130 | Mi | 12.8.2009 | 10:00 | 141 | 2 | Tageslicht | trocken | kein Hindernis |
| RP_A063_14_S | 100 | 100 | Sa | 6.3.2010 | 08:50 | 122 | 3 | Tageslicht | winterglatt | Schutzplanke |
| HE_A049_09_N | keine | keine | Do | 5.8.2010 | 14:00 | 1 | 8 | Tageslicht | nass/feucht | kein Hindernis |



Anhang C

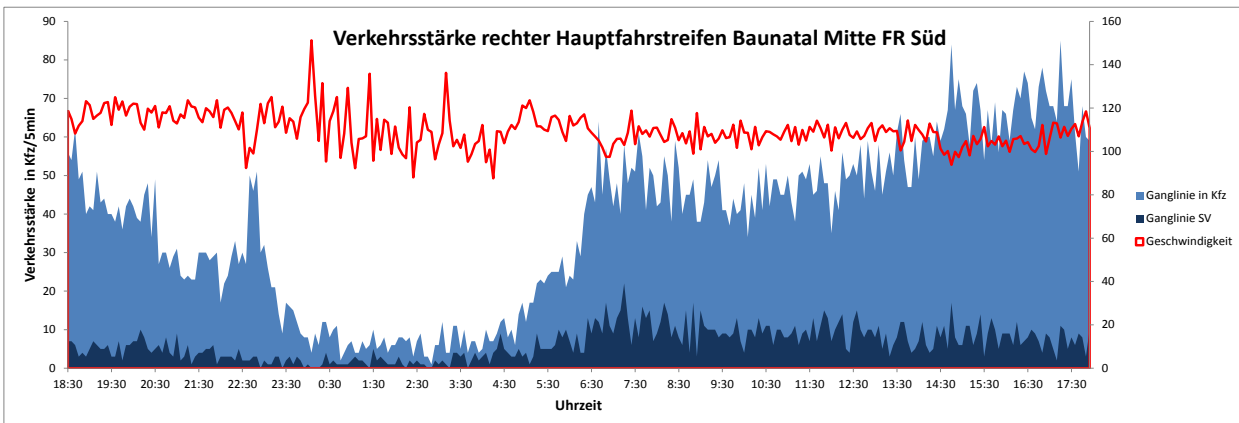
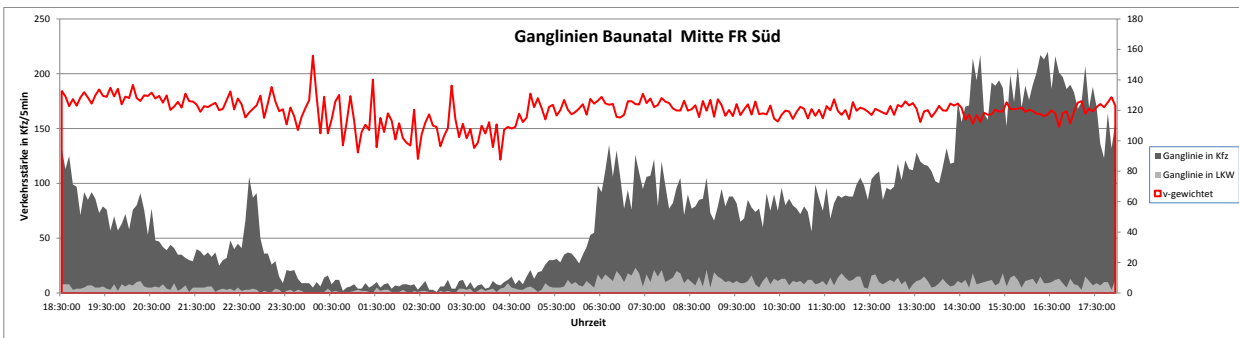
Berechnung der Unfallkostendichten und der Unfallkostentraten mit getrennter Berücksichtigung von U(SP) und U(LV), angepasste Unfallkostensätze, Preisstand 2010

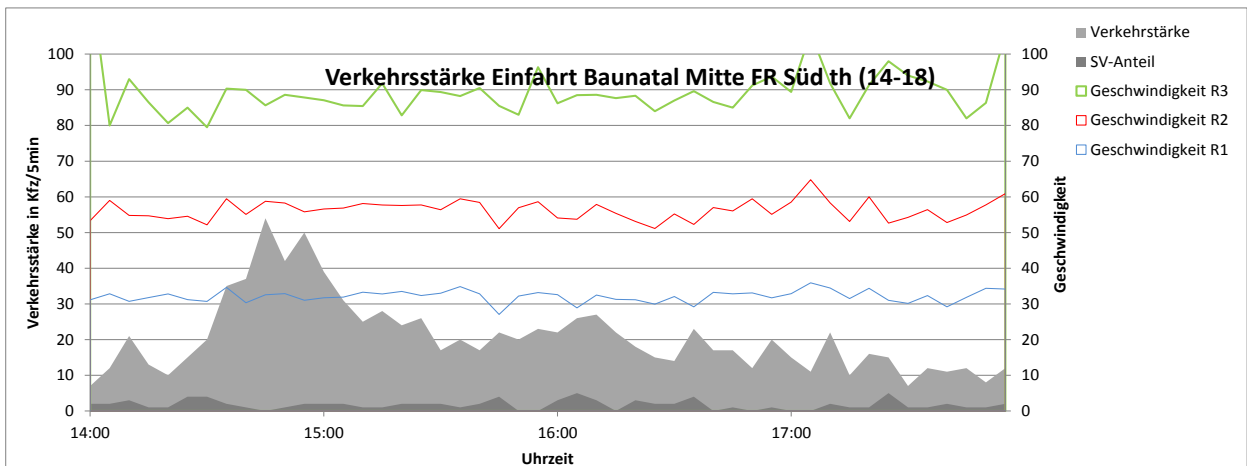
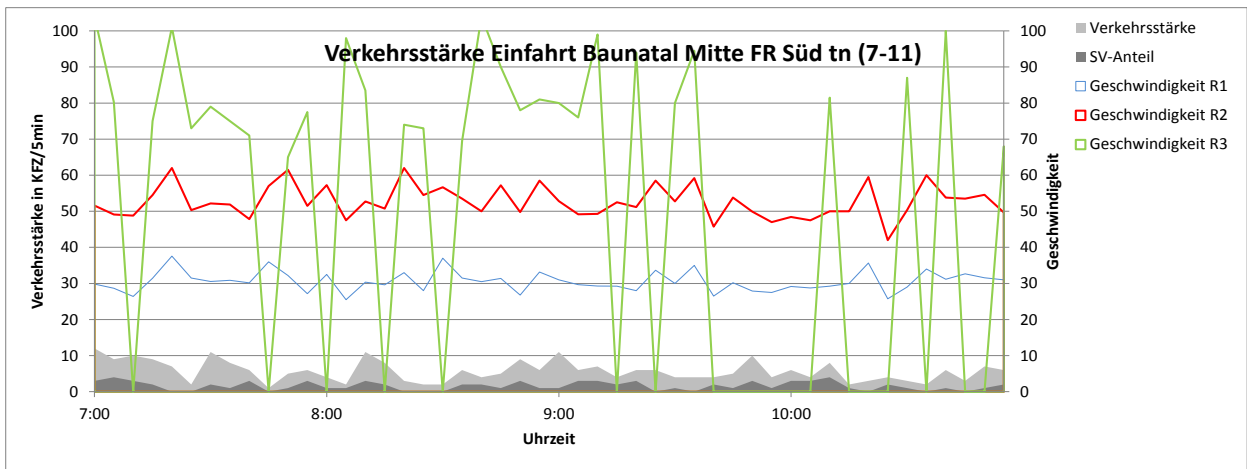
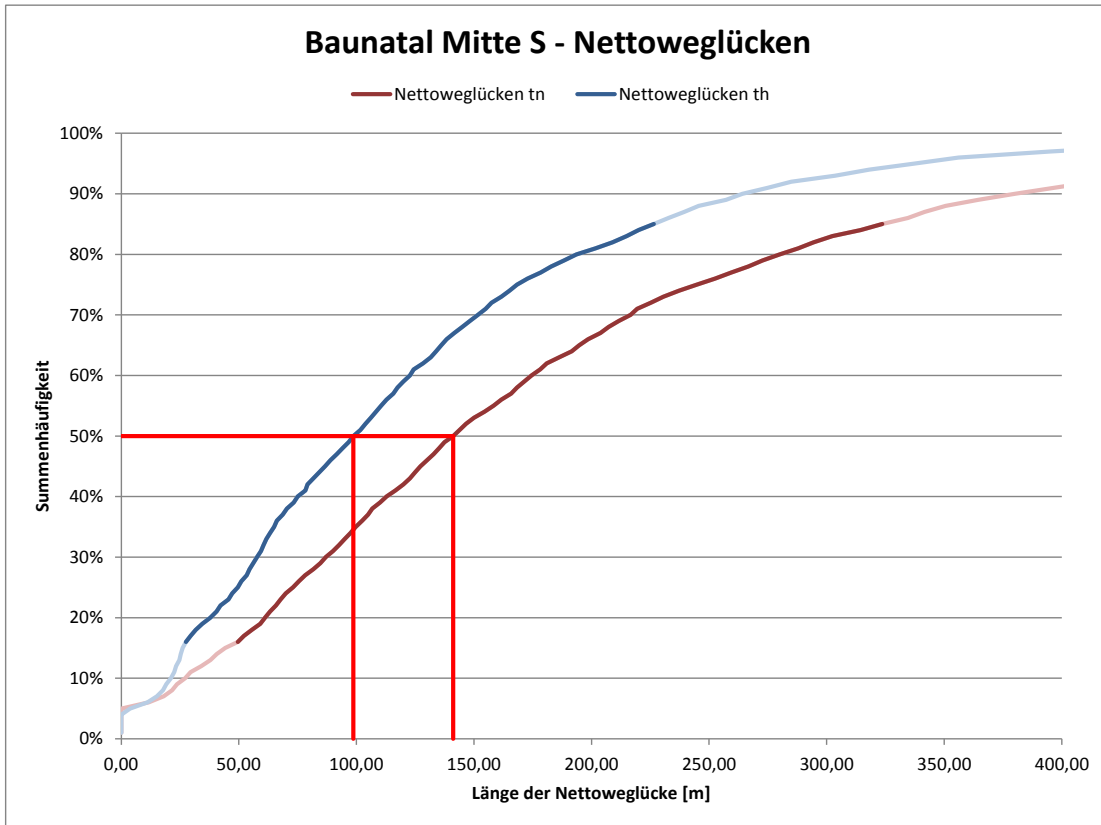


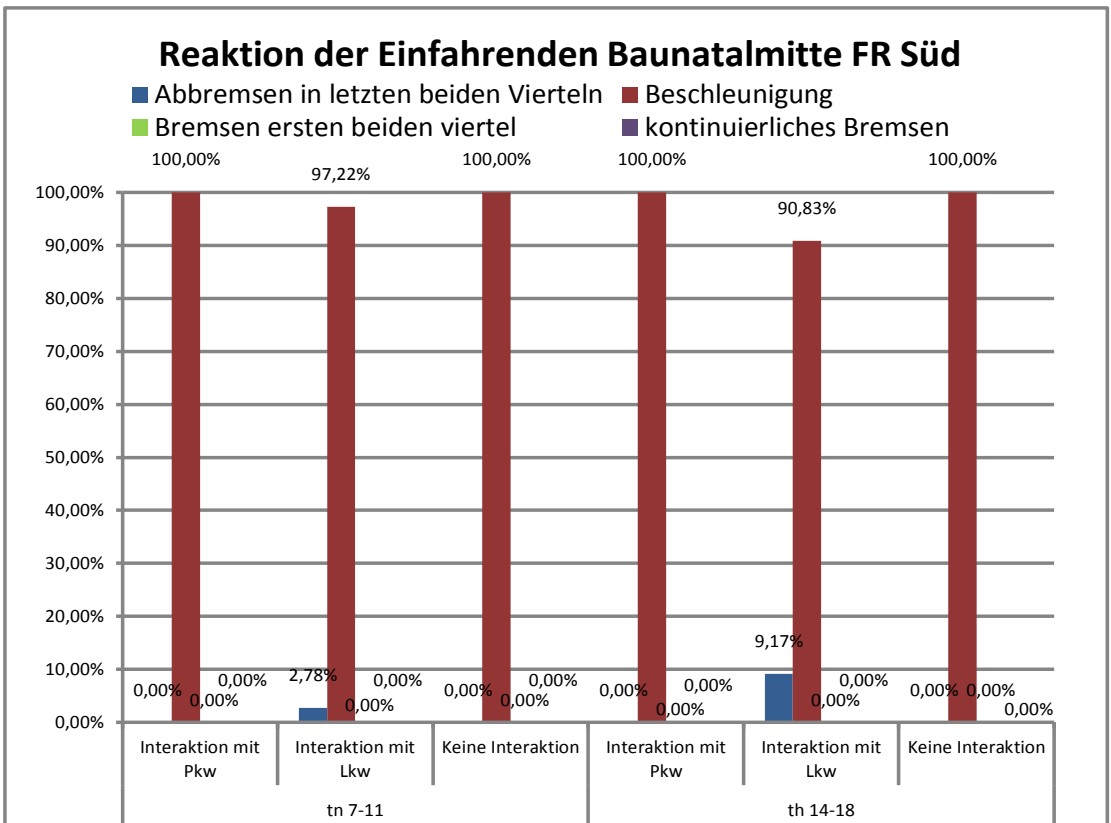
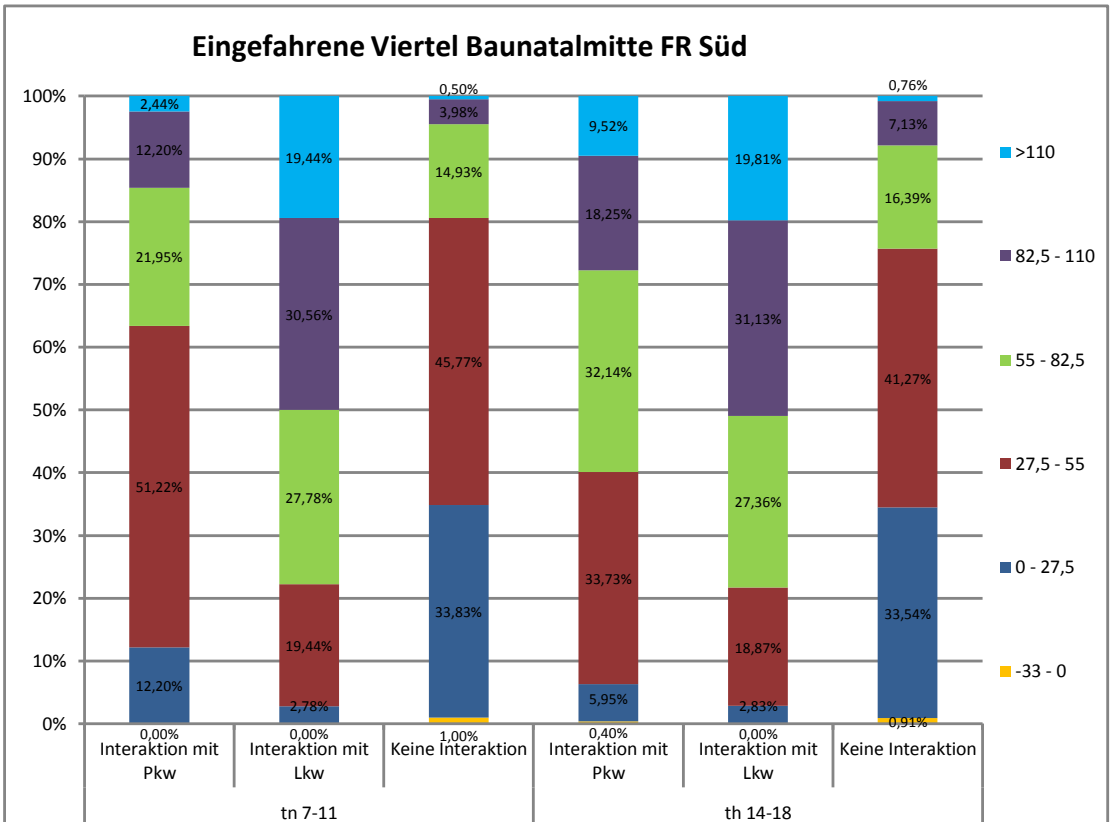
| Messort | Zeitraum | Kfz | Lkw | SV | Messort |
|---------|----------|-----------|-----------|-------|-----------------------|
| ÜFS | 23,5 h* | 6087,1163 | 1901,9221 | 31,25 | Querschnitt FR SÜD |
| | 7-11 | 1341,4401 | 571,3192 | 58,77 | |
| | 14-18 | 1238,7535 | 588,518 | 66,94 | |
| HFS | 23,5 h* | 5804,9324 | 2133,3758 | 36,75 | |
| | 7-11 | 972,0461 | 490,6116 | 50,47 | |
| | 14-18 | 879,1652 | 416,0096 | 47,32 | |

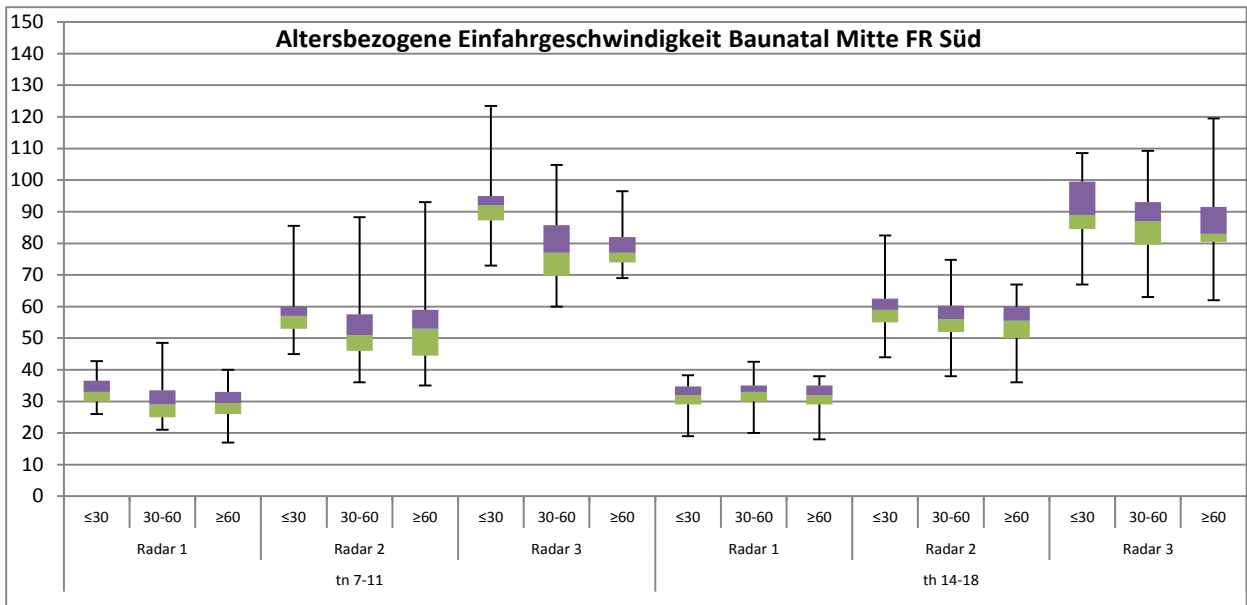
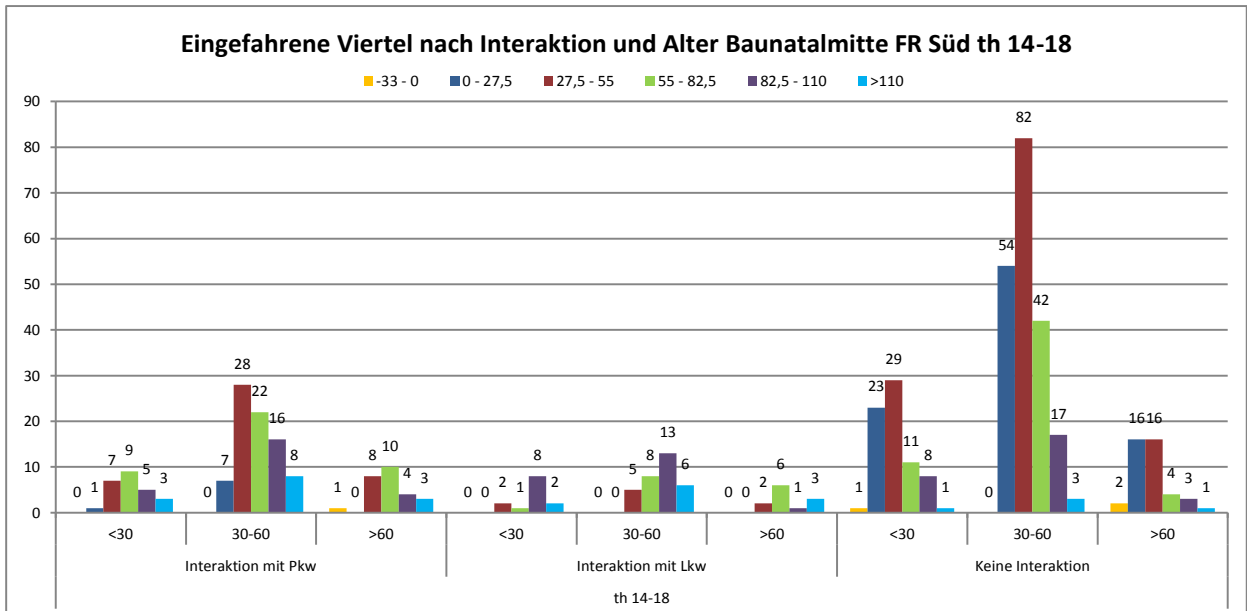
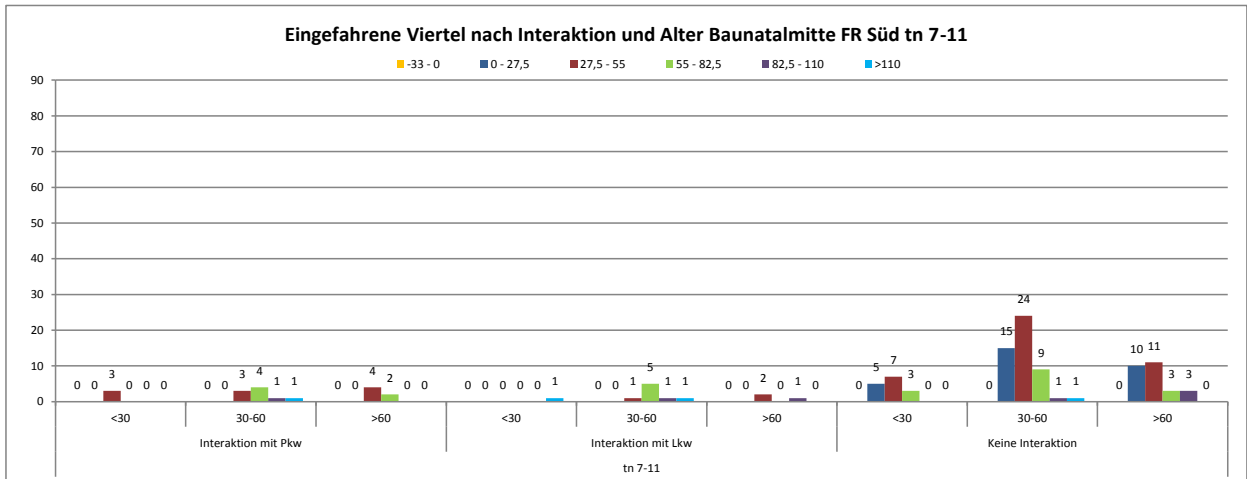
| Zeitraum | | Kfz | Kfz | Lkw | Lkw | SV |
|----------|-----|-----------|-----------|----------|-----------|-------|
| 23,5 h* | HFS | 5805 | 11892 | 2133 | 4035 | 33,93 |
| | ÜFS | 6087 | | 1902 | | |
| 7-11 | HFS | 972,0461 | 2313,4862 | 490,6116 | 1061,9308 | 45,90 |
| | ÜFS | 1341,4401 | | 571,3192 | | |
| 14-18 | HFS | 879,1652 | 2117,9187 | 416,0096 | 1004,5276 | 47,43 |
| | ÜFS | 1238,7535 | | 588,518 | | |

* weitere Daten liegen nicht vor





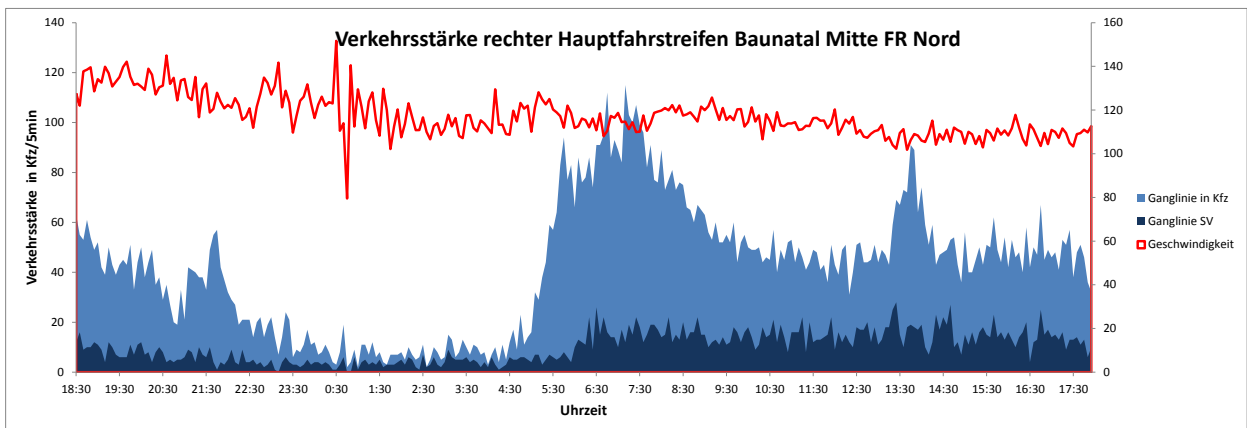
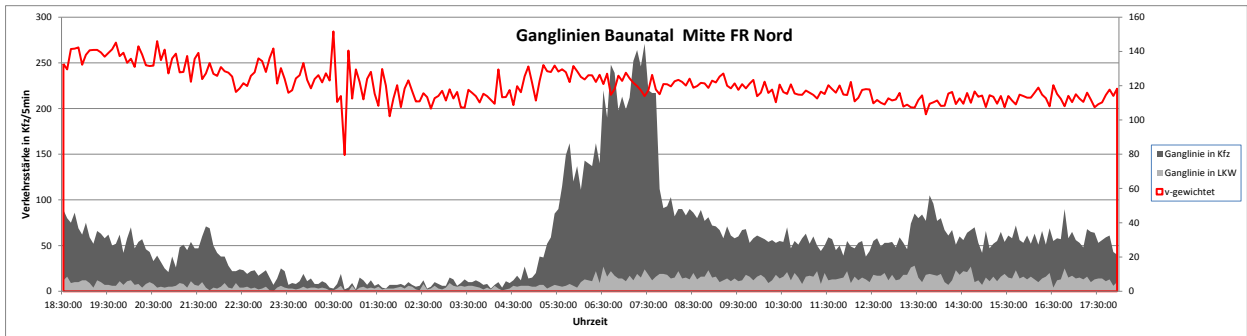


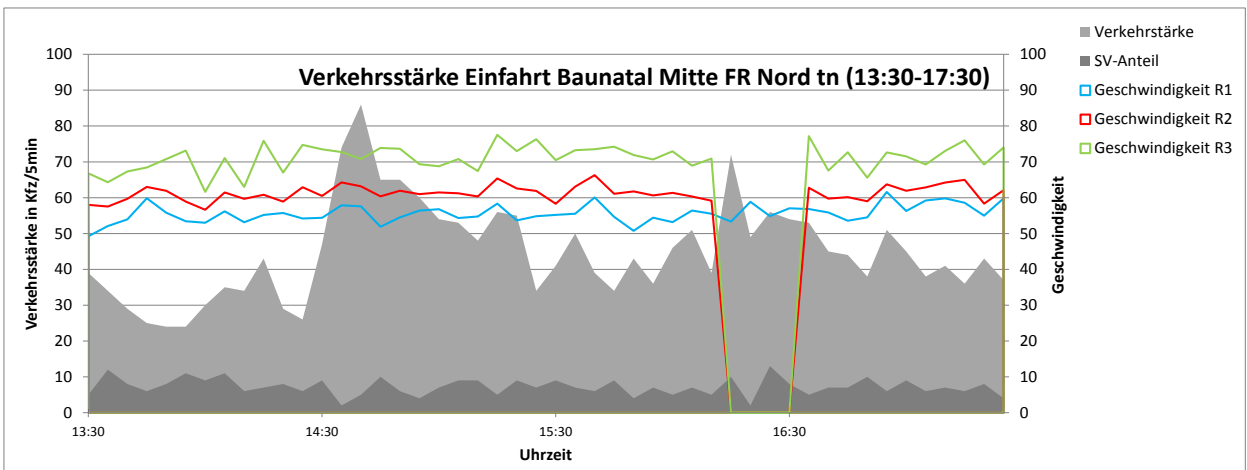
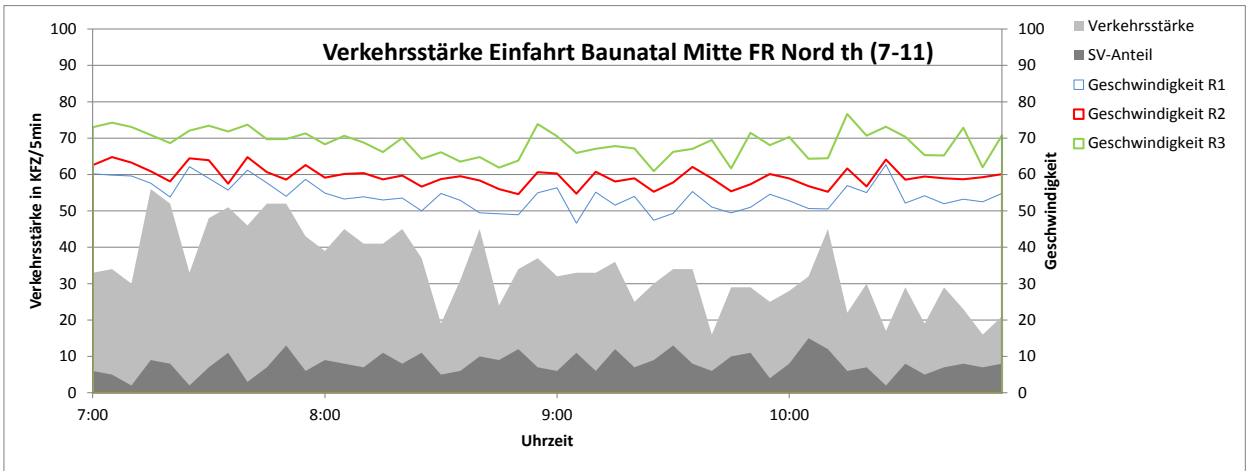
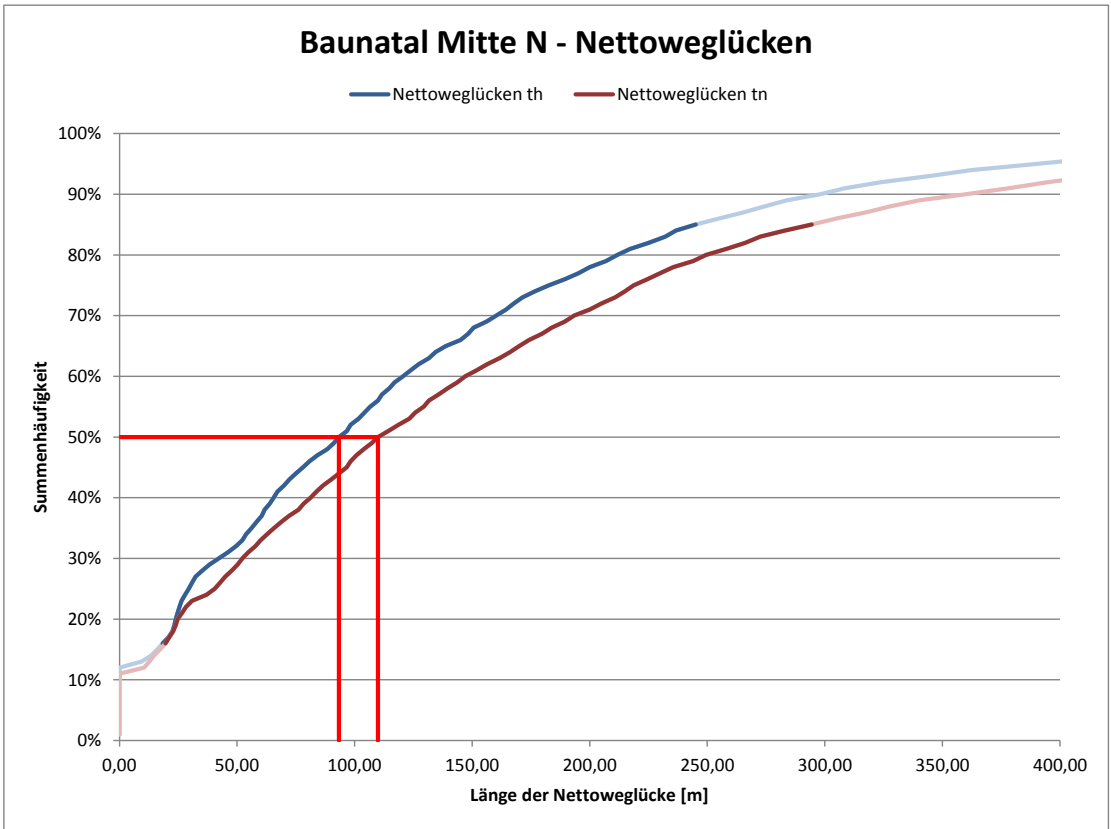


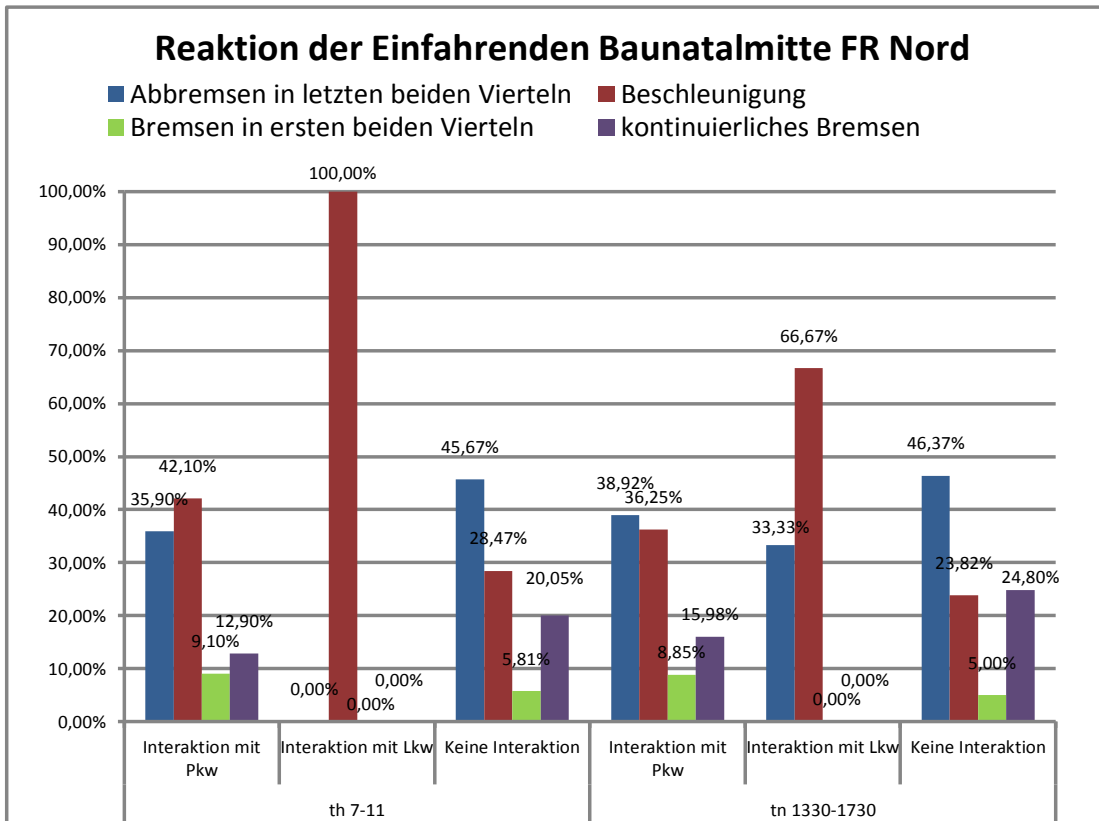
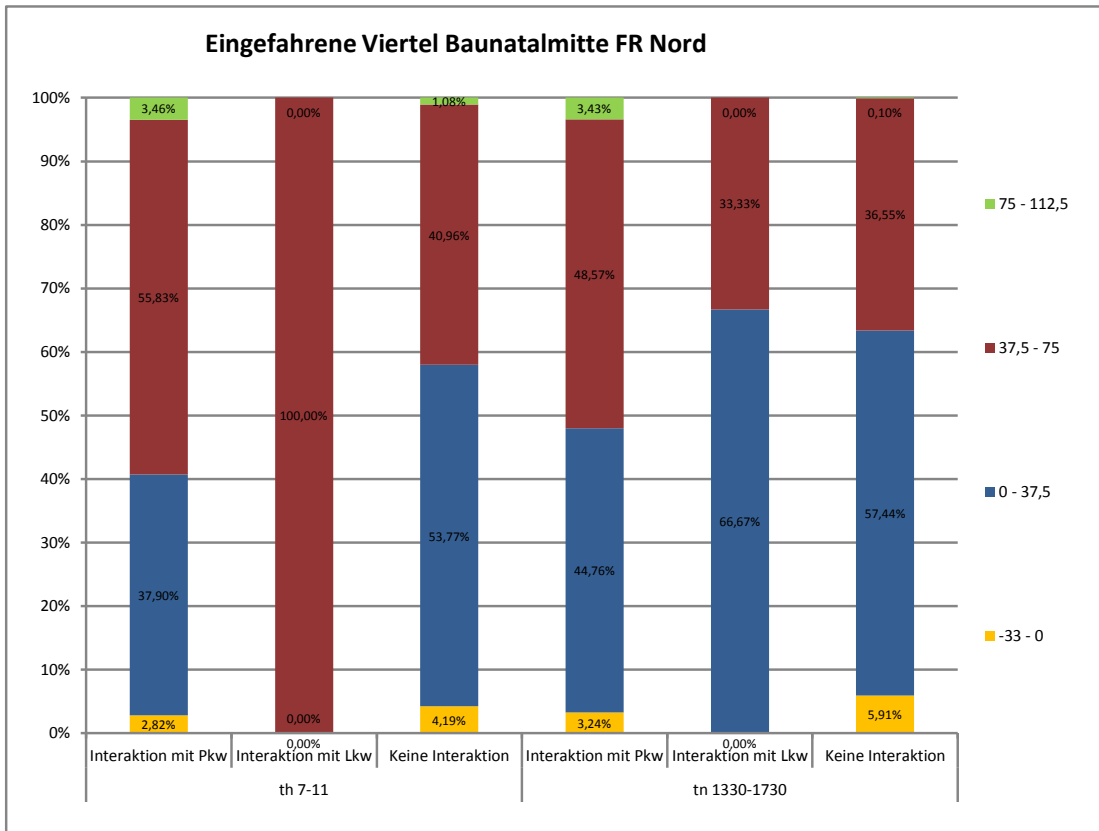
| Messort | Zeitraum | Kfz | Lkw | SV | Messort |
|---------|----------|-----------|-----------|-------|------------------------|
| ÜFS | 23,5 h* | 3911,8543 | 10,6065 | 0,27 | Querschnitt FR Nord |
| | 7-11 | 852,7581 | 4,9497 | 0,58 | |
| | 14-18 | 786,1627 | 2,1213 | 0,28 | |
| HFS | 23,5 h* | 5303,5622 | 3177,9828 | 59,92 | |
| | 7-11 | 855,332 | 537,2523 | 62,81 | |
| | 14-18 | 754,8318 | 454,0905 | 60,16 | |

