UPASS FINANCIAL IMPACT

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CITY OF WINNIPEG ESTIMATE

- To the right is the financial analysis provided by the City of Winnipeg that shows the Net Financial Impact of eliminating the U-Pass to be $15M over 4 years.

UPass	2020 (one semester only)	2021	2022	2023	
Cost of 4 month pass:	Fall				
Post Secondary	$ 278.00	$ 283.56	$ 289.23	$ 295.02	
UPass (average term rate)*	$ 138.29	$ 139.68	$ 142.47	$ 145.32	
Estimated # of passes sold (UofM and UofW)**	21,236	42,537	43,284	43,284	
Revenue generated - sale of post secondary semester pass	$ 5,903,608	$ 12,061,792	$ 12,519,031	$ 12,769,646	
Less:					
Lost revenue (UPass budget)	$ 3,903,699	$ 7,963,545	$ 8,122,816	$ 8,285,273	4 year to
Net Financial impact	1,999,909	4,098,247	4,396,215	4,484,373	14,978,7

* need to use existing rate structure as new rate of $160 is break even for added costs, and not built into base budget submissi

**UofM accounts for approx. 75% of total, UofW ~ 25%

DEFINITION OF VARIABLES

- Without knowing any further information, I am presuming the following variable definitions:
- Cost (C): Cost of the given product
- Passes sold (S): number of U-Pass eligible students across all institutions after opt-outs.
- Revenue Generated (RG): The Projection of revenue generated by the sale of post-secondary passes if the U-Pass is taken away
- Lost Revenue (LR): The current revenue of U-Pass sales projected into future years
- Net Financial Impact (NFI): Revenue Generated minus Lost Revenue

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Net Financial impact	1,999,909	4,098,247

ERRORS IN CITY OF WINNIPEG ESTIMATE

- I am going to focus on 2021 as it would be the first full year of financial impact of a UPass removal.
- Assuming my aforementioned assumptions are correct there are two primary holes with the analysis in this chart:
- **1) The LR figure ($7.96M) does not reflect (C) X (S) which it should if it represents the total projected revenue from U-Pass sales**
  - Based on the charted figures: {$139.68 X 42,537 = $5.94M}.
  - Clearly there is another (S) figure that is not denoted in this chart being used to calculate the (LR)

	2021
$	283.56
$	139.68
	42,537
$	12,061,792
$	7,963,545
	4,098,247

ERRORS IN CITY OF WINNIPEG ESTIMATE

- I am going to focus on 2021 as it would be the first full year of financial impact of a UPass removal.
- Assuming my aforementioned assumptions are correct there are two primary holes with the analysis in this chart:
- **2) The (S) figure that accounts for Post-Secondary sales (RG) is far too high**
  - Only 59% of UPass holders are daily users and 17% do not activate their pass. The projected (S) figure for Post-Secondary passes needs to be diminished EVEN WITHOUT any expectation of decreased ridership.
  - It is not initially clear on this table what the projected retention rate is but we do know they're expecting 42,537 students to buy post-secondary passes.

	2021
$	283.56
$	139.68
	42,537
$	12,061,792
$	7,963,545
	4,098,247

UPDATED ESTIMATE: LOST REVENUE (LR)

- It is not initially easy to figure out where the error is in the calculation of (LR):
  - In fact, deriving the proper (S) value based on the (LR) presented **generates an (S) value of 57,013.**
  - {$7.96M / $139.68 = 57,013}
- NOTE: After meeting with Winnipeg Transit on March 16th they stipulated that the number they used was **64,000** for total enrolment, as 57,013 was based on now-outdated projections. This figure must now be used to calculate Lost Revenue.
- We will use that number going forward for (S) as it relates to (LR) rather than 42,537.
- {64,000 X $139.68 = $8.94M}
- The discrepancy between calculating (LR) based on 57,013 rather than 64,000 is approximately $1M annually

UPDATED ESTIMATE: REVENUE GENERATED (RG)

