



**INDIANA UNIVERSITY  
NORTHWEST**

**Parking Utilization Study  
Fall Semester 2010**

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# Parking Utilization Study – Fall Semester 2010

## Overview

On September 20, 2010 Indiana University Northwest conducted its second formal analysis of on-campus parking utilization. Our official enrollment at student census was 5,969 students, the largest enrollment in the school's history.

In 2009 when we conducted our first parking utilization we clearly had inadequate parking available to support our enrollment of 5,560 students. Because students could not find parking on campus we saw hundreds of cars with IU Northwest parking permits parked in the neighborhoods and illegally in the Gleason Golf Course and University Park Medical Center lots. This caused a great deal of frustration for our students, faculty and staff as well as the community.

In early 2010 former Chancellor Bergland endorsed the Parking Study Task Force and Facilities Planning Committee's recommendation to set a goal of no more than a **90% parking utilization rate**. This is a parking industry rate that is felt to be most efficient, fully utilizing existing parking while providing enough parking so that individuals don't waste time hunting for a space.

We anticipated a record enrollment in fall of 2010 of close to 6,000 students or up to 500 more students than in fall of 2009. Due to the expected enrollment increase and because we wanted to begin working toward a 90% parking utilization rate we made the following changes prior to the fall 2010 semester:

1. Added 75 parking spaces on campus
2. Added an off-campus parking lot with up to 300 hundred parking spaces serviced by a shuttle bus back to campus.
3. Shifted 20 parking spaces in lot #2 from general "IUN Permit Parking" to "Faculty and Staff Only- Students after 5:30 PM"
4. Added three Handicapped Parking spaces to lot #2.

**Our 2010 utilization survey shows the Park & Ride lot which is serviced by the RedHawk Shuttle made a dramatic improvement in our on-campus parking situation.** Despite a 7.4% increase in students and a 1.4% increase in full-time students over last fall **our average daily utilization rate dropped** for all types of on-campus parking spaces except for metered parking which increased by 8.1%. On the day we took the utilization survey the RedHawk Shuttle carried 199 riders which represents approximately 100 cars parked in the Park & Ride lot. It should be noted that the majority of individuals using the Park & Ride lot are students.

Another way to confirm that it was the Park & Ride lot which was primarily responsible for the improvement in parking is to look at the ratio of student permits sold to the number of on-campus day-time student parking spaces. Although we added 75 on-campus parking spaces this ratio actually increased this year by 0.08%, from 3.66 in 2009 to 3.74 this fall. That is, we issued more student parking permits per on-campus space this year as compared to last year, yet our parking utilization rate dropped. This can only be due to the Park & Ride lot and its 300 spaces especially given that our percentage of full-time students increased over last fall by 1.4%.

Anecdotally, neither the Office of Facilities Planning nor the Vice Chancellor of Administration received a single complaint this fall from students regarding parking. In addition we did not receive any complaints

from the Gary Police Department. We had numerous complaints last fall and they came in steadily throughout the semester.

Here is a summary look at our results compared to 2009:

**Utilization Rate by Space Type: On-Campus Parking**

Space Type	2010 Average Utilization Rate	Change from 2009	2009 Average Utilization Rate
General IUN Permit Parking (Students)	80.9%	-2.4%	83.3%
Handicapped Parking	57.8%	-10.9%	68.7%
Faculty & Staff Only Parking	85.0%	-7.7%	92.7%
Metered Parking	76.5%	8.1%	68.4%

**Student Utilization Rate by On-Campus Parking Lot:**

Lot #	2010 Average Daily Utilization Rate	Change from 2009	2009 Average Daily Utilization Rate
2	96.8%	-0.5%	97.3%
7 & 11	82.6%	-7.3%	89.9%
12	82.0%	-2.3%	84.3%
1	71.9%	+2.1	69.8%
13	65.6%	-5.2%	70.8%
9	65.5%	-1.2%	66.7%
14	53.3%	+27.5%	25.8%

**Utilization Rate Factoring in Off-Campus Park & Ride Spaces**

In order to determine what our utilization rate is if we include the parking spaces available in the off-campus Park & Ride a review of the 10:15 AM time period was conducted. This is the busiest time of day on campus.

