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Analysis of the Implementation of the “Poverty Stoplight” Program by *Fundación Paraguaya* in the community of Cerrito, 2018-2021

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Introduction

This report presents a statistical and substantive analysis of the implementation of the *Poverty Stoplight* program by *Fundación Paraguaya* in the community of Cerrito, in the Paraguayan Chaco, from 2018 to 2021. The *Poverty Stoplight* consists of a self-administered survey of multi-dimensional poverty, followed by a program of iterative guidance and mentorship carried out by trained mentors from *Fundación Paraguaya*, who help families develop a **life map** and carry out discrete and actionable measures to improve their conditions and thus move away from poverty. The Cerrito community, in the arid Chaco region of Paraguay, is largely rural, poor, and indigenous. We begin by presenting some background information on the study conducted and the nature of the data, as well as profiling the demographic and socioeconomic characteristics of the Cerrito community. Next, we explain our methodology and describe some of the measures we develop to facilitate our analysis, chiefly our own innovative “**poverty score**” index built upon the *Poverty Stoplight* metric. This allows us to proceed to the analysis, where we 1) introduce and examine Cerrito’s poverty profile along the “**poverty score**” measure, 2) analyze the disaggregated changes in poverty across the six dimensions of poverty encompassed by the *Poverty Stoplight*, 3) examine the relationship between poverty and empowerment by relying on a module introduced by *Fundación Paraguaya* in the 2021 wave of the panel, 4) and finally, in light of the high prevalence of indigenous populations in Cerrito, we isolate the relationship between indigenous status, poverty, and empowerment.

Key Findings

- > After implementation of the *Poverty Stoplight*, we observe a reduction in average “**poverty score**” from 26.27% to 22.13% from 2018 to 2021. This 4-point drop in “**poverty score**” represents a 15% drop in poverty (**Figure 5**).
- > While most families (~69%) experienced some degree of poverty reduction from 2018 to 2021, many others (~26%) experienced an increase in poverty from 2018 to 2021 (**Figure 6**).
- > Families who participated in the *Poverty Stoplight* program experienced reductions in 5 of the 6 dimensions of poverty, with the most dramatic reductions in the dimensions of “Participation and Organization,” “Home and Infrastructure,” and “Education and Culture.” There was virtually no change along the “Income and Employment” dimension (**Figure 7**).



- > Education, household income level, and both indigenous as well as urban/rural status all show linear relationships to **empowerment**: the more educated the respondent and the higher their household incomes of respondents, the more empowered they felt. Those belonging to indigenous communities and those living in rural settings, in turn, felt less empowered than their counterparts (**Figure 8**).
- > We observe a negative linear relationship between empowerment and poverty. In other words, higher levels of empowerment appear to be associated with lower levels of poverty (**Figure 9**).
- > In relative terms, the strongest relationships with poverty are seen in indigenous status and household income level, the weakest relationships are between poverty and age and urban/rural status, with the strength of relationship between poverty and empowerment and poverty and education level somewhere in the middle (**Table 3**).

Background and Data

The data presented below are taken from a panel study conducted by *Fundación Paraguaya* between 2018 and 2021. The first wave of the panel was conducted during the latter half of 2018, when *Fundación Paraguaya* implemented its *Poverty Stoplight* program on these families.

The *Poverty Stoplight* is an interactive survey and coaching program wherein a mentor guides families through the process of assessing their poverty situation across 51 indicators corresponding to six dimensions: a) income and employment, b) health and environment, c) housing and infrastructure, d) education and culture, e) organization and participation, and f) interiority and motivation. The individuals being assessed the survey receive a prompt corresponding to each indicator which contains visual and textual descriptions of the indicator and the three possible conditions they may fall under. These are shown in green, yellow, and red panels, with each denoting no poverty, poverty, and extreme poverty correspondingly.

After finishing the survey and seeing how many of the indicators were green, yellow, and red, individuals and their mentors develop a **life map**, which is a plan to help them prioritize certain indicators to turn from red or yellow to green as well as strategize on how to do so. Although a single individual responds to the survey, the survey is designed to assess *family or household-level* poverty, such that the unit of analysis is the household. Over the next several years, *Fundación Paraguaya* and its mentors guide participating families through the process of improving their multi-dimensional poverty situation.



In the case of the Cerrito data being analyzed here, the COVID-19 pandemic disrupted *Fundación Paraguaya's* timeline for measuring progress, which meant that these families were not able to be re-assessed until early 2021¹. Initially, 799 families took part in the *Poverty Stoplight* program in 2018. Of these, 501 families remained enrolled in the program in 2021. The 501 families received a total of 8,811 interventions, averaging 18 interventions per family (and approximately 18 interventions per dimension). All but one indicator received at least 2 interventions, while all but 15 of the 501 families received at least one intervention. The maximum number of indicators that a mentor focused on with a family was 25, while the maximum number of discrete interventions that a mentor and family carried out was 107.

Of the 799 families, 298 did not participate in the second wave, representing an attrition rate of 37%. **Table 1** below shows that, while survey respondents were not statistically different from one another in terms of age and sex, families that remained enrolled in the *Poverty Stoplight* program from 2018 to 2021 were meaningfully distinct along dimensions that correlate with one another: those families that dropped out after the first wave of the panel were statistically more likely to be urban, non-indigenous, and to have higher household incomes.

