

## DETERMINANTS OF NEET IN MATRILINEAL PROVINCE OF WEST SUMATRA DURING THE COVID-19 PANDEMIC

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### Abstract

NEET (Not in Education, Employment, or Training) is one of the Sustainable Development Goals (SDGs) indicators used to assess the level of vulnerability of the young population aged 15-24 in terms of unemployment, school dropout, and labor-market despair. According to BPS data, 195,380 people in West Sumatra Province (20.5 percent) became NEET in 2020. Nationally, West Sumatra's NEET rate is ranked the 13th highest. This study aims to determine the general description and determinants that cause a person to have the opportunity to become a NEET in West Sumatra using Sakernas data in 2020. The analysis method used is descriptive statistics and inferential statistics with a binary logistic regression model. The results showed that, with a 99 percent confidence level, the variables that significantly affect a person's status as NEET are age, disability, marital status, education, skills, work experience, education of the head of the household, number of children, presence of toddlers or elderly, presence of working household members, and the perceived impact of COVID-19. People with disabilities are six times more at risk of becoming NEET than those without disabilities. Meanwhile, gender status and location of residence do not affect a person's status as a NEET. In contrast to other provinces where women are more likely to become NEET, West Sumatera's unique matrilineal system means that gender has no bearing on a person's NEET status.

**Keywords:** Education, NEET, Logistic regression, Youth.

### Abstrak

NEET (*Kaum muda yang tidak terlibat dalam pendidikan, pekerjaan atau pelatihan*), adalah salah satu indikator SDGs (*Tujuan Pembangunan Berkelanjutan SDGs*) untuk mengetahui tingkat kerentanan penduduk muda usia 15-24 tahun dalam pengangguran, putus sekolah, serta keputusan terhadap pasar tenaga kerja. Menurut data BPS, pada tahun 2020 terdapat 195.380 orang yang menjadi NEET di Provinsi Sumatera Barat (20,5 persen). Secara nasional, angka NEET Sumatera Barat berada di peringkat ke-13 tertinggi. Penelitian ini bertujuan untuk mengetahui gambaran umum dan determinan yang menyebabkan seseorang berpeluang menjadi NEET di Sumatera Barat menggunakan data Sakernas tahun 2020. Metode analisis yang digunakan adalah statistik deskriptif dan statistik inferensia dengan model regresi logistik biner. Hasil penelitian menunjukkan bahwa dengan tingkat kepercayaan 99 persen, variabel yang signifikan mempengaruhi status seseorang menjadi NEET ialah umur, disabilitas, status perkawinan, pendidikan, keterampilan, pengalamankerja, pendidikan kepala rumah tangga, jumlah anak, keberadaan balita atau lansia, keberadaan anggota rumah tangga yang bekerja dan dampak covid-19 yang dirasakan. Dimana, penyandang disabilitas 6 kali lebih berisiko menjadi NEET dibandingkan dengan yang bukan penyandang disabilitas. Sedangkan status gender dan lokasi tempat tinggal tidak mempengaruhi status seseorang menjadi NEET. Berbeda dengan provinsi lain, dimana biasanya perempuan cenderung menjadi NEET, Sumatera Barat dengan keunikan system matrilinealnya menyebabkan gender tidak mempengaruhi status seseorang menjadi NEET.

**Kata Kunci :** Pendidikan, NEET, Regresi logistic, Pemuda

## Introduction

Youth are the next generation, responsible and actors of future development. The strength of the nation in the future is reflected in the quality of today's youth resources. Sukarno once said "Give me 1,000 parents, I will undoubtedly uproot semeru from the roots. Give me 10 young men I will undoubtedly shake the world". In Indonesian history, youth are patriots and successors of the nation's struggle from time to time, starting from the time of the expulsion of the invaders, the old order, the new order, and reforms. Even during the Covid-19 pandemic that Indonesia is currently facing, youth are expected to be able to make their best contribution.

Based on the results of the 2020 Population Census, 2.06 percent of the total Indonesian population residing in West Sumatra, which is 5,534,472 people, is ranked 11th most populous out of 34 provinces in Indonesia<sup>1</sup>. West Sumatra, known as the Minangkabau Realm, has various cultural customs that need to be preserved. Minangkabau is a tribe that adheres to the matrilineal system. That is, every child born both male and female will directly become a member of the Mother's tribal family, because the lineage is drawn based on the Mother's family, and the woman also has the right to manage her tribal inheritance. This makes the role of women very important in the economy of the people of West Sumatra.