The following data were used:

- Data from the eight surveyed parking lots at 10:15 AM
- The number of vehicles parked at the Park & Ride lot
- The total number of spaces available at the Park & Ride lot
- Assumption that the small lots which were not surveyed were 100% full at 10:15 AM.

Using these figures our parking utilization rate reached our goal and was **89.1%** at our peak time of 10:15 AM. See appendix C on page 12 for the detailed calculations.

The Park & Ride lot and shuttle have been very effective in offering a parking option to students and staff arriving during our peak morning and early afternoon hours of 10:15 AM – 12:45 PM.

**Methodologies**

The methodology used last year was followed again this year:

1. Take a lot count during the 4<sup>th</sup> week of class (this is after student census and after the majority of drop/add activity has taken place)
2. Take the lot count on the day of the week with the most students on campus
3. Focus on student parking
4. Count empty spaces 15 minutes before the start of a class period and 15 minutes after the start of class period.
5. Count cars with IU Northwest parking tags parked in the grass adjacent to the lots counted.
6. Take the count in 8 of the 10 lots that permit student parking throughout the day.

A review of student enrollment showed that **Monday** had the highest number of students on campus in Gary. On **Monday, September 20, 2010**, seven individuals counted vacant parking spaces in the lots at the following times:

8:15 AM	1:15 PM
8:45 AM	2:15 PM
9:45 AM	2:45 PM
10:15 AM	3:45 PM
11:15 AM	4:15 PM
11:45 AM	5:15 PM
12:45 PM	5:45 PM

During these times **vacant spaces** were counted in the following lots:

<b>Lot #</b>	<b>Location Description</b>
1	Far north lot, north of 33 <sup>rd</sup> Ave.
2	Main lot north of Savannah & Moraine
7 & 11	East of Broadway across from Hawthorn & Marram Halls
9	East of Broadway at 33 <sup>rd</sup> Ave.
12	East of Broadway south of 34 <sup>th</sup> Ave.
13	East of Broadway along 35 <sup>th</sup> Ave.
14	East of Massachusetts on 35 <sup>th</sup> Ave.

Due to manpower constraints we did not conduct a count in the following on-campus lots: 3, 4, 5, 6, 8, 15 or Dena's. All spaces in lots 5, 15 and Dena's are IUN Permit Parking available to students. Lots 3, 4 and 8 are faculty & Staff only lots. Details for these lots can be found in appendix C

The individuals who conducted the study were: Sherri Clark, Mikalynn Murray, Ann Fritz, Kathryn Lantz, Patty Woosley, Joe Romeo and Ieshala Taylor. IU Northwest's Physical Plant assisted by lending the team their Kubota vehicles for a second year in a row.

The results of the lot counts appear on the following pages.

## Utilization of Student Parking Spaces on Monday, September 20, 2010

Does not include off-campus parking at the Village Park & Ride lot.

### Vacant IUN Permit Parking Spaces (Students)

Time	Lot 1	Lot 2	Lots 7 & 11	Lot 9	Lot 12	Lot 13	Lot 14	2010			2010 Utilization Rate <sup>1</sup>	2009 Utilization Rate
								IUN Tagged cars parked illegally on grass	Total Cars Parked in IUN Permit Parking	Total Spaces		
8:15 AM	191	0	99	187	37	42	13	0	738	1307	56.5%	39.2%
8:45 AM	112	0	40	118	5	35	13	8	976	1307	74.7%	65.1%
9:45 AM	18	0	2	11	1	0	0	0	1275	1307	97.6%	96.0%
10:15 AM	1	0	0	0	0	0	0	0	1306	1307	99.9%	103.2%
11:15 AM	14	1	0	0	2	0	0	0	1290	1307	98.7%	99.2%
11:45 AM	36	0	6	0	3	2	2	0	1258	1307	96.3%	98.6%
12:45 PM	36	19	9	2	4	2	3	0	1232	1307	94.3%	101.9%
1:15 PM	74	30	9	47	8	11	4	0	1124	1307	86.0%	98.6%
2:15 PM	116	39	24	61	14	12	5	0	1036	1307	79.3%	97.4%
2:45 PM	169	13	31	75	18	14	7	0	980	1307	75.0%	85.9%
3:45 PM	149	1	37	105	17	14	9	0	975	1307	74.6%	79.3%
4:15 PM	162	7	36	88	11	18	9	0	976	1307	74.7%	75.0%
5:15 PM	190	43	52	142	19	25	9	0	921	1401	65.7%	66.6%
5:45 PM	233	49	73	150	27	32	11	0	826	1401	59.0%	59.6%
<b>Average Utilization Rate</b>											<b>80.9%</b>	<b>83.3%</b>

