
Alternative 1	Alternative 2
 Alternative 1	 Alternative 2
You are taking train 1	You are taking train 2
In-vehicle time : 20 minutes	In-vehicle time : 20 minutes
Transfers : 1 time	Transfers : 0 time
Transfer time : 6 minutes	Transfer time : 0 minutes
Headway : 1 hour	Headway : 1 hour
Control : regional train	Control : ICN
Travel cost : 3.5 Fr.	Travel cost : 4 Fr.

Your choice?

Forecast based on different data types: A before and after study (Stated preference Route choice)

M Vrtic

Travel Survey Metadata Series

Forecast based on different data types: A before and after study (Stated preference Route choice)

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Abstract

In addition to adequate data, the formulation of transport forecasts relies upon a knowledge of the relationships between the demand for transport and those factors which influence it. These relationships are described with mathematical functions and their model parameters. The parameters derived from revealed preference (RP) data are often subject to too many imperfections and are thus of only limited value in many cases. The main cause of this uncertainty is data which is either insufficiently detailed or unsuitable for estimating transport demand functions. For this reason, an earlier SVI study concerning the sensitivity of passenger transport to supply-side and price changes recommended that research should be conducted in parallel with major transport infrastructure investments. In this way this recommended project would be able to check and validate the quality of the findings from alternative or supplementary stated preference (SP) (Vrtic et al., 2000), as both forecast and actual changes in demand would be known to it. The launch of intercity tilting-trains (known as ICNs) in 2001 and further supply-side improvements to road and rail transport supply offered an opportunity to conduct ex ante/ex post surveys in order to verify the forecasting approaches in a defined period. This mix of qualitative and quantitative changes is a particular challenge for forecasting and the attendant data collection process. Nonetheless, it is a challenge that must be overcome again and again in day-to-day practice. As the supply-side changes are generally small, it was expected that changes on the demand side will be concentrated at the level of mode and route choice. The principal aim of this research remit was to verify and identify the limits and possibilities of the three data sources for forecasting by means of an ex ante/ex post analysis. However, this study also offered an opportunity to analyse other aspects of importance to transport forecasting. Here, in addition to the study methodology, the quality and accessibility of the available bodies of data proved to be crucial factors in modelling transport movements and events. In a first stage the study estimated a detailed public transport route choice model and calibrated national network models for both road and rail demand. This is an essential preliminary stage to the calculation of modal shifts in demand for transport and the subsequent review of the different forecasts. In the case of mode choice changes, the three most common approaches to forecasting were to be tested: • Direct elasticity, known from previous studies • RP models, i.e. model parameters based on RP data • SP models, i.e. model parameters based on SP data The primary benefits of this study can be summarized as follows: - It sets out the opportunities and limits, as well as the advantages and disadvantages, of the three data sources for forecasting under review. - This is the first study to provide models of route and mode choice which have been estimated from SP data. The model parameters estimated using this data provide the basis for the practical application of

mode and route choice models following supply-side transport changes. - The estimated model parameters, current figures and the relative valuations demonstrate the importance of individual variables to mode and route choice. They were estimated for each trip purpose. - The study showed that in this case the forecasts derived from the SP-data were more consistent and more precise than either the estimates from the direct elasticities or the RP data. - Verifying transport forecasts shows how and where further improvements can or must still be made with regard to both data bases and methodology. - The study describes the possibilities and methodical foundation for common SP/RP estimates of model parameters.

Keywords

Route and mode choice

Preferred citation style

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1.0 Document Description

Citation

Title: Forecast based on different data types: A before and after study
(Stated preference Route choice)

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Other identifications and acknowledgements: Vtric M.

Producer: Vtric M.

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2.0 Study Description

Citation

Title: Forecast based on different data types: A before and after study
(Stated preference Route choice)

Identification Number: KEP SP RC

Authoring Entity: Mr. M. Vrtic (Institute for Transport Planning and Systems, ETH Zurich)
Prof. KW Axhausen (Institute for Transport Planning and Systems, ETH Zurich)

Producer: Mr. M. Vrtic
Prof. KW Axhausen

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Study Scope

Keywords: Route and mode choice , Stated preference , Revealed preference , Public transport , Tilting trains , Institute for Transport Planning and Systems

Topic Classification: Revealed preference , Stated preference

Abstract: In addition to adequate data, the formulation of transport forecasts relies upon a knowledge of the relationships between the demand for transport and those factors which influence it. These relationships are described with mathematical functions and their model parameters. The parameters derived from revealed preference (RP) data are often subject to too many imponderables and are thus of only limited value in many cases. The main cause of this uncertainty is data which is either insufficiently detailed or unsuitable for estimating transport demand functions. For this reason, an earlier SVI study concerning the sensitivity of passenger transport to supply-side and price changes recommended that research should be conducted in parallel with major transport infrastructure investments. In this way this recommended project would be able to check and validate the quality of the findings from alternative or supplementary stated preference (SP) (Vrtic et al., 2000), as both forecast and actual changes in demand would be known to it. The launch of intercity tilting-trains (known as ICNs) in 2001 and further supply-side improvements to road and rail transport supply offered an opportunity to conduct ex ante/ex post surveys in order to verify the forecasting approaches in a defined period. This mix of qualitative and quantitative changes is a particular challenge for forecasting and the attendant data collection process. Nonetheless, it is a challenge that must be overcome again and again in day-to-day practice. As the supply-side changes are generally small, it was expected that changes on the demand side will be concentrated at the level of mode and route choice. The principal aim of this research remit was to verify and identify the limits and possibilities of the three data sources for forecasting by means of an ex ante/ex post analysis. However, this study also offered an opportunity to analyse other aspects of importance to transport forecasting. Here, in addition to the study methodology, the quality and accessibility of the available bodies of data proved to be crucial factors in modelling transport movements and events. In a first stage the study estimated a detailed public transport route choice model and calibrated national network models for both road and rail demand. This is an essential preliminary stage to the calculation of modal shifts in demand for transport and the subsequent review of the different forecasts. In the case of mode choice changes, the three most common approaches to forecasting were to be tested: • Direct elasticity, known from previous studies •

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Country: Switzerland

Geographic Coverage: Switzerland

Unit of Analysis: Person

Universe: All the individuals permanently residing in Switzerland.

Methodology and Processing

Time Method: 9 months (January 2001 to September 2001)

Sampling Procedure: Sample frame: All the individuals of age 15-84, residing permanently in Switzerland
Sample unit: Person or Individual
Sampling technique: Random sampling

Mode of Data Collection: Self-Administrative and structured written interview technique was implemented to capture the preference on pre-defined situations.

Sources Statement

Weighting: No weighting was done.