Indeed, the “**poverty score**” as assessed by *Fundación Paraguaya* in that first wave is higher among families that remain enrolled than among those that dropped out. Why, then, did indigenous families remain enrolled at much higher rates? It may be the case that those families that had lower incomes and greater multi-dimensional poverty to begin with had a greater motivation to remain enrolled in a program aimed at helping them rise out of their situation of poverty. Or, perhaps, those living in more rural settings have fewer distractions or a different culture and approach that makes them more likely to participate in programs such as the *Poverty Stoplight*. It may also be the case that there is some unobserved trait associated with indigenous communities that makes them more likely to comply with programs like that of the *Poverty Stoplight*, whether it be a greater affinity for the work of *Fundación Paraguaya* or a more communitarian tradition which makes them more willing to participate in programs of this nature. More simply, there is some anecdotal evidence to suggest that dropouts were often those that moved away, and indigenous families were less likely to move away from their community. Finally, it is possible, and worth investigating, whether mentors themselves put in a greater effort towards retaining poorer, more rural, indigenous communities than they did their less poor, urban, non-indigenous counterparts.

¹ Some families were assessed in December of 2020, but for the sake of simplicity, we refer to the second wave of the panel as the 2021 wave.



Table 1: Differences Between Enrolled and Dropout Families, 2018

	Enrolled	Dropouts	T-Test
number of families	501	298	
respondent age	42.5	43.2	t=0.63 p=0.53
urban	44.5%	60%	t=4.39 p=0.00
female	79.2%	75.7%	t=-1.17 p=0.24
indigenous	50.9%	25.8%	t=-7.16 p=0.00
hh income	2,217,509	3,076,118	t=3.40 p=0.00
poverty score	26.3%	24.1%	t=-2.44 p=0.02

The rest of this report focuses exclusively on those households which remained enrolled in the *Poverty Spotlight* across both waves. **Table 2** focuses on the demographic and socioeconomic profile of the 501 families which participated in the *Poverty Spotlight* program from 2018 to 2021. This table reveals that, in 2018, the average survey respondent was 42 years old², and had a household income of approximately ¢ 2.200.000 a month³. In addition, we can see that the sample was 45% urban (to 55% rural), 79% female, and 50% indigenous.

Table 2: Demographic and Socioeconomic Profile in Cerrito, 2018

	Valid	Missing	Mean	Std. Deviation	Minimum	Maximum
age	500	1	42.456	16.062	13	92
urban	501	0	44.5%			
female	501	0	79.2%			
hh income	497	4	2,218,000	2,688,000	0	28,500,000
indigenous	501	0	0.509			

² It should be noted that age (and education) is a problematic measure, first because the survey is assessed at the family and not individual level, and second because there were instances of different individuals being surveyed within the same family from 2018 to 2021.

³ This household amount roughly corresponds to the legally mandated monthly minimum wage for an individual. There were 10 families (~2% of the sample) who reported incomes above 10,000,000 Gs a month, and 25 families (~5% of the sample) who reported having no income whatsoever.



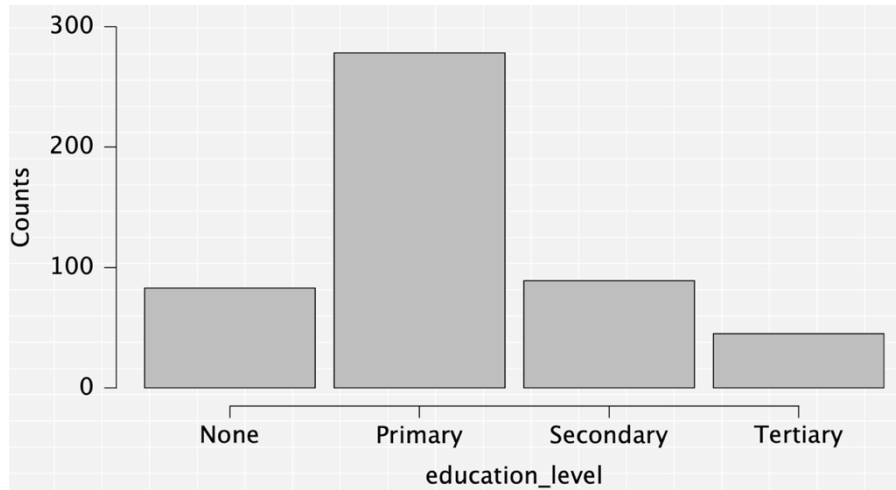


Figure 1: Education Level of Cerrito respondents, 2018

In turn, **Figure 1** shows the education attainment profile of respondents of the survey. In 2018, almost 17% of respondents had received no education whatsoever. Most respondents (56%), in turn, had completed only primary or pre-primary education. In turn, approximately 18% had completed secondary education and only about 9% had received some form of tertiary education.

Again, it should be noted that this may not align with the education profile of Cerrito as a whole. While this distribution of educational attainment could be representative, it could also be “inflated” if, for example, we believe that the most educated members of the household were more likely to interact with the survey, or it could be “deflated” if, instead, we believe that the most educated members of the household were out working, leaving the less educated at home to respond to the survey.