- The error within the (RG) value is much easier to diagnose:
  - Assuming 64,000 as our new (S) value, the current (S) value used to calculate (RG) estimates that 66.5% of all UM and UW U-Pass holders will purchase a Post-Secondary pass
  - {42,537 / 64,000 = 0.665}
- We should be able to generate a better estimate by using Transit's data from the 2018 report.
  - At UM, 59% of students are 'daily riders' as defined by transit. This should be the maximum rate at which we expect students to purchase a post-secondary pass, even if ridership remains entirely stable.
  - Source: http://clkapps.winnipeg.ca/dmis/ViewPdf.asp?SectionId=509479
  - If we assign a new variable called Retention (R) equal to 0.59, we get a new value for (RG).
  - {R X S X C = RG} {0.59 X 64,000 X 283.56 = $10.71M} {RG = $10.71M}

REVISED NET FINANCIAL IMPACT

- Let's now re-create the chart we saw before for 2021 using our new figures and variables
- Note the addition of (R) and the new value for (S)
- Note that the Net Financial Impact per year of U-Pass removal is now down to $1.77M from $4.10M using the previous figures

Variable	2021
Passes Sold (S)	64,000
U-Pass Cost (C)	$139.68
Post-Secondary Pass Cost (C)	$283.56
Retention (R)	0.59
Revenue Generated (RG)	$10.71M
Lost Revenue (LR)	$8.94M
Net Financial Impact (NFI)	$1.77M

FURTHER REVISIONS: UPDATES FROM COUNCIL-APPROVED CHANGES

- The numbers on the previous slide now accurately reflect the Net Financial Impact based on the current UPass agreements
- However, the most recently adopted UPass agreements necessitate further updates:
- The cost (C) of the UPass would increase to $160.75 in 2020, reaching $163.97 in 2021 based on 2% inflation.
- The expansion to Red River college brings on an additional 5,530 students per term adding a total of 11,060 students to the (S) value.

REVISED NET FINANCIAL IMPACT REFLECTING LATEST AGREEMENTS

- Let's now re-create the chart once again for 2021 using our updated figures
- Note the increase in (C) and in (S)
- Note that the Net Financial Impact per year of U-Pass removal is now down to $230,000. In other words, the UPass is bringing in just $230K less revenue than would be projected by the sale post-secondary passes.

Variable	2021
Passes Sold (S)	75,060
U-Pass Cost (C)	$163.97
Post-Secondary Pass Cost (C)	$283.56
Retention (R)	0.59
Revenue Generated (RG)	$12.56M
Lost Revenue (LR)	$12.31M
Net Financial Impact (NFI)	$250K

OTHER FACTORS TO CONSIDER

- We now have a revised, and correct, estimate of the (NFI) of the U-Pass based on the City's previous NFI calculation formula. But there are other variables we would need to know to create an exact estimate:
  - 1. At what rate would daily ridership decline from 59% if the UPass is removed, lessening post-secondary pass sales?
  - 2. What would the revenue be from individual bus fares and monthly passes on top of what is generated from post-secondary pass sales?
  - 3. How many students projected to buy the post-secondary pass would be eligible for the low-income pass? However many this is would cut into the revenue brought in from post-secondary pass sales.

OTHER FACTORS TO CONSIDER

- *1. At what rate would daily ridership decline from 59% if the UPass is removed, lessening post-secondary pass sales?*
  - We can answer this fairly accurately. According to UMSU's most recent survey (December), 19% of students who "predominantly bus" to university say they would "predominantly drive" if the UPass was removed.
- {0.19 x 0.59 = 0.11}{0.59 - 0.11 = 0.48}{R=0.48}
- Adjusting (R) to (0.48) from (0.59) reduces the RG value from $12.56M to $10.22M.

OTHER FACTORS TO CONSIDER

- *2. What would the revenue be from individual bus fares and monthly passes on top of what is generated from post-secondary pass sales?*
  - Much more difficult to answer exactly. But given 48% of students are projected to be post-secondary pass holders, and 17% of students never activated their UPAss, we can expect this pool to include 35% of students. I'll call that figure (Ri).
- These students by Transit's definition bus 2x per week or less. So assuming they range equally between 0-2 round trips per week, that is an average of 2 total rides per week per student at a fare of $2.65 over 35 weeks.
- I will call this new variable (I) for individual fares, and calculate it as follows:
- {I = Ri X S X 2 X X 35 X $2.65} {I = 0.35 X 75,060 X 2 X 35 X $2.65} {I = $4.87M}