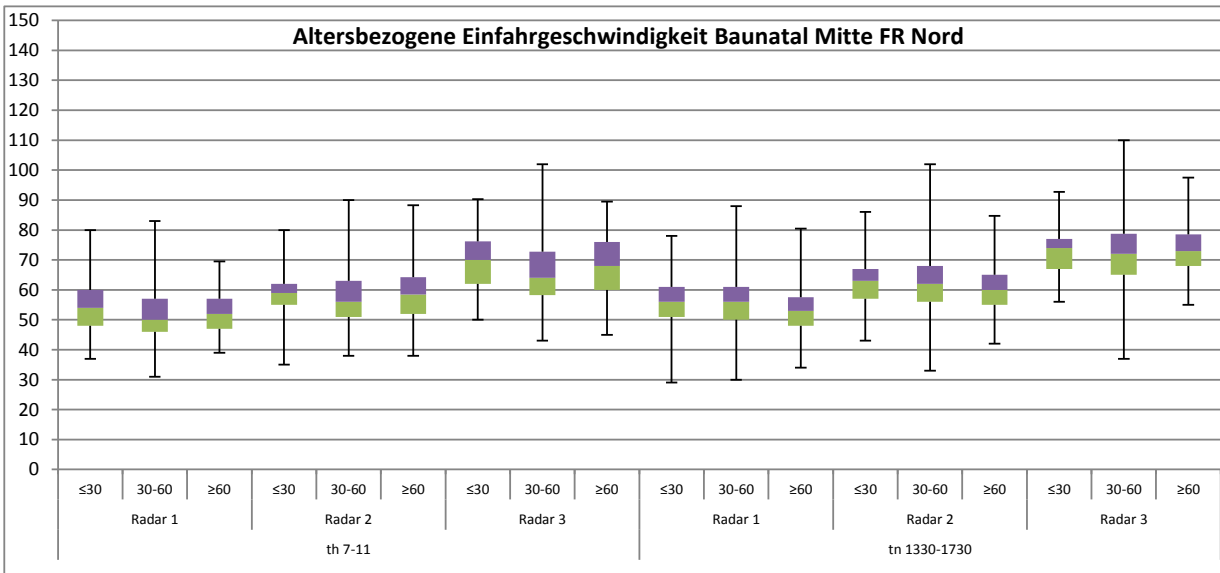
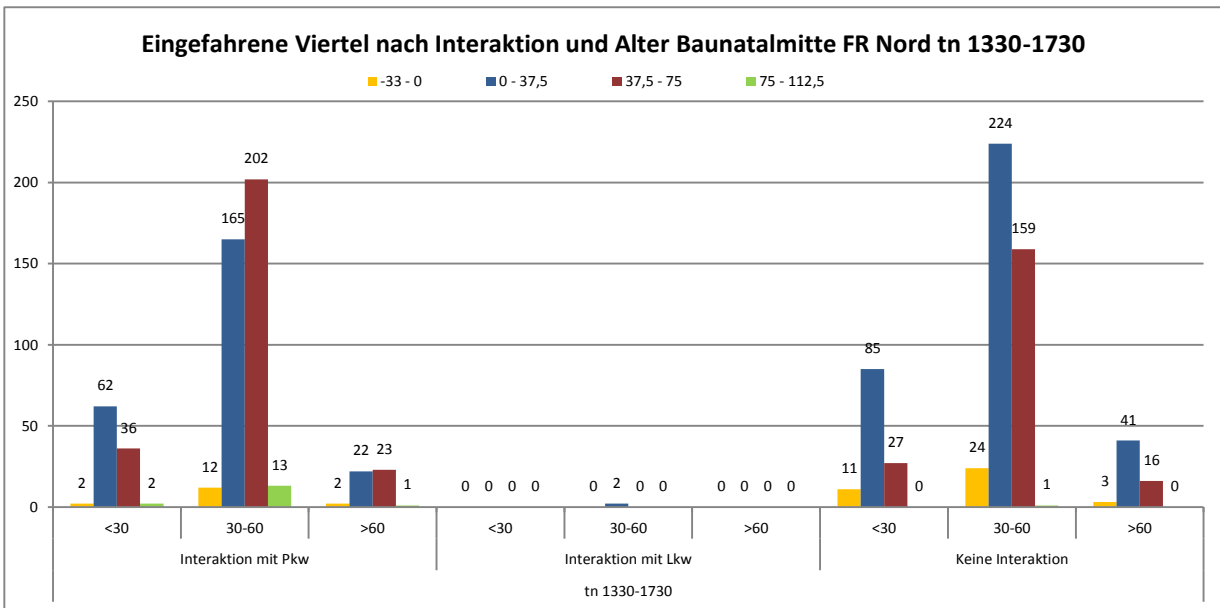
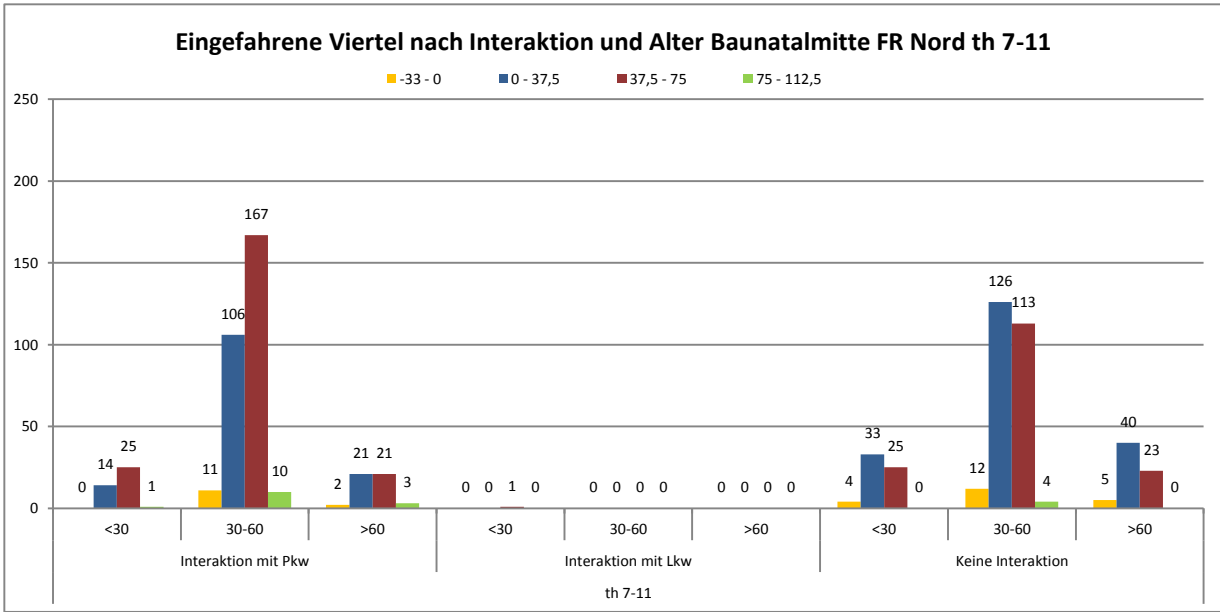
| Zeitraum | | Kfz angepasst | Kfz | Lkw angepasst | Lkw | SV |
|----------|-----|---------------|-----------|---------------|----------|-------|
| 23,5 h* | HFS | 5304 | 9215 | 3178 | 3189 | 34,60 |
| | ÜFS | 3912 | | 11 | | |
| 7-11 | HFS | 855,332 | 1708,0901 | 537,2523 | 542,202 | 31,74 |
| | ÜFS | 852,7581 | | 4,9497 | | |
| 14-18 | HFS | 754,8318 | 1540,9945 | 454,0905 | 456,2118 | 29,61 |
| | ÜFS | 786,1627 | | 2,1213 | | |

* weitere Daten liegen nicht vor







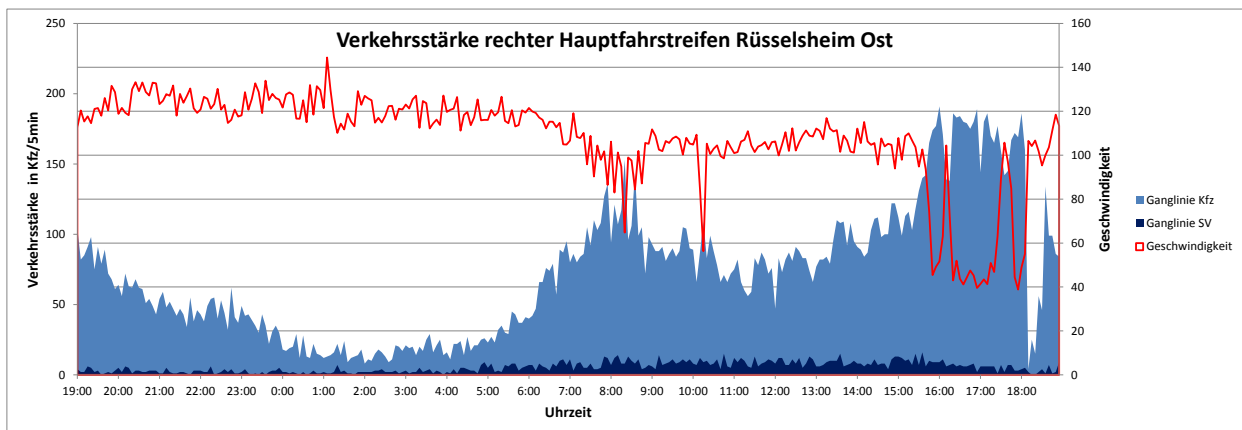
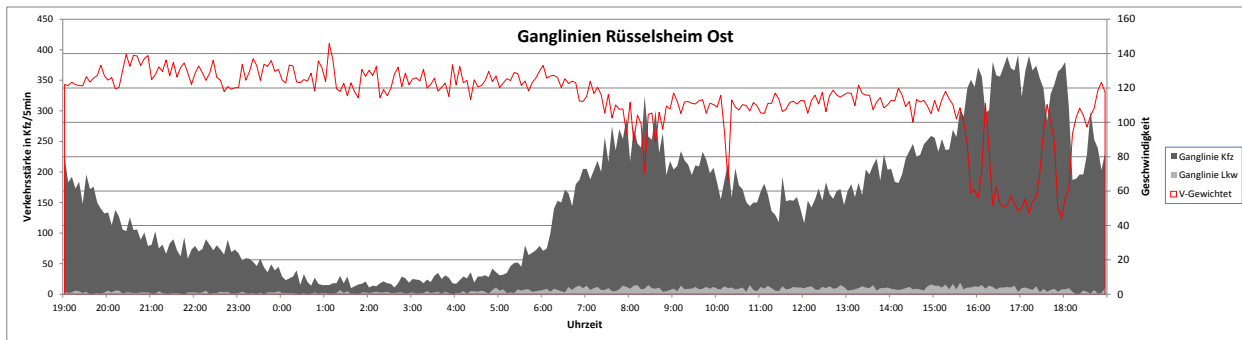


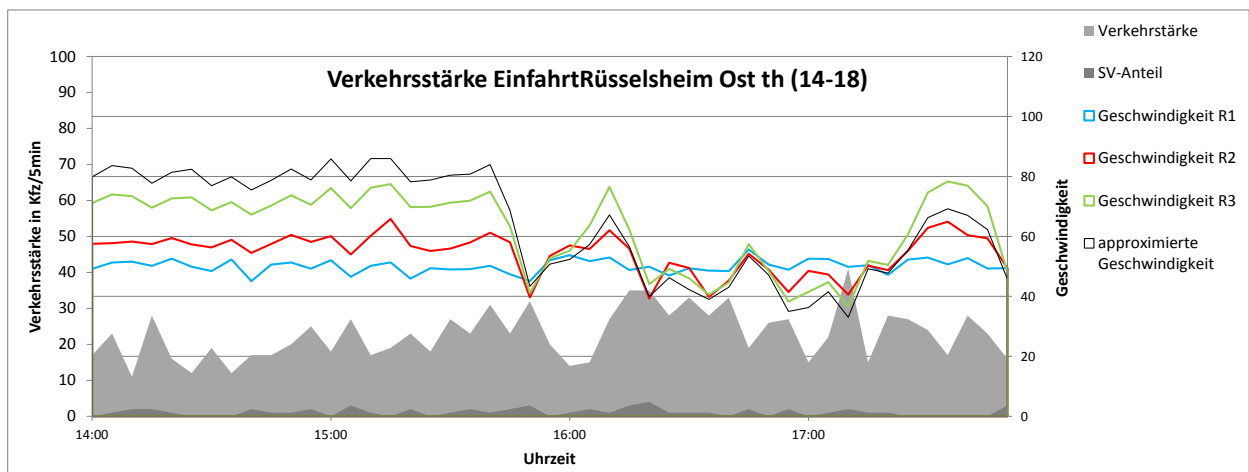
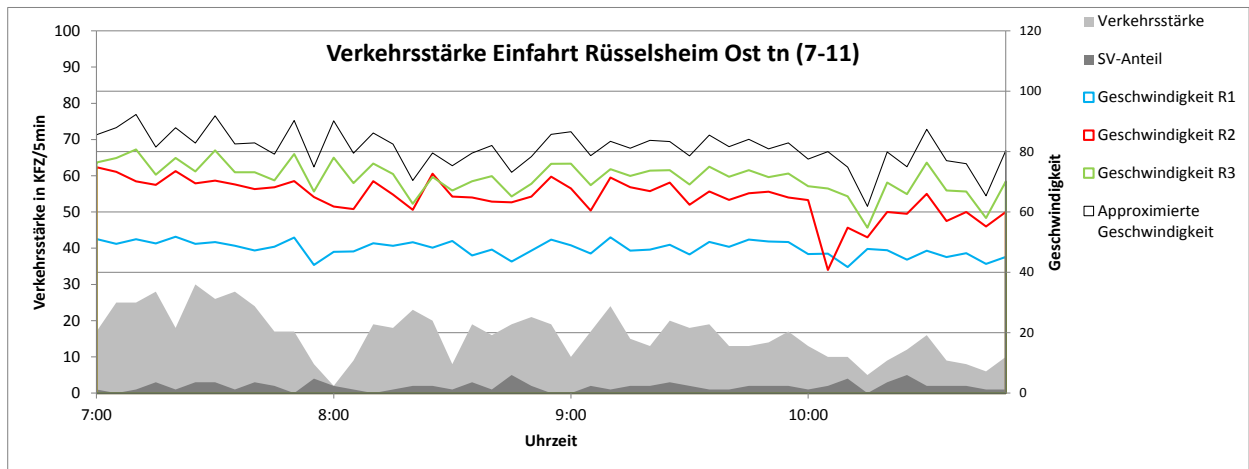
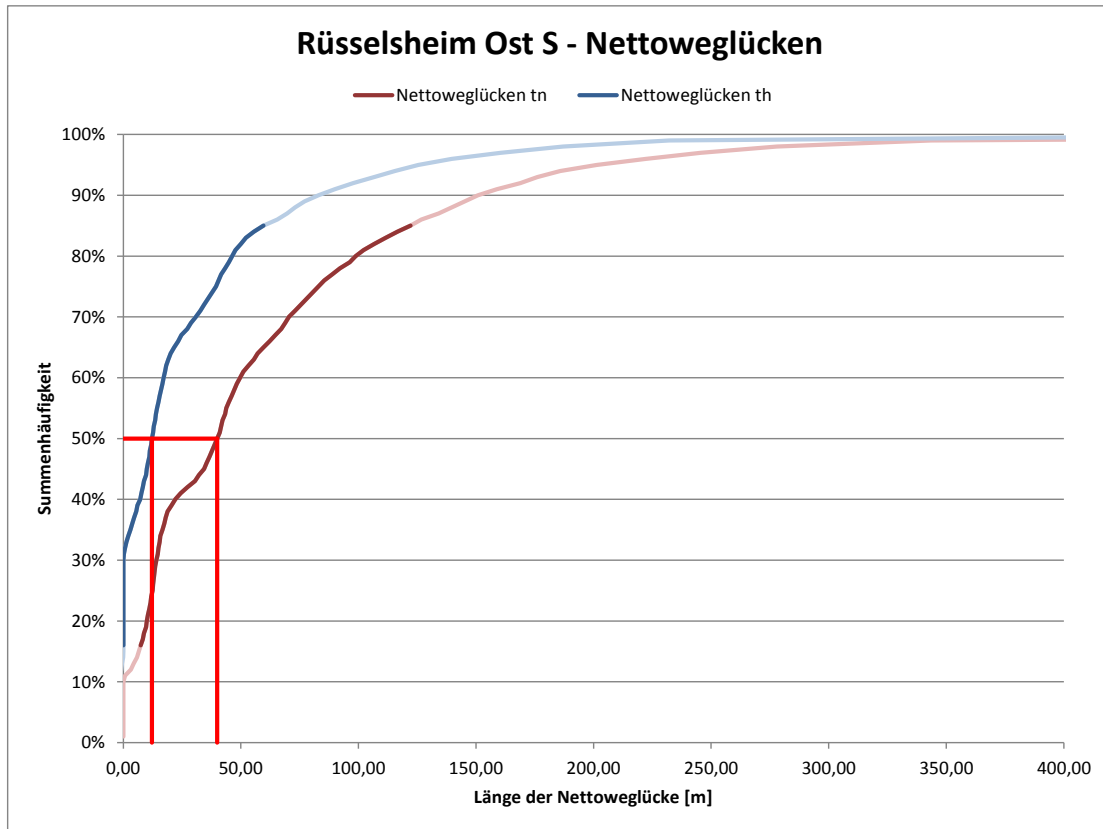
Ergebnisse AS Rüsselsheim-Ost, Fahrtrichtung Süd

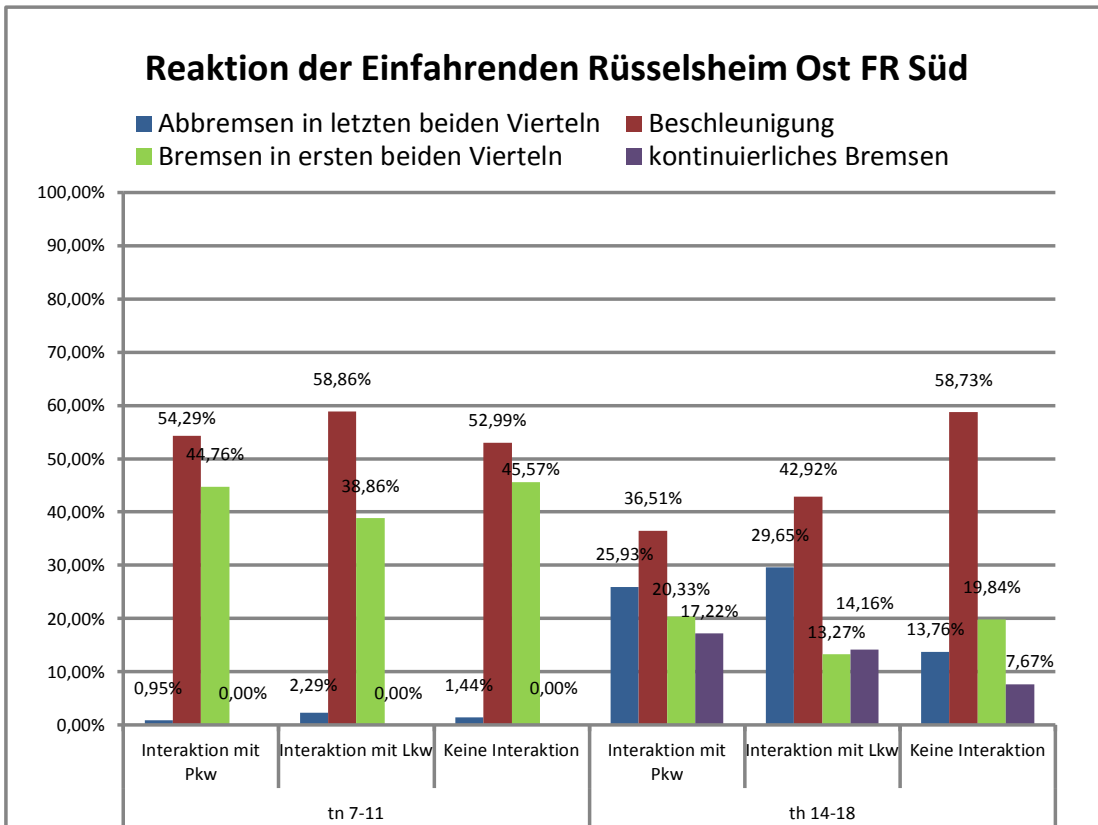
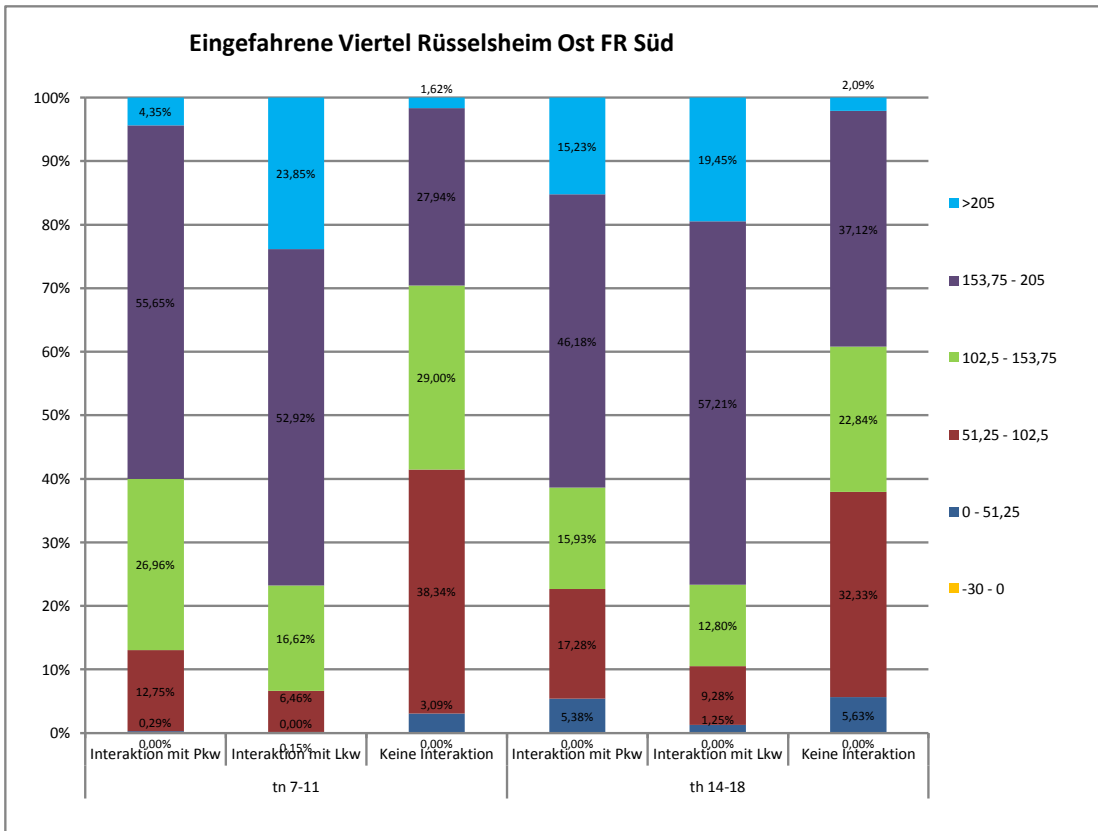
| | |
|---|-----------------------------|
| Name der Einfahrt | HE_067_02-Rüsselsheim Ost_S |
| Rampentyp | indirekt |
| Länge Bereich 0 [m] | 30 |
| L ₂ [m] | 205 |
| DTV Klasse | hoch |
| Besonderheiten | Opel-Werk |
| L _R [m] | 350 |
| Anzahl Richtungs-fahrbahnen | 2 |
| Ballungsraum (iB/aB) (>100tsd Ew.; 1000Ew/km ²) | iB |
| Ballungsraumname | Frankfurt |
| Unfallauffällig | ja |
| DTV (2012) [Kfz/d] | 42725 |
| SV-Anteil (2011) [%] | 12,24 |
| Q _{Querschnitt,vormittag} [Kfz/h] | 10429 |
| SV _{Querschnitt,vormittag} [%] | 5,49 |
| Q _{Querschnitt,nachmittag} [Kfz/h] | 14174 |
| SV _{Querschnitt,nachmittag} [%] | 3,41 |
| Q _{HFS,vormittag} [Kfz/h] | 1142,75 |
| SV _{HFS,vormittag} [%] | 1,01 |
| v _{HFS,vormittag} [km/h] | 100,38 |
| Q _{Rampe,vormittag} [Kfz/h] | 191,50 |
| SV _{Rampe,vormittag} [%] | 11,10 |
| v _{Rampe,vormittag} [km/h] | 39,93 |
| Q _{HFS,nachmittag} [Kfz/h] | 1720,00 |
| SV _{HFS,nachmittag} [%] | 1,59 |
| v _{HFS,nachmittag} [km/h] | 78,13 |
| Q _{Rampe,nachmittag} [Kfz/h] | 271,50 |
| SV _{Rampe,nachmittag} [%] | 4,88 |
| v _{Rampe,nachmittag} [km/h] | 41,81 |
| | |
| | |
| t _h | |
| t _n | |

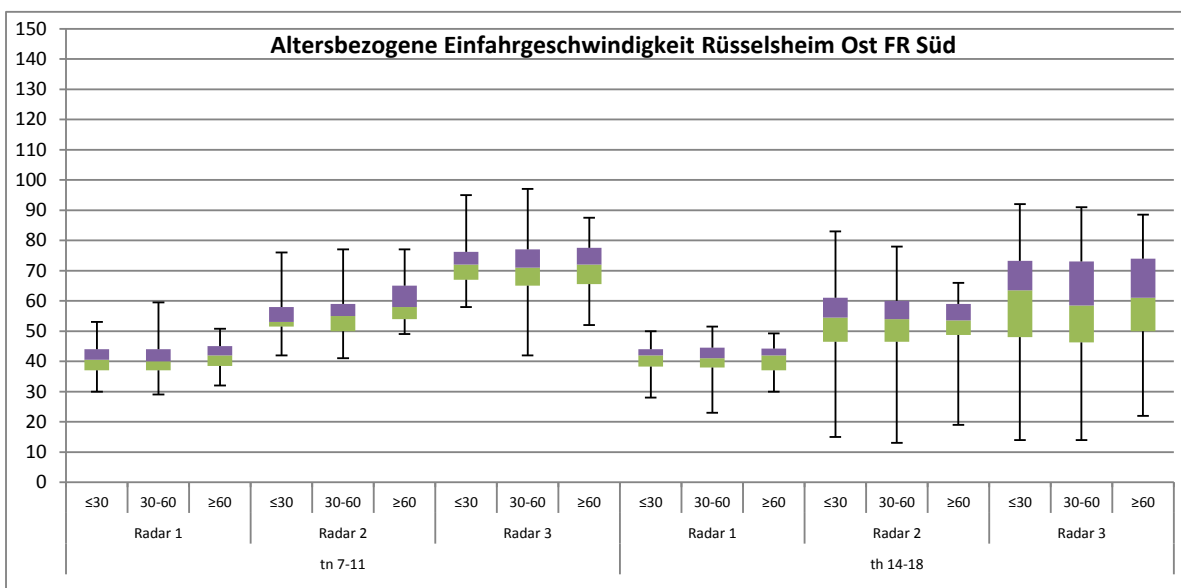
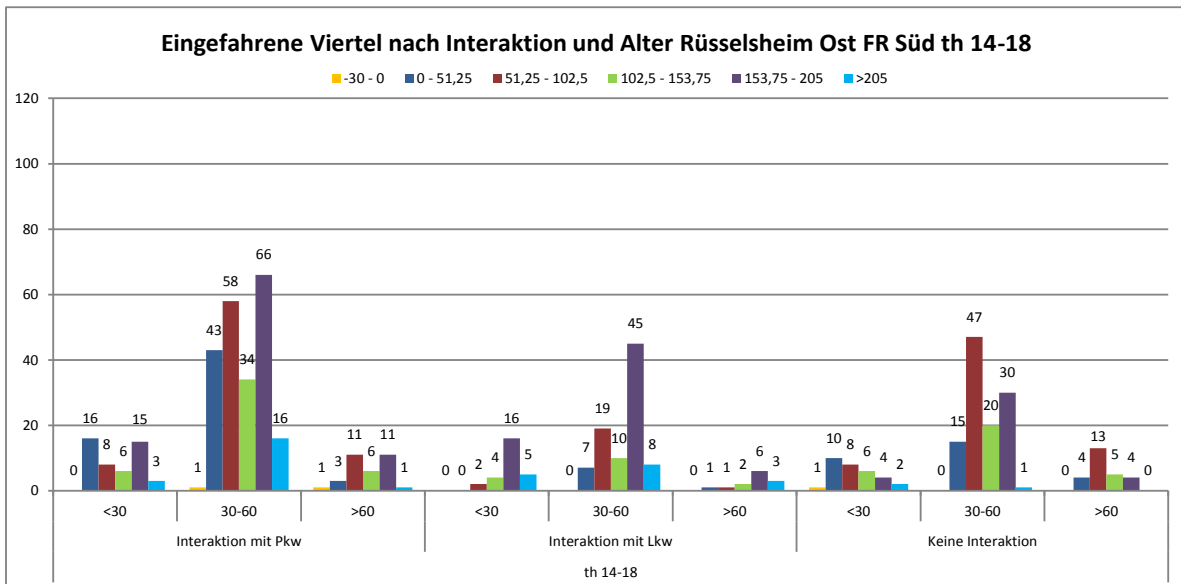
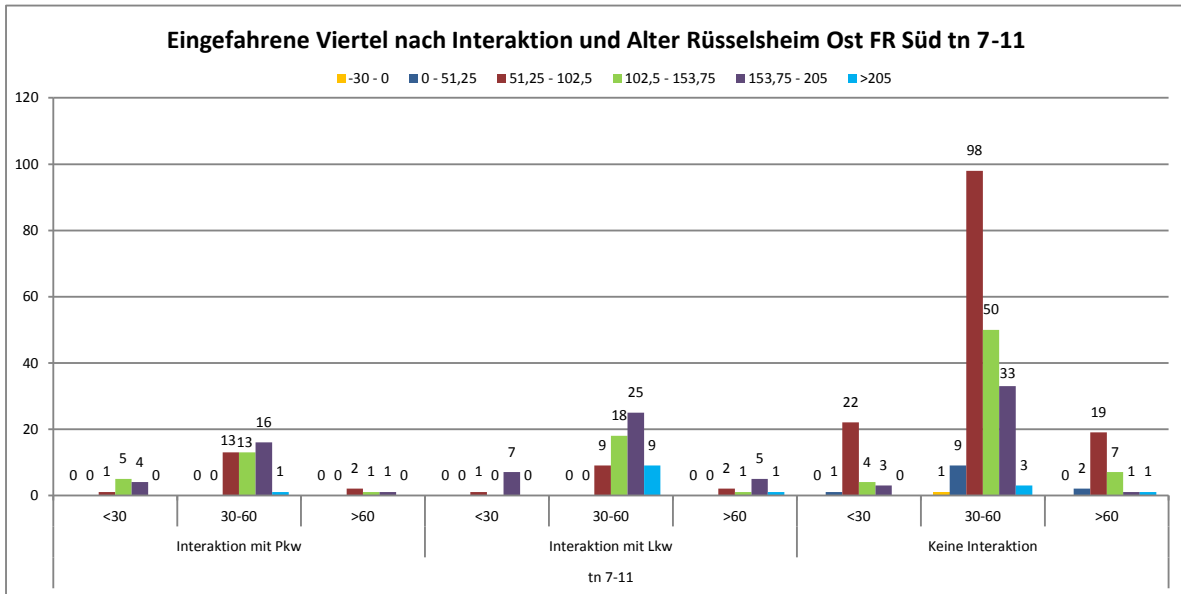
| Messort | Zeitraum | Kfz | Lkw | SV | Messort |
|-----------|----------|---------|--------|-------|-----------------------|
| HFS Seite | 22 h | 8247 | 497 | 6,03 | Querschnitt FR SÜD |
| | 7-11 | 1518 | 5 | 0,33 | |
| | 17-18 | 1643 | 4 | 0,24 | |
| ÜFS | 24 h | 44352 | 0 | 0,00 | |
| | 7-11 | 1706688 | 18144 | 1,06 | |
| | 14-18 | 2075904 | 34560 | 1,66 | |
| HFS | 24 h | 28512 | 2016 | 7,07 | |
| | 7-11 | 1331712 | 146880 | 11,03 | |
| | 14-18 | 1868832 | 108288 | 5,79 | |

| Zeitraum | | Kfz angepasst | Kfz | Lkw angepasst | Lkw | SV |
|---------------------------|-----|---------------|---------|---------------|--------|------|
| Ungeeignet für Auswertung | | | | | | |
| 24 | HFS | 28512 | 72864 | 2199 | 2199 | 3,02 |
| | ÜFS | 44352 | | 0 | | |
| 7-11 | HFS | 1331712 | 3038400 | 146880 | 165024 | 5,43 |
| | ÜFS | 1706688 | | 18144 | | |
| 14-18 | HFS | 1868832 | 3944736 | 108288 | 142848 | 3,62 |
| | ÜFS | 2075904 | | 34560 | | |









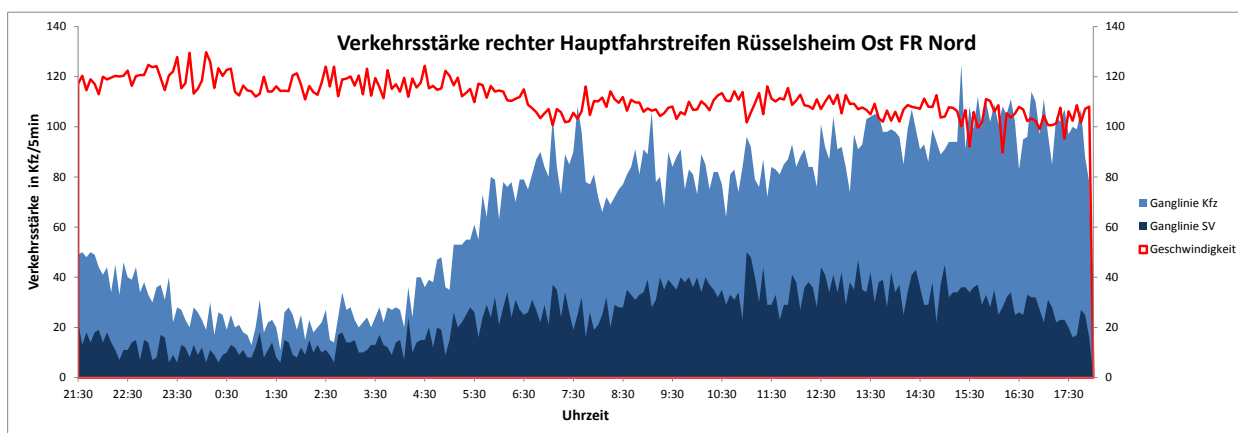
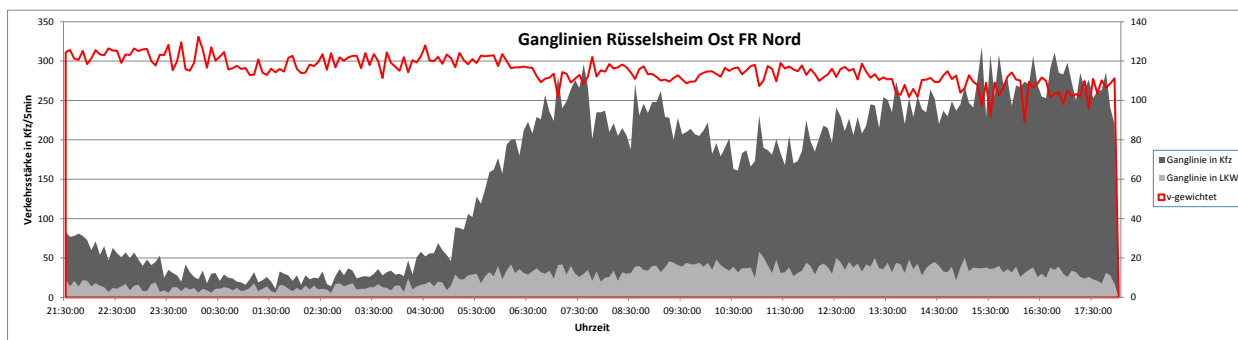
Ergebnisse AS Rüsselsheim-Ost, Fahrtrichtung Nord