Methodology

For this analysis, we developed a new simple and elegant measure of multi-dimensional poverty that measures how families assessed themselves across the 6 dimensions and 51 indicators of poverty covered by the *Poverty Stoplight*. This measure, which we call “**poverty score**,” captures the full poverty profile of families in a single percentage value, expressed from 0 to 100%.

$$\text{poverty score} = \left(\frac{\left(2 * \sum_i Red_i \right) + \left(1 * \sum_i Yellow_i \right)}{2 * \sum_i Indicators_i} \right) * 100, i = 1, 2...51$$

Figure 2: “Poverty Score” formula



In simplified terms, this metric is calculated by summing the total number of yellow and red indicators, while assigning twice the weight to indicators assessed as red, and then computing this total as the ratio of the highest possible total and expressing it as a percentage. Thus, a hypothetical family with all 51 indicators in red would score a 100% and a family with all indicators in green would score a 0%. Unlike previous measures used by *Fundación Paraguaya*, however, this new measure allows us to differentiate between a family that scores 5 reds and 5 yellows from one that scores 10 reds and 0 yellows or one that scores 0 reds and 10 yellows. Instead of assessing all three of these families as being in the same condition of poverty, we can now differentiate between them and assign the first family a “**poverty score**” of ~15%, the second a score of ~20%, and the third a score of ~10%.

Analysis

Measuring Poverty

Equipped with this measure, we can assess the poverty profile of residents of the Cerrito community. As we can see below, in 2018 Cerrito’s poverty distribution followed a normal statistical distribution, with mean and median values of around 26% and a standard deviation of 12. Most families had “**poverty scores**” ranging from 0% to 50%, with a few outliers presenting higher poverty values, ending in the highest such case recorded at 63%.

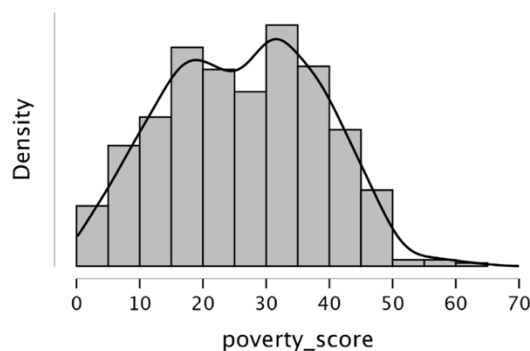


Figure 3: Cerrito Poverty Distribution, 2018

Figure 4 disaggregates poverty levels in 2018 by various demographic and socioeconomic characteristics. Being indigenous, living in a rural setting, and having lower levels of education are all strongly associated with having higher levels of poverty. Age and sex are less strongly associated with poverty levels, with women reporting somewhat lower levels of poverty and age displaying a non-linear relationship, in which those aged 25 to 34 and 35 to 44 report the highest levels of poverty. Of the strongly associated characteristics, indigenous status and urban/rural status are both household- (or family-) level characteristics, while education is an



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individual-level characteristic that generally correlates highly among family members. Interestingly, the characteristics that display weak or no association, age and sex, are both entirely individual.

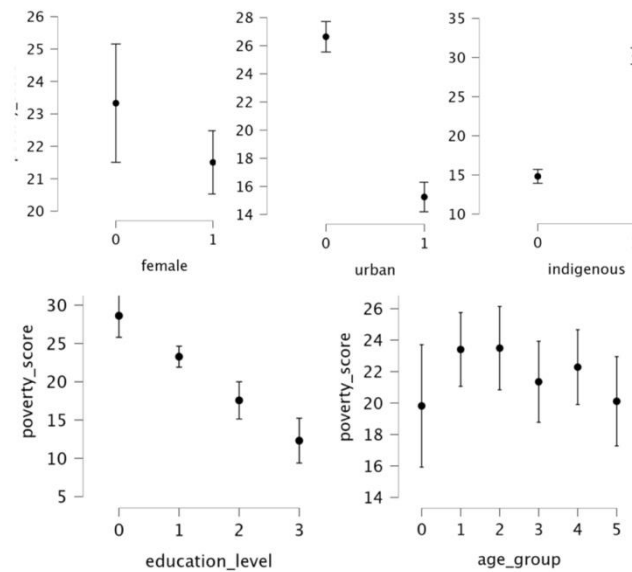


Figure 4: Poverty across various characteristics, 2018

Figure 5 shows measured changes in “**poverty score**” from 2018 to 2021. The two panels of the figure show the same data in different ways. The left panel allows us to see the leftward shift in the distribution of poverty from 2018 (green) to 2021 (red). In other words, we can see how an important mass of families in Cerrito managed to *lower* their “**poverty scores**” and move towards the left (that is, towards lesser poverty). The right panel shows this same shift as an actual *drop*, with each dot representing a household, and the line showing the general trend in average values.

It is interesting to note that the 2021 distribution is somewhat right skewed, with the most households being clustered around a mode away from the median. This might suggest that there are diminishing marginal returns to investing in moving more than a given number of poverty indicators from red or yellow to green. It may also be the case that certain indicators are easier for mentors to target, and that once they get those indicators down it becomes increasingly difficult get families below a “**poverty score**” of around 20%, because certain other indicators are harder to move. Whatever the case, it appears that there is some obstacle preventing *Fundación Paraguaya* and the families they assist from shifting uniformly away from poverty.