<sup>1</sup>Utilization % = (Total Cars in Student Parking + Cars parked in grass) / Total Student Spaces

The percent of parking utilization does not account for all student owned cars with parking permits which are parked on the side streets, Gleason Golf Course or the University Park Medical Center.

Utilization rates greater than our goal of 90% are shown in red.

## Utilization of Faculty/Staff Parking Spaces on Tuesday, September 22, 2009

Excludes reserved parking spaces

### Vacant Faculty-Staff Only Parking Spaces

Time	Lot 1	Lot 2	Lot 7	Lot 9	Lot 11	Lot 12	Lot 13	Lot 14	2010			
									Total Cars Parked in Faculty-Staff Only Parking	Total Faculty-Staff Only Spaces	2010 Utilization Rate <sup>4</sup>	2009 Utilization Rate
8:15 AM	NA	51	NA	NA	NA	NA	NA	NA	99	150	66.0%	72.1%
8:45 AM	NA	24	NA	NA	NA	NA	NA	NA	126	150	84.0%	85.3%
9:45 AM	NA	8	NA	NA	NA	NA	NA	NA	142	150	94.7%	90.7%
10:15 AM	NA	0	NA	NA	NA	NA	NA	NA	150	150	100.0%	98.4%
11:15 AM	NA	2	NA	NA	NA	NA	NA	NA	148	150	98.7%	98.4%
11:45 AM	NA	4	NA	NA	NA	NA	NA	NA	146	150	97.3%	100.0%
12:45 PM	NA	8	NA	NA	NA	NA	NA	NA	142	150	94.7%	100.0%
1:15 PM	NA	11	NA	NA	NA	NA	NA	NA	139	150	92.7%	100.0%
2:15 PM	NA	11	NA	NA	NA	NA	NA	NA	139	150	92.7%	97.7%
2:45 PM	NA	14	NA	NA	NA	NA	NA	NA	136	150	90.7%	96.1%
3:45 PM	NA	11	NA	NA	NA	NA	NA	NA	139	150	92.7%	93.8%
4:15 PM	NA	20	NA	NA	NA	NA	NA	NA	130	150	86.7%	94.6%
5:15 PM	NA	26	NA	NA	NA	NA	NA	NA	30	56	53.6%	72.7%
5:45 PM	NA	30	NA	NA	NA	NA	NA	NA	26	56	46.4%	98.2%
									<b>Average Utilization Rate</b>		<b>85.0%</b>	<b>92.7%</b>

<sup>4</sup>Utilization %= Total Cars in Faculty-Staff Only Parking / Total Faculty-Staff Only Parking Spaces

Utilization rates greater than our goal of 90% are shown in red.

## Utilization of Handicapped Parking Spaces on Monday, September 20, 2010

Does not include off-campus parking at the Village Park & Ride lot.