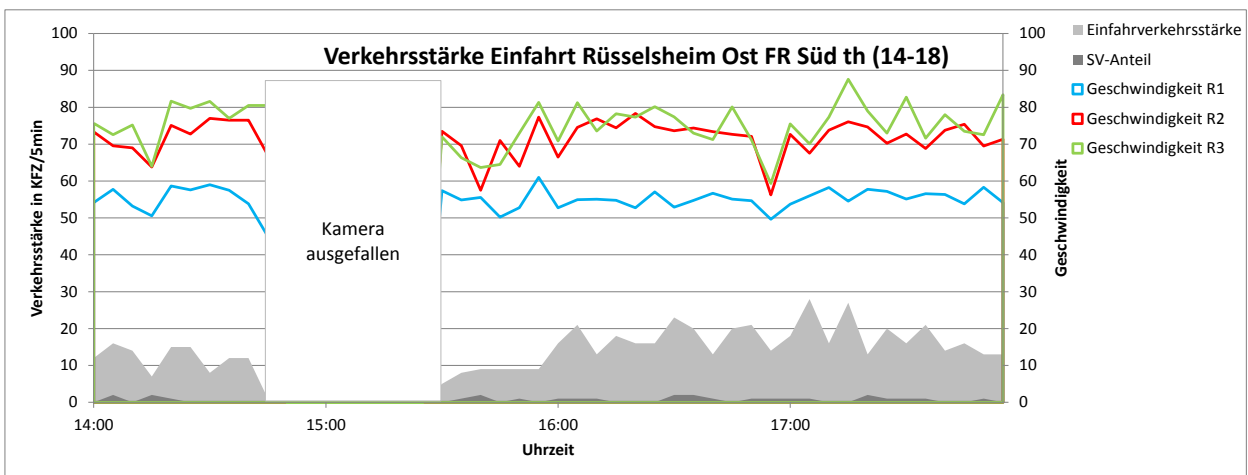
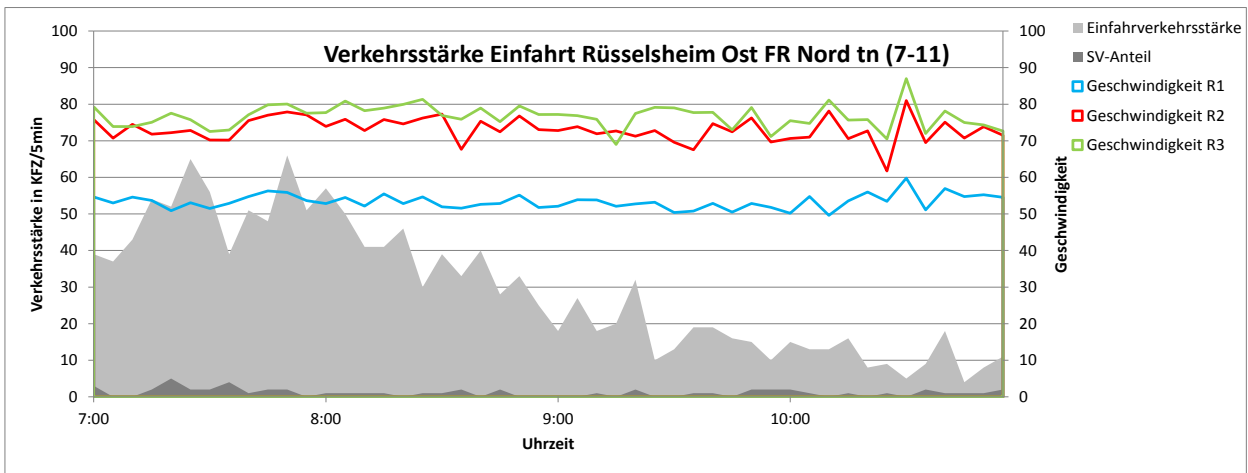
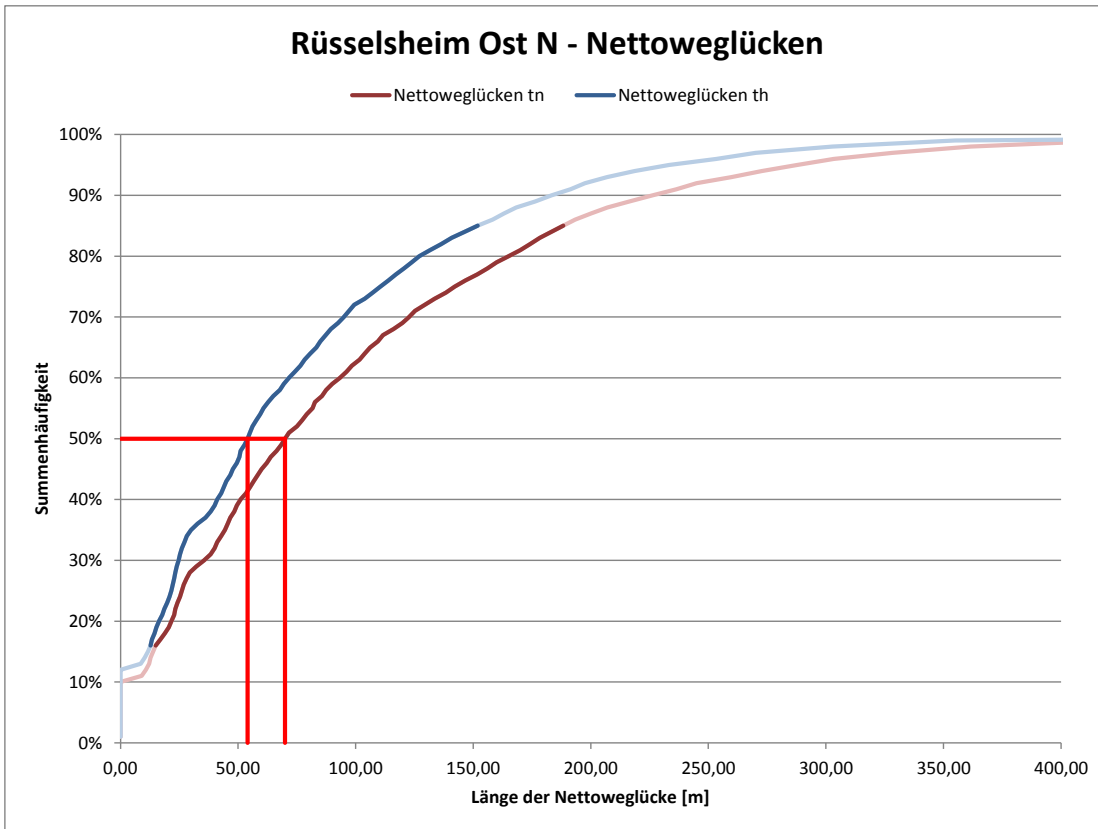
| | |
|--|-----------------------------|
| Name der Einfahrt | HE_067_02-Rüsselsheim Ost_N |
| Rampentyp | indirekt |
| Länge Bereich 0 [m] | 50 |
| L ₂ [m] | 145 |
| DTV Klasse | hoch |
| Besonderheiten | Opel-Werk |
| L _R [m] | 350 |
| Anzahl Richtungs-fahrbahnen | 2 |
| Ballungsraum (iB/aB) (>100tsd Ew.; 1000Ew/km ²) | iB |
| Ballungsraumname | Frankfurt |
| Unfallauffällig | ja |
| DTV (2012) [Kfz/d] | 42065 |
| SV-Anteil (2011) [%] | 11,86 |
| Q _{Querschnitt,vormittag} [Kfz/h] | 10599 |
| SV _{Querschnitt,vormittag} [%] | 16 |
| Q _{Querschnitt,nachmittag} [Kfz/h] | 12640 |
| SV _{Querschnitt,nachmittag} [%] | 12,49 |
| Q _{HFS,vormittag} [Kfz/h] | 985,00 |
| SV _{HFS,vormittag} [%] | 38,17 |
| V _{HFS,vormittag} [km/h] | 108,22 |
| Q _{Rampe,vormittag} [Kfz/h] | 352,50 |
| SV _{Rampe,vormittag} [%] | 3,83 |
| V _{Rampe,vormittag} [km/h] | 53,34 |
| Q _{HFS,nachmittag} [Kfz/h] | 1190,50 |
| SV _{HFS,nachmittag} [%] | 30,30 |
| V _{HFS,nachmittag} [km/h] | 104,75 |
| Q _{Rampe,nachmittag} [Kfz/h] | 146,75 |
| SV _{Rampe,nachmittag} [%] | 4,60 |
| V _{Rampe,nachmittag} [km/h] | 45,88 |
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| t _n | |

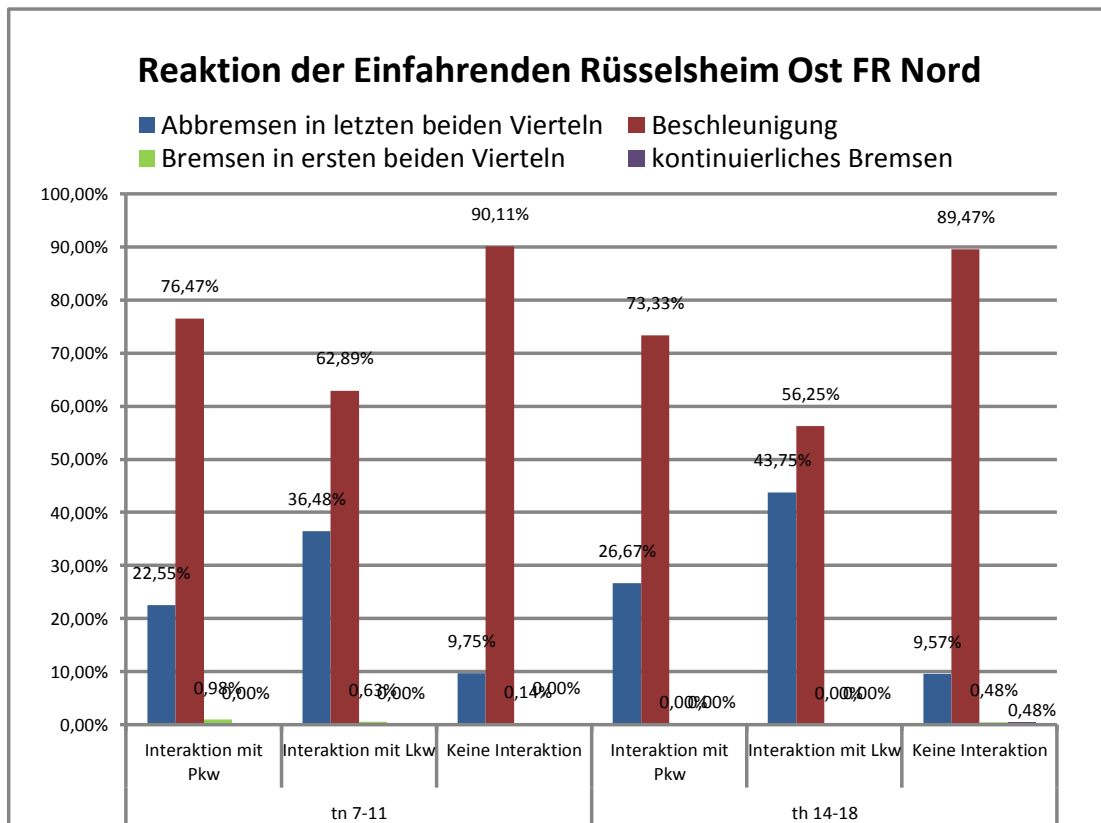
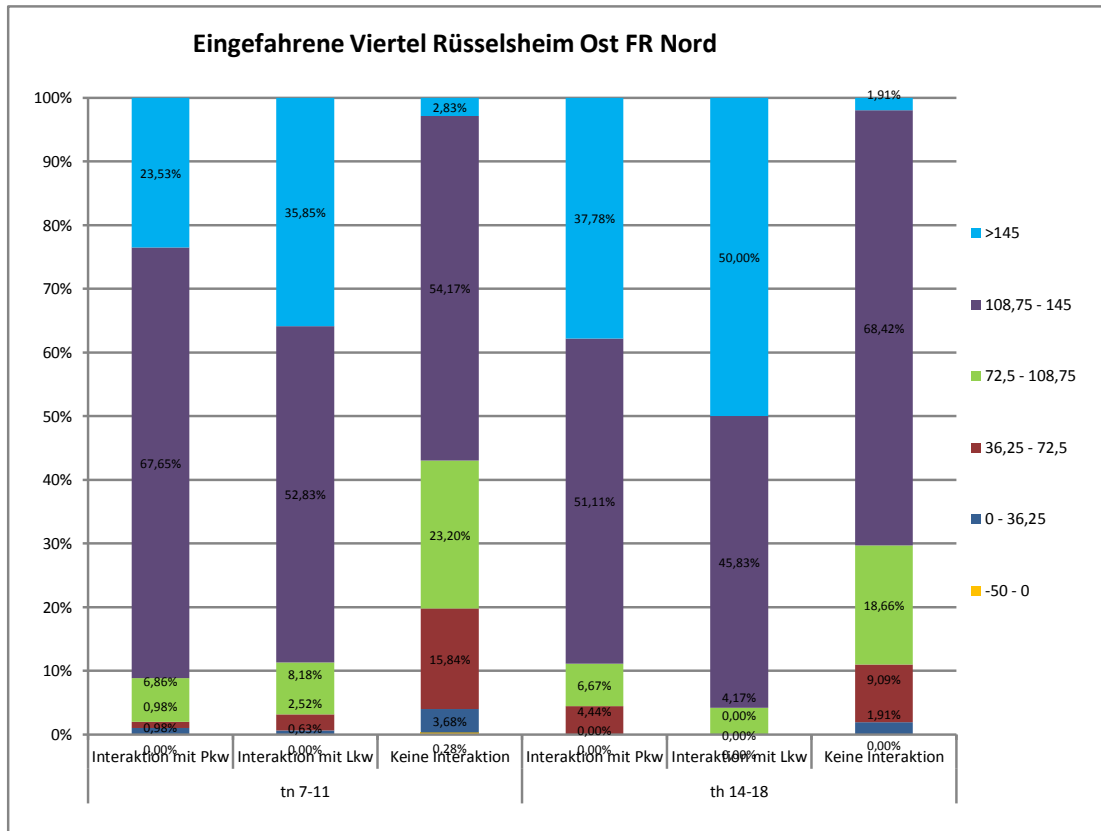
| Messort | Zeitraum | Kfz | Lkw | SV | Messort |
|---------|----------|---------|---------|-------|------------------------|
| ÜFS | 22,5 h* | 6279264 | 171936 | 2,74 | Querschnitt FR Nord |
| | 7-11 | 1957536 | 57312 | 5,03 | |
| | 14-18 | 2263392 | 40608 | 2,94 | |
| HFS | 22,5 h* | 4621248 | 1704960 | 36,89 | |
| | 7-11 | 1139328 | 431424 | 37,87 | |
| | 14-18 | 1380384 | 423936 | 30,71 | |

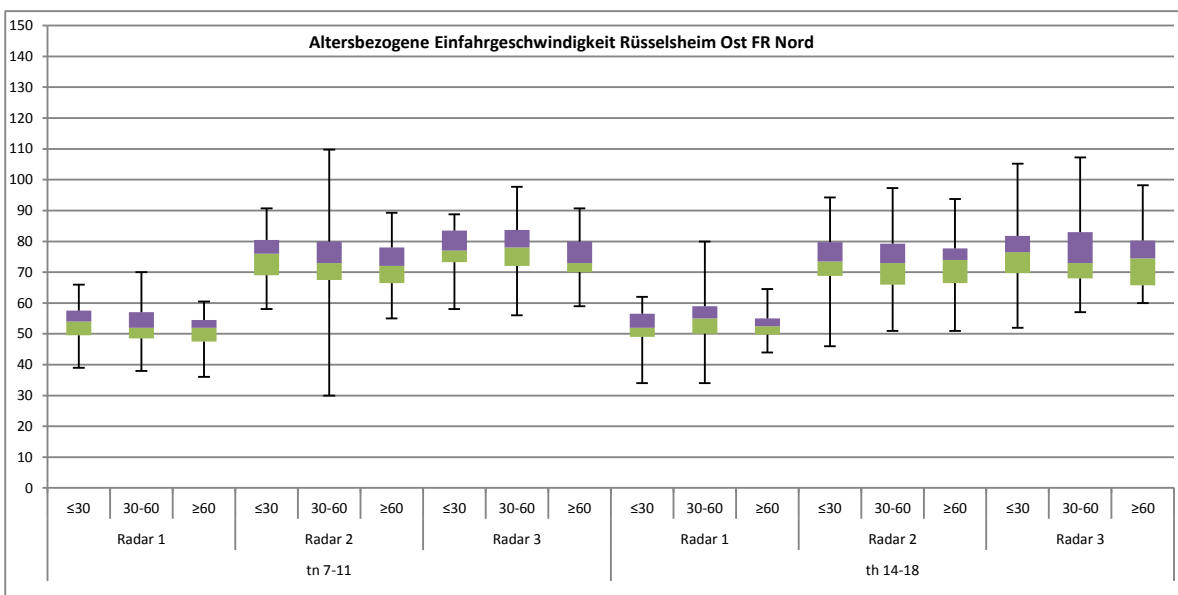
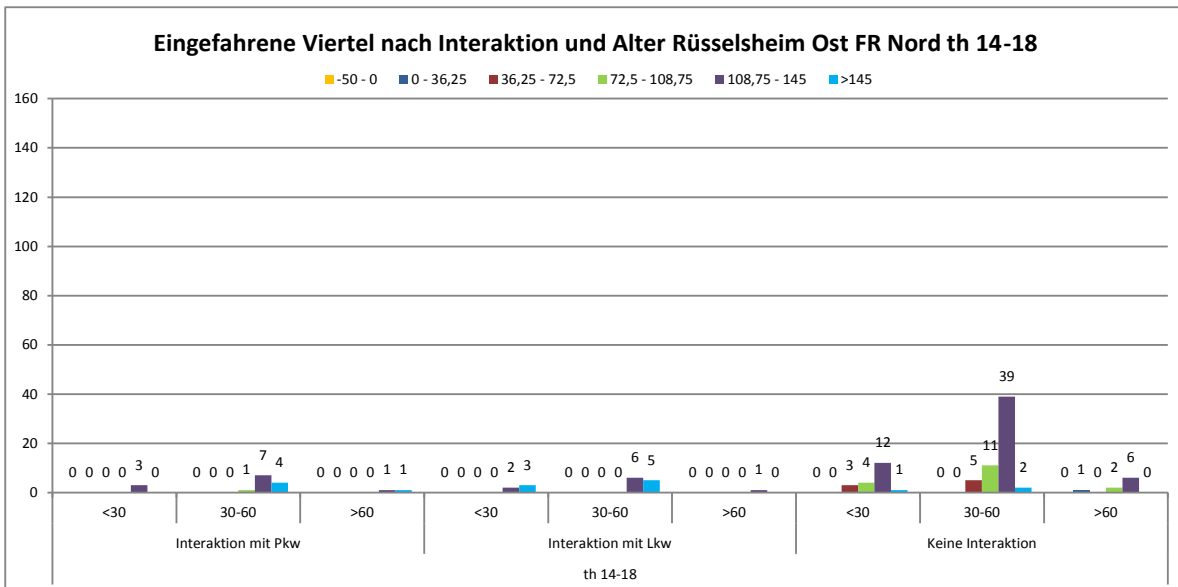
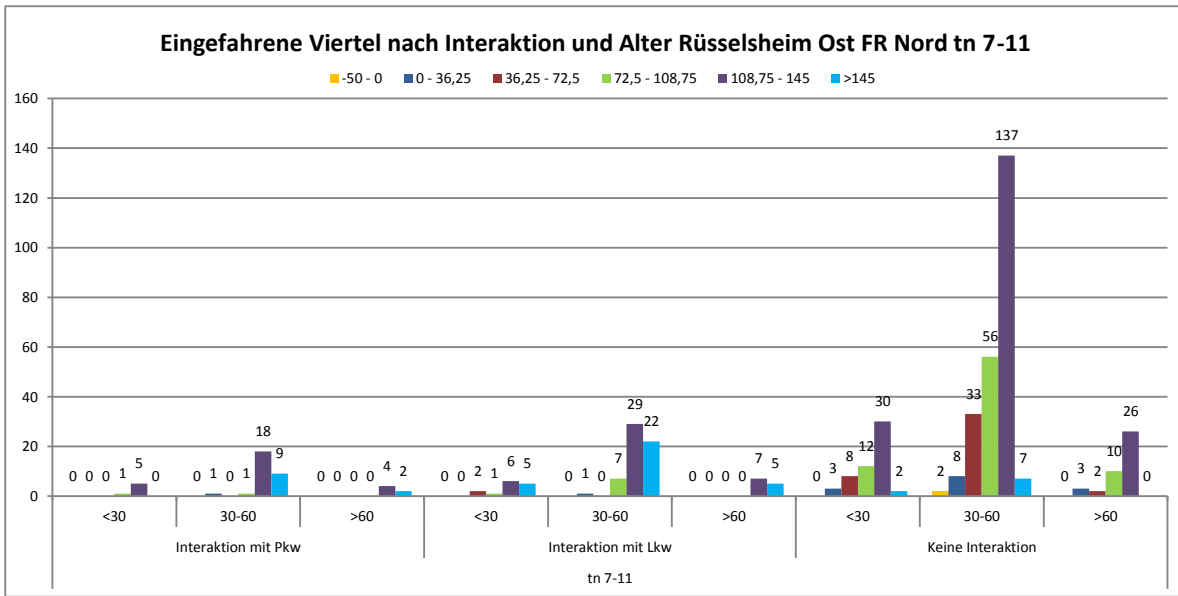
| Zeitraum | | Kfz | Kfz | Lkw | Lkw | SV |
|----------|-----|---------|----------|---------|---------|-------|
| 22,5 h* | HFS | 4621248 | 10900512 | 1704960 | 1876896 | 17,22 |
| | ÜFS | 6279264 | | 171936 | | |
| 7-11 | HFS | 1139328 | 3096864 | 431424 | 488736 | 15,78 |
| | ÜFS | 1957536 | | 57312 | | |
| 14-18 | HFS | 1380384 | 3643776 | 423936 | 464544 | 12,75 |
| | ÜFS | 2263392 | | 40608 | | |

* weitere Daten liegen nicht vor









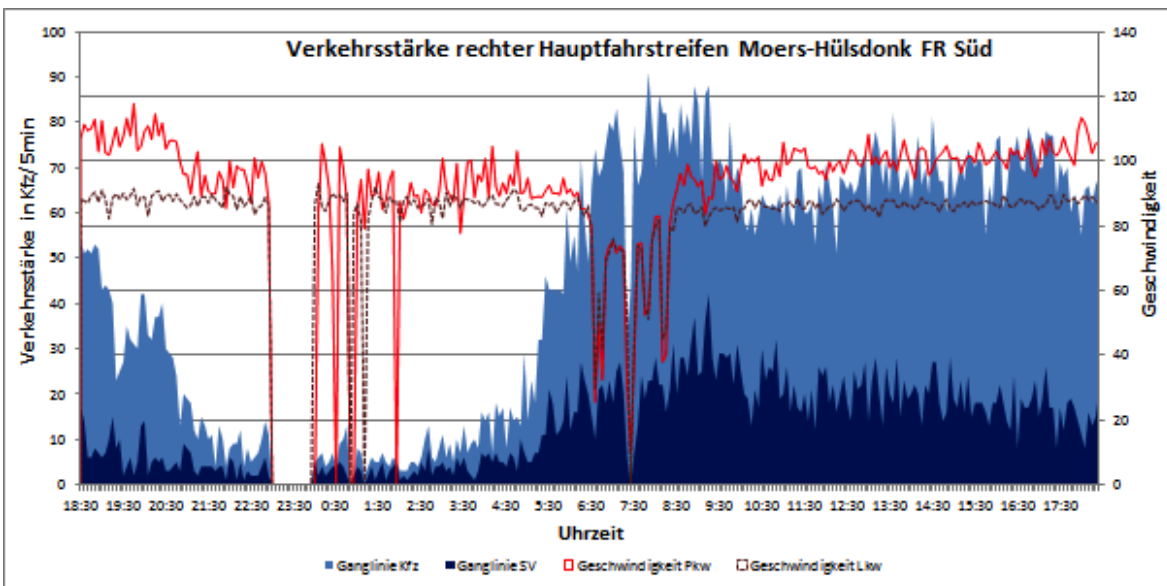
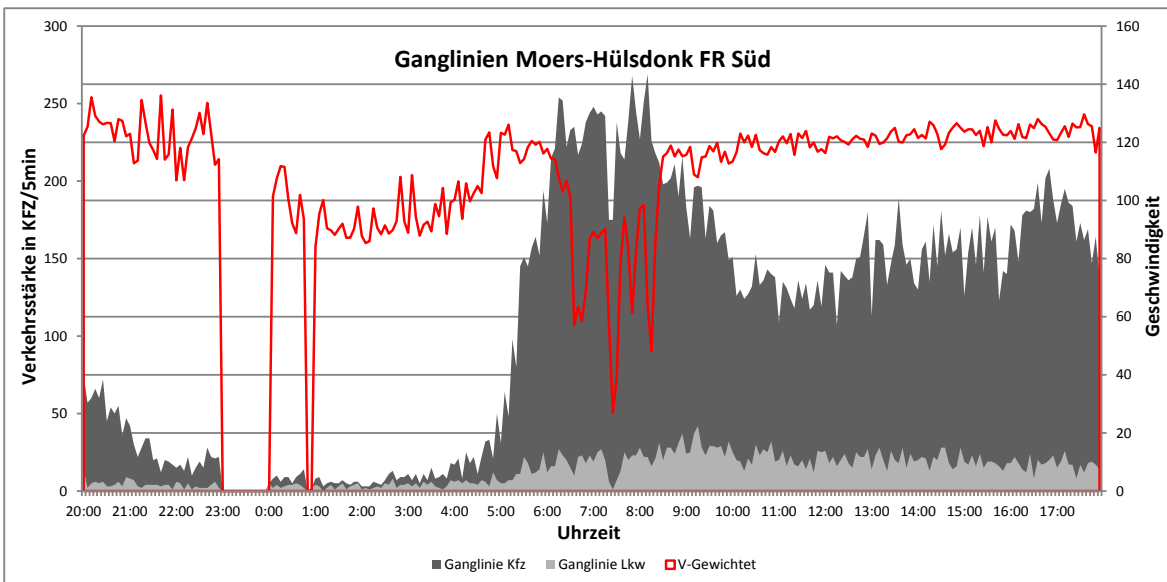
Ergebnisse AS Moers-Hülsdonk, Fahrtrichtung Süd

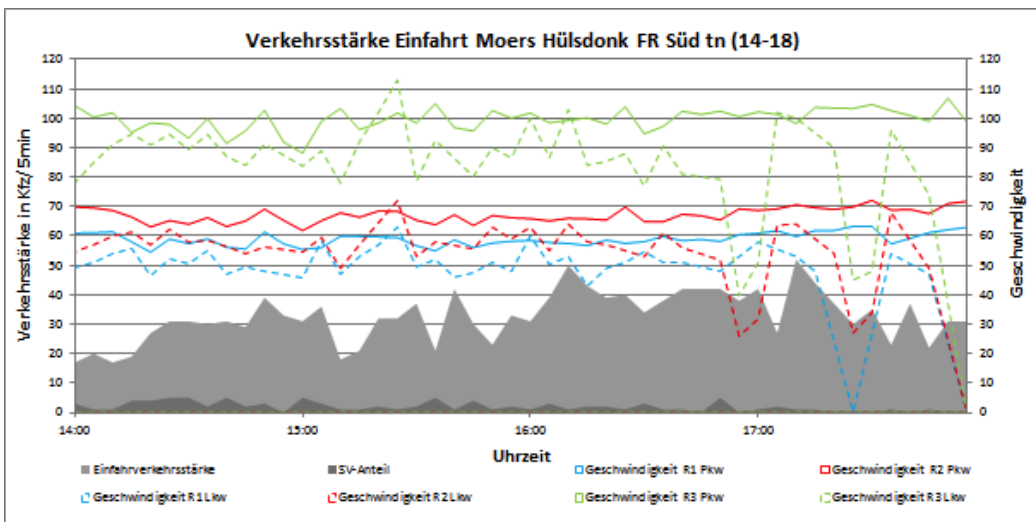
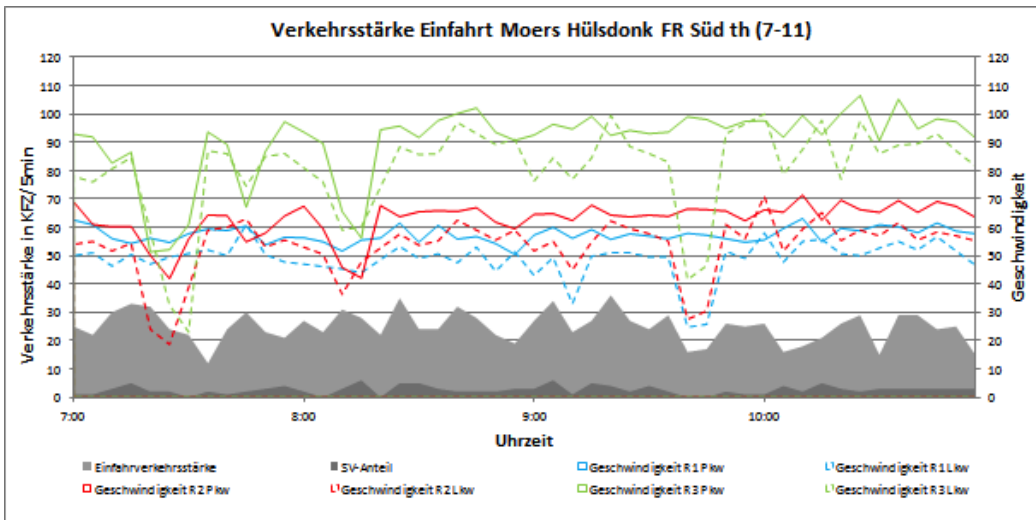
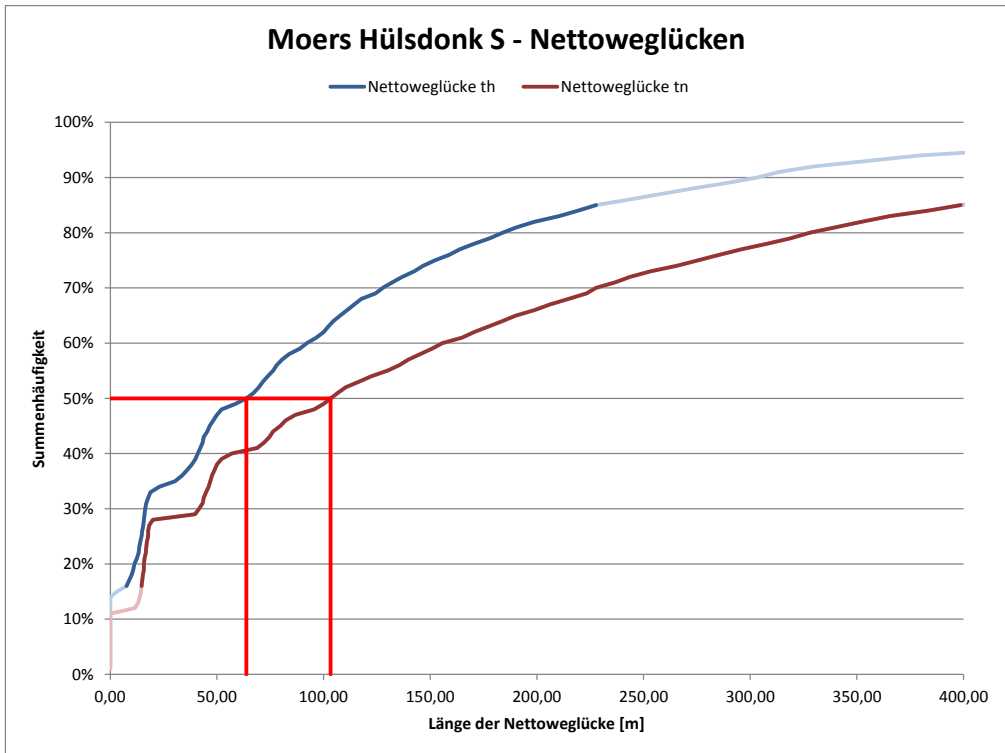
| | |
|--|-----------------------------|
| Name der Einfahrt | NW_A057_09-Moers-Hülsdonk_S |
| Rampentyp | direkt |
| Länge Bereich 0 [m] | 46 |
| L ₂ [m] | 220 |
| DTV Klasse | niedrig |
| Besonderheiten | - |
| L _R [m] | 290 |
| Anzahl Richtungs-fahrbahnen | 2 |
| Ballungsraum (iB/aB) (>100tsd Ew.; 1000Ew/km ²) | iB |
| Ballungsraumname | Ruhrgebiet |
| Unfallauffällig | nein |
| DTV (2012) [Kfz/d] | 33081 |
| SV-Anteil (2011) [%] | 12,65 |
| Q _{Querschnitt,vormittag} [Kfz/h] | 9106 |
| SV _{Querschnitt,vormittag} [%] | 12,48 |
| Q _{Querschnitt,nachmittag} [Kfz/h] | 7922 |
| SV _{Querschnitt,nachmittag} [%] | 11,11 |
| Q _{HFS,vormittag} [Kfz/h] | 493,50 |
| SV _{HFS,vormittag} [%] | 33,12 |
| V _{HFS,vormittag} [km/h] | 98,76 |
| Q _{Rampe,vormittag} [Kfz/h] | 299,25 |
| SV _{Rampe,vormittag} [%] | 10,36 |
| V _{Rampe,vormittag} [km/h] | 56,59 |
| Q _{HFS,nachmittag} [Kfz/h] | 352,75 |
| SV _{HFS,nachmittag} [%] | 26,10 |
| V _{HFS,nachmittag} [km/h] | 115,08 |
| Q _{Rampe,nachmittag} [Kfz/h] | 392,25 |
| SV _{Rampe,nachmittag} [%] | 5,74 |
| V _{Rampe,nachmittag} [km/h] | 58,51 |
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| t _n | |

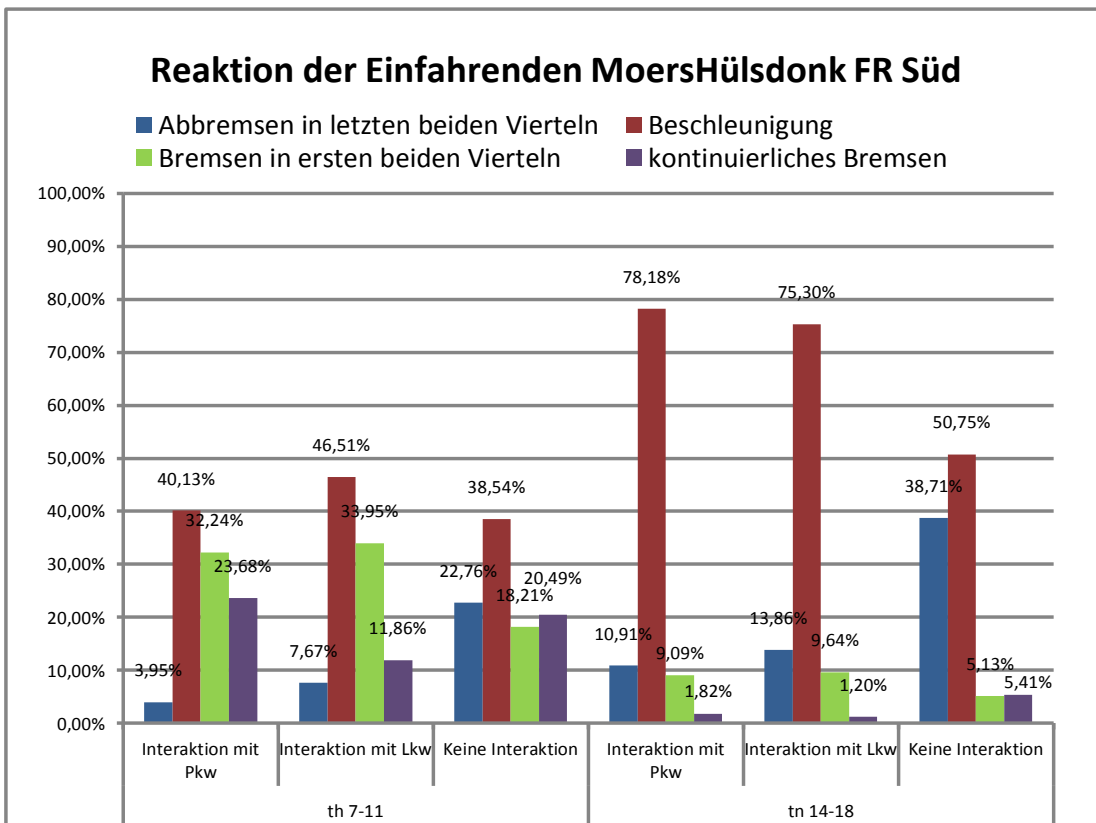
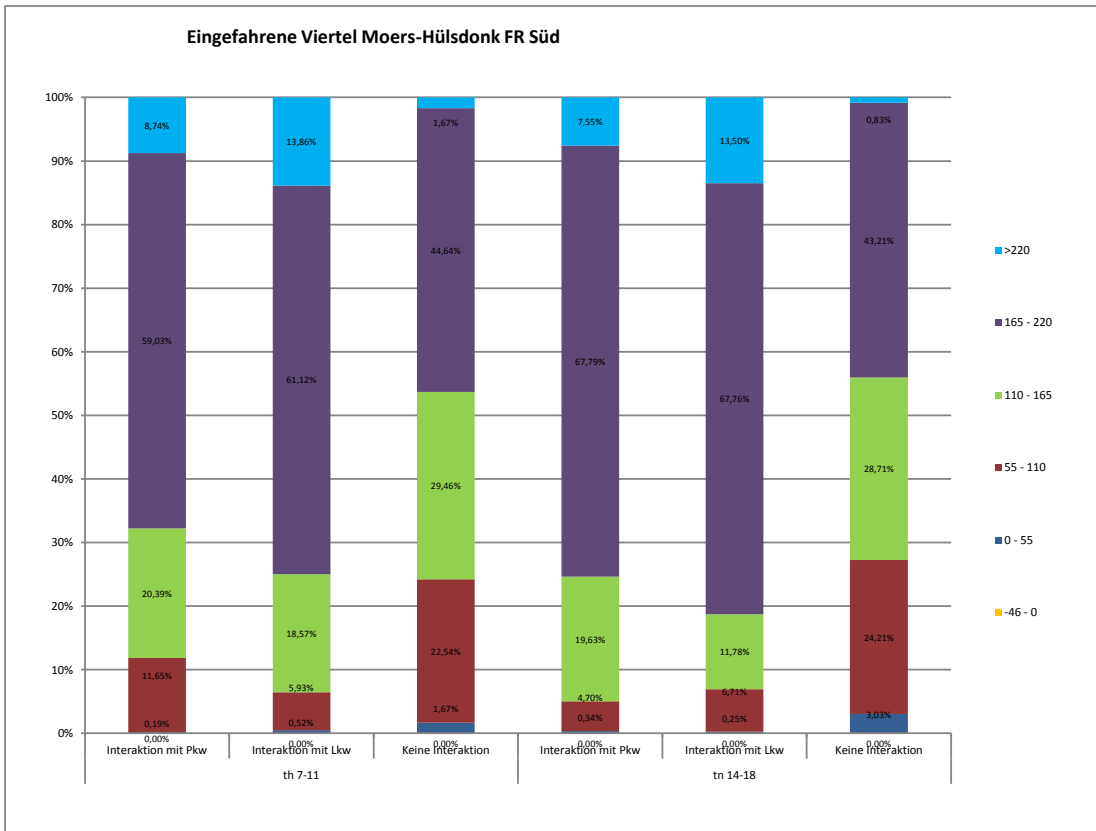
| Messort | Zeitraum | Kfz | Lkw | SV | Messort |
|-----------|----------|-------|------|-------|-------------|
| HFS Seite | 22 h* | 11816 | 3567 | 30,19 | Querschnitt |
| | 7-11 | 3409 | 1129 | 33,12 | |
| | 14-18 | 3341 | 872 | 26,10 | |
| ÜFS | 22 h* | 16635 | 29 | 0,17 | |
| | 7-11 | 5697 | 7 | 0,12 | |
| | 14-18 | 4581 | 8 | 0,17 | |