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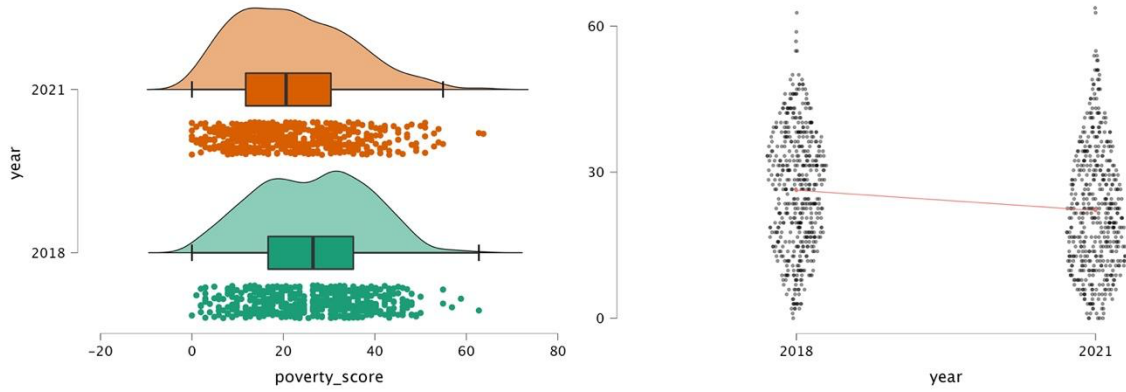


Figure 5: Changes in Poverty in Cerrito, 2018-2021

Despite that, what we do observe is a reduction in average “**poverty score**” from 26.27% to 22.13%. This 4-point drop in “**poverty score**” represents a 15% drop in poverty. While there are no statistical tools at our disposal to really make a causal attribution of this effect to the implementation of the *Poverty Stoplight*, we consider this reduction in poverty to be noteworthy and positive.

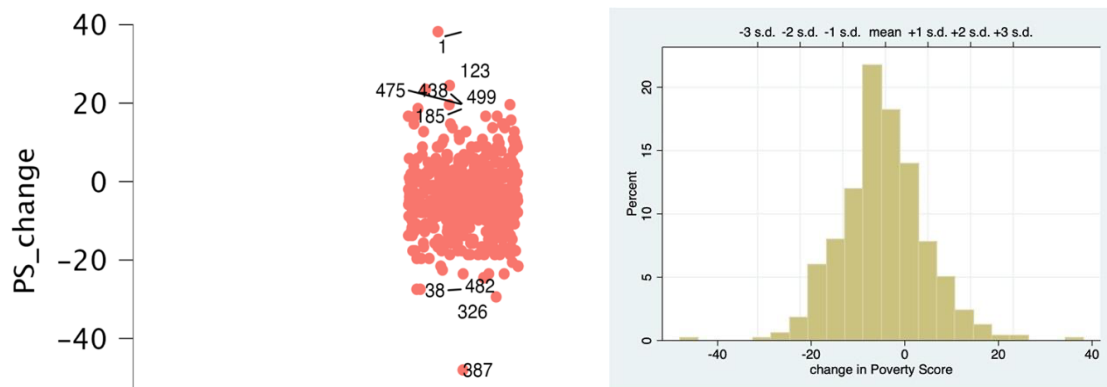


Figure 6: “Poverty Score” Change by Family, 2018 to 2021

Figure 6 presents more detailed, individualized data by highlighting family-level fluctuations in poverty from 2018 to 2021. We are now looking at family-level *changes* in “**poverty score**” rather than just their overall poverty scores. On the left panel, each dot represents a family, with those above the horizontal zero line having experienced an **increase** in poverty, while those below the line are families that experienced a **reduction** in poverty. While we do observe a considerable number of families above the zero line (meaning they saw an increase in poverty), the cluster of families below the zero line is bigger, denser, and fuller.

The right panel of **Figure 6** gives us greater clarity into this pattern. It shows the distribution of changes in “**poverty score**” from 2018 to 2021, with bars representing the *percent* of families belonging to those changes. Here we see the mean change in



“**poverty score**” left of the zero line, which confirms our previous finding that average “**poverty score**” fell by an average of 4% per family. This right panel also shows that roughly two-thirds (~69%) of families experienced some amount of poverty reduction. Our analysis shows that another ~5% experienced no change, which means that approximately 26% of families saw an increase in poverty.

Thus, while a greater number of families experienced poverty reduction, many others experienced an increase in poverty from 2018 to 2021. The numbers attached to certain families in the left panel illustrates our ability to isolate those outlier families that experienced unusually high changes in poverty of +/- 20 points in their “**poverty score**.” It is important to point out that these families would have had to experience extraordinary swings in their conditions to end up on the extremes of the distribution. The household with the most dramatic reduction in its “**poverty score**” saw a reduction of 48 points. This means that, in little more than two years, this family and their *Poverty Stoplight* mentor seemingly succeeded in turning, for example, 48 yellow indicators into green, or 24 indicators from red directly to green, or some combination thereof. On the other extreme, the household with the biggest increase in poverty (38 points), would have had to experience a similar swing, but in the opposite (and undesirable) direction. When situations appear this extreme, it is also increasingly possible that there is a degree of human or measurement error, such that it becomes imperative to implement rigorous checks and follow-ups to ensure validity. For this reason, it seems like a rewarding venture for *Fundación Paraguaya* and its *Poverty Stoplight* team to devote some resources to reaching out to these families in order to learn more about what contributed to their dramatic change in circumstances.

Dimensions of Poverty

In **Figure 7**, changes in multi-dimensional poverty from 2018 to 2021 are disaggregated into the six distinct dimensions of poverty comprising the *Poverty Stoplight*. This allows us to see whether changes in poverty were concentrated or isolated among certain dimensions of multi-dimensional poverty.