### Vacant Handicapped Parking Spaces

Time	Lot 1	Lot 2	Lot 7	Lot 9	Lot 11	Lot 12	Lot 13	Lot 14	2010		2010 Utilization Rate <sup>2</sup>	2009 Utilization Rate
									Total Cars Parked in Handicapped Parking	Total Handicapped Spaces		
8:15 AM	NA	18	NA	NA	NA	NA	NA	NA	3	21	14.3%	5.6%
8:45 AM	NA	17	NA	NA	NA	NA	NA	NA	4	21	19.0%	11.1%
9:45 AM	NA	10	NA	NA	NA	NA	NA	NA	11	21	52.4%	61.1%
10:15 AM	NA	8	NA	NA	NA	NA	NA	NA	13	21	61.9%	66.7%
11:15 AM	NA	7	NA	NA	NA	NA	NA	NA	14	21	66.7%	94.4%
11:45 AM	NA	9	NA	NA	NA	NA	NA	NA	12	21	57.1%	88.9%
12:45 PM	NA	1	NA	NA	NA	NA	NA	NA	20	21	95.2%	83.3%
1:15 PM	NA	0	NA	NA	NA	NA	NA	NA	21	21	100.0%	94.4%
2:15 PM	NA	3	NA	NA	NA	NA	NA	NA	18	21	85.7%	88.9%
2:45 PM	NA	3	NA	NA	NA	NA	NA	NA	18	21	85.7%	83.3%
3:45 PM	NA	7	NA	NA	NA	NA	NA	NA	14	21	66.7%	77.8%
4:15 PM	NA	10	NA	NA	NA	NA	NA	NA	11	21	52.4%	77.8%
5:15 PM	NA	14	NA	NA	NA	NA	NA	NA	7	21	33.3%	72.2%
5:45 PM	NA	17	NA	NA	NA	NA	NA	NA	4	21	19.0%	55.6%
<b>Average Utilization Rate</b>											<b>57.8%</b>	<b>68.7%</b>

<sup>2</sup> Utilization % = Total Cars in Handicapped Parking / Total Handicapped Spaces

Utilization rates greater than our goal of 90% are shown in red.

**Utilization of Metered Parking Spaces on Monday, September 20, 2010**

**Vacant Metered Parking Spaces**

Time	Lot 1	Lot 2	Lot 7	Lot 9	Lot 11	Lot 12	Lot 13	Lot 14	2010			
									Total Cars Parked in Metered Parking	Total Metered Spaces	2010 Utilization Rate <sup>3</sup>	2009 Utilization Rate
8:15 AM	NA	10	NA	NA	NA	NA	NA	NA	4	14	28.6%	7.1%
8:45 AM	NA	4	NA	NA	NA	NA	NA	NA	10	14	71.4%	50.0%
9:45 AM	NA	0	NA	NA	NA	NA	NA	NA	14	14	100.0%	71.4%
10:15 AM	NA	1	NA	NA	NA	NA	NA	NA	13	14	92.9%	100.0%
11:15 AM	NA	0	NA	NA	NA	NA	NA	NA	14	14	100.0%	78.6%
11:45 AM	NA	1	NA	NA	NA	NA	NA	NA	13	14	92.9%	100.0%
12:45 PM	NA	2	NA	NA	NA	NA	NA	NA	12	14	85.7%	92.9%
1:15 PM	NA	3	NA	NA	NA	NA	NA	NA	11	14	78.6%	100.0%
2:15 PM	NA	1	NA	NA	NA	NA	NA	NA	13	14	92.9%	71.4%
2:45 PM	NA	5	NA	NA	NA	NA	NA	NA	9	14	64.3%	50.0%
3:45 PM	NA	4	NA	NA	NA	NA	NA	NA	10	14	71.4%	50.0%
4:15 PM	NA	1	NA	NA	NA	NA	NA	NA	13	14	92.9%	57.1%
5:15 PM	NA	4	NA	NA	NA	NA	NA	NA	10	14	71.4%	57.1%
5:45 PM	NA	10	NA	NA	NA	NA	NA	NA	4	14	28.6%	71.4%
<b>Average Utilization Rate</b>											<b>76.5%</b>	<b>68.4%</b>

<sup>3</sup> Utilization % = Total Cars in Metered Parking / Total Metered Spaces

Utilization rates greater than our goal of 90% are shown in red.