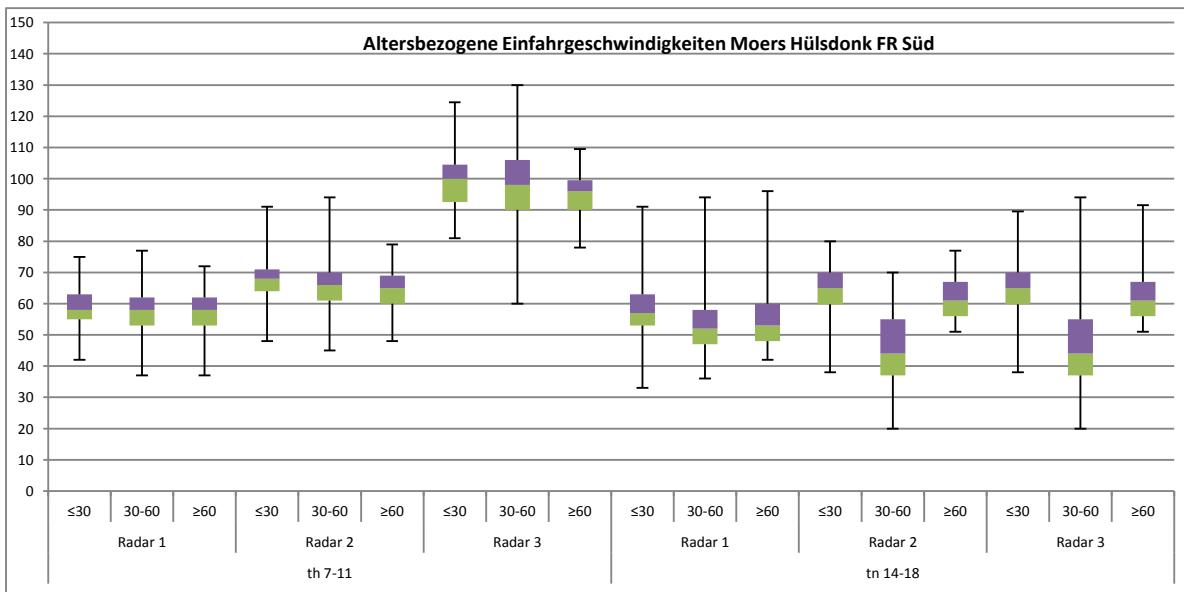
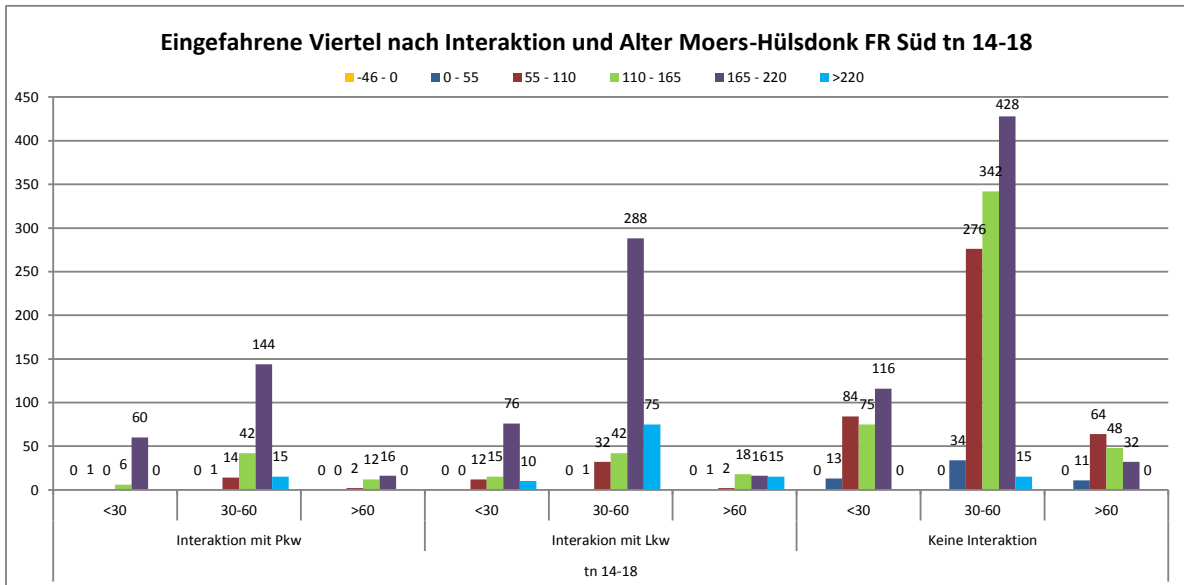
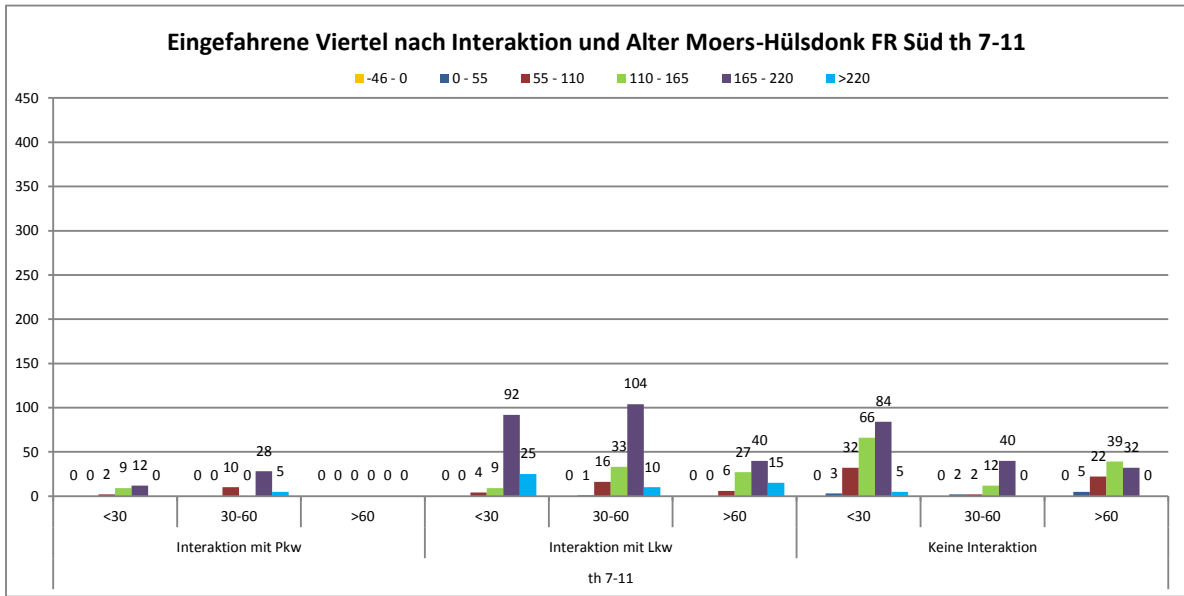
| Zeitraum | | Kfz | Kfz | Lkw | Lkw | SV |
|----------|-----------|-------|-------|------|------|-------|
| 22 h* | HFS Seite | 11816 | 28451 | 3567 | 3596 | 12,64 |
| | ÜFS | 16635 | | 29 | | |
| 7-11 | HFS Seite | 3409 | 9106 | 1129 | 1136 | 12,48 |
| | ÜFS | 5697 | | 7 | | |
| 14-18 | HFS Seite | 3341 | 7922 | 872 | 880 | 11,11 |
| | ÜFS | 4581 | | 8 | | |

*weitere Daten liegen nicht vor









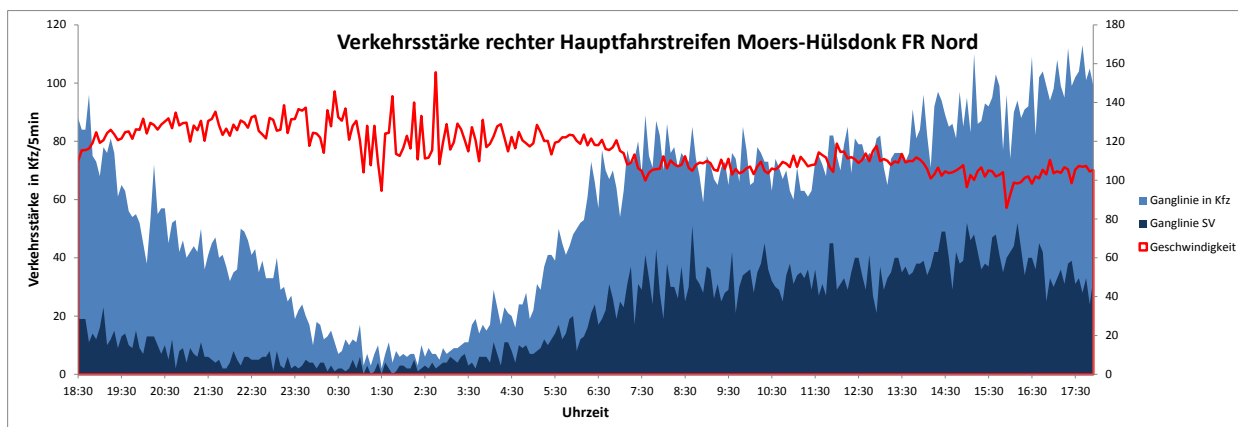
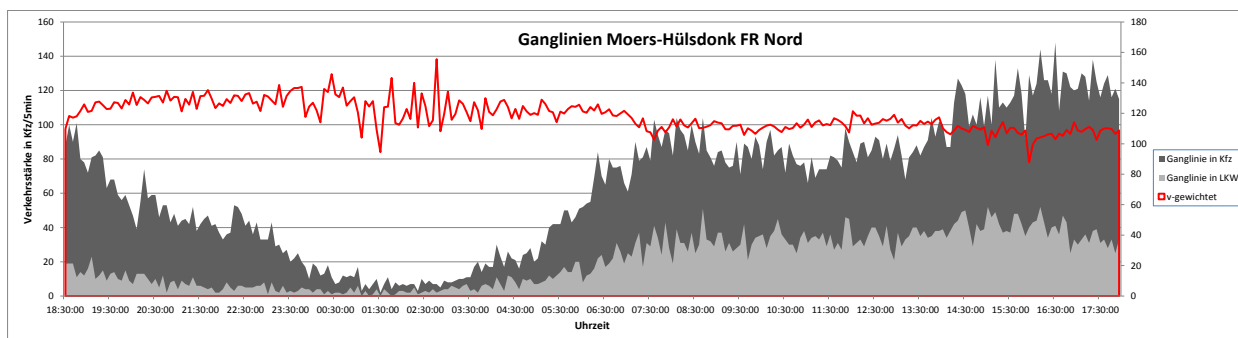
Ergebnisse AS Moers-Hülsdonk, Fahrtrichtung Nord

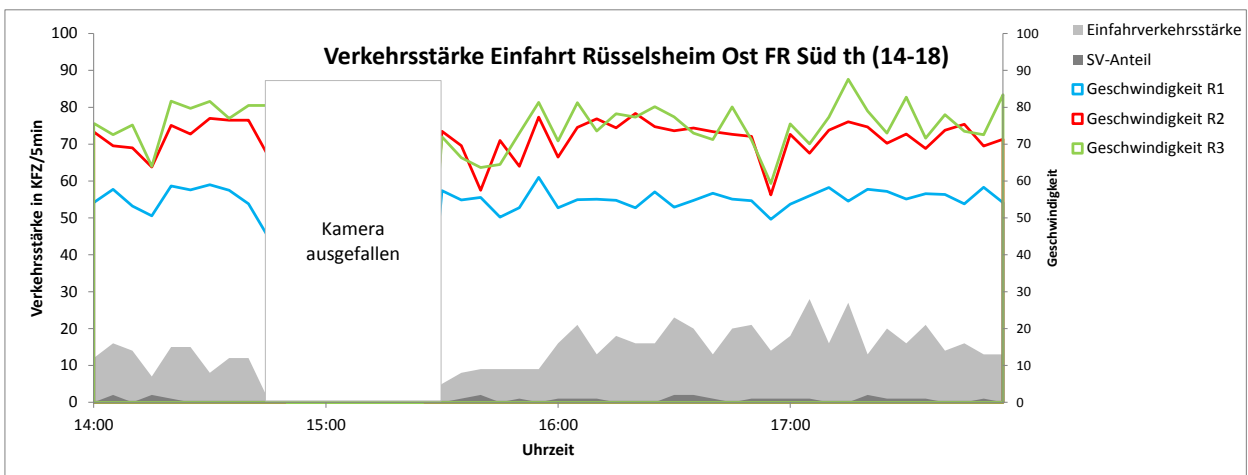
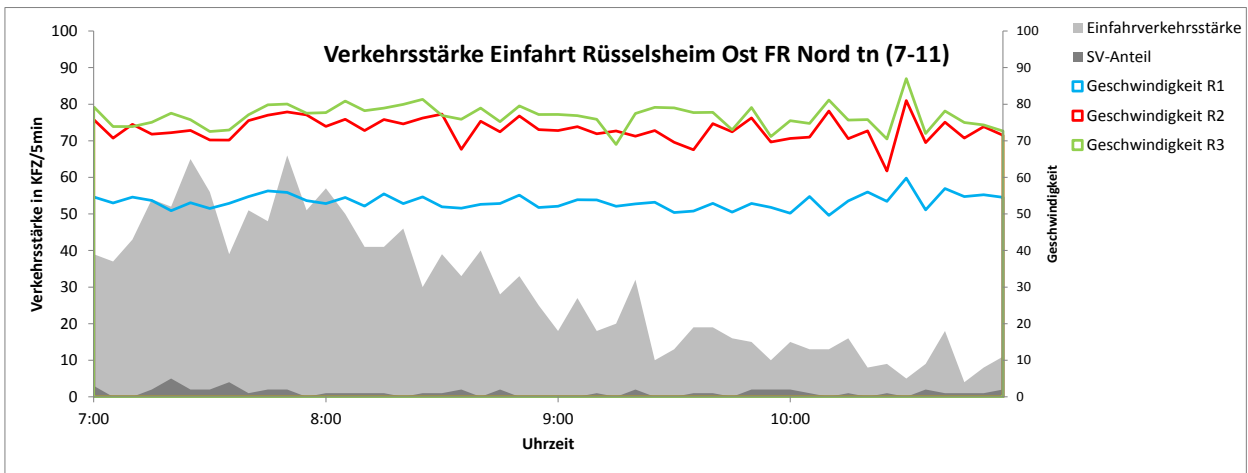
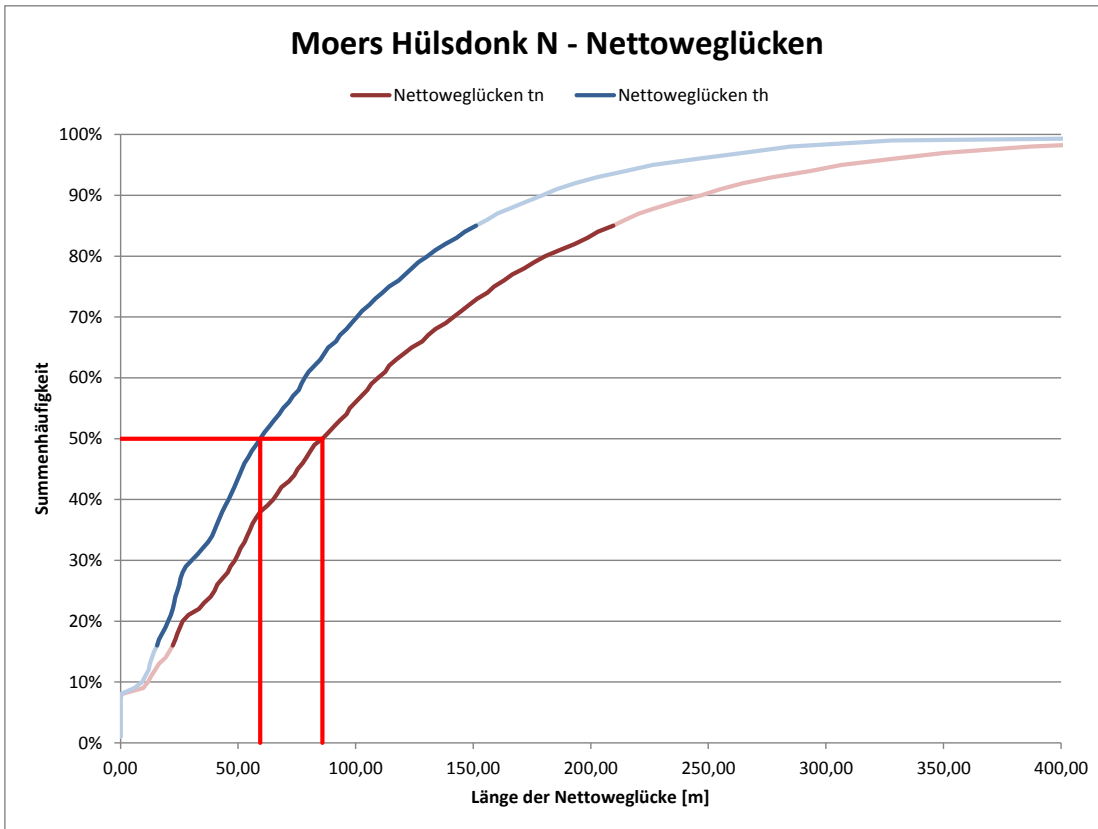
| Name der Einfahrt | NW_A057_09-Moers-Hülsdonk_N |
|--|-----------------------------|
| Rampentyp | direkt |
| Länge Bereich 0 [m] | 46 |
| L ₂ [m] | 220 |
| DTV Klasse | niedrig |
| Besonderheiten | - |
| L _R [m] | 260 |
| Anzahl Richtungs-fahrbahnen | 2 |
| Ballungsraum (iB/aB) (>100tsd Ew.; 1000Ew/km ²) | iB |
| Ballungsraumname | Ruhrgebiet |
| Unfallauffällig | nein |
| DTV (2012) [Kfz/d] | 33116 |
| SV-Anteil (2011) [%] | 11,66 |
| Q _{Querschnitt,vormittag} [Kfz/h] | 4077 |
| SV _{Querschnitt,vormittag} [%] | 37,55 |
| Q _{Querschnitt,nachmittag} [Kfz/h] | 5655 |
| SV _{Querschnitt,nachmittag} [%] | 33,05 |
| Q _{HFS,vormittag} [Kfz/h] | 872,00 |
| SV _{HFS,vormittag} [%] | 43,58 |
| v _{HFS,vormittag} [km/h] | 107,24 |
| Q _{Rampe,vormittag} [Kfz/h] | 352,50 |
| SV _{Rampe,vormittag} [%] | 3,83 |
| v _{Rampe,vormittag} [km/h] | 53,34 |
| Q _{HFS,nachmittag} [Kfz/h] | 1131,25 |
| SV _{HFS,nachmittag} [%] | 40,99 |
| v _{HFS,nachmittag} [km/h] | 103,01 |
| Q _{Rampe,nachmittag} [Kfz/h] | 146,75 |
| SV _{Rampe,nachmittag} [%] | 4,60 |
| v _{Rampe,nachmittag} [km/h] | 45,88 |
| | |
| | |
| t _h | |
| t _n | |

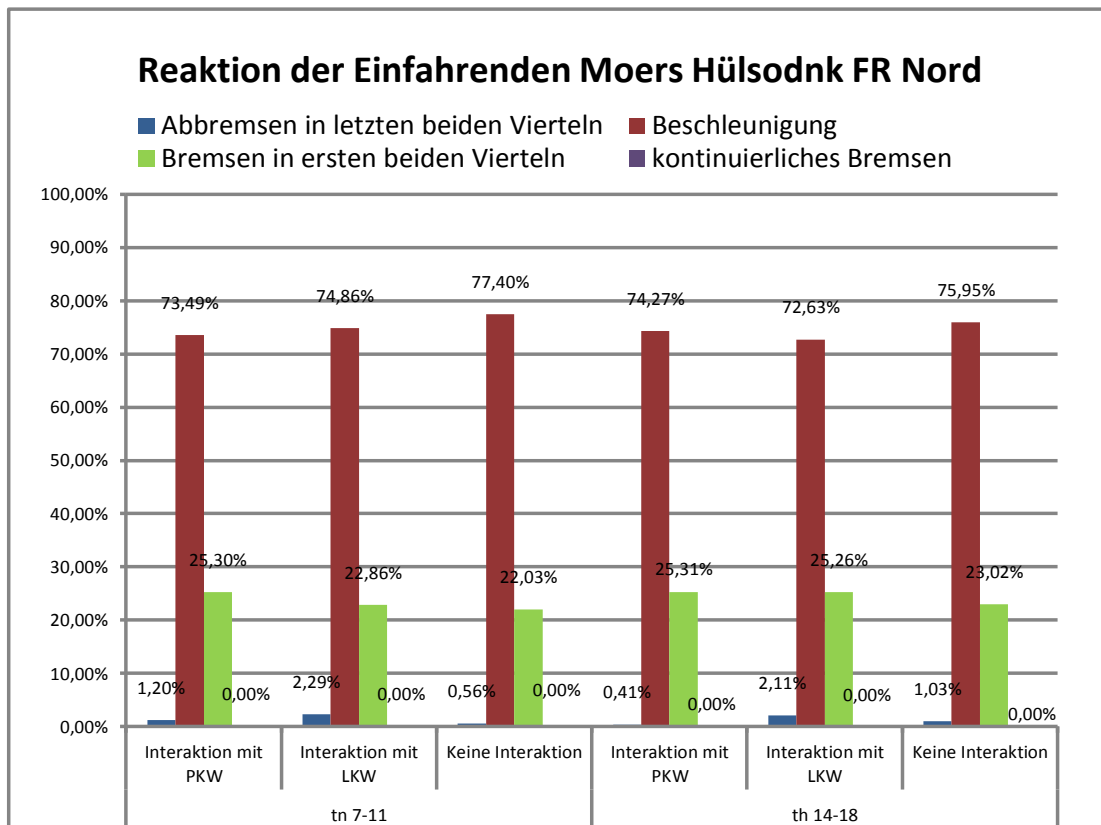
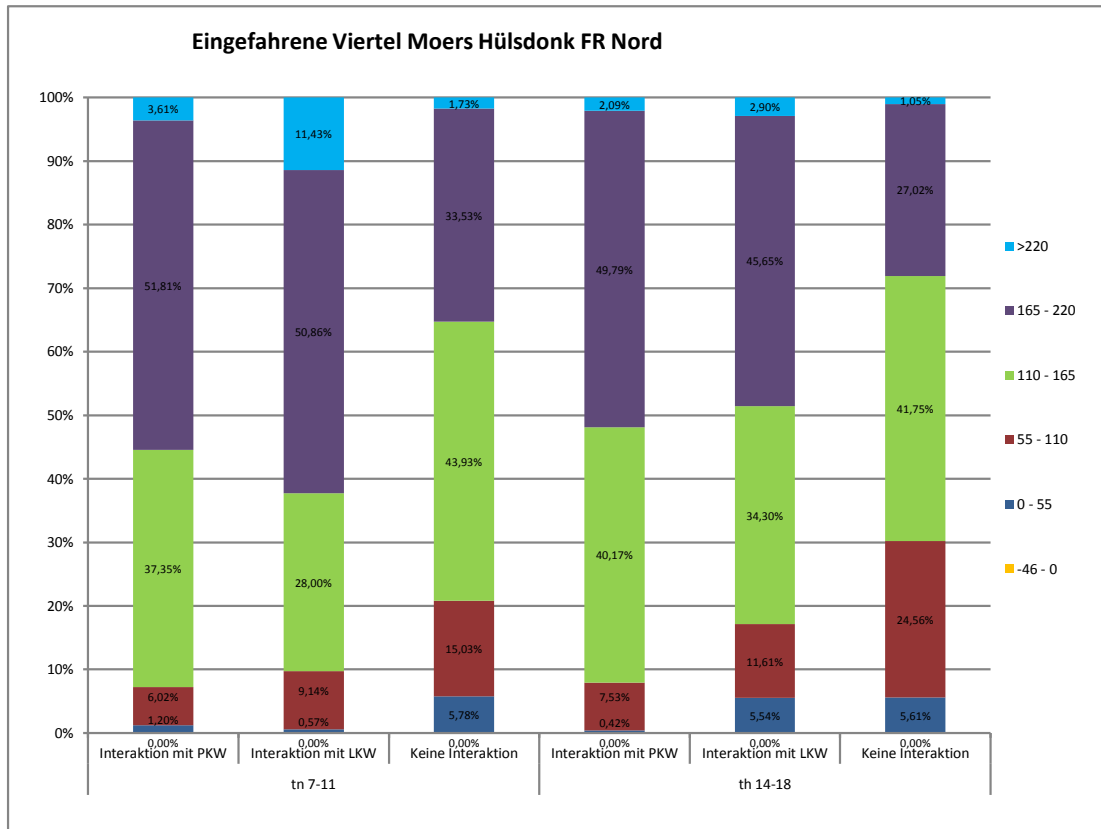
| Messort | Zeitraum | Kfz | Lkw | SV | Messort |
|---------|----------|------|------|-------|------------------------|
| ÜFS | 23,5 h* | 2711 | 51 | 1,88 | Querschnitt FR Nord |
| | 7-11 | 655 | 0 | 0,00 | |
| | 14-18 | 663 | 47 | 7,13 | |
| HFS | 23,5 h* | 5349 | 2944 | 55,03 | |
| | 7-11 | 735 | 435 | 59,22 | |
| | 14-18 | 664 | 448 | 67,42 | |

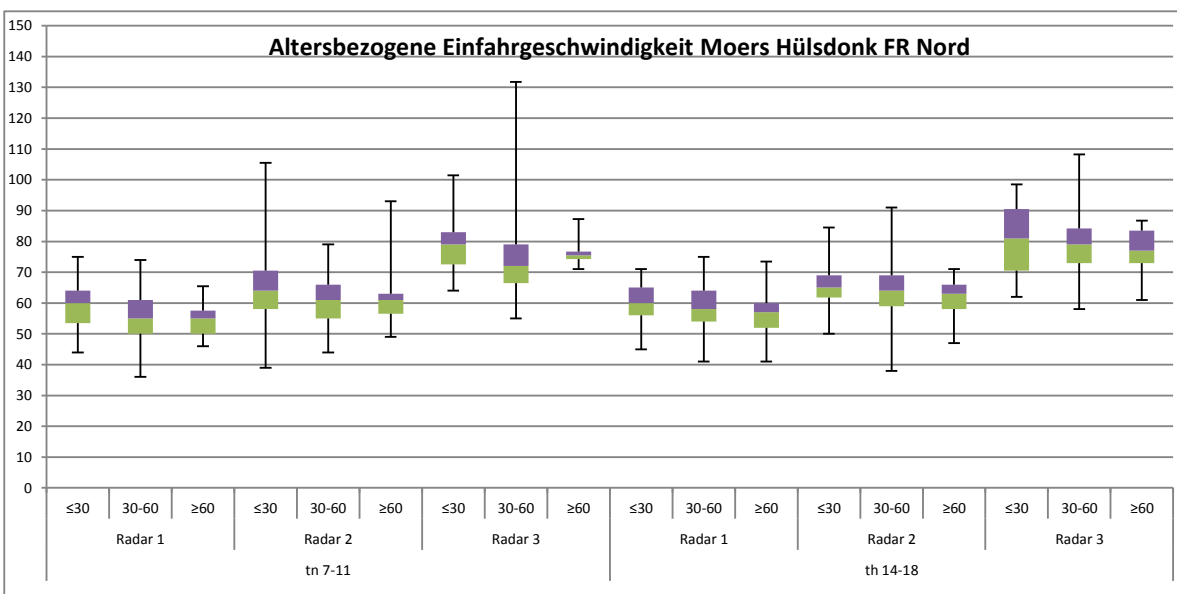
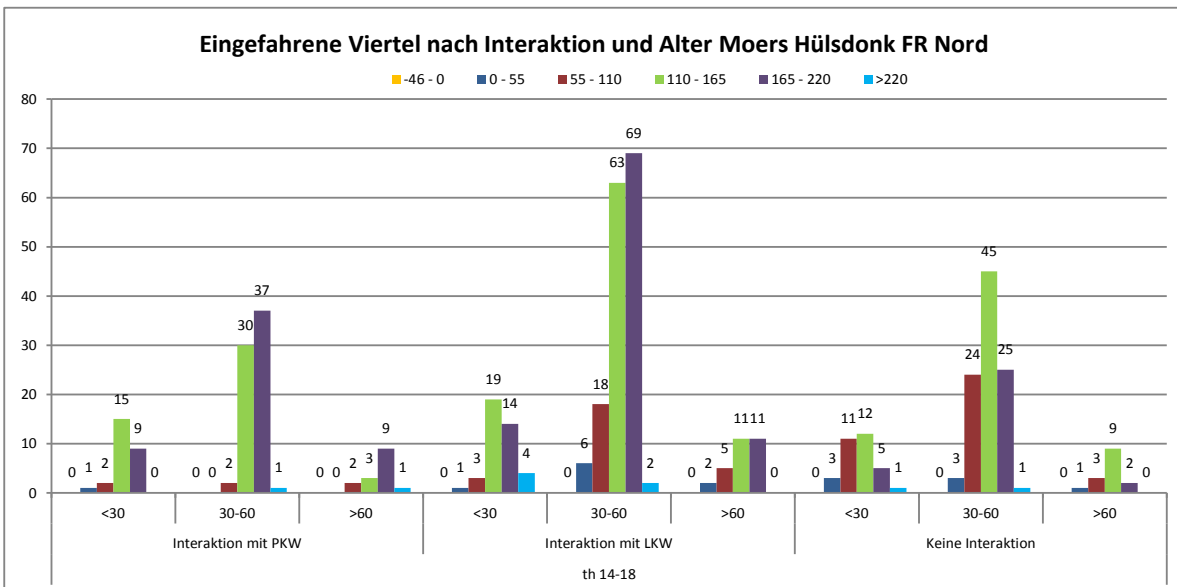
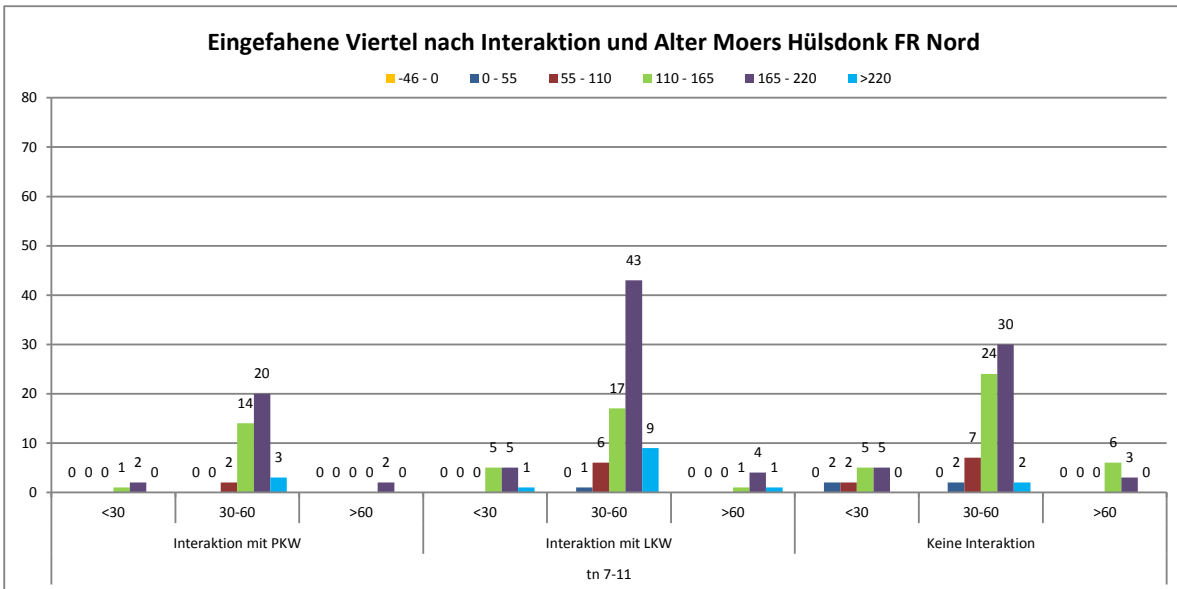
| Zeitraum | | Kfz | Kfz | Lkw | Lkw | SV |
|----------|-----|------|------|------|------|-------|
| 23,5 h* | HFS | 5349 | 8060 | 2944 | 2995 | 37,15 |
| | ÜFS | 2711 | | 51 | | |
| 7-11 | HFS | 735 | 1390 | 435 | 435 | 31,30 |
| | ÜFS | 655 | | 0 | | |
| 14-18 | HFS | 664 | 1328 | 448 | 495 | 37,31 |
| | ÜFS | 663 | | 47 | | |

* weitere Daten liegen nicht vor







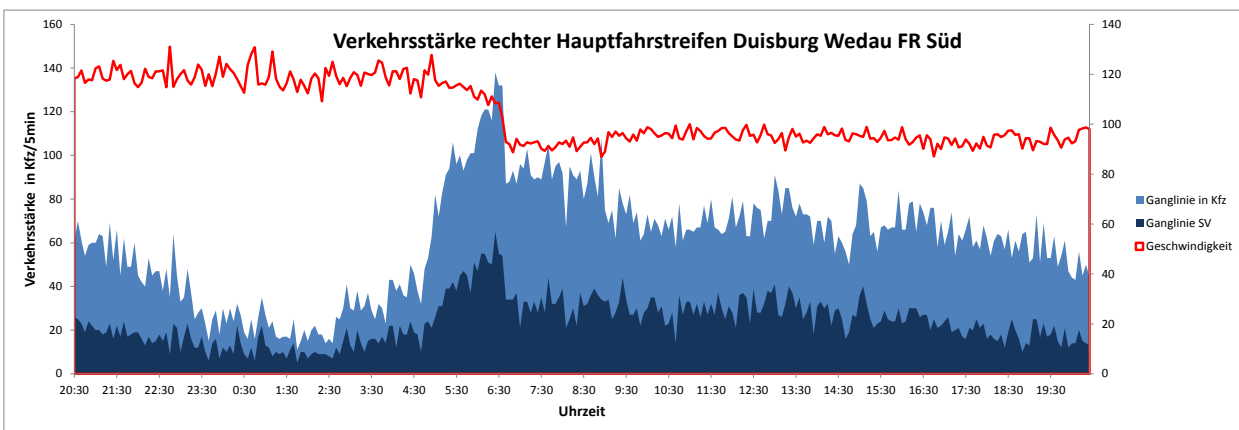
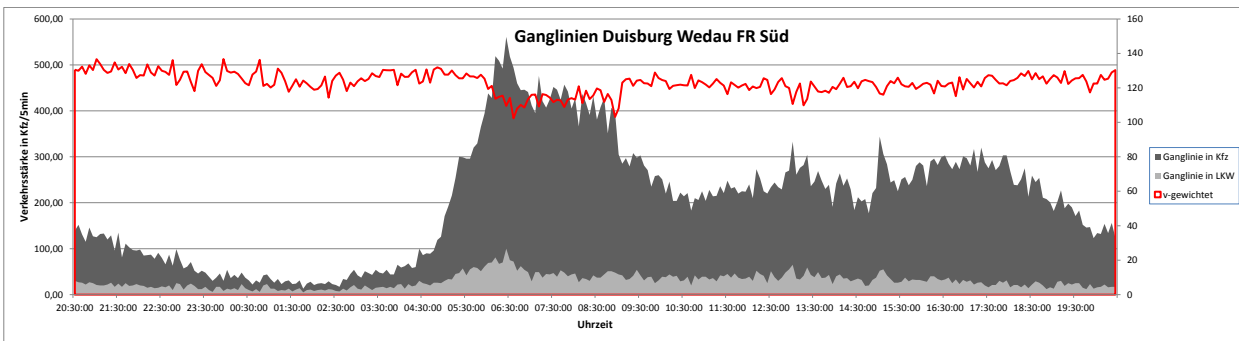