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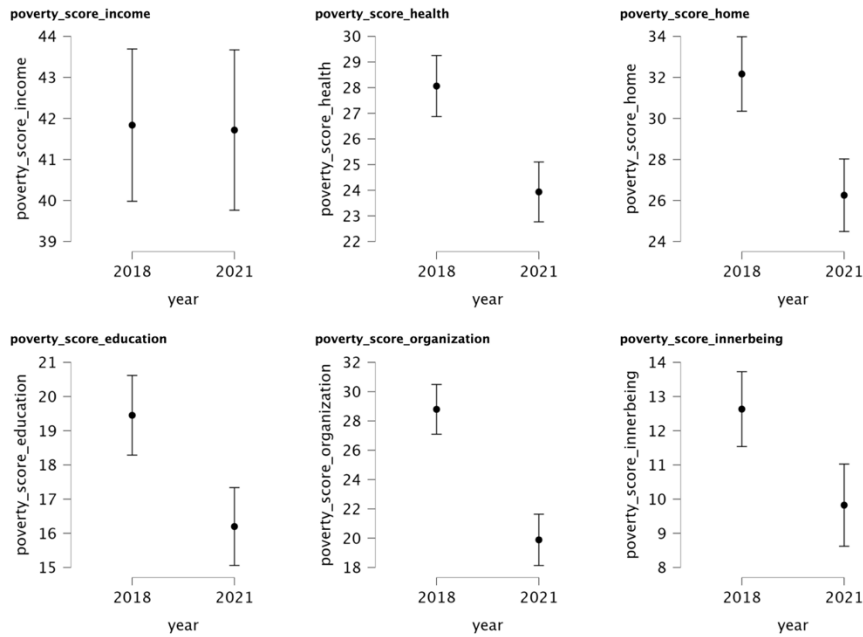


Figure 7: Changes in Poverty by Dimension of Poverty, 2018 to 2021

As these graphs illustrate, the families who participated in the *Poverty Stoplight* program experienced reductions in 5 of the 6 dimensions of poverty⁴, with the most dramatic reductions being witnessed in the dimensions of “Participation and Organization,” “Home and Infrastructure,” and “Education and Culture.” In turn, we see that there was virtually no change along the “Income and Employment” dimension.

We can only speculate on the reasons behind the differential changes across dimensions. One possibility is that some dimensions of poverty are inherently easier to tackle than others, perhaps because they involve a smaller investment of resources, or perhaps because they are more within the household’s locus of control. After all, some indicators of poverty are entirely household based, while others involve local and governmental services. Another related possibility is that *Poverty Stoplight* mentors are more prone to isolate and address some of these dimensions above others, either because of the reasons stated above, or because they feel more adept and efficacious at addressing these dimensions than others. Of course, for this last explanation to work, certain dimensions would have to be systematically favored above others across much of the team of mentors.

The “Income and Employment” dimension, which witnessed the smallest reduction, is traditionally the most closely associated with poverty and development. The indicators

⁴ Note that the y-axes are not standardized across panels, such that each must be examined separately to determine the actual values and relative drops.



contained within it involve household income, access to credit, access to savings, diversification of income and assets, and documentation and informality. Clearly, these conditions are hard to “move,” especially in the short term, even with the assistance of trained mentors. Of course, it is entirely possible we would have seen a greater downward shift along this dimension as well, were it not for the COVID-19 pandemic, which had devastating effects on the employment and financial landscape in Paraguay, especially among the most precarious.

The Power of Empowerment

This section examines the relationship between poverty and empowerment. This analysis relies on an empowerment module of the questionnaire which was incorporated into the Poverty Stoplight questionnaire. This module was not administered in the 2018 wave, only in 2021. Thus, the analysis that follows corresponds to the same 501 families that remained enrolled in the program across both waves and whose poverty levels were examined above.

Relative to the *Poverty Stoplight*, the empowerment module was more centered on the individual. It asked, for example, whether the respondent would feel empowered to speak up within the household when an opportunity presented itself to make an investment, or in making purchasing or home improvement decisions. It also asked questions addressing matters relating to locus of control and efficacy, such as whether good tidings should be attributed to luck, whether the respondent would like to change his or her life situation and who should be made responsible for that hypothetical chance, or whether the respondent felt able to solve problems involving municipal and governmental authorities.

As with the “**poverty score**,” we developed a new “**empowerment score**” which aggregates 10 empowerment questions and captures how empowered respondents felt at the time of the survey. This measure also ranges from 0 to 100%. In Cerrito, actual empowerment scores ranged from 3% to 100%.