Indonesia is expected to experience a peak demographic bonus in 2030, which is a condition when the number of people of productive age is greater than the population

of unproductive age, where at that time it was predicted that 64 percent of Indonesia's population was of productive age population<sup>2</sup>. Demographic bonuses can be an economic benefit if handled properly, for example by opening up a very large area of work land, companies continuing to innovate and work, the country's economy will increase and Indonesia has a great opportunity to become a very strong country.

On the other hand, these demographic bonuses are like a double-edged sword if they are not productive. A country's failure to take advantage of demographic bonuses can actually turn into an economic burden, when the high growth of the labor force is not accompanied by the availability of jobs, it is precisely the number of unemployed that increases. Therefore, Indonesia is expected to be able to take full advantage of this demographic bonus opportunity.

One of the biggest challenges of employment conditions in Indonesia is the problem of youth unemployment. In 2020, BPS recorded the highest Open Unemployment Rate (TPT) of the population of the young age group (15-24 years), which was 43.05 percent<sup>3</sup>. TPT in this age group always has the highest percentage from year to year, in the range of 20-40 percent. This is in stark contrast to TPT in other age groups which tend to have a much lower percentage. The high rate of youth unemployment in Indonesia is a problem because continued unemployment

<sup>2</sup>Bappenas, *Bonus Demografi 2030-2040: Strategi Indonesia Terkait Ketenagakerjaan dan Pendidikan*. (Jakarta: Bappenas, 2017).

<sup>3</sup>Badan Pusat Statistik, "Tingkat Pengangguran Terbuka Berdasarkan Kelompok Umur, 2015-2020," 2020 <<https://www.bps.go.id/indicator/6/1180/1/tingkat-pengangguran-terbuka-berdasarkan-kelompok-umur.html>>.

<sup>1</sup>Badan Pusat Statistik, "Hasil Sensus Penduduk 2020," 2021 <<https://www.bps.go.id/pressrelease/2021/01/21/1854/hasil-sensus-penduduk-2020.html>> [diakses 3 September 2021].

will make the transition from young age to adulthood difficult, increase the risk of poverty in the future, increase the chances of engaging in problematic behaviors, and can reduce the involvement of young people in politics and social<sup>4</sup>. Based on the results of the 2020 Population Census, the majority of Indonesia's population is dominated by Generation Z (currently between the ages of 8-23 years). The proportion of Generation Z is 27.94 percent of the total population of Indonesia<sup>5</sup>.

The International Labour Organization (ILO) defines a young person as someone who is in the age group of 15 to 24 years. Youth NEET is a resident of the age group of 15 to 24 years who are outside the education system, are not working and are not attending training/training/courses<sup>6</sup>. The NEET indicator is more specific in describing the condition of young unemployment than other indicators of unemployment. The NEET indicator was first used in Japan in 1990. At the beginning of its appearance, NEET was not yet considered a problem.

This phenomenon is only considered an ordinary economic and social problem that has an impact on the difficulty of finding work for young people who are in the transition phase of education to work. However, over time, the number of young people classified as NEET continues to increase and develop quite rapidly, in the end in some developing countries this phenomenon is designated as a national

problem that can threaten the country's economy. Even data and information on youth who are out of work, out of school, or do not attend this training have been set to be indicators that are reported regularly by the Organization for Economic Cooperation and Development (OECD).

NEET is also used as one of the indicators in the Sustainable Development Goals (SDGs) which aims to reduce the proportion of young people (15-24 years old) who are not studying, working, or attending training. The NEET phenomenon is of particular concern to related parties because it has the potential to have a negative impact on the social and economic order of a country. NEET can be likened to a "time bomb" which if not addressed as soon as possible will have an impact on the destruction of the existence and sustainability of a country due to the absence of youth who are able to continue the leadership relay milestone, the stock of competent youth is getting smaller, productive youth are reluctant to be in the job market and reluctant to be in the world of education or job training.

The United Nations (UN) informs that NEET globally in 2020 is at a high level. Likewise, Indonesia's NEET for the past five years has always been at a figure above 20 percent. Several studies on the analysis of individual determinants that become NEET have been widely carried out by researchers in Indonesia, including: in West Sumatra<sup>7</sup>, Aceh<sup>8</sup>, West Sumatra<sup>9</sup>,

<sup>4</sup>Ann-Helén Bay dan Morten Blekesaune, "Youth, unemployment and political marginalisation," *International Journal of Social Welfare*, 11.2 (2002), 132–39 <<https://doi.org/10.1111/1468-2397.00207>>.

<sup>5</sup>Badan Pusat Statistik, "Hasil Sensus Penduduk 2020."