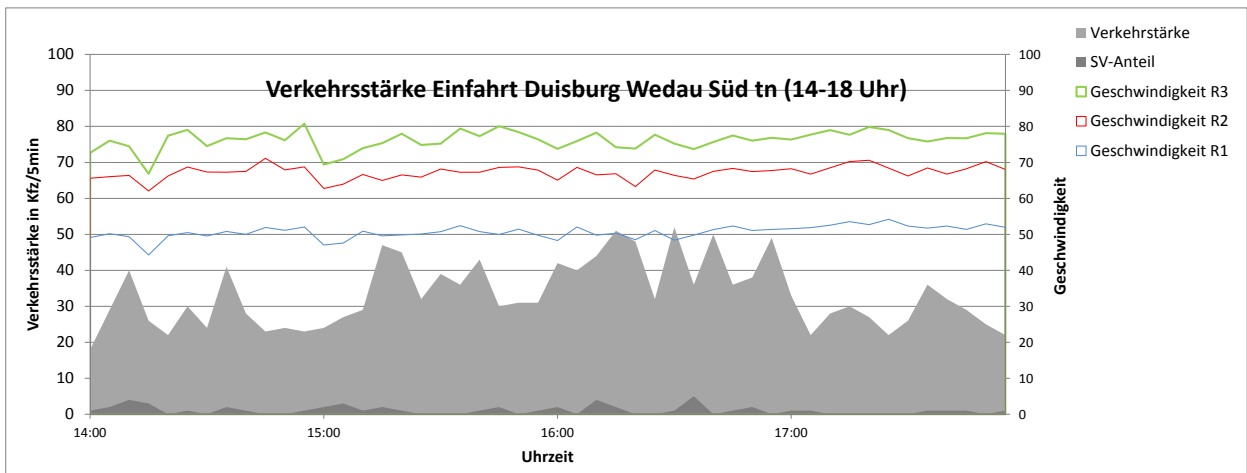
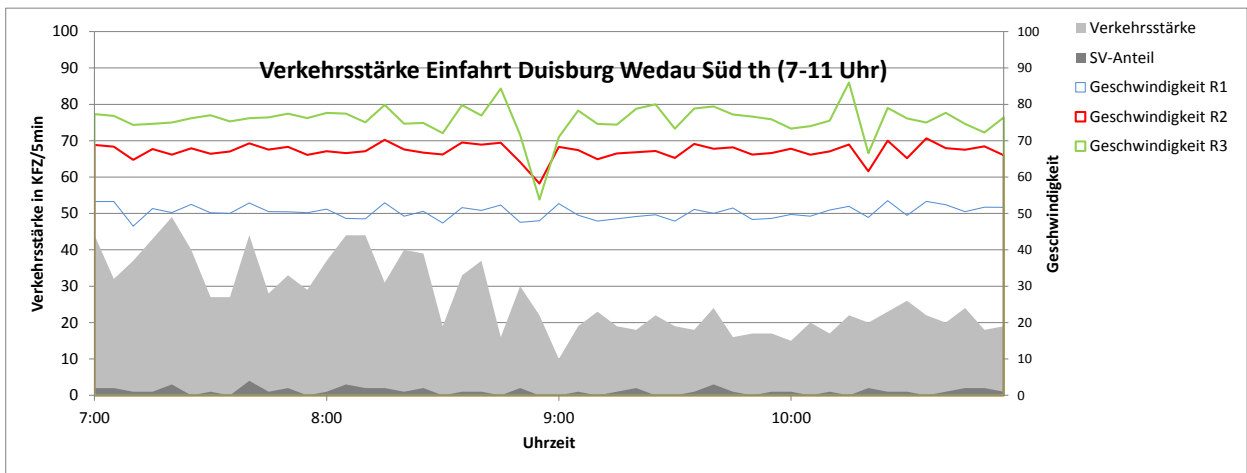
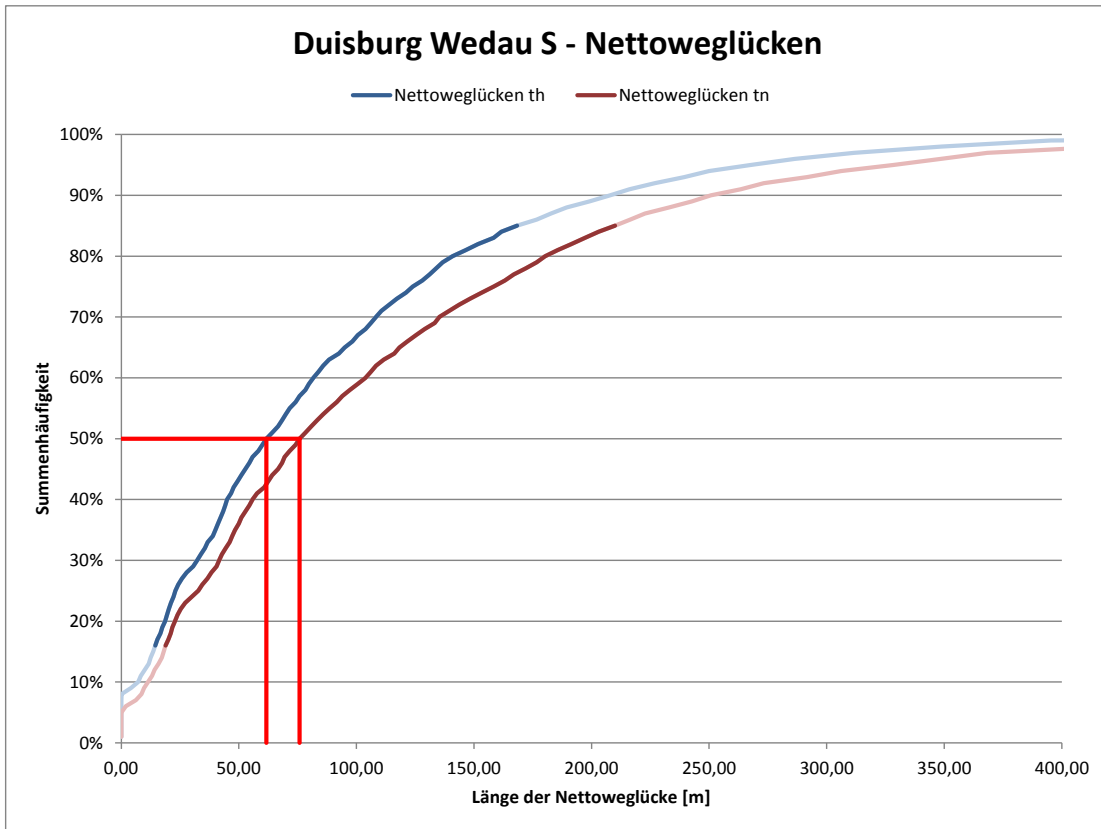
Ergebnisse AS Duisburg-Wedau, Fahrtrichtung Süd

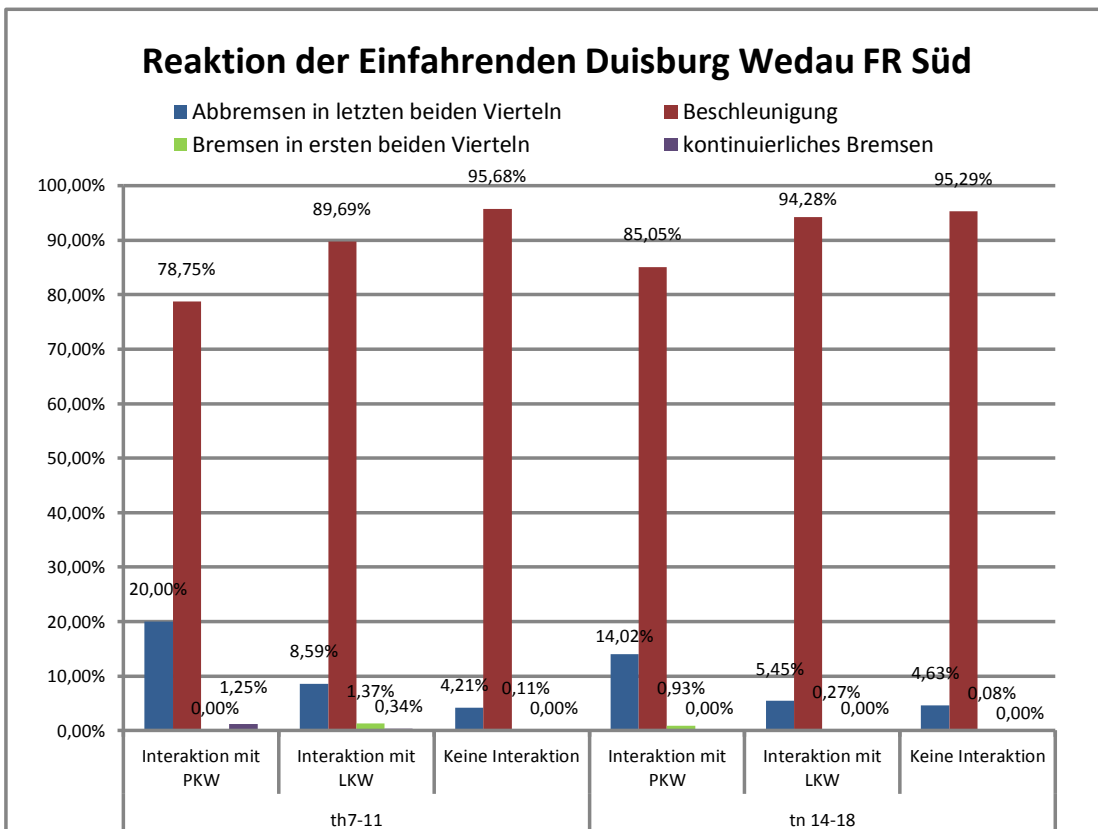
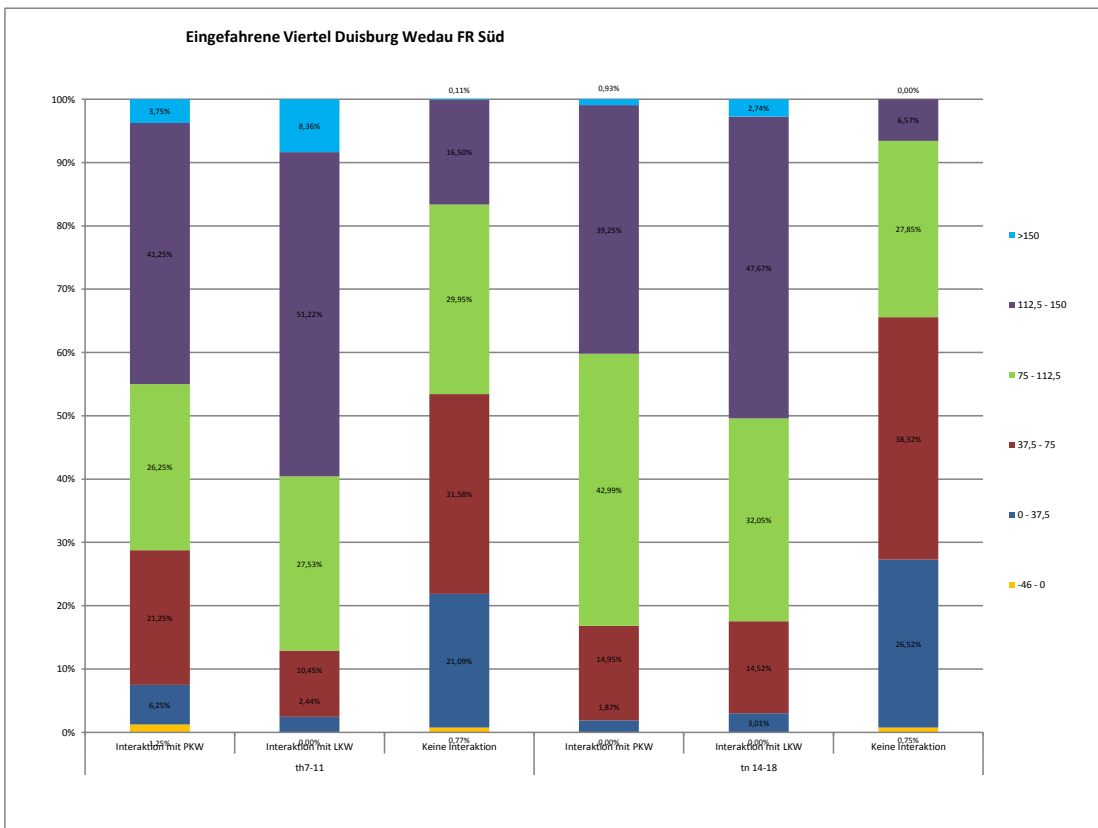
| | |
|--|-----------------------------|
| Name der Einfahrt | NW_A003_15-Duisburg-Wedau_S |
| Rampentyp | direkt |
| Länge Bereich 0 [m] | 46 |
| L_2 [m] | 150 |
| DTV Klasse | hoch |
| Besonderheiten | kurze Rampe |
| L_R [m] | 110 |
| Anzahl Richtungs-fahrbahnen | 3 |
| Ballungsraum (iB/aB) (>100tsd Ew.; 1000Ew/km ²) | iB |
| Ballungsraumname | Ruhrgebiet |
| Unfallauffällig | ja |
| DTV (2012) [Kfz/d] | 55537 |
| SV-Anteil (2011) [%] | 10,83 |
| $Q_{\text{Querschnitt,vormittag}}$ [Kfz/h] | 15990 |
| $SV_{\text{Querschnitt,vormittag}}$ [%] | 11,84 |
| $Q_{\text{Querschnitt,nachmittag}}$ [Kfz/h] | 12780 |
| $SV_{\text{Querschnitt,nachmittag}}$ [%] | 18,95 |
| $Q_{\text{HFS,vormittag}}$ [Kfz/h] | 972,00 |
| $SV_{\text{HFS,vormittag}}$ [%] | 37,83 |
| $v_{\text{HFS,vormittag}}$ [km/h] | 93,70 |
| $Q_{\text{Rampe,vormittag}}$ [Kfz/h] | 323,25 |
| $SV_{\text{Rampe,vormittag}}$ [%] | 4,18 |
| $v_{\text{Rampe,vormittag}}$ [km/h] | 50,39 |
| $Q_{\text{HFS,nachmittag}}$ [Kfz/h] | 806,25 |
| $SV_{\text{HFS,nachmittag}}$ [%] | 37,55 |
| $v_{\text{HFS,nachmittag}}$ [km/h] | 94,06 |
| $Q_{\text{Rampe,nachmittag}}$ [Kfz/h] | 398,00 |
| $SV_{\text{Rampe,nachmittag}}$ [%] | 3,20 |
| $v_{\text{Rampe,nachmittag}}$ [km/h] | 50,66 |
| | |
| | |
| t_h | |
| t_n | |

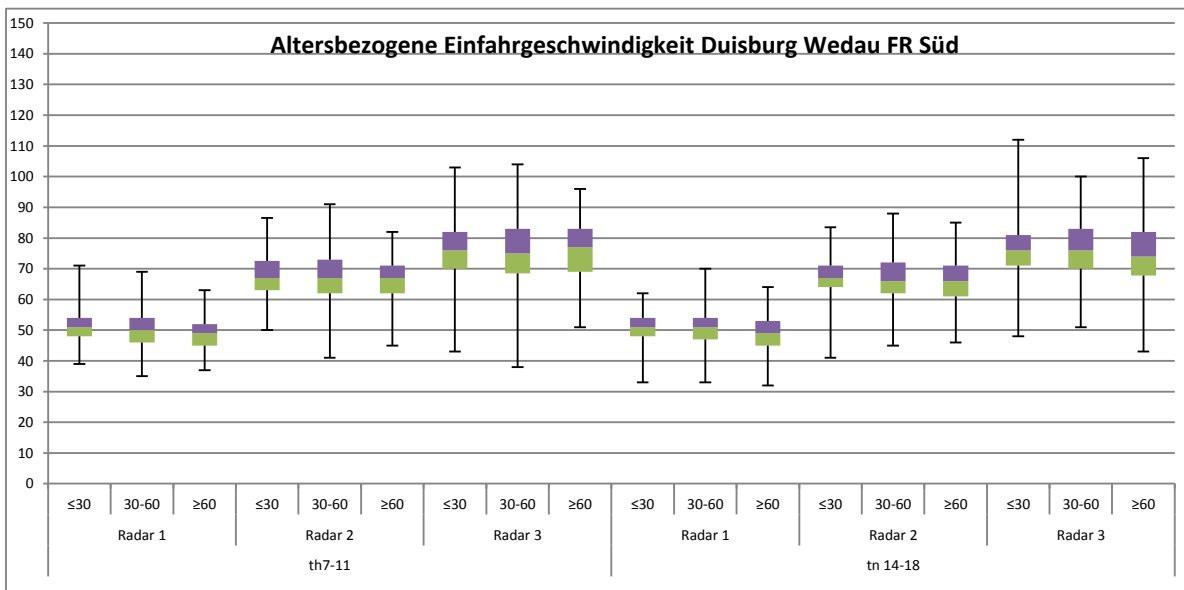
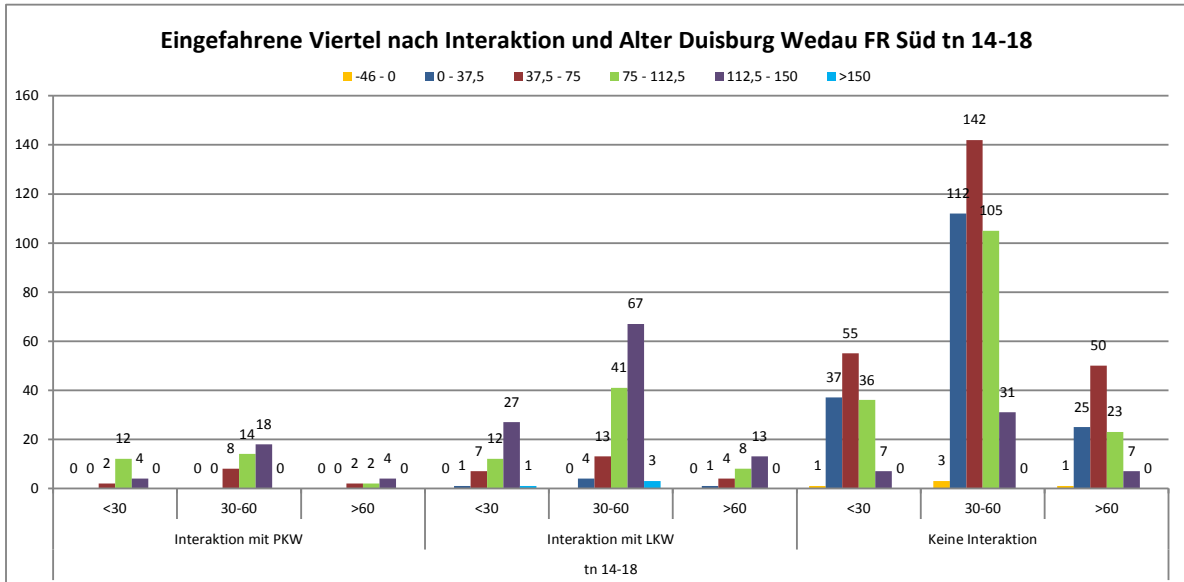
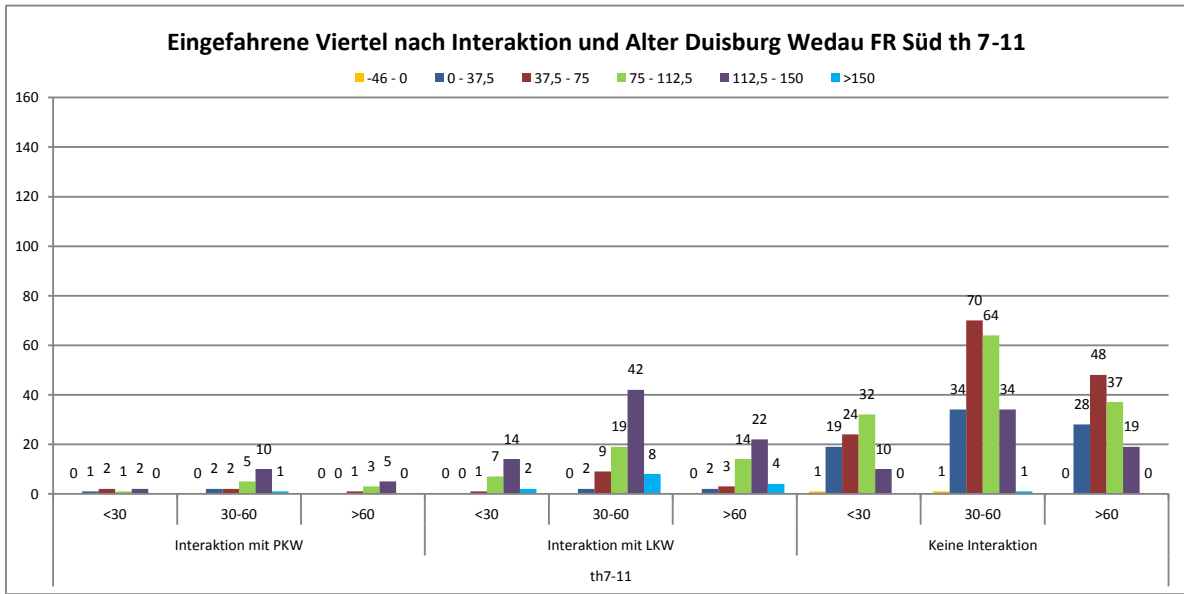
| Messort | Zeitraum | Kfz | Lkw | SV | Messort |
|---------|----------|------|------|-------|-----------------------|
| ÜFS 1 | 24 h | 4802 | 2144 | 44,64 | Querschnitt FR SÜD |
| | 7-11 | 704 | 643 | 91,42 | |
| | 14-18 | 734 | 375 | 51,10 | |
| ÜFS 2 | 24 h | 5909 | 701 | 11,87 | |
| | 7-11 | 1081 | 369 | 52,46 | |
| | 14-18 | 1106 | 49 | 7,00 | |
| HFS | 24 h | 4455 | 2323 | 52,15 | |
| | 7-11 | 703 | 404 | 57,37 | |
| | 14-18 | 697 | 395 | 56,63 | |

| Zeitraum | | Kfz | Kfz | Lkw | Lkw | SV |
|----------|-------|-----------|-----------|----------|-----------|-------|
| 24 h | HFS | 4455 | 15167 | 2323 | 4836 | 31,88 |
| | ÜFS 1 | 4802 | | 2144 | | |
| | ÜFS 2 | 5909,3192 | | 369 | | |
| 7-11 | HFS | 703,4069 | 2487,9131 | 403,571 | 1415,9015 | 56,91 |
| | ÜFS 1 | 703,7108 | | 643,3559 | | |
| | ÜFS 2 | 1080,7954 | | 368,9746 | | |
| 14-18 | HFS | 696,766 | 2537,2474 | 394,5449 | 789,0898 | 31,10 |
| | ÜFS 1 | 734,411 | | 394,5449 | | |
| | ÜFS 2 | 1106,0704 | | 48,7903 | | |









Ergebnisse AS Duisburg-Wedau, Fahrtrichtung Nord

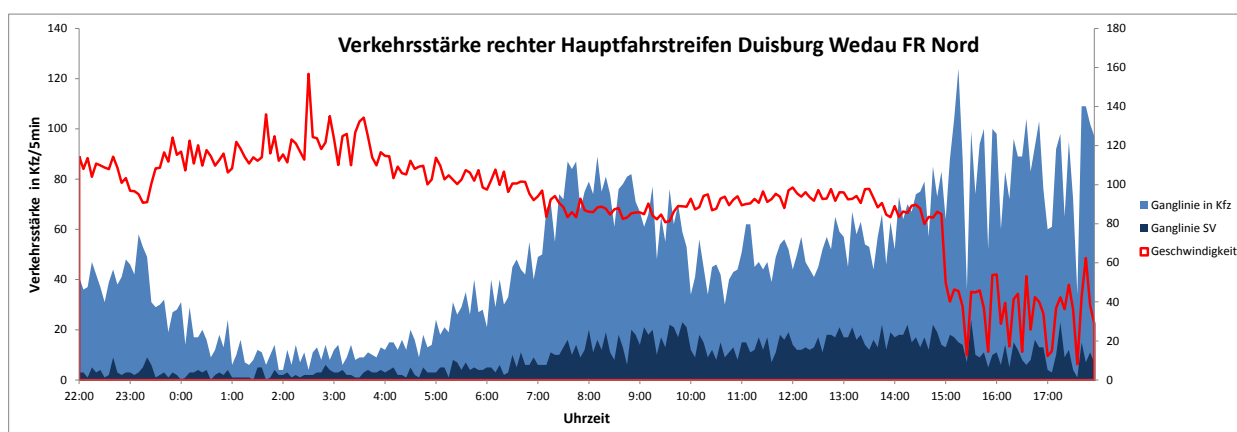
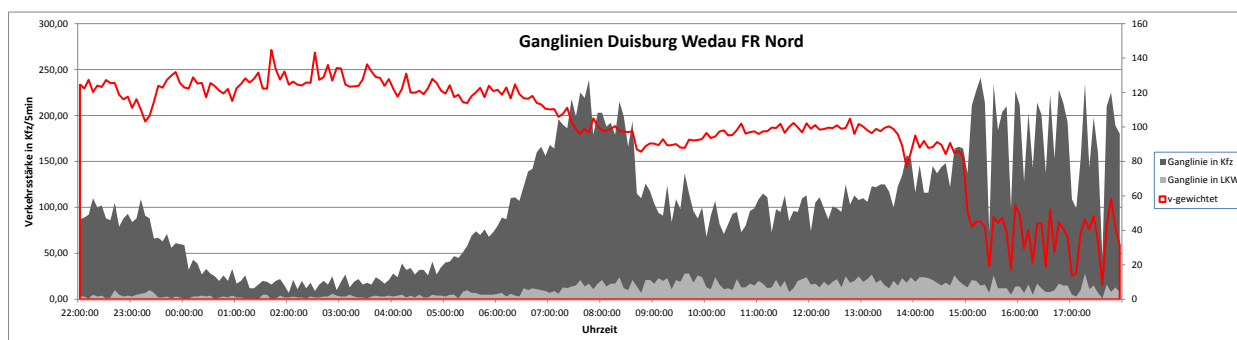
| | |
|--|-----------------------------|
| Name der Einfahrt | NW_A003_15-Duisburg-Wedau_N |
| Rampentyp | indirekt |
| Länge Bereich 0 [m] | 30 |
| L_2 [m] | 180 |
| DTV Klasse | mittel |
| Besonderheiten | - |
| L_R [m] | 230 |
| Anzahl Richtungs-fahrbahnen | 3 |
| Ballungsraum (iB/aB) (>100tsd Ew.; 1000Ew/km ²) | iB |
| Ballungsraumname | Ruhrgebiet |
| Unfallauffällig | ja |
| DTV (2012) [Kfz/d] | 56778 |
| SV-Anteil (2011) [%] | 10,39 |
| $Q_{\text{Querschnitt, vormittag}}$ [Kfz/h] | 5362 |
| $SV_{\text{Querschnitt, vormittag}}$ [%] | 14,12 |
| $Q_{\text{Querschnitt, nachmittag}}$ [Kfz/h] | 8137 |
| $SV_{\text{Querschnitt, nachmittag}}$ [%] | 14,5 |
| $Q_{\text{HFS, vormittag}}$ [Kfz/h] | 755,00 |
| $SV_{\text{HFS, vormittag}}$ [%] | 21,56 |
| $v_{\text{HFS, vormittag}}$ [km/h] | 88,10 |
| $Q_{\text{Rampe, vormittag}}$ [Kfz/h] | 196,00 |
| $SV_{\text{Rampe, vormittag}}$ [%] | 7,27 |
| $v_{\text{Rampe, vormittag}}$ [km/h] | 33,21 |
| $Q_{\text{HFS, nachmittag}}$ [Kfz/h] | 978,75 |
| $SV_{\text{HFS, nachmittag}}$ [%] | 15,07 |
| $v_{\text{HFS, nachmittag}}$ [km/h] | 48,83 |
| $Q_{\text{Rampe, nachmittag}}$ [Kfz/h] | 276* |
| $SV_{\text{Rampe, nachmittag}}$ [%] | 5,34 |
| $v_{\text{Rampe, nachmittag}}$ [km/h] | 33,92 |
| | |
| | |
| t_h | |
| t_n | |

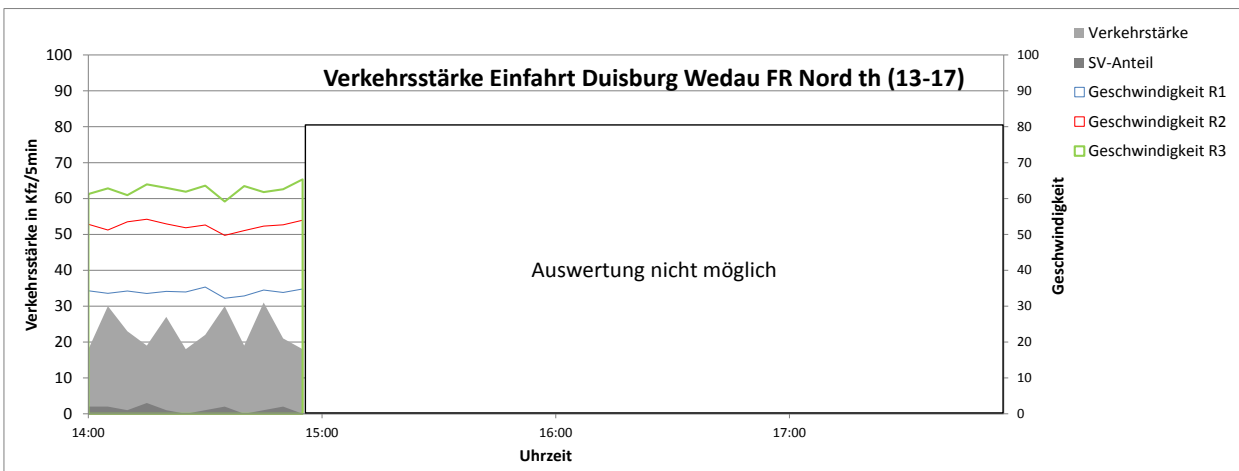
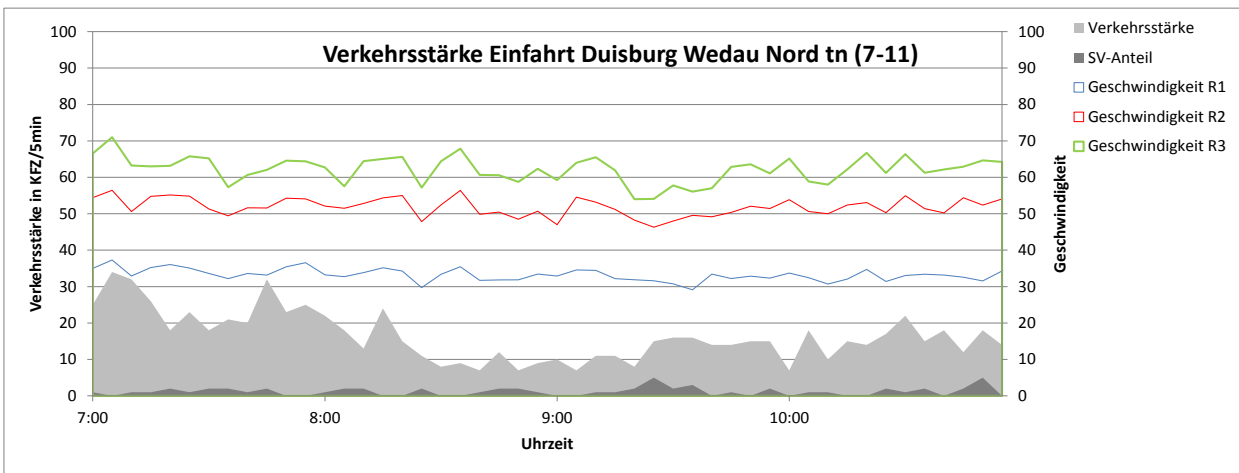
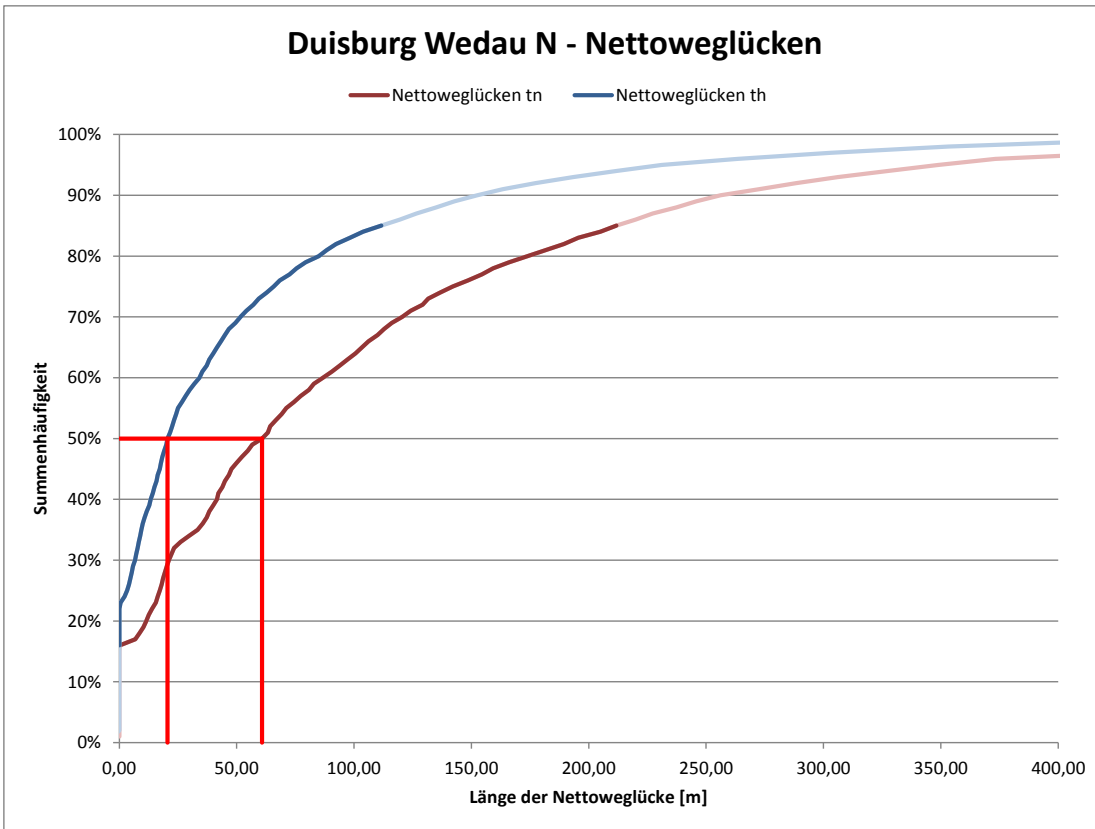
| Messort | Zeitraum | Kfz | Lkw | SV | Messort |
|---------|----------|------|------|-------|------------------------|
| ÜFS 1 | 22 h* | 3106 | 677 | 21,81 | Querschnitt FR Nord |
| | 8-11 | 371 | 162 | 43,64 | |
| | 14-18 | 505 | 195 | 38,65 | |
| ÜFS 2 | 22 h* | 2362 | 11 | 0,48 | |
| | 7-11 | 720 | 0 | 0,00 | |
| | 14-18 | 596 | 11 | 1,96 | |
| HFS | 22 h* | 3876 | 2438 | 62,89 | |
| | 7-11 | 663 | 427 | 64,39 | |
| | 14-18 | 577 | 511 | 88,54 | |