## **Parking Permits**

As of September 29, 2010 Parking Services sold 5,048 net student parking permits. The number of faculty-staff permits sold as of September 29, 2009 was 624. This number includes adjunct faculty. The ratio of student parking permits to on-campus day-time student parking spaces is 5,048 /1,351 or 3.74. Last year's ratio was 3.66.

## **Utilization Summary and Findings**

- Overall, the average utilization rate for all types of parking except for metered spaces was lower this year than last year.
- All lots are at or very near 100% capacity between 10:15 and 11:45 AM. This is the time-frame when the 10:00 AM and 11:30 AM classes meet.
- IUN Permit Parking or student parking, had an average utilization rate of over 97% from 9:45 AM through 12:45 PM with rates ranging from 94.3% - 99.9%.
- Student parking begins to improve (94.3% utilization) at 12:45 PM, when the 11:30 AM class period ends. The utilization rate then begins dropping below 90% at 1:15 PM and continues to drop until it reaches 59% at 5:45 PM.
- Student parking areas on campus were below a 90% utilization rate for an hour less throughout the day than last year.
- Faculty/Staff and Handicapped parking areas showed the greatest improvement over last year. The average utilization rate dropped by 7.7% for faculty & staff parking and by 10.9% for handicapped parking.
- Metered spaces were used at a higher rate this year compared to last year. This year's average rate was 76.5% up 8.1% from last year's 68.4% rate. The number of metered spaces on campus remained unchanged from 2009.
- While our on-campus lots were filled from 9:45 AM through 12:45 PM, we saw fewer student cars parking illegally in the grass and at the Gleason Golf Course this year compared to last year. This can be attributed to aggressive ticketing by our Parking Enforcement Specialists, signs and warnings posted at the golf course and our off-campus parking and shuttle service.

It is expected that even with the off campus lot and parking shuttle students, faculty and staff will seek parking on campus first before using the off campus lot. The most convenient lots will fill first. Therefore lot #2, which is our largest lot and sits at the entrance to campus, will always be the lot with the highest usage. It is safe to project that this lot will always be at or over a 90% utilization rate during peak class times.

The Park & Ride lot provided a convenient option to faculty, staff and students arriving on campus during the peak morning hours.

## Appendix A

### History of Student Enrollment

Year	# of Students
1992	5,962
1993	5,908
1994	5,639
1995	5,298
1996	5,149
1997	5,256
1998	4,792
1999	4,748
2000	4,649
2001	4,639
2002	4,893
2003	5,097
2003	5,138
2005	4,988
2006	4,819
2007	4,790
2008	4,794
2009	5,560
2010	5,969

## Appendix B

### Number of parking spaces available to students by lot:

Student Parking Spaces	Lot #							Total student spaces in lots counted
	1	2	7 & 11	9	12	13	14	
Before 5:30 PM	381	428	172	204	66	43	13	1,307
After 5:30 PM	381	522	172	204	66	43	13	1,401

## Appendix C

### On-Campus Lots not included in the survey

Lot #	Number of IUN Permit Parking/ Student parking spaces	Number of Faculty/ Staff Only parking spaces	Number of Handicapped parking spaces
3	0	36	4
4	0	39	0
5	21	0	2
6	0	0	10
8	0	7	0
15	14	0	0
Dena's	9	0	0
<b>Total</b>	<b>44</b>	<b>82</b>	<b>16</b>

Calculation used to determine campus parking utilization rate at 10:15 AM including parking at the off-campus Park & Ride lot:

Type of Parking	Cars Parked in Lots Surveyed	Parked in Non-Surveyed Lots (Assume a 100% utilization)	Total Spaces in all lots	Total Spaces Used
Students (general IUN Permit parking)	1,306	44	1,351	1,350
Faculty & Staff	150	82	232	232
Handicapped	13	16	37	29
Park & Ride ( counted as general IUN permit parking)	100		300	100
<b>TOTALS</b>	<b>1,569</b>	<b>142</b>	<b>1,920</b>	<b>1,711</b>
<b>Overall Utilization Rate</b>	<b>1,711/1,920 = 89.1%</b>			