<sup>6</sup>Badan Pusat Statistik, *Indikator Pasar Tenaga Kerja Indonesia Agustus 2020* (Jakarta: Badan Pusat Statistik, 2021).

<sup>7</sup>Chintia Angraini, Werry Darta Taifur, dan Zulkifli N, "Phenomenon and determinant characteristics of NEET (Not in Employment, Education or Training) youth in matrilineal province," *Jurnal Perspektif Pembiayaan dan Pembangunan Daerah*, 7.4 (2020), 327–40 <<https://doi.org/10.22437/ppd.v7i4.8690>>.

<sup>8</sup>Muhammad Abrar, Nuelda Amalia, dan Rossanto Dwi Handoyo, "Karakteristik dan peluang

Indonesia<sup>10</sup> and Indonesia<sup>11</sup>. However, research with the latest conditions since the existence of Covid-19 and concentrating on West Sumatra Province as an area that adheres to the matrilineal system has not done anything.

This study aims to find out the general description and determinants that cause a person to have the opportunity to become a NEET in West Sumatra in 2020. This research is important to be carried out so that the root of the problem can be found and can provide appropriate policy solutions to overcome the problem of underutilized labor.

## Method

The analysis methods used are descriptive statistics and inferential statistics with binary logistic regression models. The research data uses the latest condition employment data, namely secondary data from the August 2020 National Labor Force Survey (Sakernas), with a total sample of 6,504 individuals spread across 19 regencies/cities of West Sumatra Province.

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pengangguran usia muda di Provinsi Aceh dalam menghadapi era Revolusi Industri 4.0 [Characteristics and opportunities for young unemployed in Aceh Province in the face of the Industrial Revolution 4.0 era],” *Jurnal Kebijakan Pembangunan*, 14.2 (2019), 157–69.

<sup>9</sup>Adhitya Wardhana, Bayu Kharisma, dan Yayuf Faridah Ibrahim, “Pengangguran Usia Muda di Jawa Barat (Menggunakan Data Sakernas),” *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, 9.8 (2019), 1049–62.

<sup>10</sup>Elfrida Zoraya dan Mirta Dwi Wulandari, “Karakteristik Kaum Muda Pada Pasar Tenaga Kerja Dan Determinan Neet Di Indonesia,” *Jurnal Litbang Sukowati: Media Penelitian dan Pengembangan*, 4.2 (2020), 12 <<https://doi.org/10.32630/sukowati.v4i2.144>>.

<sup>11</sup>Indera Ratna Irawati Pattinasarany, “Not in Employment, Education or Training (NEET) Among the Youth in Indonesia: The Effects of Social Activities, Access to Information, and Language Skills on NEET Youth,” *MASYARAKAT: Jurnal Sosiologi*, 24.1 (2019), 1–25 <<https://doi.org/10.7454/mjs.v24i1.10308>>.

This survey is the only BPS survey specifically designed to describe employment in Indonesia using a household approach<sup>12</sup>. There is a difference in concept between TPT and NEET. According to<sup>13</sup>, TPT is the percentage of the number of unemployed to the number of the labor force.

The Labor Force is a working-age population (15 years and older) whether working or having a job but temporarily unemployed, or unemployed. Meanwhile, what is meant by unemployment is: (1) residents who are actively looking for work (2) residents who are preparing for new businesses/jobs, (3) residents who are not looking for work because they feel it is impossible to get a job, (4) groups of residents who are not actively looking for work on the grounds that they already have a job but have not yet started working. The age coverage in the NEET concept is 15-24 years; the year range is used as the international standard report on youth by the United Nations.

In Badan Pusat Statistik<sup>14</sup> it is stated that Sakernas applies the concept of NEET through the definition of Not in Education, namely those who have never attended school and no longer go to school at the formal or non-formal education level (Package A / B / C). The definition of Not in Employment is not doing activities to obtain income / income that is carried out at least 1 hour a week, not being entrepreneurial (trying to be alone, trying to be assisted by irregular workers, and trying

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<sup>12</sup>Badan Pusat Statistik, *Indikator Pasar Tenaga Kerja Indonesia Agustus 2020*.

<sup>13</sup>Badan Pusat Statistik, “Indikator dan Konsep yang Digunakan Survei Angkatan Kerja Nasional (SAKERNAS), 2020,” 2021 <<https://sirusa.bps.go.id/sirusa/index.php/dasar/vie-w?kd=5&th=2020>> [diakses 3 September 2021].

