

Supplemental Table 1

*Time 1 Characteristics of Adults with ASD*

	N	Percent
Age category of son/daughter with ASD		
18 – 24 years	49	30.4%
25 – 29 years	40	24.8%
30 – 34 years	27	16.8%
35 – 39 years	15	9.3%
40 – 44 years	16	9.9%
45 – 49 years	13	8.1%
50 – 52 years	1	0.6%
Sex		
Men	116	72.0%
Women	45	28.0%
Intellectual disability diagnosis		
Yes	130	80.7%
No	31	19.3%
Level of language (from ADI-R)		
Daily functional use	112	69.6%
No functional use of 3-word phrases	20	12.4%
Fewer than 5 words/speech not used daily	29	18.0%
Living Arrangements		
Co-residing with parents	64	39.8%
Community residence	68	42.2%
Semi-independent living	17	10.6%
Independent living	5	3.1%
Public or private institution	5	3.1%
Foster home	1	0.6%
Living with other relatives	1	0.6%
Ever received a diagnosis of:		
Autism	154	95.7%
Asperger's syndrome	16	9.9%
PDD-NOS	29	18.0%
Attention deficit disorder	30	18.6%
Bi-polar disorder	13	8.1
Cerebral palsy	7	4.3%
Epilepsy/Seizure disorder	50	31.1%
Schizophrenia	12	7.5%
Obsessive compulsive disorder	41	25.5%
Depression	22	13.7%
Anxiety	34	21.1%
Level of maladaptive behaviors (from SIB-R)		
Normal	75	46.6% (49.7%)
Marginal	45	28.0% (29.8%)

	N	Percent
Moderate	24	14.9% (15.9%)
Serious	3	1.9% (2.0%)
Very serious	4	2.5% (2.6%)
Missing	10	6.2
Family household income (\$)		
9,999 or less	2	1.2% (1.4%)
10,000 to 19,999	19	11.8% (12.8%)
20,000 to 29,999	26	16.1% (17.6%)
30,000 to 39,999	23	14.3% (15.5%)
40,000 to 49,999	16	9.9% (10.8%)
50,000 to 59,999	5	3.1% (3.4%)
60,000 to 69,999	14	8.7% (9.5%)
70,000 or greater	43	26.7% (29.1%)
Missing	13	8.1%
Number of services received		
0	4	2.5%
1-3	34	21.1%
4-6	83	51.6%
7-9	33	20.5%
10 or more	7	4.3%
Number of unmet service needs		
0	46	28.6%
1-3	81	50.3%
4-6	30	18.6%
7-9	4	2.5%
10 or more	0	0%
Vocational activities at Time 1 (from Vocational Index)		
No activities	21	13.0%
Volunteering or non-degree seeking education only	9	5.6%
Sheltered setting only	68	42.2%
Sheltered setting and community employment	19	11.8%
Supported employment (no sheltered setting)	29	18.0%
Competitive employment or post-secondary education	15	9.3%

*Note.* ADI-R = Autism Diagnostic Interview-Revised. SIB-R = Scales of Independent Behaviors – Revised. Percentages in parentheses are the percentages of valid values in each category.

### *Attrition Analyses*

All of the 161 sample members provided Time 1 data. Data were available for 146 families (90.7%) at Time 2, 136 (84.5%) at Time 3, and 115 (71.4%) at Time 4, 102 (63.4%) at Time 5, and 91 (56.5%) at Time 6. Over the course of the study, there were 11 cases in which the participating parent died or was no longer able to participate due to health problems, and primary study participation was assumed by a sibling or in two cases by a nonrelative guardian of the adult with ASD. Previous analyses have shown that our method of data collection is robust in the instance of such change in reporter (e.g., Manner et al., 2013).

Families who continued to participate over the study period ( $n = 91$ ) were compared to those who did not complete all data collection points ( $n = 70$ ) on a number of variables. There were no significant differences between groups in the age of the adult with ASD, his/her sex, ID diagnosis, verbal versus non-verbal status, proportion living with parents, maladaptive behaviors, number of services received, number of unmet service needs, independence in activities of daily living, family household income, parental age, parental race, parental education, parental marital status, and size of parental support network. There was also no difference between those who completed all data collection points and those who did not in the dependent variable (Vocational Index scores) at Time 1. The only variable that was significantly different between groups was autism symptoms; those who remained in the sample had more autism symptoms (e.g., more severe autism) compared to those who dropped out of the study,  $t(159) = 2.29, p = .02$ . (Data are available from the first author.) Although we present these analyses to better understand the nature of study participation, it is important to note that our longitudinal models included all 161 participants.