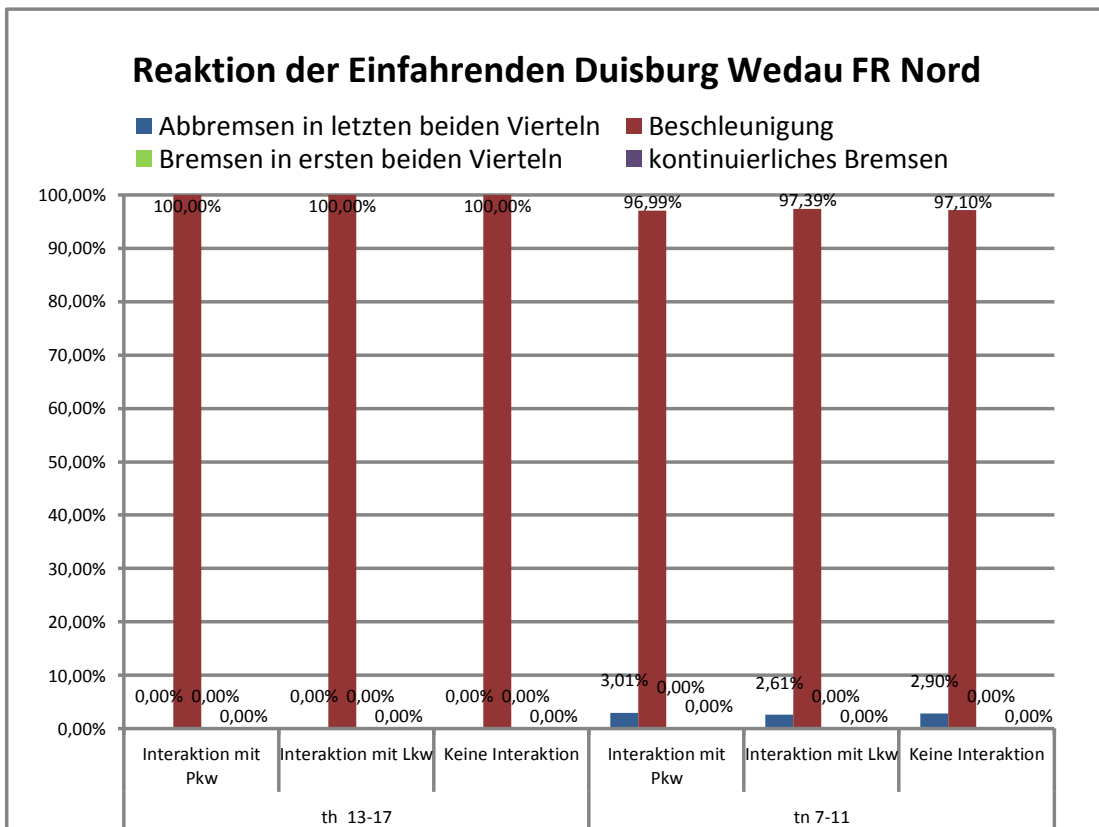
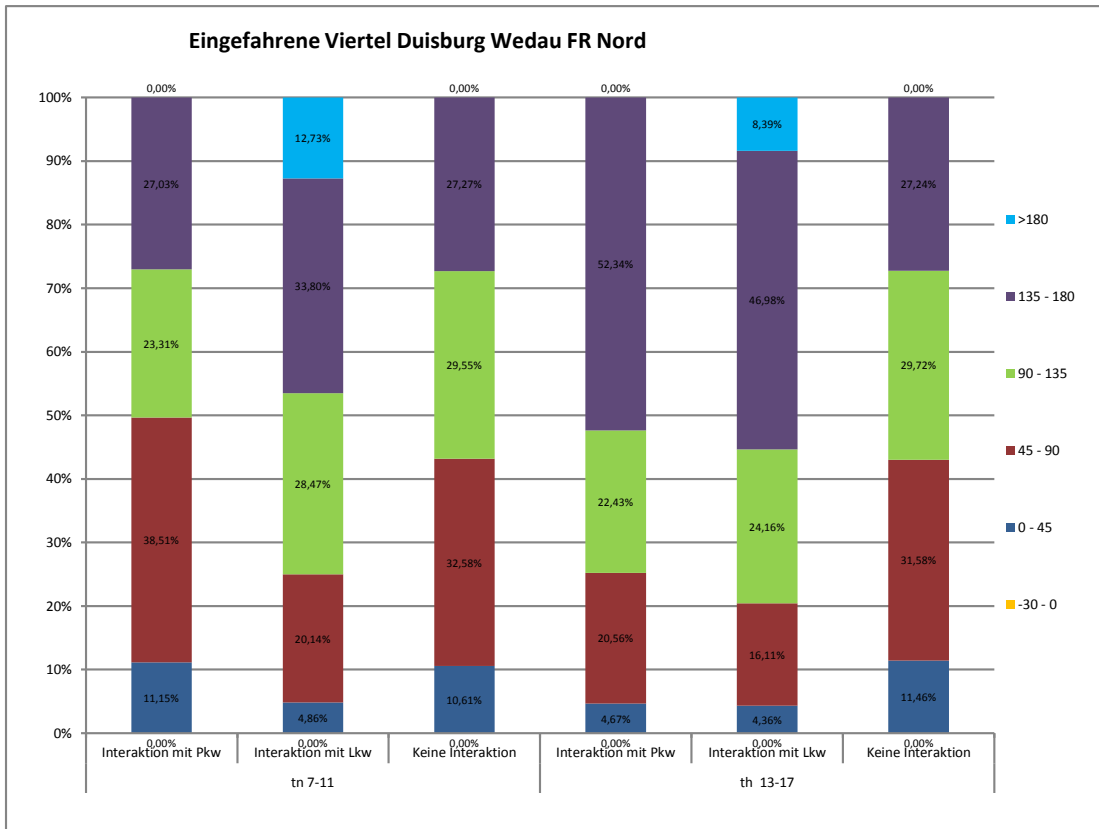
* weitere Daten liegen nicht vor

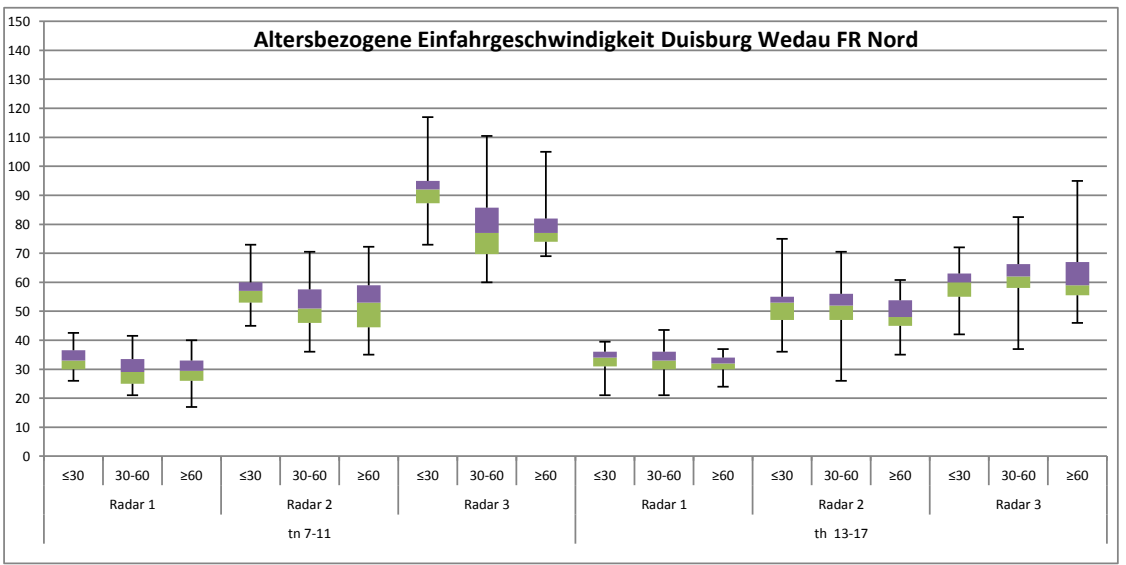
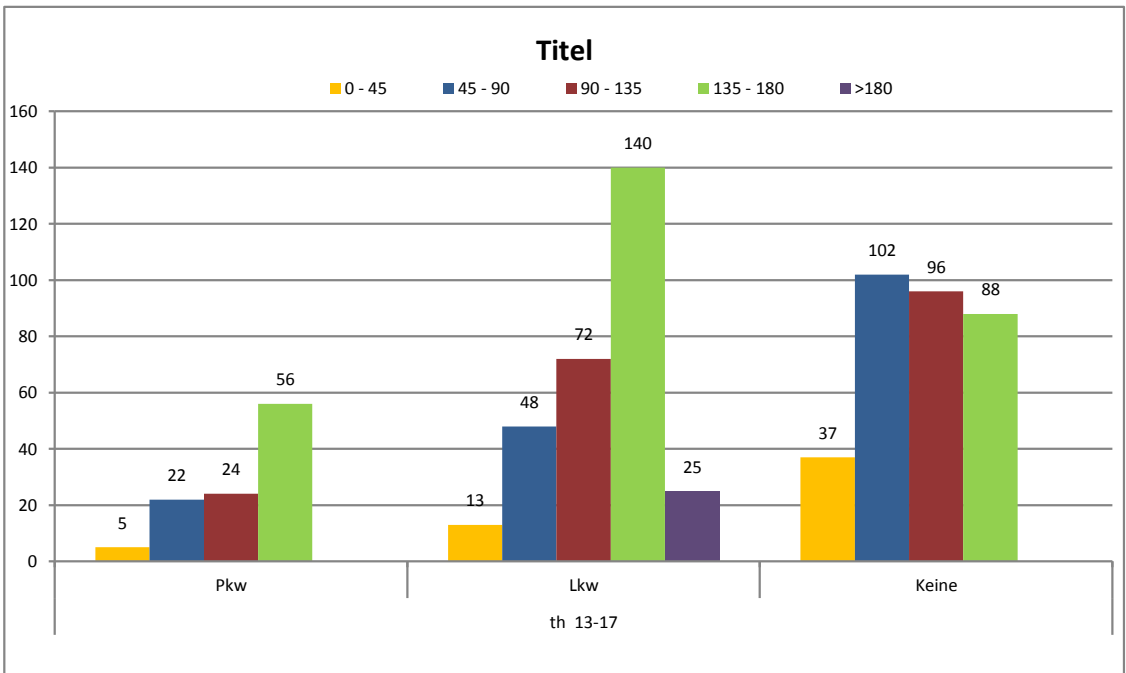
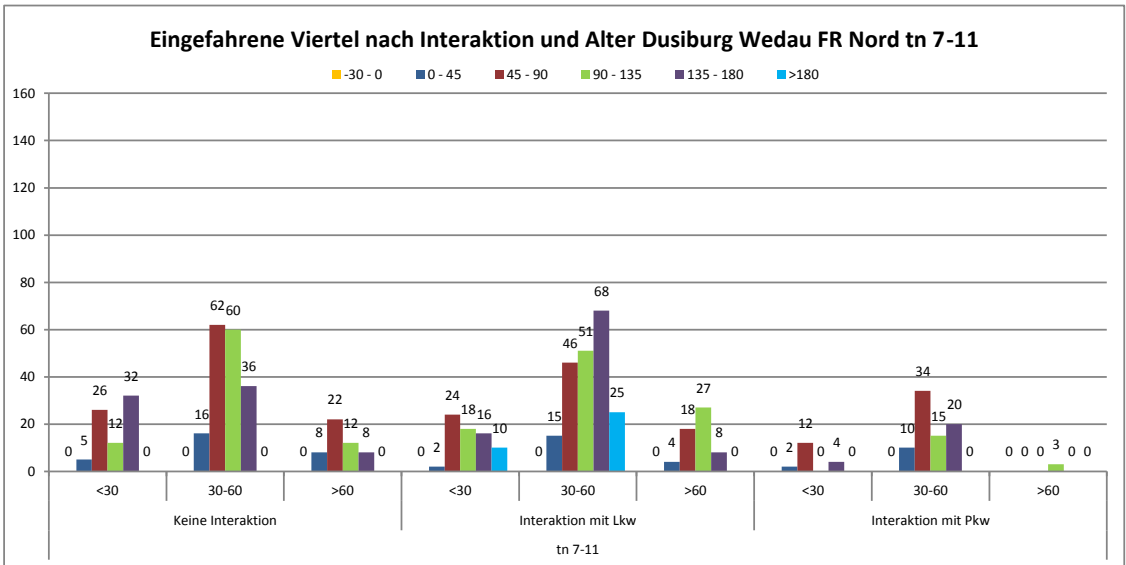
| Zeitraum | | Kfz | Kfz | Lkw | Lkw | SV |
|----------|-------|------|------|------|------|-------|
| 22 h* | HFS | 3876 | 9345 | 2438 | 3115 | 33,34 |
| | ÜFS 1 | 3106 | | 677 | | |
| | ÜFS 2 | 2362 | | 0 | | |
| 7-11 | HFS | 663 | 1754 | 427 | 589 | 33,58 |
| | ÜFS 1 | 371 | | 162 | | |
| | ÜFS 2 | 720 | | 0 | | |
| 14-18 | HFS | 577 | 1678 | 511 | 1021 | 60,85 |
| | ÜFS 1 | 505 | | 511 | | |
| | ÜFS 2 | 596 | | 11 | | |

* weitere Daten liegen nicht vor









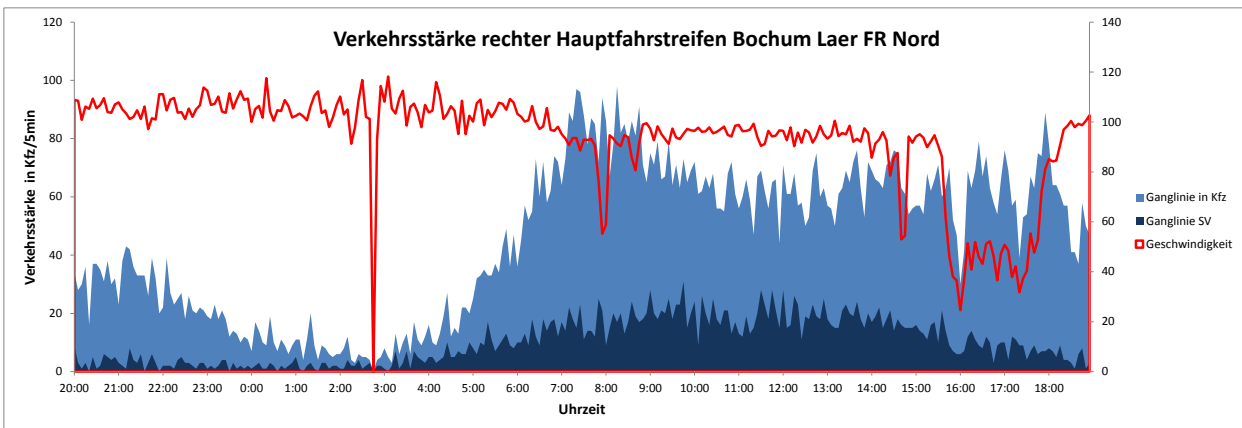
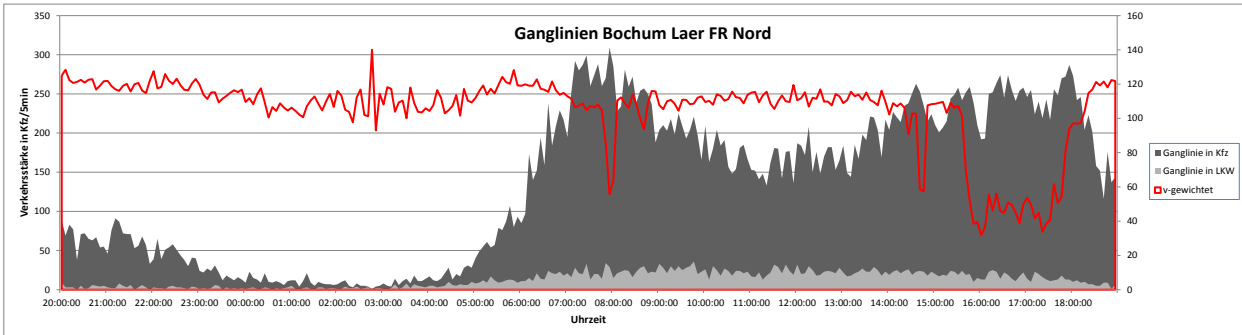
Ergebnisse AS Bochum-Laer, Fahrtrichtung Nord

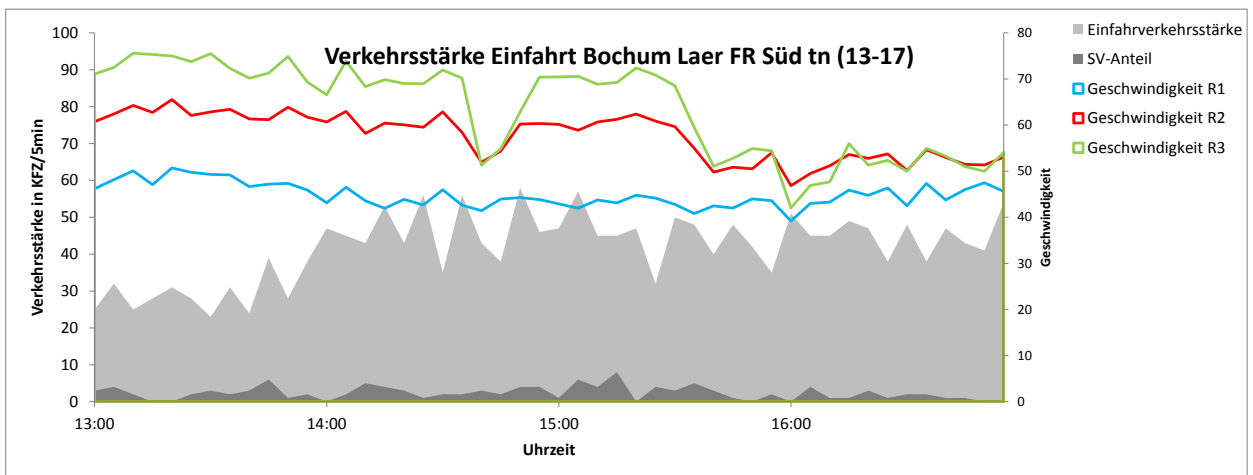
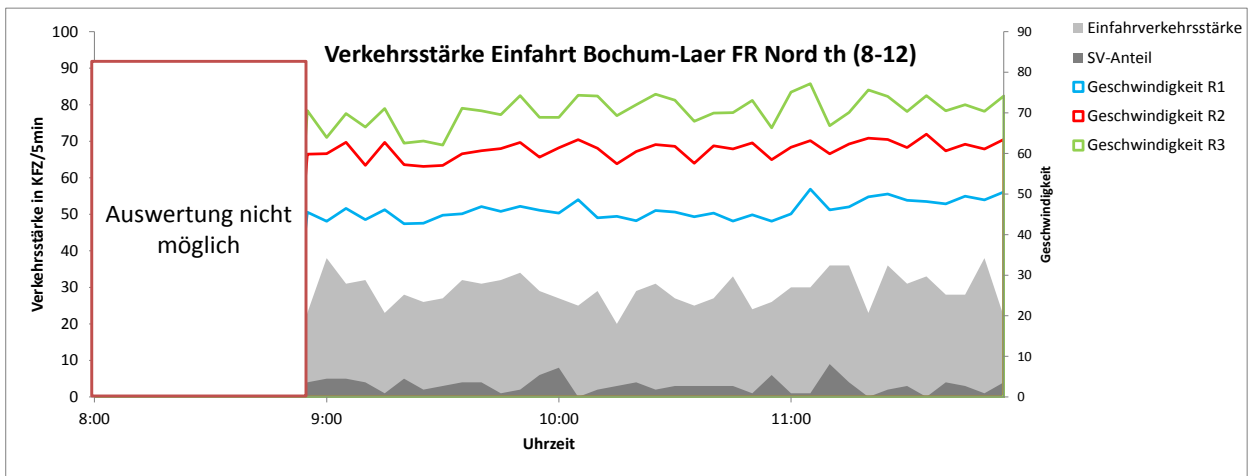
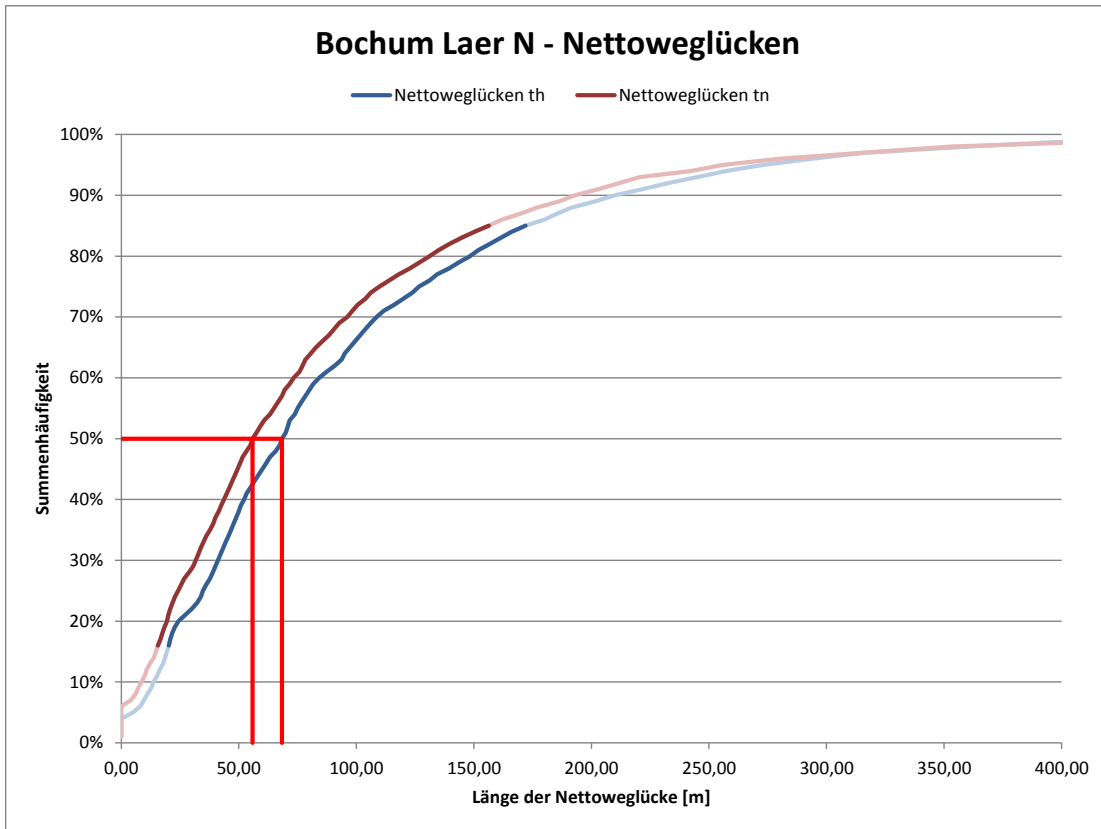
| | |
|--|--------------------------|
| Name der Einfahrt | NW_A043_18-Bochum-Laer_N |
| Rampentyp | direkt |
| Länge Bereich 0 [m] | 13 |
| L_2 [m] | 240 |
| DTV Klasse | hoch |
| Besonderheiten | ZRA |
| L_R [m] | 200 |
| Anzahl Richtungs-fahrbahnen | 2 |
| Ballungsraum (iB/aB) (>100tsd Ew.; 1000Ew/km ²) | iB |
| Ballungsraumname | Ruhrgebiet |
| Unfallauffällig | nein |
| DTV (2012) [Kfz/d] | |
| SV-Anteil (2011) [%] | |
| $Q_{\text{Querschnitt,vormittag}}$ [Kfz/h] | 9436 |
| $SV_{\text{Querschnitt,vormittag}}$ [%] | 12,05 |
| $Q_{\text{Querschnitt,nachmittag}}$ [Kfz/h] | 10766 |
| $SV_{\text{Querschnitt,nachmittag}}$ [%] | 9,11 |
| $Q_{\text{HFS,vormittag}}$ [Kfz/h] | 1113,25 |
| $SV_{\text{HFS,vormittag}}$ [%] | 28,03 |
| $v_{\text{HFS,vormittag}}$ [km/h] | 89,70 |
| $Q_{\text{Rampe,vormittag}}$ [Kfz/h] | 86,25 |
| $SV_{\text{Rampe,vormittag}}$ [%] | 8,23 |
| $v_{\text{Rampe,vormittag}}$ [km/h] | 42,26 |
| $Q_{\text{HFS,nachmittag}}$ [Kfz/h] | 1031,50 |
| $SV_{\text{HFS,nachmittag}}$ [%] | 23,07 |
| $v_{\text{HFS,nachmittag}}$ [km/h] | 89,21 |
| $Q_{\text{Rampe,nachmittag}}$ [Kfz/h] | 105,88* |
| $SV_{\text{Rampe,nachmittag}}$ [%] | 5,66 |
| $v_{\text{Rampe,nachmittag}}$ [km/h] | 43,63 |
| | |
| | |
| t_h | |
| t_n | |

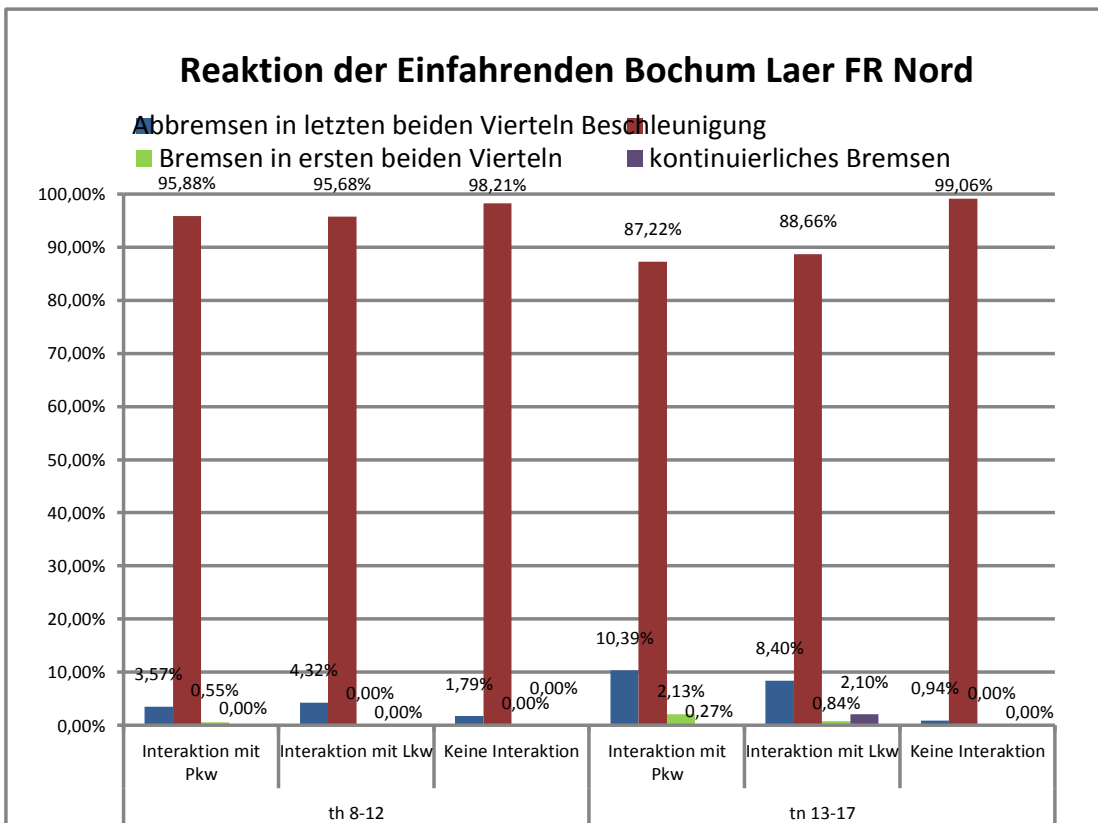
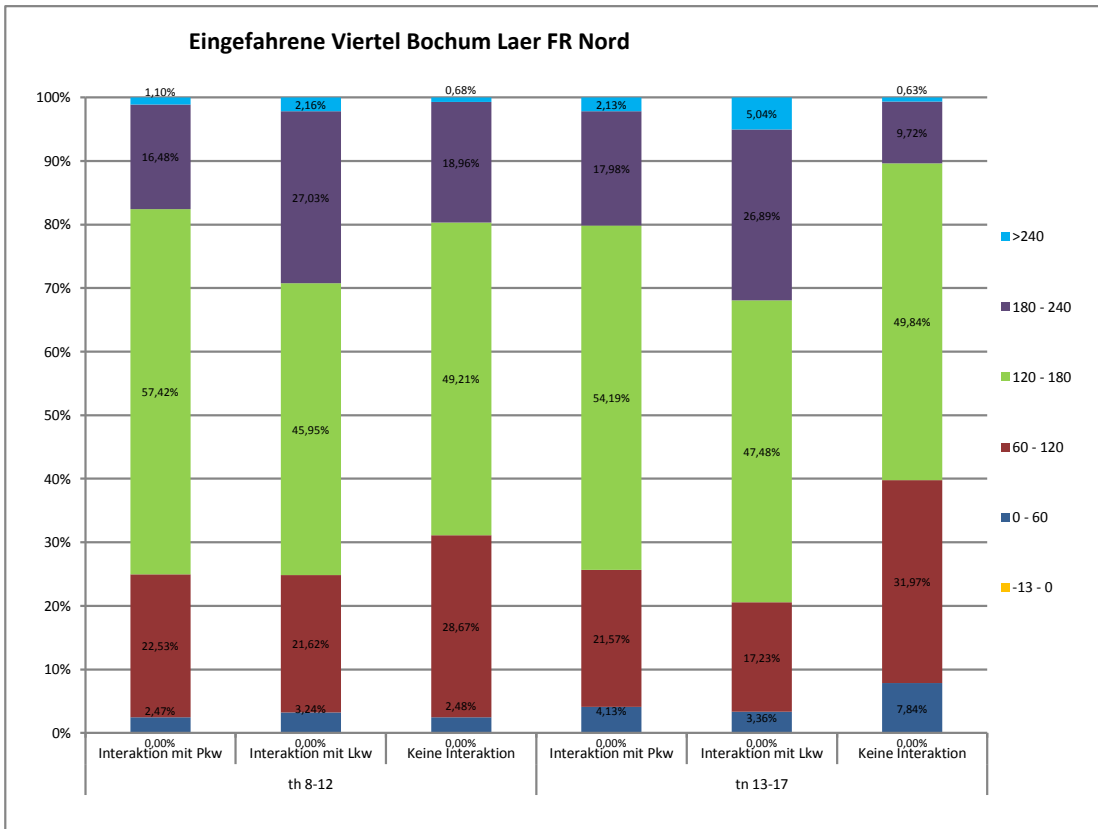
| Messort | Zeitraum | Kfz | Lkw | SV | Messort |
|---------|----------|------|------|--------|------------------------|
| ÜFS | 23 h* | 4343 | 2458 | 56,60 | Querschnitt FR Nord |
| | 8-12 | 905 | 799 | 119,69 | |
| | 13-17 | 814 | 723 | 121,96 | |
| HFS | 23 h* | 3885 | 2072 | 53,33 | |
| | 8-12 | 668 | 448 | 67,09 | |
| | 13-17 | 593 | 462 | 77,93 | |

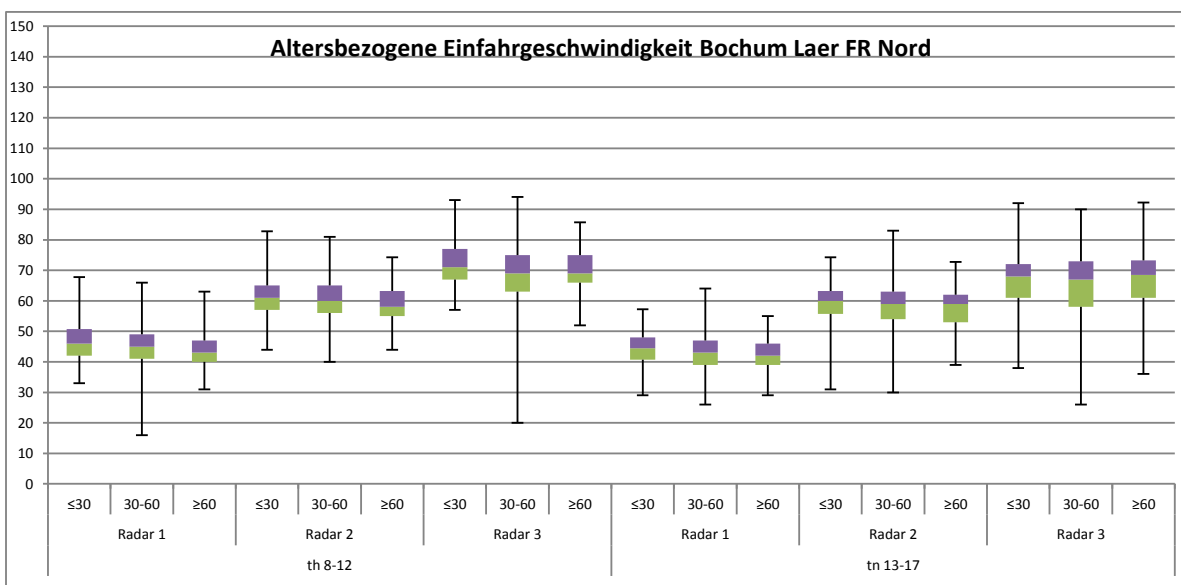
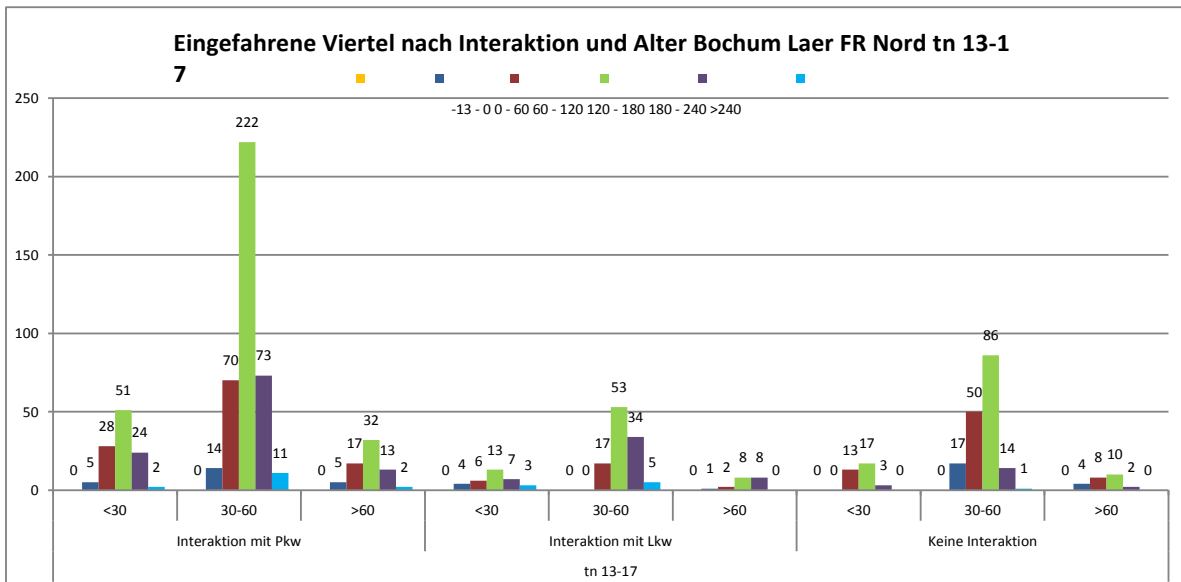
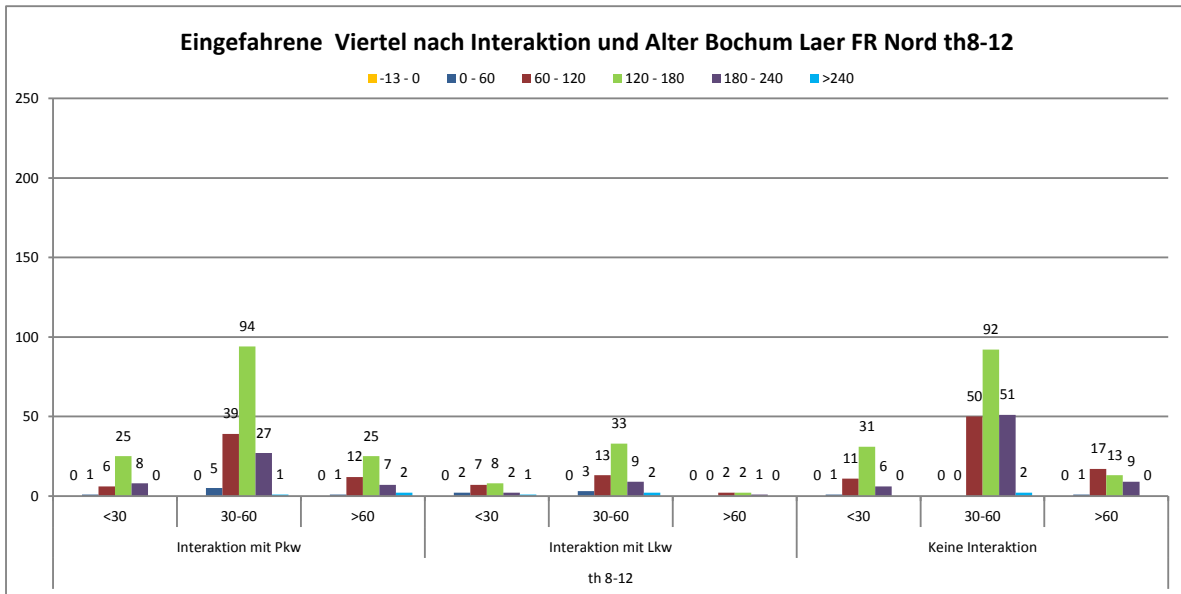
| Zeitraum | | Kfz | Kfz | Lkw | Lkw | SV |
|----------|-----|------|------|------|------|-------|
| 23 h* | HFS | 3885 | 8228 | 2072 | 4530 | 55,06 |
| | ÜFS | 4343 | | 2458 | | |
| 7-11 | HFS | 668 | 1573 | 448 | 1247 | 79,31 |
| | ÜFS | 905 | | 799 | | |
| 14-18 | HFS | 593 | 1406 | 462 | 1185 | 84,23 |
| | ÜFS | 814 | | 723 | | |