Other Study Description Materials

Related Materials

3.0 File Description

File: Stated Preference-Route Choice.NSDstat

- Number of cases: 7964
- No. of variables per record: 27
- Type of File: NSDstat 200203

4.0 Variable Description

List of Variables:

- [Interview Number](#)
- [Person and Situation number \(key\)](#)
- [Week of the year](#)
- [Stated preference situation number](#)
- [Route choice](#)
- [Trip purpose](#)
- [Departure station](#)
- [Arrival station](#)
- [Travel time RP Route \(route 1\) in minutes](#)
- [Headway \(in minutes, route 1\)](#)
- [Number of transfers, Route 1](#)
- [Transfer time in minutes, Route 1](#)
- [Travel cost in CHF, route 1](#)
- [Comfort, route 1](#)
- [Language](#)
- [Comfort, route 2 \(SP Route\)](#)
- [Travel time SP Route \(route 2\)](#)
- [Number of transfers, Route 2](#)
- [Transfer time in minutes, Route 2](#)
- [Headway \(in minutes, route 2\)](#)
- [Travel cost in CHF, route 2](#)
- [Employed](#)
- [Car availability](#)
- [Age \(in years\)](#)
- [Gender](#)
- [Number of km in '000 travelled by car in the last year](#)
- [Season ticket availability](#)

Variables

***Variable:* Interview Number**

Location: **Summary Statistics:**

Width: 15 *Variable Format:* character

Variable: Person and Situation number (key)

Location: **Summary Statistics:**

Width: 18 *Variable Format:* character

Variable: Week of the year

Location:	Value	Label	Frequency
Width: 11	13 .		189
	14 .		195
	15 .		319
	16 .		219
	17 .		300
	18 .		205
	19 .		274
	20 .		490
	21 .		251
	22 .		637
	23 .		513
	24 .		282
	25 .		151
	26 .		339
	27 .		241
	28 .		386
	30 .		242
	31 .		268
	32 .		599
	33 .		310
	34 .		206
	35 .		379
	36 .		204
	37 .		338
	38 .		237
	Sysmiss .		190

Range of Valid Data Values: 13 to 38

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 13

Maximum : 38

Mean : 25.613

Standard deviation : 7.161

Variable Format: numeric

Variable: Stated preference situation number

Location:	Value	Label	Frequency
Width: 11	1 .		1015
	2 .		1005
	3 .		1000
	4 .		1010
	5 .		994
	6 .		1000
	7 .		994
	8 .		946

Range of Valid Data Values: 1 to 8

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 1

Maximum : 8

Variable Format: numeric

Variable: Route choice

Location:	Value	Label	Frequency
Width: 11	1 .	Route 1 (Revealed Preference Route)	4281
	2 .	Route 2 (Stated Preference Route)	3683

Range of Valid Data Values: 1 to 2

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 1

Maximum : 2

Mean : 1.462

Standard deviation : 0.499

Variable Format: numeric

Variable: Trip purpose

Location:	Value	Label	Frequency
Width: 11	1 .	Commuters	1133
	2 .	Busines	659
	3 .	Shopping	802
	4 .	Leisure / Vacation	5370

Range of Valid Data Values: 1 to 4

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 1

Maximum : 4

Mean : 3.307

Standard deviation : 1.11

Variable Format: numeric

Variable: Departure station

Location:	Value	Label	Frequency
Width: 22	Aarau .		99
	Aefligen .		8
	Aesch BL .		8
	Affoltern am Albis .		8
	Affoltern-Weier .		8
	Aigle .		23
	Allens .		8
	Allschwil .		8
	Alosen .		8
	Altbüron .		8
	Alvaschein .		8
	Amlikon .		8
	Ammerswil AG .		8
	Amsteg .		8
	Andiast .		8
	Appenzell .		16
	Arisdorf .		8
	Arzier .		8
	Astano .		24
	Attinghausen .		7
	Attiswil .		7
	Avenches .		8
	Avully .		8
	Baar .		16
	Bad Ragaz .		16
	Baden .		61
	Balgach .		8
	Ballmoos .		8
	Balsthal .		8

Basel .	79
Basel SBB .	306
Bavois .	8
Bellikon .	8
Bellinzona .	16
Bern .	370
Bernex .	8
Berolle .	8
Bettens .	8
Biberist .	16
Biel (Goms) .	12
Biel Mett .	8
Biel/Bienne .	123
Birsfelden .	8
Bière .	8
Blitzingen .	6
Boncourt .	8
Boécourt .	8
Braunwald .	8
Bremgarten AG .	8
Brig .	47
Brugg AG .	16
Brunnen .	7
Bubendorf .	8
Buchs AG .	16
Buchs SG .	16
Buix .	8
Bulle .	8
Busswil TG .	8
Bussy FR .	8
Bätterkinden .	8

Büren an der Aare .	8
Bürglen TG .	8
Calonico .	8
Carouge GE .	8
Cassarate .	23
Cham .	8
Champéry .	8
Chavannes-près-Renens .	8
Cheseaux-Noréaz .	38
Cheseaux-sur-Lausanne .	6
Chiasso .	55
Chur .	80
Châteauneuf .	24
Clarens .	8
Cointrin .	16
Corcelles NE .	8
Corgémont .	7
Corin-de-la-Crête .	16
Cottens .	8
Courtepin .	6
Crans-près-Céligny .	8
Cressier FR .	8
Davos Dorf .	8
Davos Platz .	16
Delémont .	30
Dietikon .	8
Disentis/Mustér .	8
Dompierre FR .	8
Dotnacht .	8
Däniken SO .	8
Démoret .	16

Döttingen-Klingnau .	16
Ebikon .	8
Egerkingen .	6
Einsiedeln .	30
Emmenbrücke .	15
Engelberg .	32
Ennetbaden .	8
Epalinges .	8
Eppenberg .	7
Erlinsbach .	8
Erstfeld .	8
Eschenbach LU .	7
Essert FR .	7
Estavayer-le-Lac .	8
Ettingen .	8
Evionnaz .	8
Fahy .	8
Falera .	8
Farnern .	8
Feschel .	8
Fey .	8
Fiesch .	8
Filisur .	8
Fleurier .	8
Flims Waldhaus .	8
Flums Hochwiese .	8
Flüelen .	16
Fraubrunnen .	8
Frauenfeld .	24
Freienbach .	6
Freimettigen .	16

Frenkendorf .	8
Fribourg .	50
Frick .	24
Froideville .	8
Frutigen .	8
Füllinsdorf .	8
Gelfingen .	8
Gelterkinden .	8
Genève .	340
Genève 15 .	8
Genève-Aéroport .	40
Gerolfingen .	8
Gersau .	8
Giswil .	8
Givrins .	8
Glarus .	8
Goldach .	8
Goppenstein .	8
Gorgier .	8
Gornergrat .	16
Gossau SG .	32
Grenchen .	19
Grenchen Nord .	8
Grindelwald .	16
Grosswangen .	7
Grüsch .	8
Gstaad .	8
Gwatt .	8
Gümmenen .	8
Hard b. Weinfeldern .	8
Hasle-Rüegsau .	8

Heiden .	8
Herbruggen .	8
Hergiswil NW .	16
Herisau .	24
Herrenschwanden .	8
Hertenstein .	8
Hintermoos .	7
Hitzkirch .	8
Horw .	15
Huttwil .	23
Hägendorf .	6
Hämikon .	8
Härkingen .	8
Hünenberg .	8
Hüntwangen-Wil .	8
Ilanz .	24
Illighausen .	8
Innertkirchen .	7
Interlaken .	23
Interlaken Harderbahn .	15
Interlaken West .	16
Isenfluh .	16
Itingen .	15
Ittigen .	6
Jenaz .	8
Kandersteg .	16
Kempraten .	8
Kerns .	8
Kesswil .	8
Kienberg .	15
Kirchberg-Alchenflüh .	6