## *Additional Results*

### *Descriptive Statistics*

Means and standard deviations for the Vocational Index scores and within-person, time-varying predictors at each time point are presented in Supplemental Table 2. Visual examination of the means suggested a great deal of mean-level stability in measures, although Vocational Index scores were slowly decreasing, and both maladaptive behaviors and autism symptoms appeared to be improving slightly (decreasing in severity) over the study period. Somewhat more adults with ASD were living away from their families over time. Note, however, that these overall average patterns may obscure individual differences, which are the focus of the present study and are modeled below. Correlations between the between-persons variables are presented in Supplemental Table 3.

Supplemental Table 2

*Means and Standard Deviations for Within-Persons Variables by Wave of Measurement*

Variable	Time 1		Time 2		Time 3		Time 4		Time 5		Time 6	
	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>Mean</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
<b>Outcome</b>												
Vocational Index Score	4.53	2.24	4.60	2.08	4.49	2.09	4.52	2.13	4.20	2.24	4.23	2.12
<b>Time-Varying Predictors</b>												
Maladaptive Behaviors	112.83	9.74	109.93	8.61	110.26	8.51	109.37	8.97	109.98	8.98	110.53	9.07
Autism Symptoms	15.83	3.16	15.43	3.67	14.70	3.90	13.99	4.07	14.38	4.17	14.92	3.91
Proportion Living Outside of Parental Home	.60		.67		.66		.70		.74		.71	
Total <i>N</i> with Vocational Index Scores	161		146		136		115		102		91	

Supplemental Table 3

*Correlations between Level 2, Between-Persons Variables*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
<b>Personal Characteristics</b>											
1. Intellectual Disability	--	.15	.33**	-.45**	-.08	-.04	.26**	-.14	-.06	.16*	.09
2. Maladaptive Behaviors		--	.29**	-.30**	.03	.16*	.35**	-.03	-.08	-.34**	-.01
3. Autism Symptoms			--	-.36**	-.19*	-.07	.21**	-.04	.04	-.01	.03
4. Independence in Activities of Daily Living				--	.03	.06	-.33**	.04	.08	.06	.10
5. Sex (1 = Women)					--	-.07	.02	.05	.08	.06	-.12
<b>Contextual Resources</b>											
6. Family Income						--	.01	-.18*	.11	-.31**	.06
7. Number of Services Received							--	-.50**	.06	.00	.18*
8. Number of Unmet Service Needs								--	-.12	-.06	-.20*
9. Number in Parent's Support Network									--	.01	-.03
<b>Control Variables</b>											
10. Age										--	.20*
11. Lives Outside of Parental Home											--

\*  $p > .05$     \*\*  $p < .01$

### *Further Analyses for Aim 1*

The findings from the HLM model, suggesting average decline in Vocational Index scores over time, were confirmed descriptively when examining the individual slopes estimated by this model: 76% of the adults with ASD had negative slope scores indicating decline in the Vocational Index over time, and 24% had positive slopes indicating improvement. Using a more stringent definition of change, 13.3% of adults had estimated slope scores indicating a decline in Vocational Index scores of at least one category over the study period. Fewer than 5% (4.7%) had slopes indicating improvement of at least one category over the study, and the remaining 82% had slope scores indicating stability.

### *Follow-up Analyses for Aim 3*

In order to determine whether women in this sample were different from men in ways that might explain their greater average decline in Vocational Index scores over time, we ran independent samples t-tests and chi-squares comparing women to men in: age, sex, ID diagnosis, verbal versus non-verbal status, proportion living with parents, maladaptive behaviors, number of autism symptoms, number of services received, number of unmet service needs, independence in activities of daily living, family household income, parental age, parental race, parental education, parental marital status, and size of parental support network. Only one significant difference emerged; relative to men, women with ASD had fewer impairments in social reciprocity (a subtype of autism symptoms),  $t(159) = 2.50, p = .01$ .