* weitere Daten liegen nicht vor









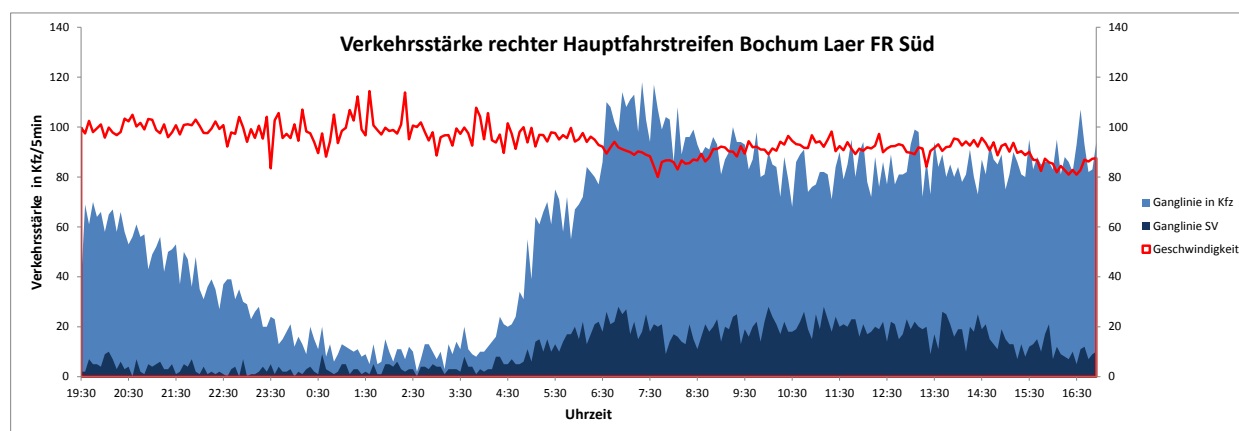
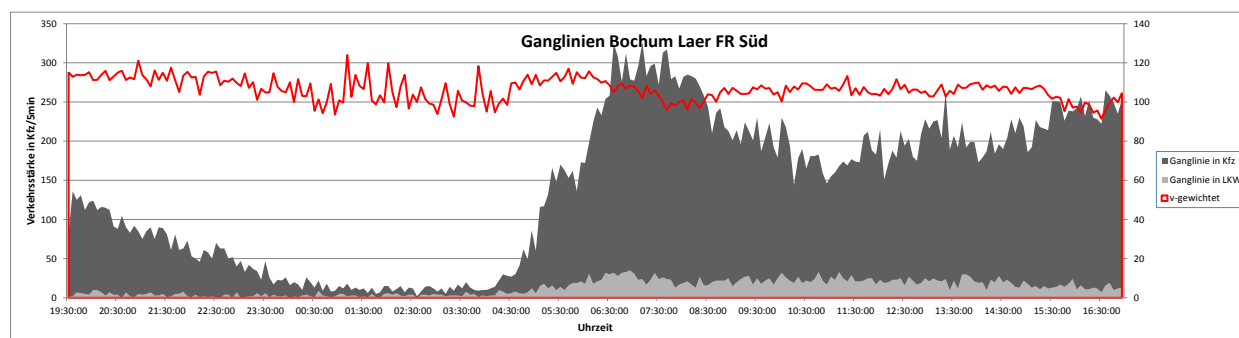
Ergebnisse AS Bochum-Laer, Fahrtrichtung Süd

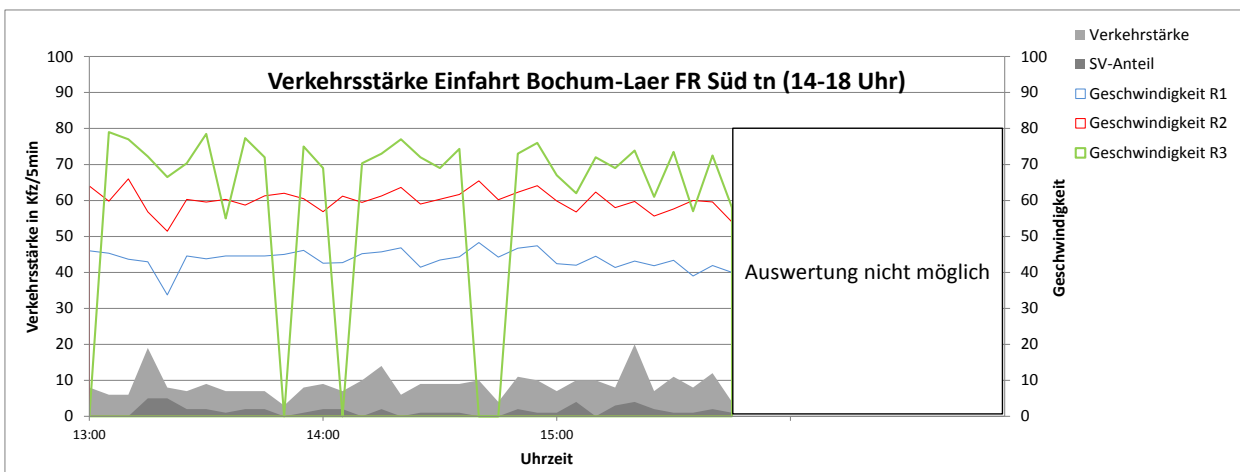
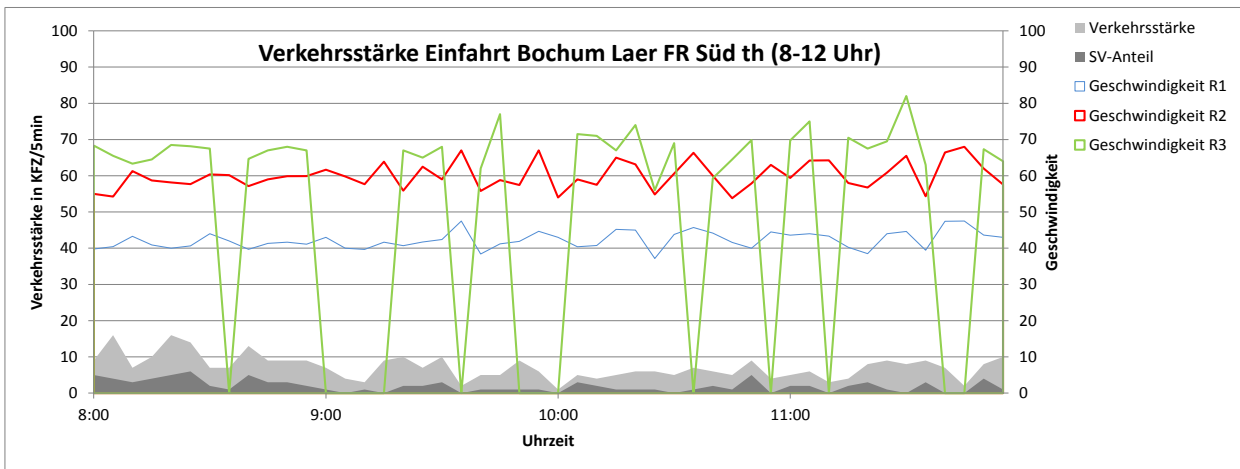
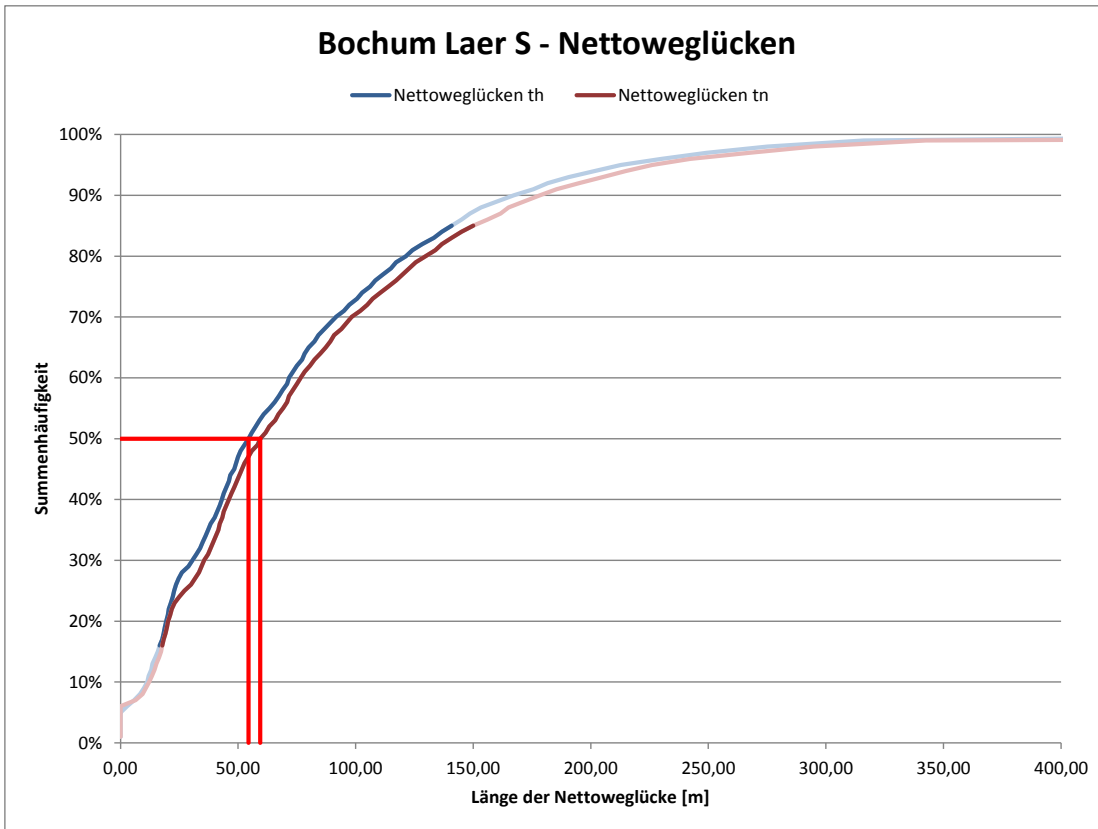
| | |
|--|--------------------------|
| Name der Einfahrt | NW_A043_18-Bochum-Laer_S |
| Rampentyp | indirekt |
| Länge Bereich 0 [m] | 20 |
| L ₂ [m] | 100 |
| DTV Klasse | hoch |
| Besonderheiten | - |
| L _R [m] | 200 |
| Anzahl Richtungs-fahrbahnen | 2 |
| Ballungsraum (iB/aB) (>100tsd Ew.; 1000Ew/km ²) | iB |
| Ballungsraumname | Ruhrgebiet |
| Unfallauffällig | nein |
| DTV (2012) [Kfz/d] | |
| SV-Anteil (2011) [%] | |
| Q _{Querschnitt, vormittag} [Kfz/h] | 9796 |
| SV _{Querschnitt, vormittag} [%] | 10,97 |
| Q _{Querschnitt, nachmittag} [Kfz/h] | 10580 |
| SV _{Querschnitt, nachmittag} [%] | 7,85 |
| Q _{HFS, vormittag} [Kfz/h] | 895,25 |
| SV _{HFS, vormittag} [%] | 22,57 |
| v _{HFS, vormittag} [km/h] | 92,27 |
| Q _{Rampe, vormittag} [Kfz/h] | 352,33* |
| SV _{Rampe, vormittag} [%] | 26,38 |
| v _{Rampe, vormittag} [km/h] | 46,12 |
| Q _{HFS, nachmittag} [Kfz/h] | 752,00 |
| SV _{HFS, nachmittag} [%] | 16,92 |
| v _{HFS, nachmittag} [km/h] | 74,85 |
| Q _{Rampe, nachmittag} [Kfz/h] | 499,25 |
| SV _{Rampe, nachmittag} [%] | 17,00 |
| v _{Rampe, nachmittag} [km/h] | 44,86 |
| | |
| | |
| t _h | |
| t _n | |

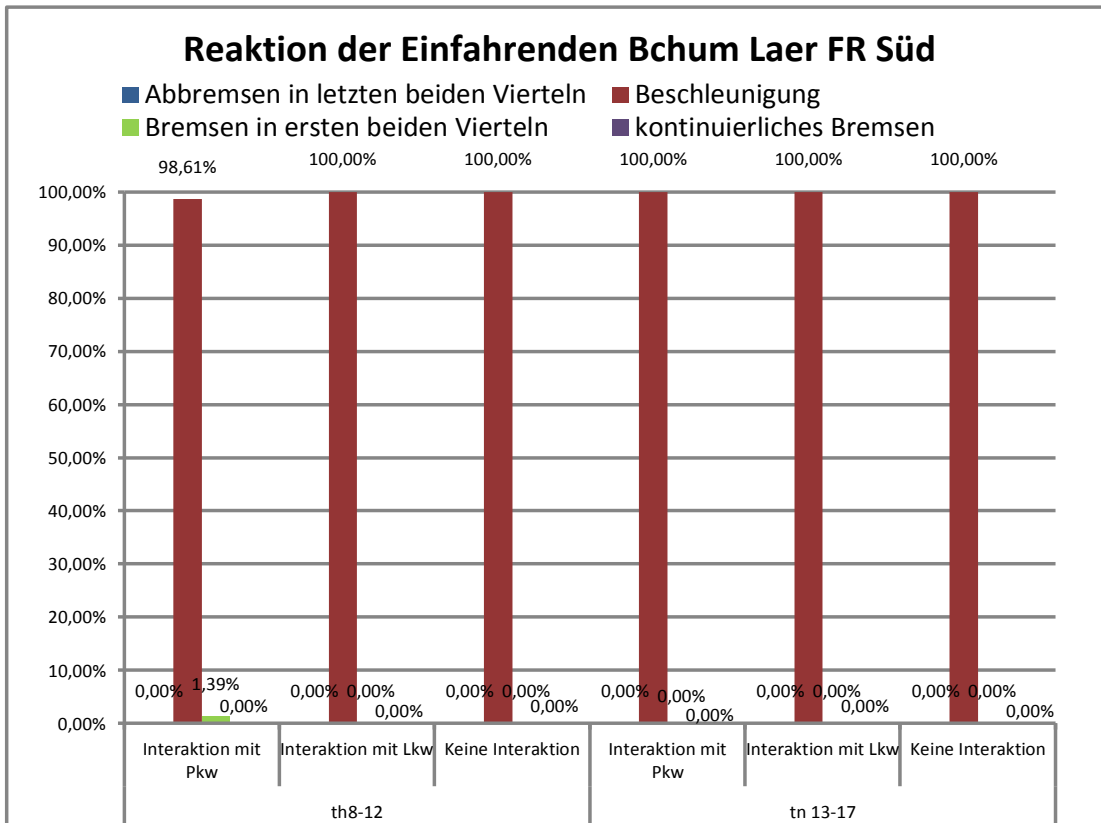
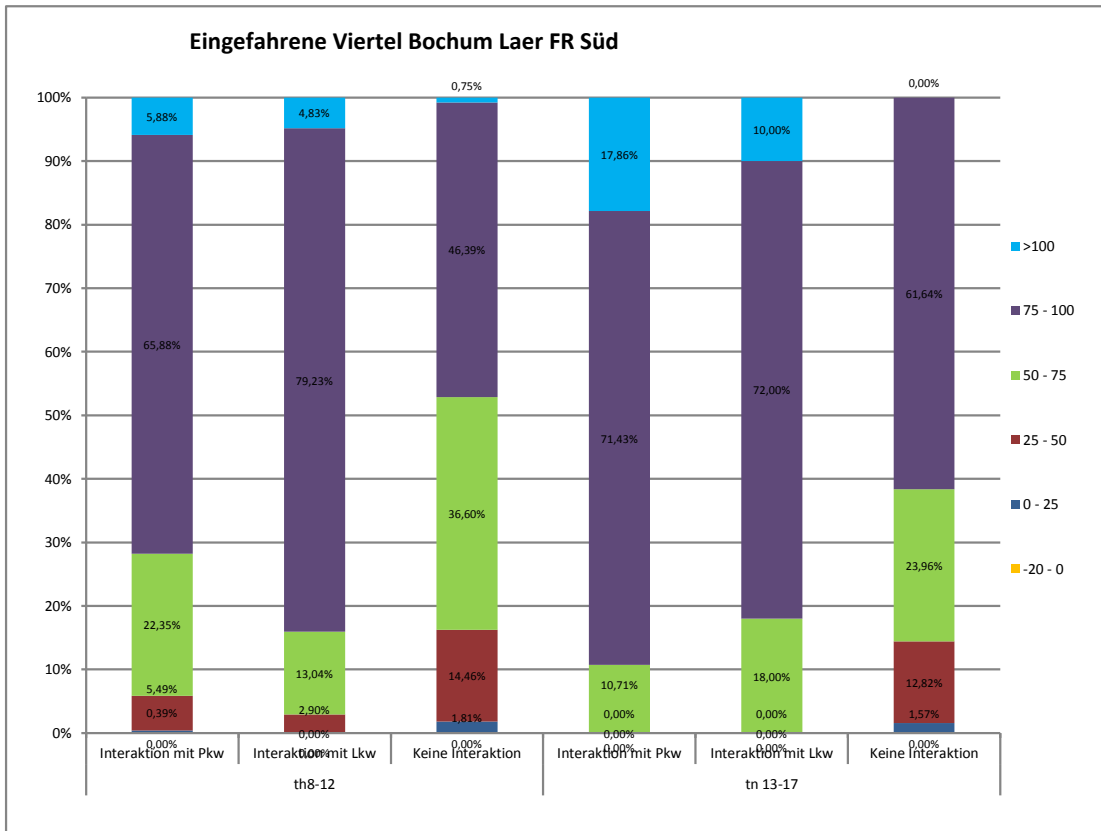
| Messort | Zeitraum | Kfz | Lkw | SV | Messort |
|---------|----------|---------|--------|-------|-----------------------|
| ÜFS | 21,5 h* | 5772960 | 133344 | 2,31 | Querschnitt FR SÜD |
| | 8-12 | 1660032 | 39456 | 3,25 | |
| | 13-17 | 1848096 | 37728 | 3,19 | |
| HFS | 21,5 h* | 4412160 | 830304 | 18,82 | |
| | 8-12 | 1212768 | 266688 | 21,99 | |
| | 13-17 | 1184256 | 207072 | 17,49 | |

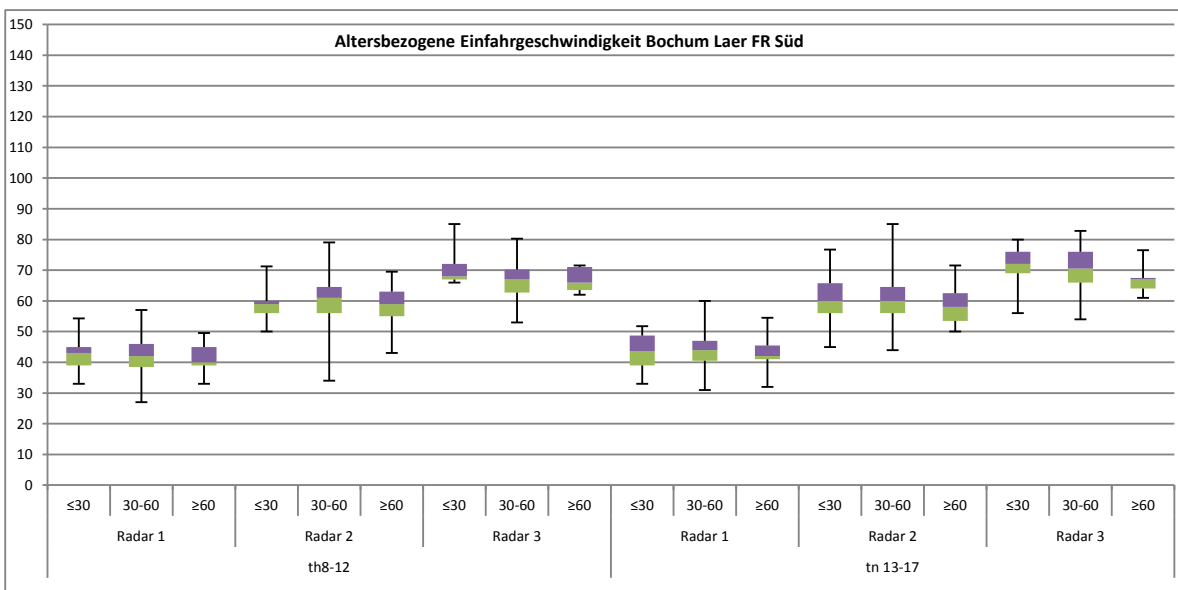
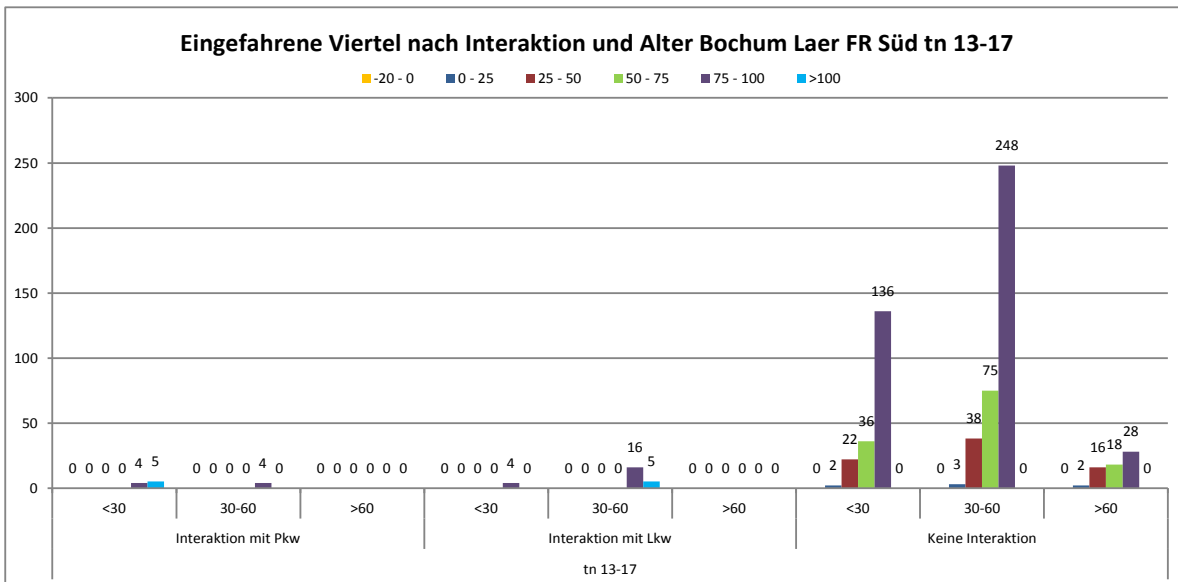
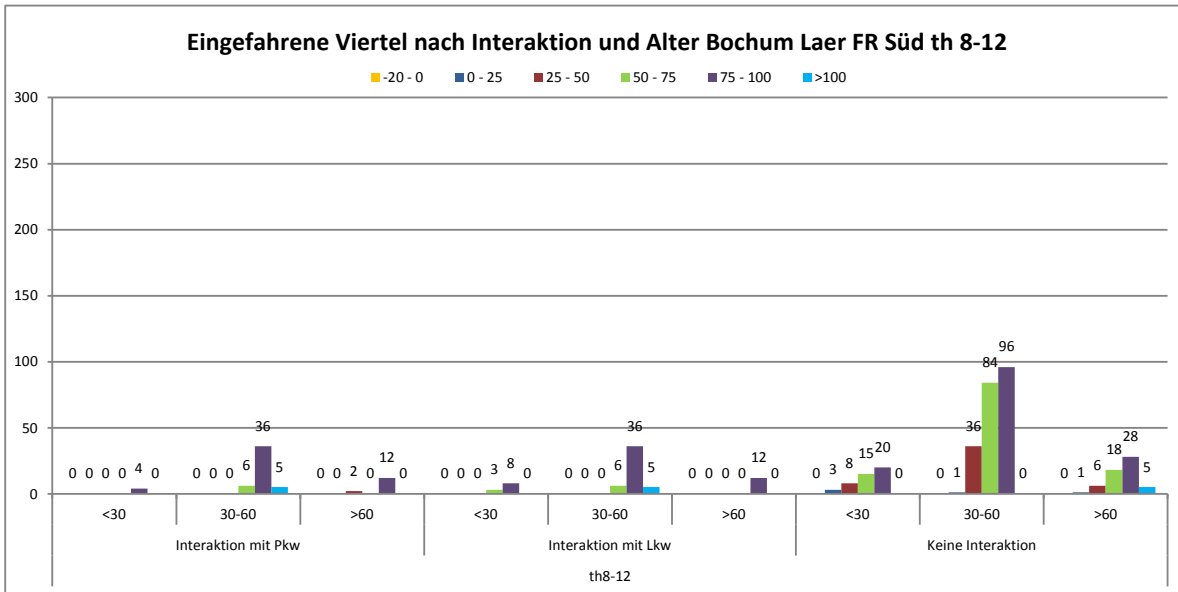
| Zeitraum | | Kfz | Kfz | Lkw | Lkw | SV |
|----------|-----|---------|----------|--------|--------|-------|
| 21,5 h* | HFS | 4412160 | 10185120 | 830304 | 963648 | 9,46 |
| | ÜFS | 5772960 | | 133344 | | |
| 7-11 | HFS | 1212768 | 2872800 | 266688 | 306144 | 10,66 |
| | ÜFS | 1660032 | | 39456 | | |
| 14-18 | HFS | 1184256 | 3032352 | 207072 | 244800 | 8,07 |
| | ÜFS | 1848096 | | 37728 | | |

* weitere Daten liegen nicht vor







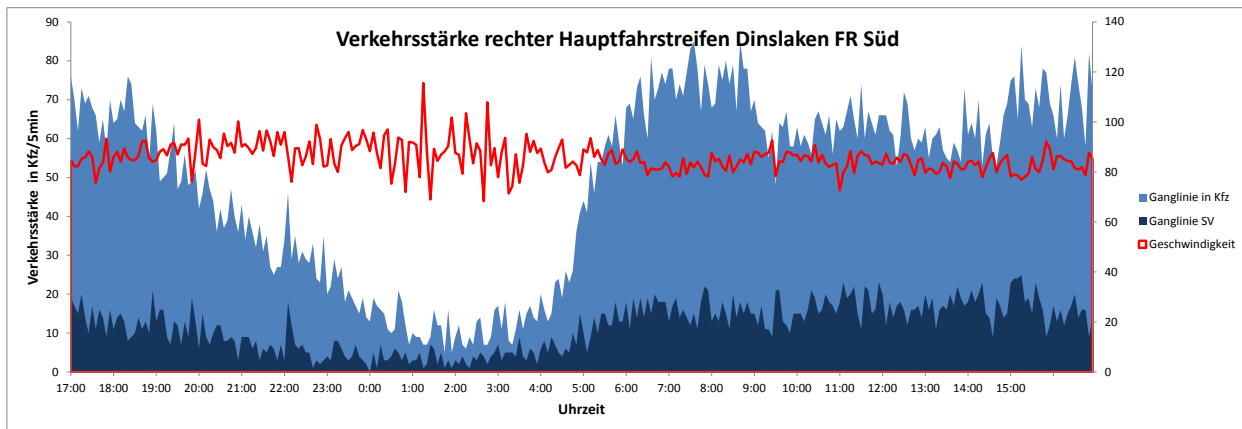
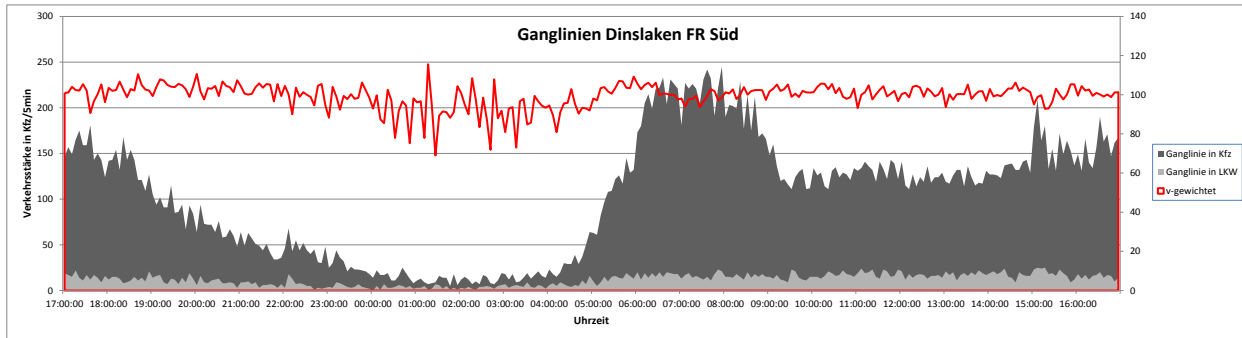


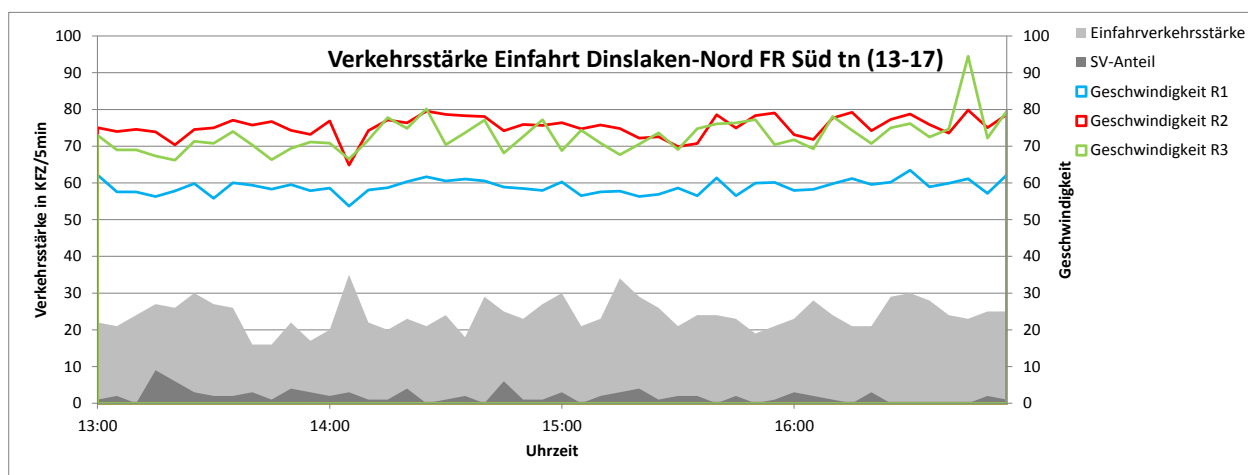
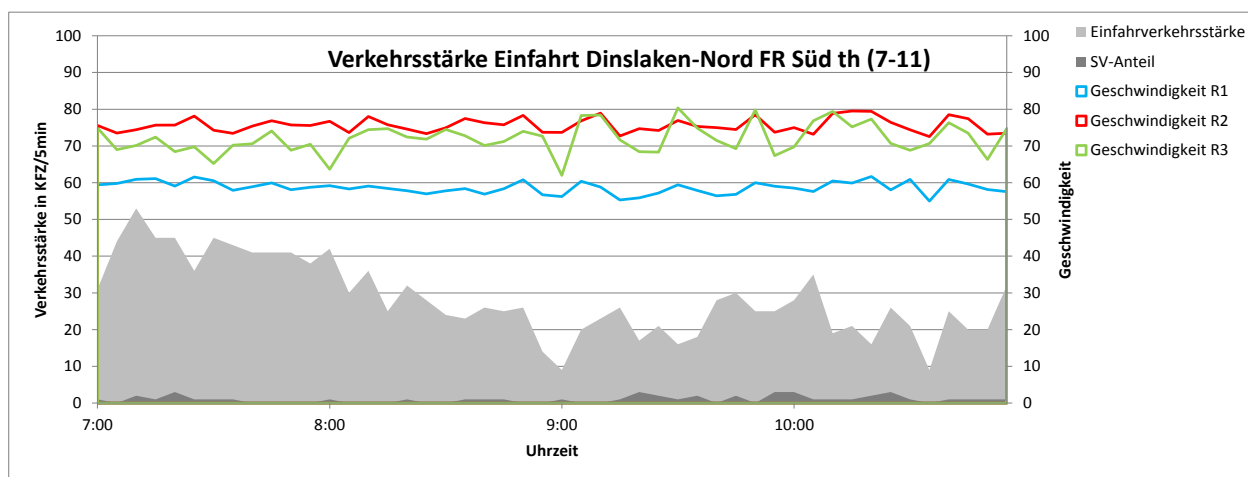
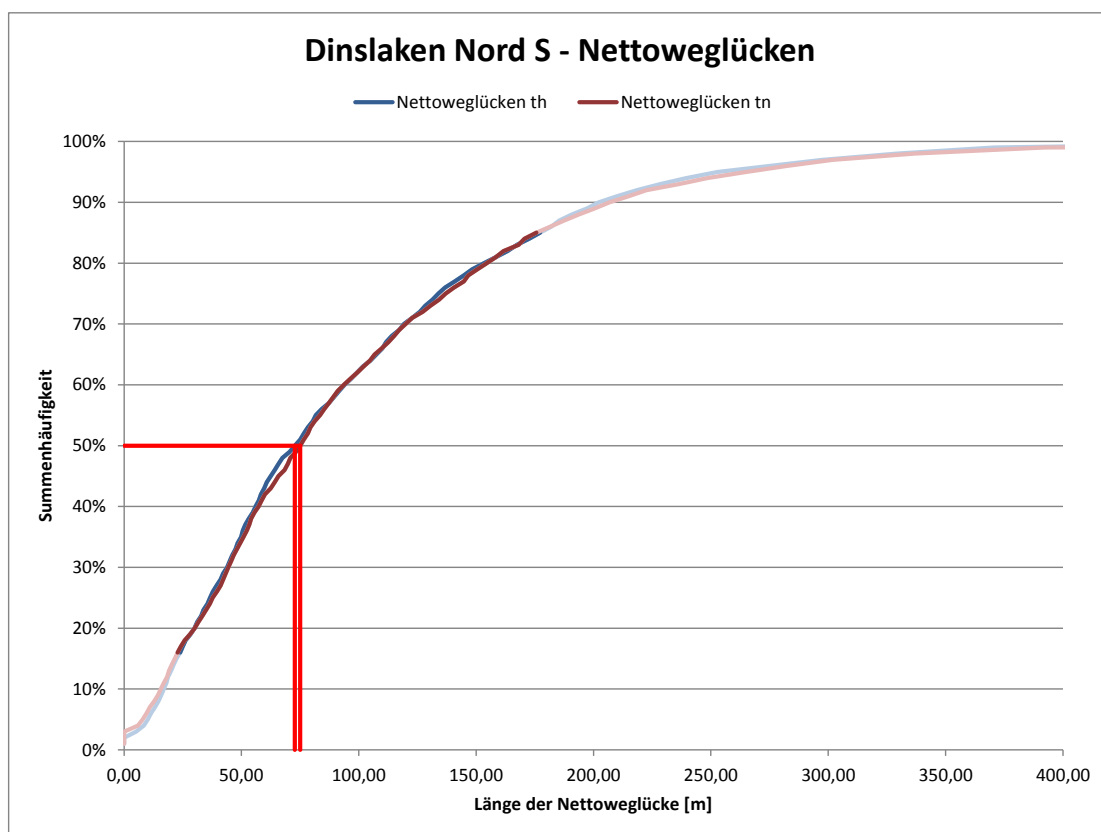
Ergebnisse AS Dinslaken-Nord, Fahrtrichtung Süd

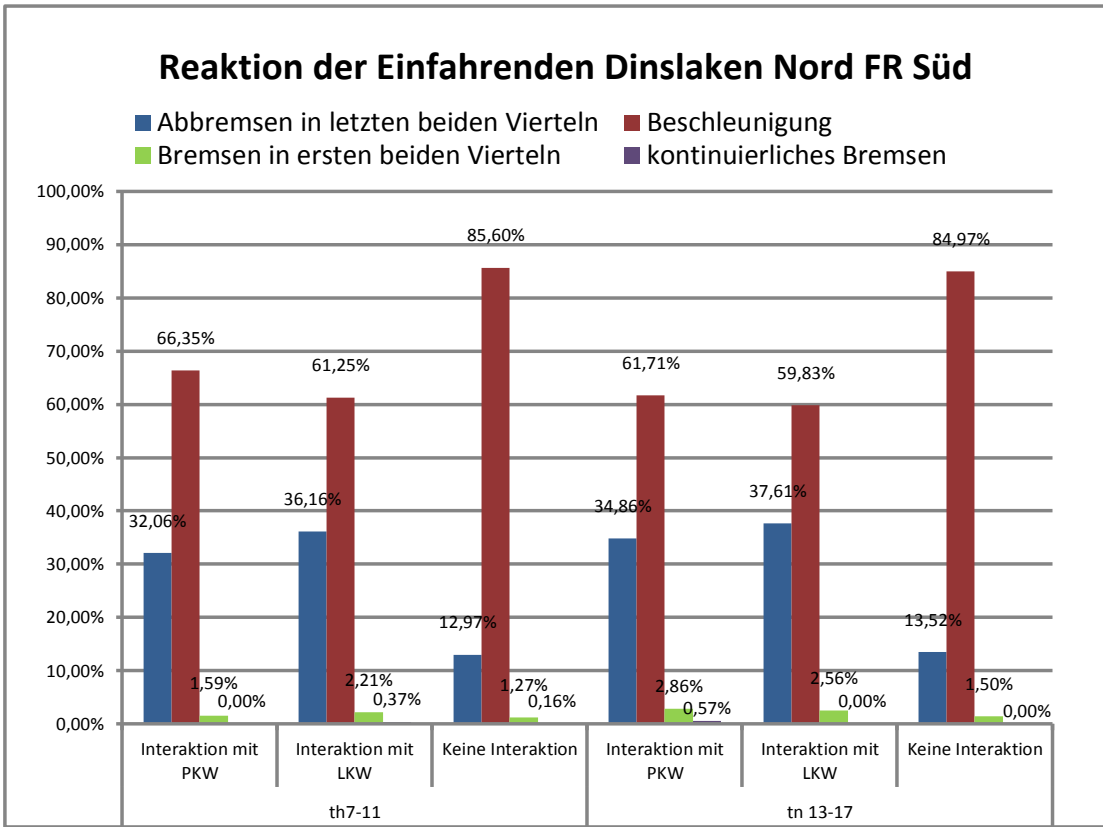
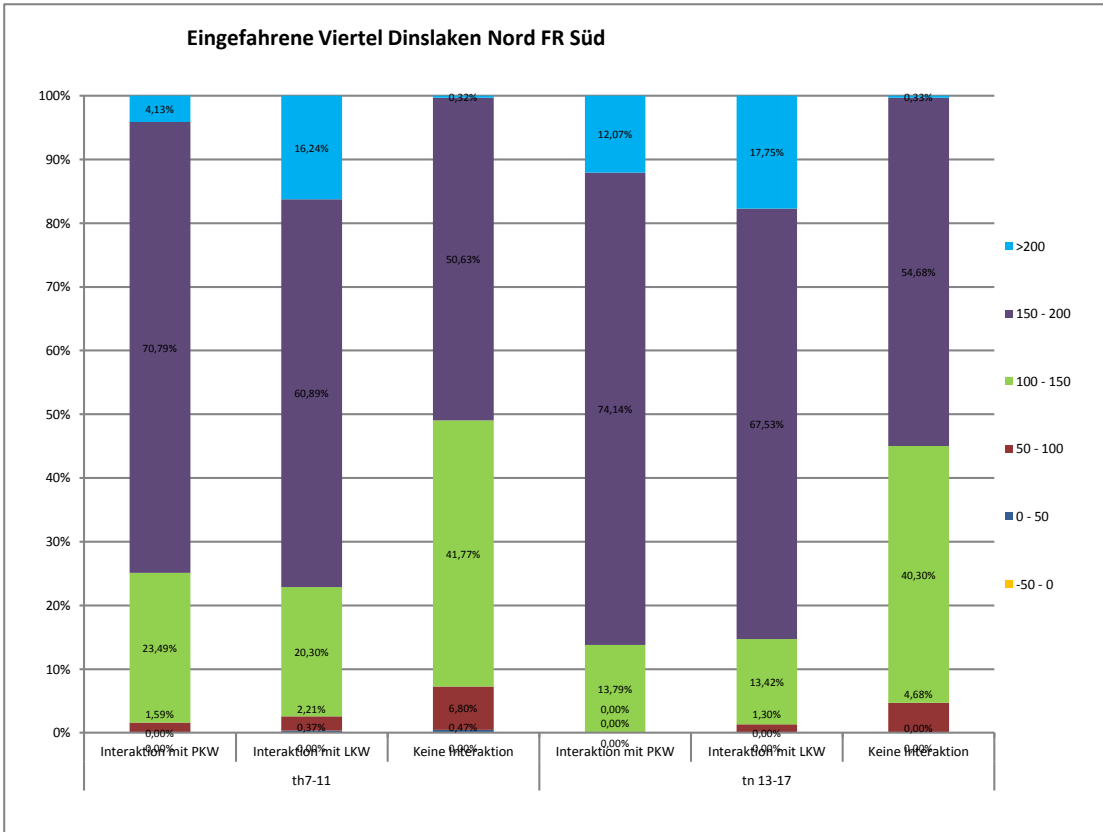
| Name der Einfahrt | NW_A003_08-Dinslaken Nord_S |
|--|-----------------------------|
| Rampentyp | direkt |
| Länge Bereich 0 [m] | 50 |
| L_2 [m] | 200 |
| DTV Klasse | hoch |
| Besonderheiten | - |
| L_R [m] | 350 |
| Anzahl Richtungs-fahrbahnen | 2 |
| Ballungsraum (iB/aB) (>100tsd Ew.; 1000Ew/km ²) | aB |
| Ballungsraumname | |
| Unfallauffällig | nein |
| DTV (2012) [Kfz/d] | 27980 |
| SV-Anteil (2011) [%] | 11,75 |
| $Q_{\text{Querschnitt,vormittag}}$ [Kfz/h] | 6938 |
| $SV_{\text{Querschnitt,vormittag}}$ [%] | 11,49 |
| $Q_{\text{Querschnitt,nachmittag}}$ [Kfz/h] | 6877 |
| $SV_{\text{Querschnitt,nachmittag}}$ [%] | 12,19 |
| $Q_{\text{HFS,vormittag}}$ [Kfz/h] | 822,00 |
| $SV_{\text{HFS,vormittag}}$ [%] | 24,64 |
| $v_{\text{HFS,vormittag}}$ [km/h] | 84,14 |
| $Q_{\text{Rampe,vormittag}}$ [Kfz/h] | 341,00 |
| $SV_{\text{Rampe,vormittag}}$ [%] | 3,37 |
| $v_{\text{Rampe,vormittag}}$ [km/h] | 58,68 |
| $Q_{\text{HFS,nachmittag}}$ [Kfz/h] | 787,00 |
| $SV_{\text{HFS,nachmittag}}$ [%] | 26,02 |
| $v_{\text{HFS,nachmittag}}$ [km/h] | 82,59 |
| $Q_{\text{Rampe,nachmittag}}$ [Kfz/h] | 289,25 |
| $SV_{\text{Rampe,nachmittag}}$ [%] | 7,78 |
| $v_{\text{Rampe,nachmittag}}$ [km/h] | 58,94 |
| | |
| | |
| t_n | |
| t_n | |