OTHER FACTORS TO CONSIDER

- *3. How many students projected to buy the post-secondary pass would be eligible for the low-income pass? However many this is would cut into the revenue brought in from post-secondary pass sales?*
  - Again, this is much more difficult figure to estimate:
  - Roughly 54% of students live at home which would equate fairly closely to the amount of students we expect not to be eligible for the low income subsidy. This leaves approximately 46% of students being discounted below the post-secondary rate of $283.56 to $251 over a full term.
  - source: https://www.forbes.com/sites/kateashford/2014/08/08/millenials-living-at-home/#7acd6e865171
  - We will call this variable Total Low-Income Subsidy (LI): defined as the total subsidy offered to students from the Post-Secondary Rate for those that qualify.
  - {LI = 0.46 X $32.56 X S} {LI = $1.12M}
  - NOTE: This figure will be negligible in 2020 and increase in 2022 when the LI rate drops

REVISED NET FINANCIAL IMPACT REFLECTING NEW VARIABLES

- Let's now re-create the chart again for 2021 using all our new variables
- Note the input of (LI) and (I), with the adjusted (R) and (RG)
- We now calculate (NFI) = (RG) + (I) - (LR) - (LI)
- Note that the Net Financial Impact per year of U-Pass removal is now $1.66M. This is an increase from the previous figure but a decrease from the originally estimated figure.

Variable	2021
Passes Sold (S)	75,060
U-Pass Cost (C)	$163.97
Post-Secondary Pass Cost (C)	$283.56
Retention (R)	0.48
Revenue Generated (RG)	$10.22M
Individual Fares (I)	$4.87M
Lost Revenue (LR)	$12.31M
Total Low Income Subsidy (LI)	$1.12M
Net Financial Impact (NFI)	$1.66M

REVISED NET FINANCIAL IMPACT OVER FOUR YEARS

- Let's now re-create the four year chart using all our revised figures and new variables.
- Note that the (LI) figure continues to increase as the Low-Income rate decreases.
- After all adjustments are made, **the corrected, estimated four year Net Financial Impact is just $3.14M**
- By 2022, when the low-income pass hits its base level, the **annual net financial impact of operating the UPass program will be negligible.**

Variable	2020	2021	2022	2023	FOUR YEAR TOTAL
Passes Sold (S)	37,530	75,060	75,060	75,060	262,710
U-Pass Cost (C)	$160.75	$163.97	$167.25	$170.59	-
Post-Secondary Pass Cost (C)	$278.00	$283.56	$289.23	$295.01	-
Retention (R)	0.48	0.48	0.48	0.48	-
Revenue Generated (RG)	$5.00M	$10.22M	$10.42M	$10.63M	$36.27M
Individual Fares (I)	$2.44M	$4.87M	$4.87M	$4.87M	$17.05M
Lost Revenue (LR)	$6.03M	$12.31M	$12.56M	$12.81M	$43.71M
Total Low Income Subsidy	-	$1.12M	$2.65M	$2.70M	$6.47M
Net Financial Impact (NFI)	$1.41M	$1.66M	$8,000	($1,000)	**$3.14M**

UPASS BREAK EVEN RATE

- On the right is a table showing the break-even annual U-Pass rate to make the program cost-neutral to the City of Winnipeg per our projections
- This rate was calculated by dividing the four year projected sales into the total four year Net Financial Impact

Total Net Financial Impact (NFI)	$3.14M
Approved 2020 UPass Cost	$160.75
4 Year Projected UPass Sales	262,710
2020 Break-Even Rate	$172.70

SUMMARY

- While more information would need to be gathered to estimate the (NFI) with even greater precision, the estimate I have laid out is more detailed and surely closer to the correct financial impact than what was previously presented
- At a (NFI) of just $3.14M over four years, and one that will be negligible beginning in 2022, there seems a lot less incentive to remove the UPass program than there was with the previous figures.
- In fact, this program is less expensive than EITHER of the Low-Income bus pass OR Free Transit for 12&Under.
- As well, for as little as a $12 increase per term the program could be cost-neutral to the City of Winnipeg