Klosters .	7
Kreuzlingen .	16
Kölliken .	8
Küblis .	8
Küssnacht am Rigi .	8
La Chaux-de-Fonds .	41
La Plaine .	24
La Punt-Chamues-ch .	8
La Sagne .	8
La Tanne .	8
La Tour-de-Peilz .	15
Laax GR .	8
Lalden .	8
Landquart .	16
Langenthal .	44
Langnau .	8
Langwiesen .	8
Latterbach .	8
Laufen .	16
Lausanne .	212
Lavey-les-Bains .	7
Le Châble .	1
Le Landeron .	8
Le Mont-sur-Lausanne .	16
Les Breuleux .	8
Leuk .	8
Lichtensteig .	8
Liestal .	44
Ligerz .	8
Littau .	7
Locarno .	80

Lovens .	8
Loveresse .	8
Lugano .	100
Lungern .	8
Lutry .	8
Luzern .	268
Lyss .	8
Läufelfingen .	6
Lüscherz .	8
Lüsslingen .	7
Madiswil .	8
Malters .	8
Marbach LU .	8
Maroggia-Melano .	8
Martigny .	32
Massongex .	8
Matran .	8
Meiringen .	32
Meisterschwanden .	8
Mels .	8
Menznau .	15
Mettmenstetten .	8
Miex .	5
Mont-Crosin .	8
Montagny-la-Ville .	8
Montbovon .	8
Monthey .	16
Montreux .	32
Morges .	30
Morgins .	8
Moudon .	16

Moutier .	40
Murten .	14
Muttenz .	24
Möhlín .	8
Münsingen .	24
Nesselnbach .	8
Nesslau-Neu St. Johann .	16
Neuchâtel .	113
Neuenkirch .	7
Neuägeri .	7
Neyruz .	7
Nidau .	8
Nyon .	32
Oberentfelden .	8
Obergerlafingen .	8
Oberwald .	8
Oberwil BL .	8
Oey-Diemtigen .	8
Oftringen .	8
Olten .	79
Onex .	8
Orbe .	8
Ormingen .	8
Ostermundigen .	3
Pany .	8
Payerne .	8
Penthaz .	6
Perly .	14
Pfäffikon SZ .	8
Pontresina .	8
Porrentruy .	15

Pratteln .	8
Puidoux-Chexbres .	8
Quinten .	8
Randa .	8
Rapperswil .	24
Realp .	8
Rebeuvelier .	8
Regensdorf .	8
Reinach BL .	8
Renens VD .	24
Reutigen .	6
Rheineck .	8
Rheinfelden .	24
Roggwil BE .	8
Romanel-sur-Lausanne .	2
Romanshorn .	16
Rombach .	8
Rongellen .	8
Rorschach .	21
Rothenburg .	16
Rudolfstetten .	8
Rupperswil .	8
Russin .	8
S-chanf .	8
Saanen BE .	8
Safenwil .	7
Saillon .	8
Samedan .	8
Sargans .	8
Sarnen .	8
Schaffhausen .	69

Schindellegi .	16
Schlieren .	8
Schmiedrued .	8
Schwarzenberg LU .	7
Schwyz .	24
Schänis .	8
Scuol PSFS .	22
Scuol-Tarasp .	8
Selzach .	8
Seon .	16
Serpiano .	8
Seuzach .	8
Sierre/Siders .	16
Sion .	32
Sissach .	14
Solothurn .	48
Solothurn West .	7
Spiez .	16
Spiringen .	8
St-Gingolph .	8
St-Maurice .	8
St-Prex .	8
St-Ursanne .	16
St. Gallen .	88
St. Margrethen .	16
St. Moritz .	16
Stammheim .	8
Stansstad .	8
Steckborn .	8
Steffisburg .	8
Stein am Rhein .	8

Stetten SH .	7
Studen BE .	8
Suhr .	8
Sursee .	23
Tamins .	7
Tavannes .	8
Tentlingen .	8
Territet .	8
Tesserete .	8
Teufen .	6
Thal .	15
Thalwil .	8
Thun .	100
Thônex .	8
Tramelan .	8
Trin .	8
Turgi .	8
Täsch .	8
Untersiggenthal .	16
Unterwasser .	8
Urtenen .	8
Uttwil .	16
Uznach .	8
Uzwil .	8
Vallorbe .	24
Verbier .	8
Vevey .	8
Villars-sur-Glâne .	7
Villeneuve FR .	8
Villeneuve VD .	5
Villigen .	8

Visp .	15
Vuarrens .	16
Vétroz .	7
Walchwil .	7
Walenstadt .	8
Wattwil .	16
Wettingen .	32
Wil .	16
Wilderswil .	16
Wildhaus .	16
Willisau .	23
Winterthur .	32
Witterswil .	6
Wohlen .	8
Wohlen AG .	32
Wolhusen .	8
Worb Dorf .	8
Worben .	8
Wädenswil .	22
Wängi .	16
Würenlingen .	8
Zermatt .	8
Zernez .	16
Ziegelbrücke .	16
Zizers .	8
Zofingen .	15
Zug .	64
Zuoz .	8
Zurzach .	6
Zweisimmen .	8
Zürich .	24

Zürich Altstetten .	8
Zürich Enge .	30
Zürich Flughafen .	261
Zürich HB .	399
Zürich Oerlikon .	8

Total Responses: Summation of listed categories: 7854

Summary Statistics:

Variable Format: character

Variable: Arrival station

Location:	Value	Label	Frequency
Width: 24	Aarau .		62
	Aarberg .		8
	Aarburg-Oftringen .		8
	Aesch BL .		16
	Aeschi b. Spiez .		16
	Aetigkofen .		8
	Aigle .		32
	Allschwil .		14
	Alpthal .		8
	Alt St. Johann .		8
	Altbüron .		8
	Altdorf UR .		8
	Altmarkt .		8
	Altnau .		8
	Altstätten SG .		8
	Alvaschein .		8
	Amden .		8
	Aminona .		16
	Ammerswil AG .		8
	Amriswil .		16
	Appenzell .		22
	Aproz .		7
	Arbon .		13
	Arosa .		7
	Arth .		16
	Arth am See .		8
	Arth-Goldau .		16
	Arzier .		8
	Ascona .		24

Astano .	16
Au ZH .	24
Avry-Centre FR .	8
Baar .	8
Bad Ragaz .	16
Baden .	119
Balen-Gassaura .	8
Ballens .	8
Bannwil .	8
Basel .	142
Basel SBB .	294
Bassecourt .	14
Beinwil am See .	16
Bellikon .	8
Bellinzona .	8
Belmont-sur-Lausanne .	8
Bercher .	8
Berikon .	8
Berlens .	8
Bern .	367
Bettlach .	5
Bex .	8
Biel-Benken BL .	8
Biel/Bienne .	77
Birr .	8
Birsfelden .	7
Blatten .	7
Blonay .	8
Boll-Utzigen .	8
Boniswil-Seengen .	8
Boswil .	8