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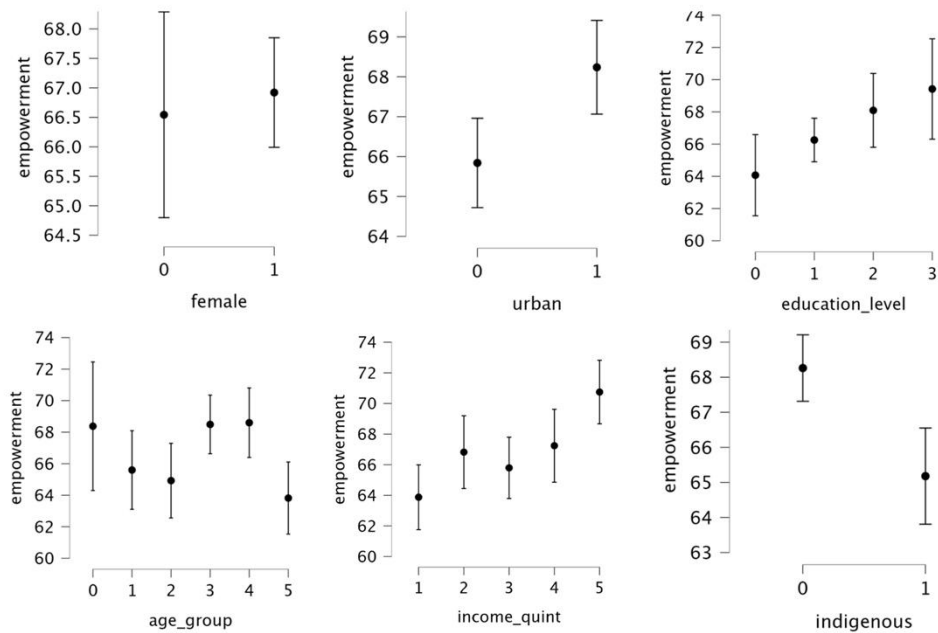


Figure 8: Empowerment across various characteristics, 2021

Figure 8 shows how empowerment relates to various demographic and socioeconomic characteristics. As with poverty, we see that there is no significant relationship between sex and empowerment, and that the relationship between age and empowerment is not linear, with respondents aged 16 to 25 and those aged 45 to 54 and 55 to 64 showing higher levels of empowerment. However, education, income level, and both indigenous as well as urban/rural status all show linear relationships to empowerment: the more educated the respondent and the higher their household income, the more empowered they felt. Those belonging to indigenous communities and those living in rural settings, in turn, felt less empowered than their counterparts.

Figure 9 reveals the relationship between empowerment and poverty. Here, we see that there appears to be a negative linear relationship between empowerment and poverty. In other words, higher levels of empowerment appear to be associated with lower levels of poverty. This relationship holds (albeit weakened) if we remove the outliers. Interestingly, outliers seem to cluster together into two opposing quadrants: there are no highly empowered respondents with abnormally high “**poverty scores**”, nor are there extremely disempowered individuals with low “**poverty scores**”.



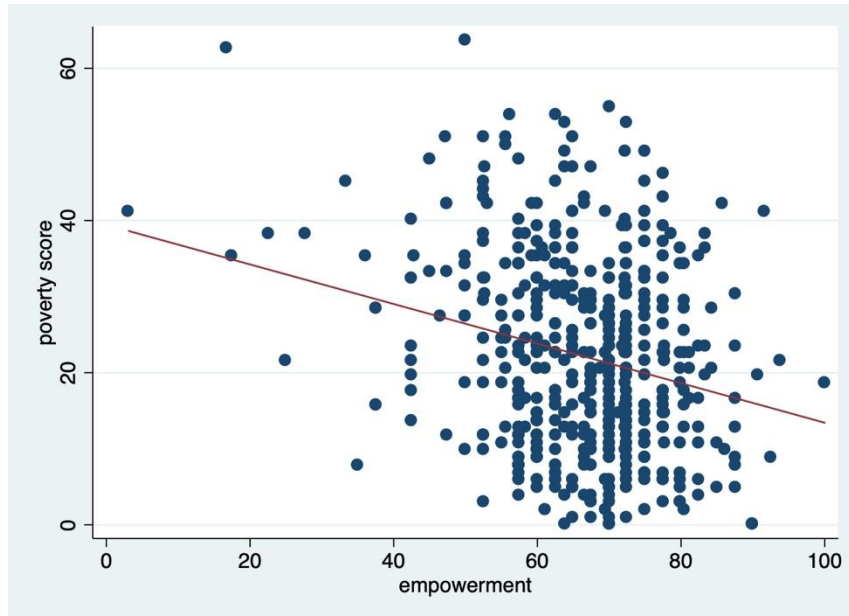


Figure 9: Relationship between Empowerment and Poverty, 2021

It is important to note, however, that it is impossible to determine if there is a causal relationship between the two variables, let alone the direction of the relationship. In fact, it is even possible that there is some unobserved confounding variable that correlates with both empowerment and poverty. In other words, we are currently unable to determine whether being empowered leads to poverty reduction, whether reductions in poverty lead to higher feelings of empowerment, or whether the two change concurrently as a result of changes in some other variable pulling the strings.

Table 3: Relationship between Poverty and Empowerment + SES Controls, 2021

Coefficients						
Model		Unstandardized	Standard Error	Standardized	t	p
H ₀	(Intercept)	22.009	0.565		38.985	< .001
H ₁	(Intercept)	36.955	3.255		11.355	< .001
	empowerment	-0.133	0.038	-0.120	-3.541	< .001
	age_group	-0.813	0.306	-0.100	-2.653	0.008
	education_level	-2.797	0.600	-0.185	-4.660	< .001
	urban	-2.346	1.178	-0.090	-1.992	0.047
	female	-0.118	1.090	-0.004	-0.108	0.914
	income_quint	-1.751	0.328	-0.201	-5.341	< .001
	indigenous	10.333	1.200	0.415	8.610	< .001

Finally, **Table 3** and **Figure 10** present the results of an OLS regression analysis of the relationship between poverty and empowerment, controlling for a number of demographic and socioeconomic characteristics.