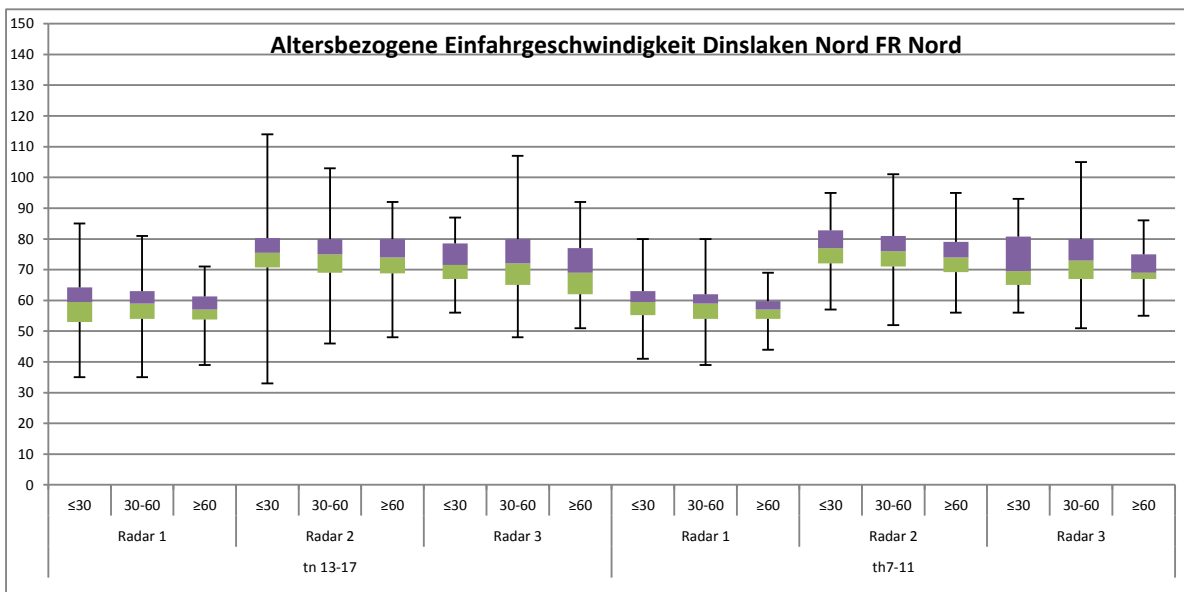
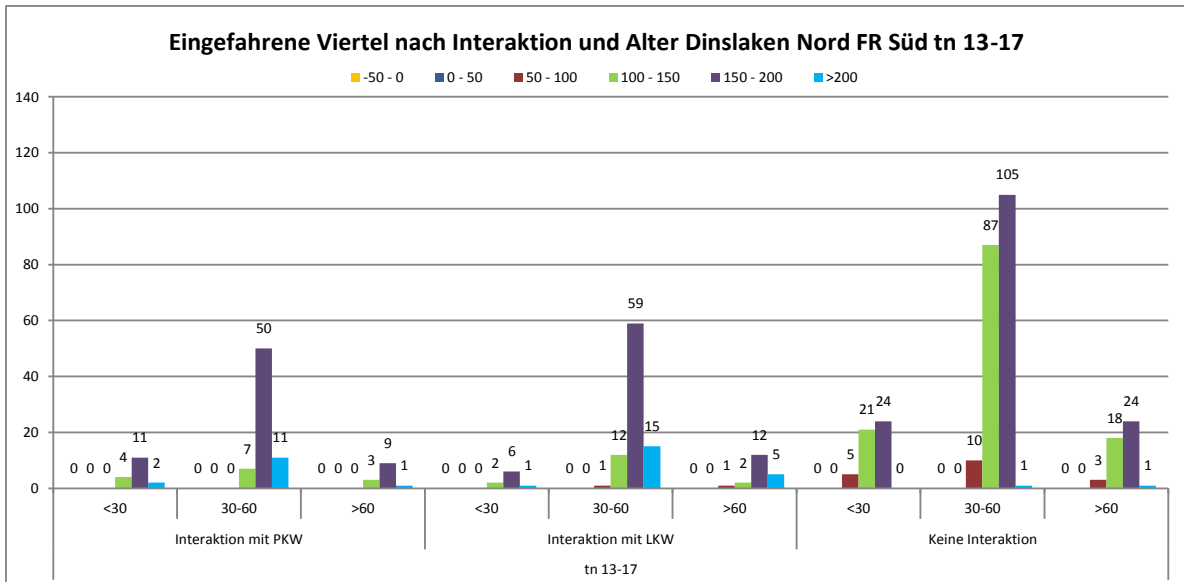
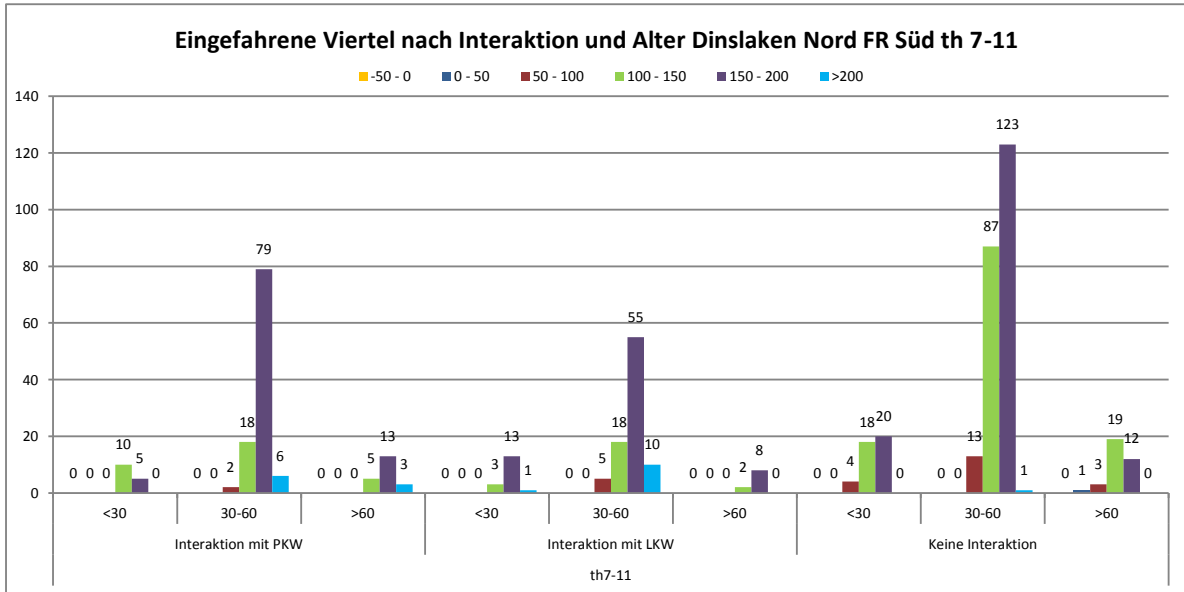
| Messort | Zeitraum | Kfz | Lkw | SV | Messort |
|---------|----------|------|------|-------|-----------------------|
| ÜFS | 24 h | 5166 | 89 | 1,73 | Querschnitt FR SÜD |
| | 8-12 | 926 | 40 | 4,38 | |
| | 13-17 | 879 | 9 | 1,03 | |
| HFS | 24 h | 5883 | 2937 | 49,91 | |
| | 8-12 | 921 | 460 | 49,94 | |
| | 13-17 | 893 | 498 | 55,82 | |

| Zeitraum | | Kfz | Kfz | Lkw | Lkw | SV |
|----------|-----|------|-------|------|------|-------|
| 24 h | HFS | 5883 | 11049 | 2937 | 3026 | 27,39 |
| | ÜFS | 5166 | | 89 | | |
| 7-11 | HFS | 921 | 1847 | 460 | 500 | 27,07 |
| | ÜFS | 926 | | 40 | | |
| 14-18 | HFS | 893 | 1771 | 498 | 507 | 28,64 |
| | ÜFS | 879 | | 9 | | |









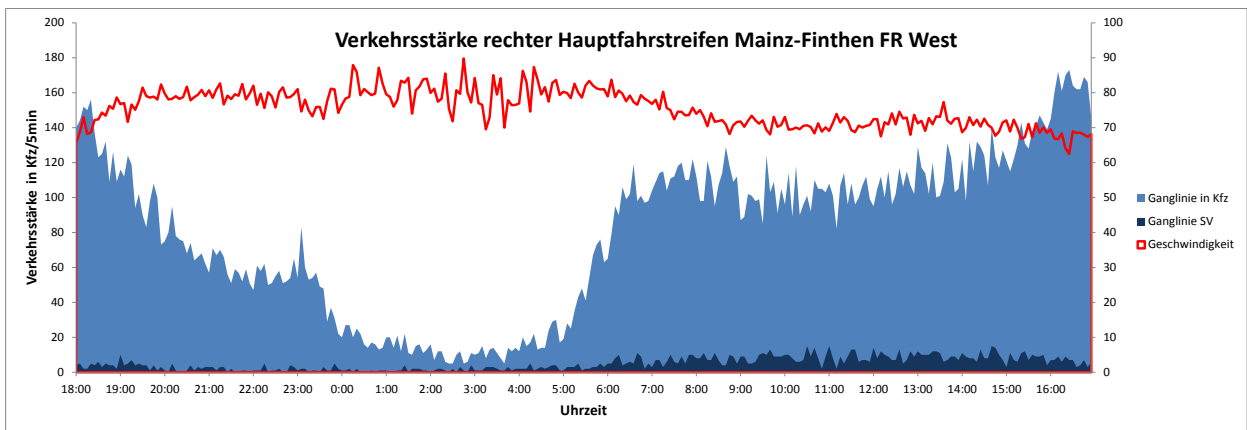
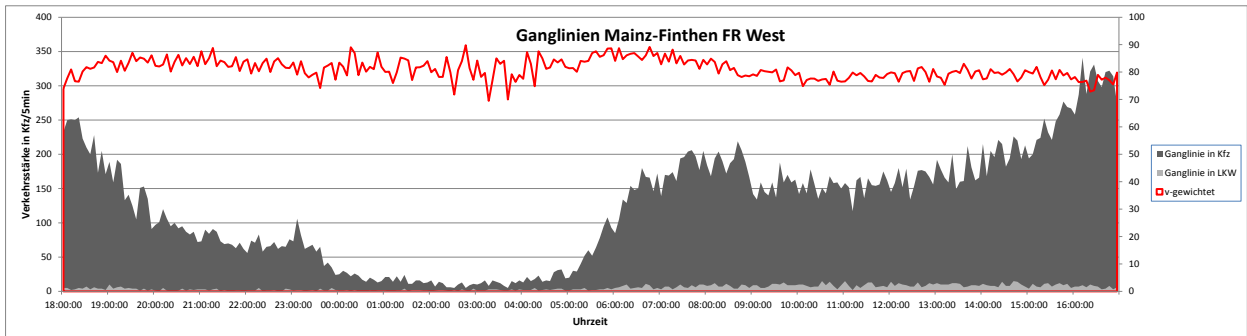
Ergebnisse AS Mainz-Finthen, Fahrtrichtung West

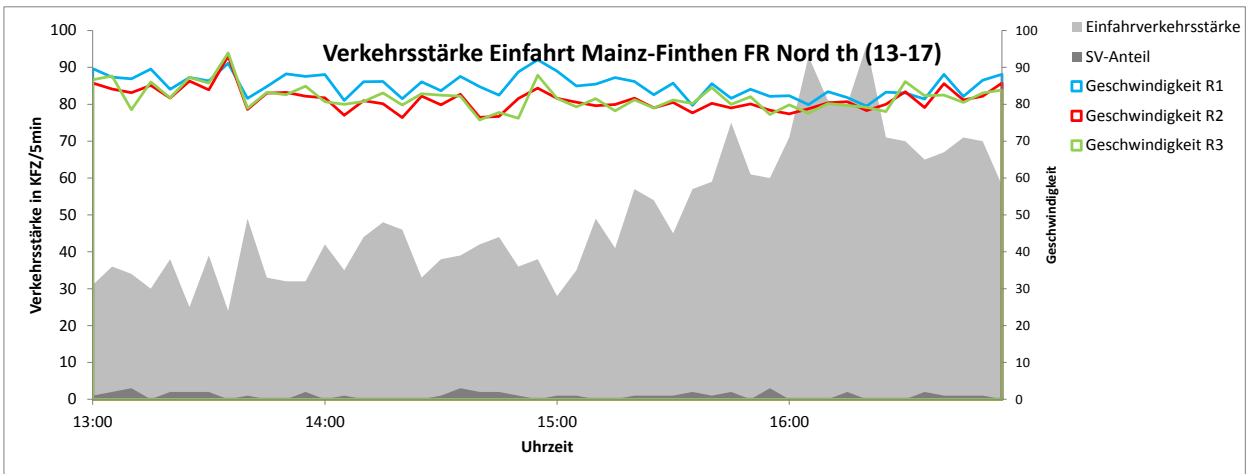
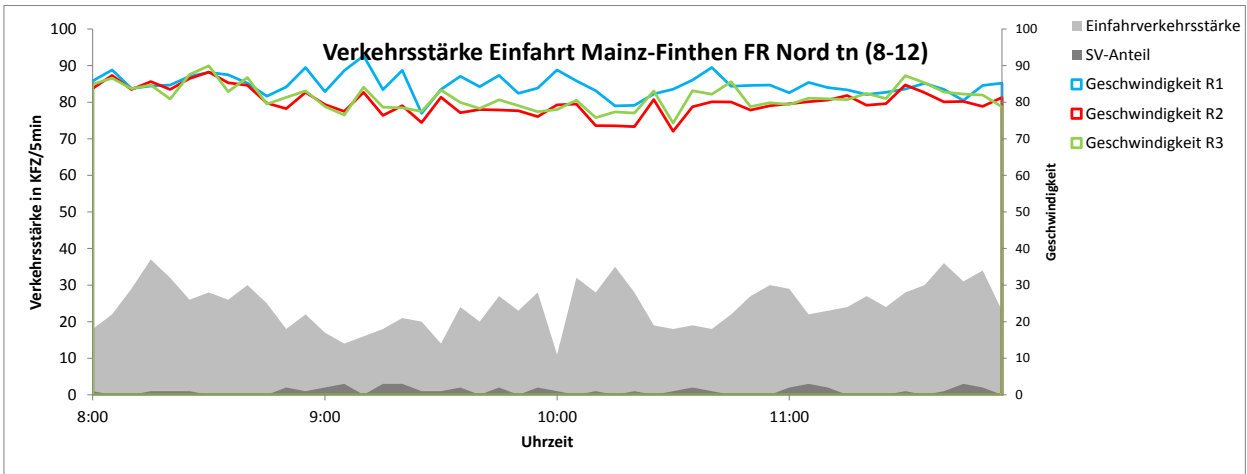
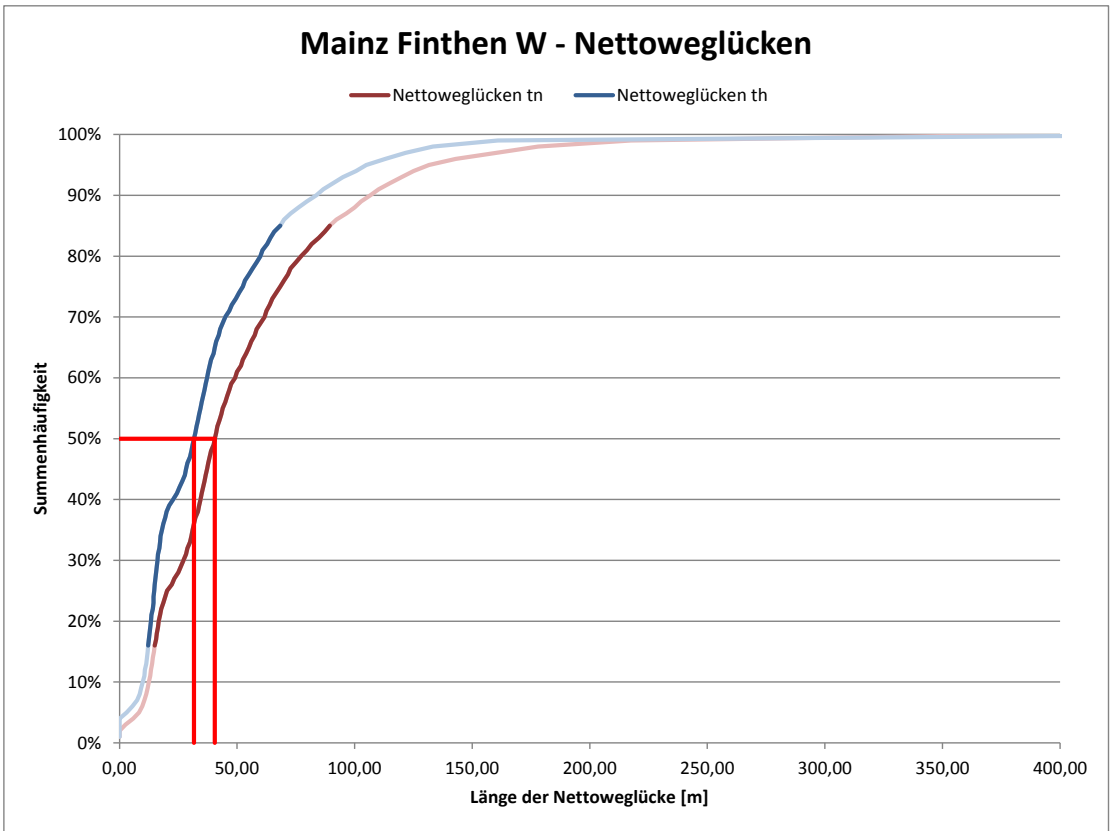
| | |
|--|----------------------------|
| Name der Einfahrt | RP_A060_19-Mainz Finthen_W |
| Rampentyp | direkt |
| Länge Bereich 0 [m] | 13 |
| L_2 [m] | 150 |
| DTV Klasse | hoch |
| Besonderheiten | AK-ähnlich |
| L_R [m] | 550 |
| Anzahl Richtungs-fahrbahnen | 2 |
| Ballungsraum (iB/aB) (>100tsd Ew.; 1000Ew/km ²) | aB |
| Ballungsraumname | |
| Unfallauffällig | nein |
| DTV (2012) [Kfz/d] | 33218 |
| SV-Anteil (2011) [%] | 7,34 |
| $Q_{\text{Querschnitt, vormittag}}$ [Kfz/h] | 7829 |
| $SV_{\text{Querschnitt, vormittag}}$ [%] | 5,21 |
| $Q_{\text{Querschnitt, nachmittag}}$ [Kfz/h] | 11058 |
| $SV_{\text{Querschnitt, nachmittag}}$ [%] | 3,85 |
| $Q_{\text{HFS, vormittag}}$ [Kfz/h] | 1241,75 |
| $SV_{\text{HFS, vormittag}}$ [%] | 8,05 |
| $v_{\text{HFS, vormittag}}$ [km/h] | 71,04 |
| $Q_{\text{Rampe, vormittag}}$ [Kfz/h] | 293,25 |
| $SV_{\text{Rampe, vormittag}}$ [%] | 4,01 |
| $v_{\text{Rampe, vormittag}}$ [km/h] | 84,71 |
| $Q_{\text{HFS, nachmittag}}$ [Kfz/h] | 1591,75 |
| $SV_{\text{HFS, nachmittag}}$ [%] | 6,52 |
| $v_{\text{HFS, nachmittag}}$ [km/h] | 69,91 |
| $Q_{\text{Rampe, nachmittag}}$ [Kfz/h] | 600,50 |
| $SV_{\text{Rampe, nachmittag}}$ [%] | 1,87 |
| $v_{\text{Rampe, nachmittag}}$ [km/h] | 85,15 |
| | |
| | |
| t_h | |
| t_n | |

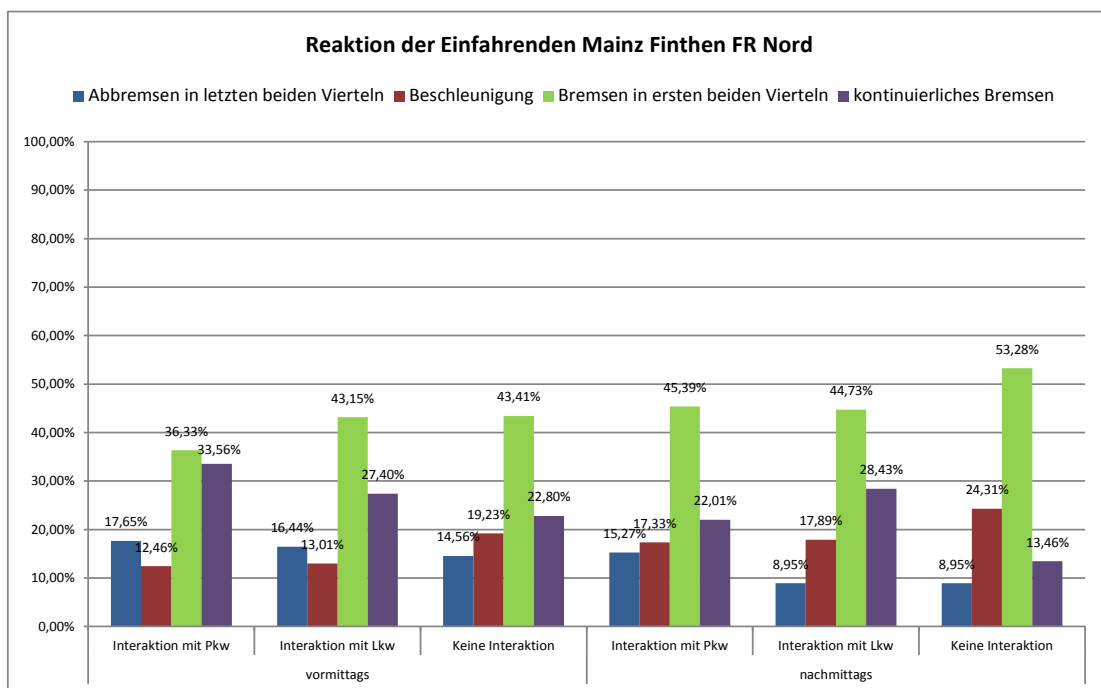
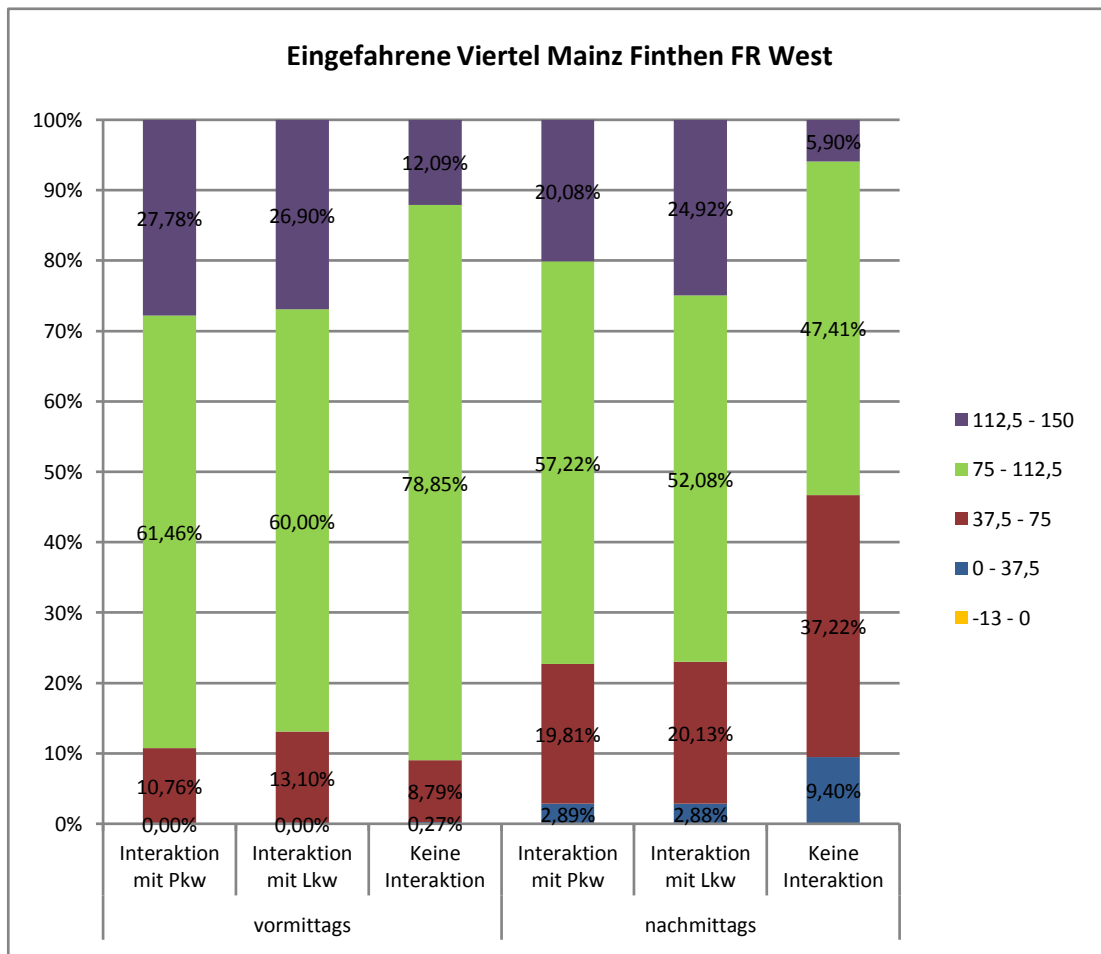
| Messort | Zeitraum | Kfz | Lkw | SV | Messort |
|---------|----------|------|------|-------|------------------------|
| ÜFS | 23 h* | 3412 | 12 | 0,36 | Querschnitt FR Nord |
| | 8-12 | 698 | 0 | 0,00 | |
| | 13-17 | 720 | 12 | 2,11 | |
| HFS | 23 h* | 3654 | 2002 | 54,80 | |
| | 8-12 | 589 | 451 | 76,71 | |
| | 13-17 | 584 | 478 | 81,91 | |

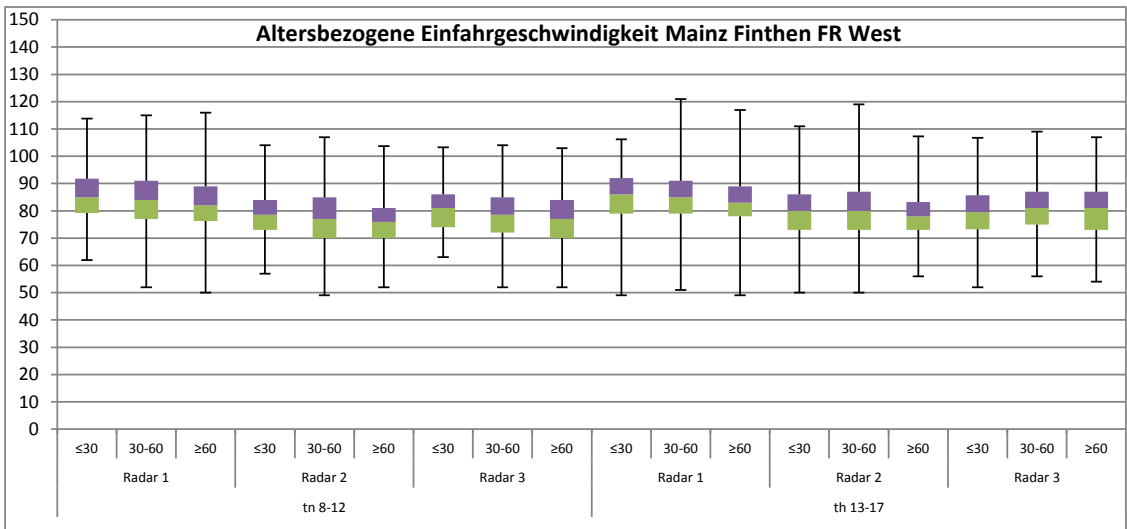
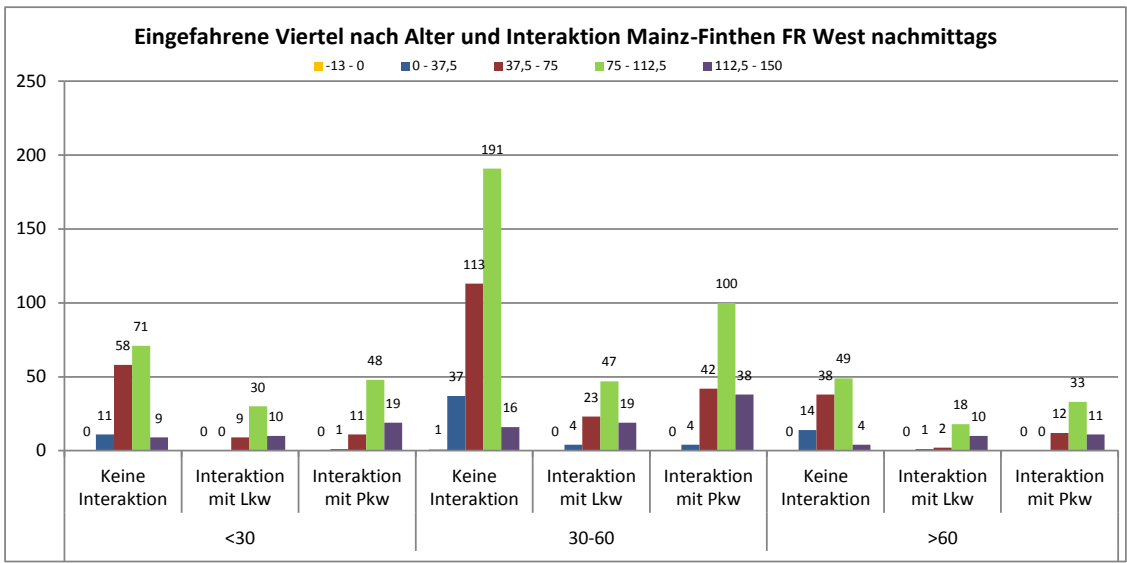
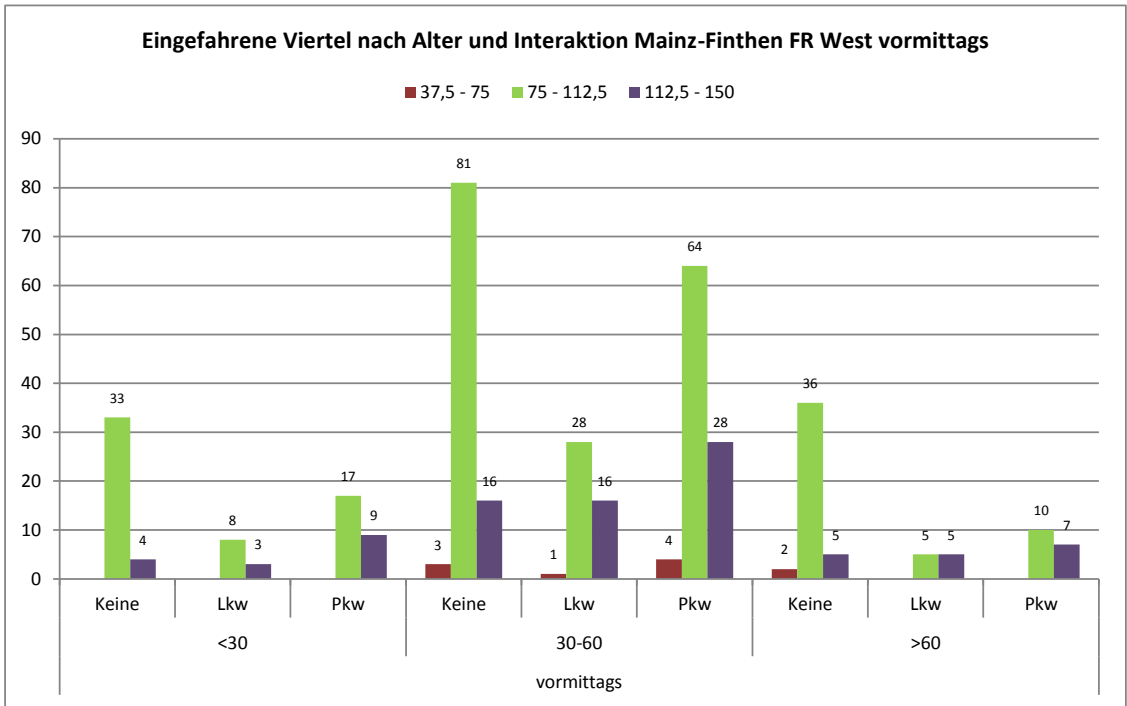
| Zeitraum | | Kfz | Kfz | Lkw | Lkw | SV |
|----------|-----|------|------|------|------|-------|
| 23 h* | HFS | 3654 | 7066 | 2002 | 2015 | 28,51 |
| | ÜFS | 3412 | | 12 | | |
| 7-11 | HFS | 589 | 1286 | 451 | 451 | 35,10 |
| | ÜFS | 698 | | 0 | | |
| 14-18 | HFS | 584 | 1303 | 478 | 490 | 37,61 |
| | ÜFS | 720 | | 12 | | |

* weitere Daten liegen nicht vor









Anhang E

Fragebogen zur für die untersuchten Altersgruppen < 30 Jahre, 30 - 60 Jahre und > 60 Jahre

Allgemeine Informationen

| | | |
|---------------------------------------|--------------------------------------|--|
| ID | Geburtsjahr / Rentner / Ja / Nein | Jahr Führerscheinerwerb |
| Kilometer pro Jahr | Kilometer pro Jahr früher | Fahrertyp |
| Verkehrswege BAB/Land/Stadt | | Verkehrswege früher BAB/Land/Stadt |

Informationen Einfahrten

Welche Situationen schätzen Sie als besonders schwierig ein, wenn Sie auf eine BAB auffahren?

Hatten Sie schon einmal selber Probleme beim Auffahren auf eine Autobahn?

Beschreiben Sie bitten in Stickpunkten den Ablauf beim Auffahren auf eine Autobahn!
Beschleunigung/Erster Blick/Blinker/Innenspiegel/Außenspiegel/Schulterblick/auffahren/Geschw. anpassen

Vermeiden Sie eventuell ganz bewusst generell ein bestimmtes Fahrmanöver, welches?

Vermeiden Sie Autobahnfahrten im speziellen oder vermeiden Sie einzelne, für Sie gefährliche, Auffahrten?

Wie verhalten Sie sich, wenn der Beschleunigungsstreifen für die Auffahrt nicht ausreicht?

Hat ein hoher Lkw-Anteil Einfluss auf Ihre Fahrweise beim Auffahren auf eine BAB?