Bouveret .	8
Braunwald .	7
Bremblens .	8
Brent .	8
Brig .	56
Brugg AG .	64
Brunnen .	7
Brusino Arsizio .	8
Bubendorf .	8
Buchs LU .	7
Buchs SG .	16
Bulle .	8
Buonas .	8
Burgdorf .	24
Burghalden .	7
Bursinel .	8
Bussigny .	16
Bussnang .	8
Buttwil .	8
Bätterkinden .	15
Bülach .	8
Büren an der Aare .	8
Bütschwil .	16
Cassarate .	24
Celerina/Schlarigna .	8
Cham .	8
Champoussin .	8
Chandolin-près-Savièse .	8
Charrat-Fully .	8
Cheseaux-Noréaz .	8
Cheseaux-sur-Lausanne .	8

Cheyres .	7
Chiasso .	64
Choëx .	8
Chur .	80
Châteauneuf .	8
Châtel-St-Denis .	8
Chêne-Bougeries .	8
Clarens .	8
Clavaleyres .	8
Coppet .	8
Corcelles-sur-Chavornay .	16
Corin-de-la-Crête .	15
Cornaux NE .	7
Cortailod .	8
Cortébert .	8
Courgenay .	1
Courtelary .	8
Cries .	8
Crissier .	28
Cunter .	8
Dagmersellen .	16
Davos 2 .	16
Degersheim .	8
Delley .	8
Delémont .	40
Diessenhofen .	8
Dietikon .	8
Disentis/Mustér .	8
Dombresson .	8
Dornach .	8
Däniken .	8

Démoret .	8
Dürrenast .	8
Ebikon .	8
Ebnat-Kappel .	16
Egerkingen .	14
Egnach .	8
Egolzwil .	8
Eigergletscher .	8
Einsiedeln .	16
Emmenbrücke .	14
Engelberg .	8
Ennenda .	8
Erlenbach im Simmental .	6
Eschlikon .	8
Estavayer-le-Lac .	8
Ettiswil .	8
Eysins .	7
Falera .	8
Feusisberg .	8
Fiesch .	8
Flawil .	8
Flums .	8
Flüelen .	16
Fontainemelon .	8
Fontannen b. Wolhusen .	8
Fontenais .	8
Fraubrunnen .	14
Frauenfeld .	54
Frenkendorf .	8
Fribourg .	112
Frick .	48

Frutigen .	16
Gampel .	8
Gelterkinden .	14
Genève .	251
Genève 15 .	16
Genève-Aéroport .	8
Geroldswil .	8
Gland .	8
Goldau .	8
Goldingen .	7
Goppenstein .	32
Gossau SG .	16
Grand-Lancy .	8
Grenchen .	8
Grenchen Nord .	8
Grenchen Süd .	15
Grensiols .	8
Grindelwald .	7
Grolley .	8
Grosshöchstetten .	16
Grosswangen .	8
Gruyères .	8
Gränichen .	8
Grüsch .	16
Gstaad .	7
Göschenen .	7
Gümligen .	6
Haag .	16
Habkern .	8
Hasle LU .	8
Hasle b. Burgdorf .	8

Heerbrugg .	8
Hergiswil .	8
Hergiswil NW .	8
Herisau .	16
Herzogenbuchsee .	8
Hildisrieden .	5
Hintermoos .	8
Hochdorf .	6
Hochfelden .	8
Horw .	8
Huttwil .	8
Hölstein .	8
Hünenberg .	8
Hütten .	8
Ibach .	8
Ilanz .	16
Immensee .	8
Inden .	8
Ins .	8
Interlaken .	16
Interlaken Harderbahn .	32
Interlaken West .	14
Ittigen bei Bern .	8
Jouxens-Mézery .	8
Kaiseraugst .	16
Kandersteg .	22
Kerzers .	8
Kirchberg SG .	8
Kirchberg-Alchenflüh .	8
Kleindietwil .	15
Klosters Dorf .	8

Koblenz .	7
Konolfingen .	16
Kradolf .	16
Kreuzlingen Hafen .	8
Kriens .	8
L'Auberson .	8
L'Isle .	8
La Chaux-de-Fonds .	48
La Chaux-de-Fonds-Est .	16
La Chiésaz .	8
La Croix-de-Rozon .	8
La Cure .	8
La Heutte .	12
La Tour-de-Peilz .	5
Lachen SZ .	6
Landquart .	24
Langendorf .	8
Langenthal .	56
Langnau .	24
Laufen .	24
Lausanne .	199
Lausen .	16
Le Boéchet .	8
Le Brassus .	8
Le Landeron .	8
Le Locle .	8
Le Mont-Pèlerin .	8
Le Noirmont .	8
Leibstadt .	6
Lenggenwil .	8
Lengnau BE .	6

Lenzburg .	23
Les Hauts-Geneveys .	1
Leuk .	8
Lichtensteig .	16
Liestal .	50
Locarno .	32
Lommiswil .	8
Lugaggia .	8
Luzern .	252
Lyss .	32
Läufelfingen .	8
Lützelflüh-Goldbach .	8
Malleray-Bévilard .	8
Mammern .	8
Mannenbach-Salenstein .	16
Martigny .	32
Massongex .	8
Mayens-de-Chamoson .	8
Meisterschwanden .	8
Melchsee-Frutt .	8
Menziken .	8
Mex VD .	8
Meyrin .	8
Mont-Crosin .	8
Montagny-la-Ville .	8
Montherod .	8
Monthey .	16
Montreux .	31
Montricher .	8
Morges .	32
Morteratsch .	8

Mosen .	7
Muolen .	8
Muri AG .	8
Murten .	14
Muttenz .	8
Môtiers NE .	8
Münchenstein .	16
Münsingen .	8
Naters .	7
Netstal .	8
Neuchâtel .	88
Neuenhof .	8
Neuhaus SG .	7
Neuhausen .	24
Neukirch-Egnach .	8
Neyruz FR .	8
Nidau .	8
Niederbipp .	23
Niedergösgen .	8
Niederlenz .	8
Niederried b. Interlaken .	7
Nyon .	49
Näfels-Mollis .	8
Obergösgen .	8
Oberhelfenschwil .	8
Oberwald .	14
Oensingen .	12
Oey .	8
Oftringen .	8
Ollon .	8
Olten .	107

Onex .	8
Orbe .	24
Palézieux .	8
Payerne .	16
Penthalaz .	8
Perly .	16
Pfäffikon SZ .	24
Ponte Tresa .	8
Porrentruy .	16
Port .	8
Prangins .	8
Praz-de-Fort .	16
Pully .	8
Rapperswil .	8
Reckingen .	8
Reconvilier .	16
Reichenau-Tamins .	8
Reiden .	7
Reitnau .	8
Renens VD .	16
Rheineck .	8
Rheinfelden .	24
Roche VD .	8
Rohrbach .	8
Romanshorn .	15
Romont .	8
Rongellen .	8
Rorschach .	8
Rothenburg Dorf .	7
Rudolfstetten .	8
Sachseln .	8