This regression output reveals a substantive and statistically significant relationship between poverty and empowerment, age, education, urban/rural status, household income, and indigenous status, with only sex appearing not to be statistically significant. This means that each of these characteristics seems to independently hold a statistical relationship to the *Poverty Spotlight* “**poverty score**”, even holding all other characteristics constant⁵.

In relative terms, the strongest relationships with poverty are seen in indigenous status and household income level, the weakest relationships are between poverty and age and urban/rural status, with the strength of relationship between poverty and empowerment and poverty and education level somewhere in the middle.

For example, going from non-indigenous to indigenous is associated with a 10-point increase in poverty, controlling for all other characteristics. Jumping from no education to primary (or from primary education to secondary education or secondary education to tertiary education) corresponds to a 3-point reduction in “**poverty score**”. Going from rural to urban is associated with a 13% reduction in “**poverty score**”. Finally, a 10% increase in “**empowerment score**” corresponds to a 1.3% reduction in “**poverty score**.”

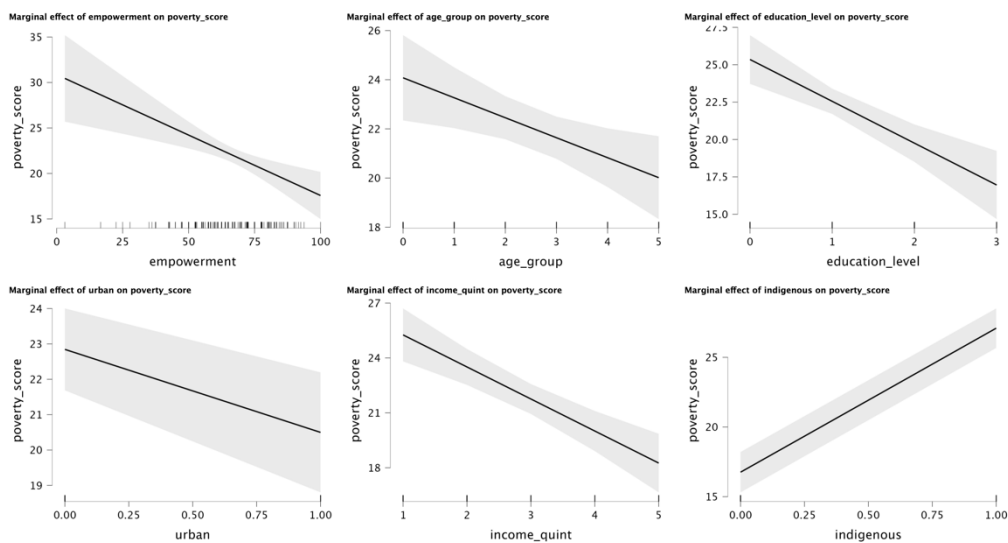


Figure 10: Marginal Effect of Empowerment and SES Controls on Poverty, 2021

Figure 10 shows these same marginal effects graphically, isolating the relationship between each predictor variable and the outcome variable, “**poverty score**,” while controlling for all other variables in the analysis.

⁵ Despite the fact that many of these characteristics are partly or wholly individual in their unit of analysis, while “**poverty score**” remains a household-level measure.



Unfortunately, we cannot derive too many conclusions about the effects of the *Poverty Stoplight* intervention itself on multidimensional poverty. We can, however, develop testable hypotheses about the effects of certain mediators on “**poverty score**”. It is likely the case that *Fundación Paraguaya* mentors would do well to find ways to help households increase their overall incomes, as this would likely allow them to tackle the multiple conditions that contribute to their multidimensional poverty. It clearly also makes sense to invest in education, although as we know, these effects take a long while to become manifest. It also makes sense to invest in particularly vulnerable populations, such as indigenous communities, as they tend to live with greater levels of poverty.

Indigenous Communities

Finally, we examine the relationship between indigenous status and poverty. The left panel of **Figure 11** charts the relationship between indigenous status and “**poverty score**,” while the right panel disaggregates individual, household-level changes in poverty by indigenous status. These graphs reinforce our finding that indigenous families have much higher poverty levels than non-indigenous families and were more likely to experience a poverty increase from 2018 to 2021. The right panel also serves as a reminder that *Fundación Paraguaya* has the means to follow up with outlier families to investigate what factors contributed to their dramatic increase (or reduction) in poverty.