Saillon .	8
Samedan .	16
Samstagern .	8
Sargans .	34
Sauges-près-St-Aubin .	8
Savigny .	1
Schaffhausen .	56
Schindellegi-Feusisberg .	8
Schwanden .	8
Schwende .	8
Schwyz .	23
Schänis .	8
Schönried .	8
Schüpfheim .	24
Scuol .	15
Sedrun .	8
Seedorf UR .	8
Seelisberg .	7
Seengen .	8
Sempach Stadt .	8
Sempach-Neuenkirch .	6
Sennwald .	8
Sentier-Orient .	8
Sevelen .	8
Sierre/Siders .	15
Siggenthal-Würenlingen .	5
Sissach .	6
Solothurn .	55
Sorvilier .	8
Spiez .	31
St-Aubin FR .	6

St-Aubin-Sauges .	8
St-Cergue .	8
St-Gingolph .	13
St-Maurice .	16
St-Pierre-de-Clages .	8
St-Prex .	8
St. Antönien .	7
St. Gallen .	57
St. Margrethen .	8
St. Stephan .	8
St. Urban .	16
Stalden-Saas .	16
Stansstad .	8
Steckborn .	8
Stein am Rhein .	14
Steinen .	8
Sursee .	16
Thalwil .	47
Thayngen .	7
Thun .	117
Thônex .	8
Tiefencastel .	8
Tramelan .	16
Trimbach .	6
Trin .	8
Trubschachen .	6
Turgi .	8
Tägerwilen-Gottlieben .	8
Täuffelen .	7
Udligenswil .	8
Unterzollikofen .	8

Uttwil .	8
Uznach .	8
Uzwil .	8
Valbella .	8
Vallorbe .	40
Vevey .	32
Villiers .	8
Visp .	16
Vufflens-la-Ville .	24
Vuiteboeuf .	6
Walenstadt .	6
Wattwil .	16
Weinfeldern .	32
Wettingen .	8
Wiedlisbach .	8
Wiesengrund .	7
Wil .	17
Wilderswil .	8
Wilen b. Wollerau .	8
Willisau .	8
Winterthur .	91
Wohlen .	15
Wohlen AG .	8
Wolhusen .	8
Worb Dorf .	16
Wynau .	5
Wädenswil .	16
Würenlingen .	8
Yverdon .	29
Zell LU .	7
Zernez .	8

Zofingen .	40
Zollikofen .	16
Zug .	92
Zweisimmen .	8
Zürich .	16
Zürich Altstetten .	21
Zürich Flughafen .	40
Zürich HB .	294

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Variable Format: character

Variable: Travel time RP Route (route 1) in minutes

Location:	Value	Label	Frequency
Width: 11	2 .		11
	3 .		13
	4 .		6
	5 .		20
	6 .		40
	7 .		22
	8 .		52
	9 .		48
	10 .		134
	11 .		83
	12 .		84
	13 .		86
	14 .		104
	15 .		29
	16 .		85
	17 .		89
	18 .		111
	19 .		120
	20 .		85
	21 .		87
	22 .		133
	23 .		32
	24 .		110
	25 .		107
	26 .		124
	27 .		93
	28 .		75
	29 .		79
	30 .		64

31 .	48
32 .	79
33 .	87
34 .	78
35 .	104
36 .	88
37 .	46
38 .	94
39 .	93
40 .	77
41 .	54
42 .	15
43 .	23
44 .	23
45 .	23
46 .	32
47 .	80
48 .	56
49 .	32
50 .	40
51 .	56
52 .	16
53 .	63
54 .	40
55 .	71
56 .	24
57 .	24
58 .	37
59 .	32
60 .	32
61 .	55

62 .	24
63 .	80
64 .	32
65 .	40
66 .	47
67 .	55
68 .	87
69 .	86
70 .	55
71 .	62
72 .	48
73 .	32
74 .	56
76 .	48
77 .	24
78 .	32
79 .	64
80 .	40
81 .	16
82 .	39
83 .	16
84 .	24
85 .	24
86 .	8
87 .	16
88 .	23
89 .	16
90 .	24
91 .	45
92 .	48
93 .	24

94 .	15
95 .	16
96 .	8
97 .	32
98 .	72
99 .	55
100 .	9
101 .	31
102 .	23
103 .	48
104 .	32
105 .	24
106 .	24
107 .	23
108 .	8
109 .	24
110 .	8
111 .	15
112 .	24
113 .	16
114 .	21
115 .	33
116 .	31
117 .	24
118 .	40
119 .	24
120 .	8
121 .	16
122 .	40
123 .	16
124 .	16

125 .	40
126 .	56
127 .	16
130 .	16
131 .	24
132 .	40
133 .	31
134 .	8
135 .	56
136 .	16
137 .	24
138 .	15
140 .	8
141 .	24
142 .	39
143 .	24
144 .	8
145 .	16
146 .	40
147 .	31
148 .	22
149 .	23
150 .	32
151 .	16
152 .	8
154 .	24
155 .	56
156 .	16
157 .	16
158 .	16
160 .	8

161 .	14
162 .	24
163 .	16
164 .	8
165 .	8
166 .	32
167 .	16
169 .	8
171 .	16
172 .	32
173 .	22
175 .	8
176 .	32
177 .	24
178 .	16
179 .	24
180 .	8
181 .	8
183 .	16
184 .	16
187 .	32
189 .	24
191 .	16
192 .	9
193 .	16
194 .	24
195 .	6
197 .	8
198 .	24
202 .	8
203 .	8

206 .	24
208 .	34
209 .	24
211 .	8
214 .	8
215 .	7
216 .	16
217 .	16
219 .	8
223 .	8
224 .	8
225 .	24
226 .	8
227 .	6
228 .	15
229 .	5
230 .	16
233 .	8
234 .	32
235 .	8
237 .	15
238 .	8
239 .	8
242 .	8
243 .	16
244 .	16
245 .	7
247 .	8
248 .	8
249 .	8
251 .	16

254 .	31
255 .	16
256 .	15
257 .	7
258 .	23
259 .	16
260 .	8
261 .	8
262 .	8
263 .	20
264 .	8
266 .	24
267 .	8
272 .	8
273 .	8
277 .	8
278 .	8
280 .	16
281 .	8
282 .	16
284 .	8
285 .	16
286 .	8
287 .	17
288 .	16
290 .	8
297 .	8
298 .	8
299 .	8
306 .	8
307 .	8

310 .	8
311 .	8
322 .	8
323 .	8
327 .	8
330 .	8
338 .	8
344 .	16
345 .	8
350 .	8
360 .	8
370 .	8
376 .	8
378 .	7
382 .	8
401 .	8

Range of Valid Data Values: 2 to 401

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 2

Maximum : 401

Mean : 91.626

Standard deviation : 79.956

Variable Format: numeric

Variable: Headway (in minutes, route 1)

Location:	Value	Label	Frequency
Width: 11	15 .		766
	30 .		3115
	60 .		3896
	120 .		187

Range of Valid Data Values: 15 to 120

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 15

Maximum : 120

Mean : 45.347

Standard deviation : 20.412

Variable Format: numeric

Variable: Number of transfers, Route 1

Location:	Value	Label	Frequency
Width: 11	0 .		3508
	1 .		2411
	2 .		1372
	3 .		447
	4 .		203
	5 .		23

Range of Valid Data Values: 0 to 5

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 0

Maximum : 5

Mean : 0.932

Standard deviation : 1.053

Variable Format: numeric

Variable: Transfer time in minutes, Route 1

Location:	Value	Label	Frequency
Width: 11	0 .		3523
	1 .		24
	2 .		87
	3 .		136
	4 .		292
	5 .		254
	6 .		180
	7 .		175
	8 .		229
	9 .		243
	10 .		232
	11 .		168
	12 .		112
	13 .		135
	14 .		160
	15 .		160
	16 .		149
	17 .		112
	18 .		78
	19 .		137
	20 .		79
	21 .		118
	22 .		78
	23 .		72
	24 .		40
	25 .		31
	26 .		79
	27 .		40
	28 .		40

29 .	108
30 .	32
31 .	24
32 .	23
33 .	24
34 .	40
35 .	40
36 .	20
37 .	48
38 .	23
39 .	24
40 .	39
41 .	23
42 .	32
43 .	32
44 .	16
45 .	8
46 .	24
47 .	15
48 .	15
49 .	8
50 .	32
51 .	24
52 .	8
53 .	32
54 .	8
57 .	8
58 .	8
61 .	8
64 .	16
65 .	8

79 .	7
80 .	8
83 .	16

Range of Valid Data Values: 0 to 83

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 0

Maximum : 83

Mean : 9.602

Standard deviation : 13.511

Variable Format: numeric

Variable: Travel cost in CHF, route 1

Location:	Value	Label	Frequency
Width: 11	0.286793 .		6
	0.385489 .		5
	0.480636 .		6
	0.744783 .		7
	0.761683 .		7
	0.839085 .		7
	0.853281 .		3
	0.911586 .		6
	0.977496 .		6
	1.000311 .		8
	1.001832 .		6
	1.002339 .		7
	1.049828 .		8
	1.0647 .		8
	1.06808 .		6
	1.086501 .		8
	1.115569 .		6
	1.161537 .		7
	1.173705 .		7
	1.176916 .		6
	1.279837 .		5
	1.314989 .		6
	1.327495 .		7
	1.333917 .		2
	1.341353 .		7
	1.371773 .		7
	1.389011 .		8
	1.432275 .		8
1.444105 .		6	

1.449175 .	8
1.469286 .	7
1.472835 .	7
1.475877 .	6
1.481285 .	6
1.517958 .	5
1.53959 .	6
1.545674 .	7
1.5548 .	7
1.60719 .	8
1.609218 .	8
1.613781 .	7
1.634399 .	8
1.644539 .	5
1.651975 .	7
1.665495 .	1
1.679015 .	6
1.681043 .	8
1.691521 .	8
1.709773 .	5
1.713491 .	8
1.731236 .	8
1.745601 .	6
1.751178 .	7
1.753882 .	5
1.757769 .	8
1.767571 .	8
1.785316 .	6
1.793428 .	6
1.797822 .	6
1.799005 .	8

1.825369 .	8
1.831622 .	8
1.834664 .	8
1.837706 .	8
1.854099 .	1
1.873872 .	7
1.908517 .	16
1.910883 .	7
1.92322 .	8
1.944852 .	6
1.970033 .	6
2.007382 .	8
2.009072 .	8
2.014311 .	8
2.02124 .	6
2.024789 .	7
2.035943 .	8
2.050646 .	8
2.052505 .	8
2.056392 .	7
2.0618 .	8
2.069743 .	8
2.074137 .	8
2.092051 .	8
2.104726 .	8
2.109289 .	8
2.112669 .	8
2.123485 .	8
2.15137 .	8
2.163707 .	5
2.177903 .	8

2.189395 .	8
2.198352 .	8
2.20207 .	16
2.205281 .	8
2.219308 .	8
2.219815 .	8
2.22066 .	8
2.241616 .	8
2.244827 .	8
2.245841 .	8
2.265952 .	8
2.271529 .	8
2.273895 .	8
2.275585 .	8
2.309047 .	8
2.341833 .	8
2.344706 .	8
2.368873 .	8
2.416869 .	8
2.438839 .	8
2.441543 .	8
2.449655 .	8
2.453542 .	8
2.470442 .	8
2.476019 .	8
2.485821 .	8
2.515565 .	8
2.535 .	8
2.540577 .	8
2.55697 .	8
2.562209 .	8

2.624232 .	8
2.659384 .	7
2.668848 .	8
2.671383 .	8
2.679495 .	8
2.684903 .	8
2.695043 .	8
2.695212 .	8
2.70062 .	8
2.704507 .	8
2.712788 .	8
2.720562 .	8
2.745067 .	6
2.748278 .	6
2.750813 .	8
2.753179 .	8
2.786303 .	8
2.823483 .	8
2.836665 .	8
2.860663 .	6
2.868775 .	8
2.874521 .	8
2.87807 .	8
2.895477 .	8
2.917785 .	8
2.926573 .	8
2.967809 .	8
2.972879 .	8
2.998229 .	8
3.00313 .	8
3.004989 .	8

3.008707 .	16
3.040986 .	8
3.050112 .	8
3.05045 .	6
3.051633 .	8
3.070899 .	8
3.084926 .	8
3.086278 .	5
3.114163 .	8
3.114501 .	8
3.116022 .	8
3.13664 .	8
3.170609 .	8
3.177031 .	8
3.205085 .	7
3.211676 .	8
3.222492 .	8
3.261024 .	8
3.275727 .	8
3.286881 .	8
3.299894 .	8
3.320512 .	8
3.328962 .	8
3.329976 .	8
3.332342 .	8
3.347383 .	8
3.358368 .	8
3.377803 .	8
3.378141 .	8
3.412617 .	8
3.418025 .	16

3.418363 .	8
3.44929 .	8
3.458923 .	8
3.493737 .	8
3.504384 .	24
3.510468 .	8
3.528551 .	8
3.543423 .	8
3.549338 .	8
3.55576 .	8
3.561844 .	8
3.564041 .	8
3.565055 .	8
3.609502 .	6
3.618797 .	7
3.63181 .	7
3.654456 .	7
3.660202 .	8
3.692481 .	8
3.740308 .	7
3.74842 .	8
3.780192 .	8
3.786952 .	8
3.81095 .	6
3.822949 .	8
3.866382 .	8
3.917758 .	8
3.918603 .	8
3.975894 .	7
3.987724 .	8
4.006821 .	8

4.06614 .	8
4.075773 .	8
4.091828 .	7
4.103489 .	8
4.109911 .	8
4.118699 .	7
4.144387 .	8
4.147091 .	8
4.160611 .	8
4.164329 .	8
4.173286 .	8
4.174976 .	8
4.186975 .	8
4.193397 .	8
4.229563 .	7
4.235309 .	8
4.281277 .	8
4.283812 .	8
4.288037 .	8
4.298177 .	8
4.300374 .	8
4.304937 .	8
4.311697 .	8
4.315584 .	8
4.317443 .	8
4.324541 .	16
4.325555 .	8
4.3264 .	8
4.329611 .	8
4.366284 .	8
4.377945 .	8