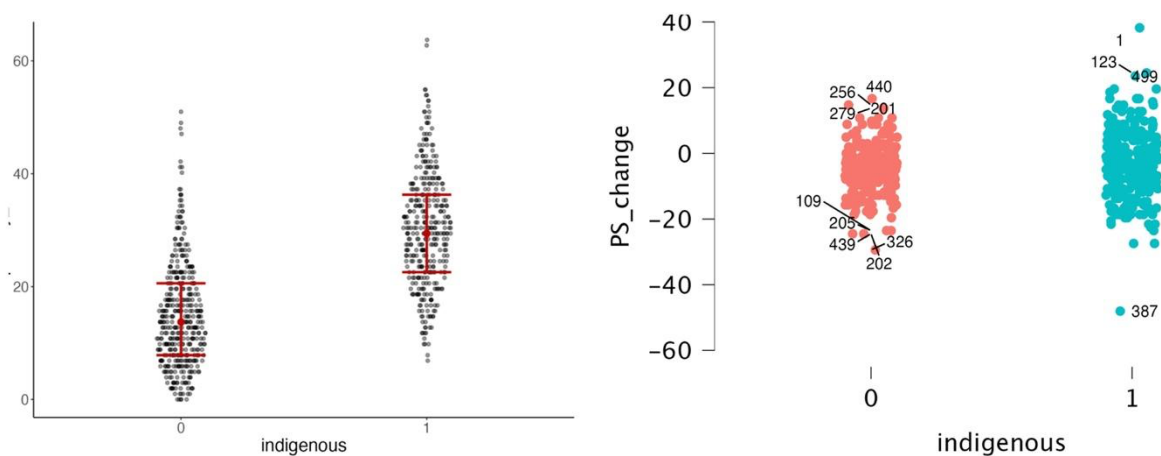


Figure 11: Relationship between Indigenous Status and Poverty

Finally, **Figure 12** examines the relationship between empowerment and poverty, disaggregated by indigenous status. As we can see, empowerment is associated with lower levels of poverty across both indigenous and non-indigenous families, but this relationship is more pronounced across indigenous families. In addition, it reveals that indigenous families are more likely to feel un-empowered than non-indigenous ones.



Taken together, this suggests that, if the relationship between empowerment and poverty is believed to be causal, it might prove particularly rewarding to ensure that indigenous communities become empowered.

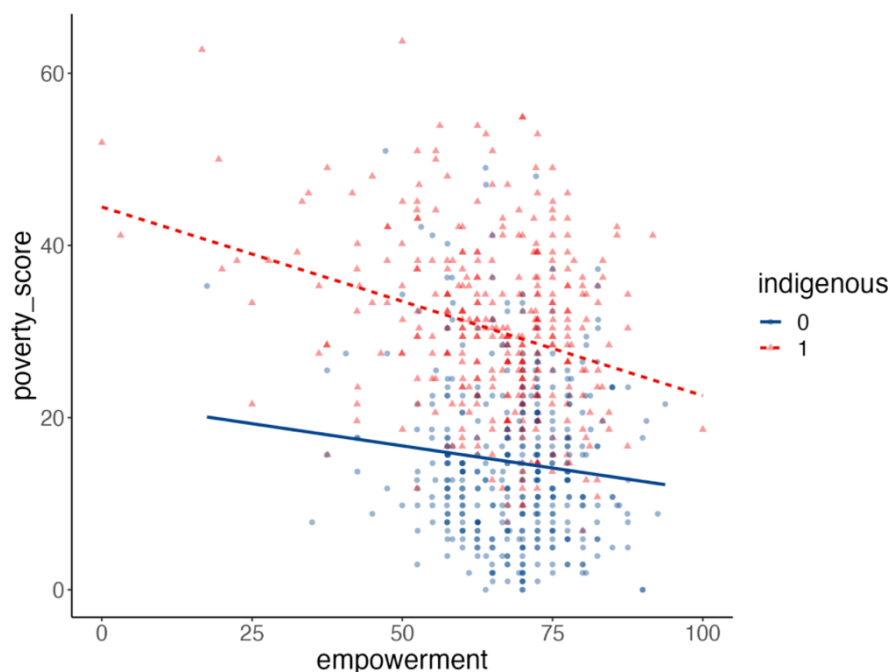


Figure 12: Relationship between Empowerment and Poverty, by Indigenous Status

Limitations and Future Steps

- > It is advisable that *Fundación Paraguaya* and its *Poverty Stoplight* program reach out to those families which experienced disproportionately high levels of poverty increase or poverty reduction to learn more about what factors contributed to their dramatic change in circumstances. This would likely contribute to learning more about what factors contribute to dramatic swings in multidimensional poverty, as well as determining the degree to which measurement error might be a concern.
- > As mentioned earlier in this report, we are currently unable to determine the exact relationship between empowerment and poverty. In other words, we cannot determine whether being empowered leads to poverty reduction, whether reductions in poverty lead to higher feelings of empowerment, or whether the two change concurrently as a result of some other unobserved variable.



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- > There are problems and issues surrounding the research design, data collection, coding, and data management of this investigation that could be improved upon in future projects.
- > As a result, we have limited confidence in the reliability of certain measures, especially those surrounding age, income, and education.
- > More broadly, we would like to introduce a strong note of caution against making any causal claims between the *Poverty Stoplight* and its effects on poverty or empowerment. While there is sufficient evidence to justify conducting additional studies into the effects of the *Poverty Stoplight* program on multidimensional poverty, the Cerrito intervention does not give us enough leverage to make broad, sweeping conclusions about the effectiveness of the *Poverty Stoplight*.
- > Given the implementation of the instrument within a single community without any component of random assignment, and the limitations in measuring certain variables across both waves of the panel, we would caution against making any causal claims related to the effect of the instrument on the desired outcomes. In other words, we *may* have reason to believe the *Poverty Stoplight* helped improve the Cerrito community's situation, but we cannot scientifically ascertain that this was the case.
- > However, we believe these problems can be fixed with some planning, organization, and oversight. It is well within the power of *Fundación Paraguaya* to overcome these limitations and take the necessary steps to address them.
- > The questions that *Fundación Paraguaya* seeks to answer regarding the effectiveness of its *Poverty Stoplight* program can best be answered experimentally, by means of a randomized controlled trial to be conducted in collaboration with other partners.