4.414618 .	16
4.421378 .	8
4.44132 .	8
4.46498 .	8
4.476472 .	8
4.477824 .	8
4.487288 .	7
4.4954 .	8
4.530721 .	7
4.551001 .	8
4.558606 .	8
4.576689 .	8
4.621812 .	7
4.635839 .	8
4.639726 .	8
4.671498 .	8
4.672343 .	8
4.673695 .	7
4.69313 .	7
4.698538 .	8
4.701918 .	15
4.710368 .	22
4.712565 .	4
4.715776 .	8
4.726085 .	8
4.773743 .	8
4.786418 .	8
4.800276 .	8
4.803149 .	8
4.803318 .	8
4.823429 .	8

4.826978 .	8
4.832555 .	8
4.842019 .	8
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10.260328 .	8
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12.560925 .	8
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12.625314 .	8
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12.673817 .	8
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13.929994 .	40
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13.992524 .	8

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14.678495 .	8
14.688297 .	8
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14.809808 .	8
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15.223182 .	8
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15.378155 .	8
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15.4973 .	8
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15.541071 .	8
15.549859 .	8
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15.750124 .	8
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16.527186 .	8
16.538678 .	24
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17.262674 .	8
17.562311 .	8
17.766294 .	8

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32.092762 .	8
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32.199063 .	7
32.342713 .	8
32.566638 .	8
32.641336 .	8
32.911398 .	8
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33.05302 .	7
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39.27898 .	8
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39.335933 .	8
39.391027 .	8
39.422968 .	8

39.818428 .	8
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40.6445 .	8
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41.771223 .	8
41.881411 .	8
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42.138122 .	8
42.192709 .	8
42.229889 .	8
42.319121 .	7
42.474939 .	8
42.630419 .	8
43.538118 .	8
43.604197 .	8
43.619238 .	8
43.64425 .	8
44.229328 .	8
44.234736 .	8
44.390892 .	8
44.59741 .	8
44.686642 .	13

44.9371 .	8
45.206655 .	7
45.209528 .	8
45.277466 .	8
45.417905 .	8
45.852404 .	8
45.913075 .	8
46.183982 .	8
46.31783 .	8
46.392359 .	16
46.431229 .	8
46.524348 .	7
46.754526 .	8
46.787143 .	8
47.399261 .	8
47.476325 .	8
47.504548 .	16
47.532602 .	8
48.394502 .	7
48.487959 .	8
48.578881 .	8
48.606259 .	8
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48.68383 .	8
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50.557871 .	8
50.710647 .	8
51.02279 .	8
51.625613 .	8
51.8999 .	8

53.407718 .	8
53.634516 .	7
54.271477 .	8
54.729129 .	8
55.320122 .	8
55.611816 .	1
56.619563 .	8
57.69322 .	8
58.376149 .	8
59.816367 .	8
60.33131 .	8
61.187295 .	8
62.754432 .	8
63.507158 .	8
63.685791 .	8
65.09711 .	8
65.971854 .	7
66.071395 .	8
66.821755 .	8
69.894682 .	8
73.752614 .	8

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 0.287

Maximum : 73.753

Mean : 15.862

Standard deviation : 14.264

Variable Format: numeric

Variable: Comfort, route 1

Location:	Value	Label	Frequency
Width: 11	1 .	regional train	6224
	2 .	Inter regional train (dauble decker)	0
	3 .	Inter-city	1708
	4 .	tilting train	32

Range of Valid Data Values: 1 to 4

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 1

Maximum : 4

Variable Format: numeric

Variable: Language

Location:	Value	Label	Frequency
Width: 11	0 .	Other	2037
	1 .	German	5738

Range of Valid Data Values: 0 to 1

Total Responses: Summation of listed categories: 7775

Summary Statistics:

Minimum : 0

Maximum : 1

Variable Format: numeric

Variable: Comfort, route 2 (SP Route)

Location:	Value	Label	Frequency
Width: 11	1 .	Regional train	4040
	2 .	Inter regional train (dauble decker)	965
	3 .	Inter-city train	1593
	4 .	tilting train	1366

Range of Valid Data Values: 1 to 4

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 1

Maximum : 4

Variable Format: numeric

Variable: Travel time SP Route (route 2)

Location:	Value	Label	Frequency
Width: 11	4 .		17
	5 .		69
	6 .		15
	7 .		23
	8 .		63
	9 .		89
	10 .		146
	11 .		58
	12 .		84
	13 .		63
	14 .		81
	15 .		117
	16 .		87
	17 .		58
	18 .		73
	19 .		93
	20 .		241
	21 .		69
	22 .		78
	23 .		50
	24 .		71
	25 .		126
	26 .		72
	27 .		75
	28 .		63
	29 .		70
	30 .		339
	35 .		206
	40 .		465

45 .	114
50 .	305
55 .	177
60 .	145
65 .	267
70 .	335
75 .	94
80 .	246
85 .	67
90 .	189
95 .	70
100 .	203
105 .	92
110 .	174
115 .	82
120 .	125
125 .	147
130 .	159
135 .	85
140 .	106
145 .	53
150 .	120
155 .	61
160 .	105
165 .	31
170 .	117
175 .	43
180 .	64
185 .	61
190 .	94
195 .	47

200 .	52
205 .	22
210 .	89
215 .	23
220 .	45
225 .	37
230 .	71
235 .	28
240 .	36
245 .	24
250 .	45
255 .	23
260 .	70
265 .	12
270 .	40
275 .	11
280 .	49
285 .	22
290 .	41
295 .	6
300 .	14
305 .	10
310 .	34
315 .	9
320 .	11
325 .	3
330 .	17
340 .	15
345 .	15
350 .	3
360 .	2

365 .	4
370 .	4
380 .	10
385 .	1
400 .	9
410 .	3
425 .	4
430 .	3
440 .	3
445 .	1
460 .	3
485 .	1

Range of Valid Data Values: 4 to 485

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 4

Maximum : 485

Mean : 90.698

Standard deviation : 80.029

Variable Format: numeric

Variable: Number of transfers, Route 2

Location:	Value	Label	Frequency
Width: 11	0 .		3399
	1 .		2351
	2 .		1357
	3 .		577
	4 .		225
	5 .		51
	6 .		4

Range of Valid Data Values: 0 to 6

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 0

Maximum : 6

Mean : 1.001

Standard deviation : 1.121

Variable Format: numeric

Variable: Transfer time in minutes, Route 2

Location:	Value	Label	Frequency
Width: 4	0 .		3298
	1 .		513
	2 .		58
	3 .		67
	4 .		167
	5 .		564
	6 .		142
	7 .		70
	8 .		180
	9 .		112
	10 .		390
	11 .		138
	12 .		115
	13 .		50
	14 .		126
	15 .		140
	16 .		122
	17 .		52
	18 .		86
	19 .		92
	20 .		185
	21 .		85
	22 .		71
	23 .		28
	24 .		74
	25 .		56
	26 .		72
	27 .		15
	28 .		52

29 .	67
30 .	151
35 .	85
40 .	212
45 .	52
50 .	118
55 .	31
60 .	12
65 .	48
70 .	26
80 .	23
85 .	7
100 .	7
105 .	5

Range of Valid Data Values: 0 to 105

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 0

Maximum : 105

Mean : 9.712

Standard deviation : 14.632

Variable Format: numeric

Variable: Headway (in minutes, route 2)

Location:	Value	Label	Frequency
Width: 11	15 .		2282
	30 .		2447
	60 .		2359
	120 .		876

Range of Valid Data Values: 15 to 120

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 15

Maximum : 120

Mean : 44.488

Standard deviation : 31.816

Variable Format: numeric

Variable: Travel cost in CHF, route 2

Location:	Value	Label	Frequency
Width: 11	2 .		636
	2.1 .		29
	2.2 .		28
	2.3 .		61
	2.4 .		51
	2.5 .		62
	2.6 .		26
	2.7 .		44
	2.8 .		53
	2.9 .		38
	3 .		183
	3.5 .		157
	4 .		448
	4.5 .		113
	5 .		325
	5.5 .		135
	6 .		273
	6.5 .		114
	7 .		260
	7.5 .		48
	8 .		257
	8.5 .		62
	9 .		166
	9.5 .		52
	10 .		212
	10.5 .		65
	11 .		188
	11.5 .		53
	12 .		156

12.5 .	45
13 .	170
13.5 .	54
14 .	151
14.5 .	38
15 .	87
15.5 .	59
16 .	110
16.5 .	36
17 .	99
17.5 .	54
18 .	128
18.5 .	28
19 .	100
19.5 .	39
20 .	87
20.5 .	41
21 .	56
21.5 .	33
22 .	77
22.5 .	30
23 .	86
23.5 .	22
24 .	40
24.5 .	25
25 .	102
25.5 .	18
26 .	97
26.5 .	13
27 .	71
27.5 .	29

28 .	87
28.5 .	28
29 .	72
29.5 .	12
30 .	73
30.5 .	13
31 .	71
31.5 .	27
32 .	55
32.5 .	18
33 .	24
33.5 .	26
34 .	62
34.5 .	22
35 .	54
35.5 .	26
36 .	42
36.5 .	15
37 .	37
37.5 .	12
38 .	39
38.5 .	17
39 .	49
39.5 .	16
40 .	35
40.5 .	9
41 .	39
41.5 .	13
42 .	35
42.5 .	8
43 .	31

43.5 .	16
44 .	25
44.5 .	14
45 .	19
45.5 .	6
46 .	21
46.5 .	18
47 .	11
47.5 .	7
48 .	11
48.5 .	4
49 .	30
49.5 .	1
50 .	24
50.5 .	11
51 .	24
51.5 .	6
52 .	14
52.5 .	8
53 .	17
53.5 .	8
54 .	20
55 .	6
55.5 .	11
56 .	14
56.5 .	1
57 .	10
57.5 .	9
58 .	16
58.5 .	2
59 .	12

59.5 .	10
60 .	7
60.5 .	4
61 .	23
61.5 .	1
62 .	4
63 .	6
63.5 .	3
64 .	12
65 .	1
65.5 .	4
66 .	7
66.5 .	4
67 .	8
67.5 .	3
68.5 .	7
69 .	5
70 .	6
72 .	7
72.5 .	2
73 .	6
74 .	5
75.5 .	1
76.5 .	5
77 .	3
78 .	3
80 .	3
81 .	1
81.5 .	5
82.5 .	3
83 .	5

84 .	3
86 .	1
87.5 .	4
89 .	1
90 .	1
92 .	3
94.5 .	1
100 .	3

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 2

Maximum : 100

Mean : 16.576

Standard deviation : 15.628

Variable Format: numeric

Variable: Employed

Location:	Value	Label	Frequency
Width: 4	1 .	Fultime	4007
	2 .	Parttime	1217
	3 .	Unemployed	2740

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Variable Format: character

Variable: Car availability

Location:	Value	Label	Frequency
Width: 4	1 .	Always	4439
	2 .	After arrangement	1834
	3 .	Not available	1691

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Variable Format: character

Variable: Age (in years)

Location:	Value	Label	Frequency
Width: 8	15 .		23
	16 .		142
	17 .		117
	18 .		97
	19 .		197
	20 .		164
	21 .		126
	22 .		72
	23 .		144
	24 .		64
	25 .		87
	26 .		129
	27 .		133
	28 .		119
	29 .		64
	30 .		196
	31 .		103
	32 .		141
	33 .		150
	34 .		130
	35 .		191
	36 .		134
	37 .		180
	38 .		207
	39 .		148
	40 .		279
	41 .		108
	42 .		221
	43 .		149

44 .	156
45 .	180
46 .	86
47 .	126
48 .	97
49 .	134
50 .	173
51 .	140
52 .	115
53 .	122
54 .	118
55 .	151
56 .	231
57 .	111
58 .	120
59 .	124
60 .	170
61 .	139
62 .	69
63 .	109
64 .	56
65 .	209
66 .	108
67 .	102
68 .	124
69 .	59
70 .	87
71 .	40
72 .	82
73 .	65
74 .	11

75 .	100
77 .	40
78 .	24
79 .	23
80 .	84
81 .	16
82 .	8
83 .	8
84 .	32

Range of Valid Data Values: 15 to 84

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Mean : 44.633

Standard deviation : 16.861

Variable Format: numeric

Variable: Gender

Location:	Value	Label	Frequency
Width: 5	1 .	Male	4111
	2 .	Female	3853

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Variable Format: character

Variable: Number of km in '000 travelled by car in the last year

Location:	Value	Label	Frequency
Width: 8	0 .		2422
	1 .		40
	2 .		64
	3 .		101
	4 .		55
	5 .		252
	6 .		142
	7 .		235
	8 .		268
	9 .		121
	10 .		928
	11 .		55
	12 .		451
	13 .		64
	14 .		48
	15 .		801
	16 .		8
	17 .		39
	18 .		95
	20 .		436
	22 .		16
	24 .		15
	25 .		274
	27 .		8
	30 .		207
	35 .		80
	38 .		8
	40 .		77
	45 .		8

50 .	65
60 .	24
70 .	8
72 .	8
74 .	8
75 .	8
80 .	8
90 .	8
99 .	95
Sysmiss .	414

Range of Valid Data Values: 0 to 99

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Mean : 11.395

Standard deviation : 15.222

Variable Format: numeric

Variable: Season ticket availability

Location:	Value	Label	Frequency
Width: 4	0 .	Without PT-card	2596
	1 .	A	1062
	2 .	Half-price-discount	3713
	3 .	Other PT-card	593

Range of Valid Data Values: 0 to 3

Total Responses: Summation of listed categories: 7964

Summary Statistics:

Minimum : 0

Maximum : 3

Variable Format: numeric