<sup>14</sup>Badan Pusat Statistik, *Indikator Pasar Tenaga Kerja Indonesia Agustus 2020*.

to be assisted by permanent workers), not being a family worker / not paid, and for the past week while not working / not running a business for some reason when in fact having a job / business. The definition of Not in Training is those who at the time of enumeration were not attending training/courses/training. Meanwhile, the operational definition of NEET used in the study is as follows Elder<sup>15</sup>:

NEET = number of young people (15-24 years old) – number of young people (15-24 years old) who are working - the number of young people (15-24 years old) are not working but are attending school or attending training.

### Logistic Regression Model

The model used in binary logistic regression follows a common form (Hosmer & Lemeshow, 1989):  $y = \ln\left(\frac{p}{1-p}\right) = \beta_0 + \sum_{i=1}^{13} \beta_i x_i$

y is a dummy-free non-variable for the chance of becoming NEET. The value of y will be equal to 0 if a young man is not a NEET and will be equal to 1 if it is NEET.  $x_i$  is his free variables, namely gender, age, disability status, marital status, recent education, status as a spouse of the Head of the Household (IRT), course experience, work experience, number of household members, number of working household members, classification of the region of residence and the effects of the Covid-19 pandemic.  $(p/(1-p))$  is the probability of a young man becoming NEET (Y=1) for a given X, also called odds.

### Risk Comparison (Odds Ratio)

Risk comparison is a comparison of odds values on two individuals; suppose

individual A and individual B<sup>16</sup>. In this study, risk comparison was used to see the comparison of each category of free variables in explaining non-free variables. Risk comparison is obtained by comparing the odds value of one of the variables with the odds value of the reference variable. If there are two categories used, for example 0 and 1.0 as a reference, then the value of 1 for category Y is expressed as follows:

$$\varphi = \left[ \frac{p(x_{j=1}) / (1 - p(x_{j=1}))}{p(x_{j=0}) / (1 - p(x_{j=0}))} \right] = \exp(\beta_j)$$

The testing stages in logistic regression are simultaneous tests (Overall fit test), model feasibility test and partial test. Simultaneous testing serves to test the role of all free variables in the model together against non-free variables. The test statistics used are G test statistics (likelihood ratio test), obtained by comparing the log likelihood function without free variables ( $L_0$ ) with the log likelihood function with free variables ( $L_1$ ), can be written as follows:  $G = -2 \ln \left[ \frac{L_0}{L_1} \right]$

Simultaneous test results can be obtained from the value of the Omnibus Test Of Model Coefficients with  $\alpha = 5\%$ , where the decision-making criterion is reject  $H_0$  if the significance value (p-value) is  $< \alpha$ , which means that there is at least one free variable that can explain the non-free variable.

The Goodness of fit serves to see how the model fits into the data used. The test statistics used are the Hosmer-Lemeshow test, namely:

$$\hat{C} = \sum_{i=1}^g \frac{(O_i - N_i \bar{\pi}_i)^2}{N_i \bar{\pi}_i (1 - \bar{\pi}_i)}$$

<sup>15</sup>S Elder, "What does NEET's mean and why is the concept so easily misinterpreted?," ILO. *Technical brief*, 1.1 (2015).

<sup>16</sup>Nachrowi Dlalal Nachrowi dan Hardius Usman, *Penggunaan Teknik Ekonometri, Pendekatan Populer & Praktis Dilengkapi Teknik Analisis & Pengolahan Data dengan Menggunakan Paket Program SPSS*. (Jakarta: Raja Grafindo, 2002).

Where  $N_i$  is the number of observations of the  $i$ -th group,  $O_i$  is the group observation to  $i$ , and the  $\pi_i$  is the estimated average chance of the  $i$ -th group.  $H_0$ : the model is sufficiently capable of explaining the data and  $H_1$ : The model has not been able to explain the data. The decision-making criterion is reject  $H_0$  if the  $\hat{C} < \chi^2_{\alpha, g-2}$  Or significance value (p-value)  $> \alpha$ .

Partial testing serves to partially test the influence of each free variable. The test statistics used are tests

$$Wald \text{ with } \alpha = 5\%, W = \frac{\beta_i^2}{Se(\beta_i)}$$

The decision-making criterion is reject  $H_0$  if the significance value ( $p$ -value)  $< \alpha$ , which means there is a significant influence between free variables and non-free variables.

**Table 1.** Variables used

Variabel	Symbol	Information	value
<u>Non-Free Variables</u>			
NEET	NEET	Kategorik	1 NEET 0 Bukan NEET *
<u>Free Variables</u>			
Age	U	Numerik	
Gender	JK	Kategorik	1 Woman 0 Man *
People with Disabilities	Dis	Kategorik	1 Yes 0 No*
Marriage	Kwn	Kategorik	1 Married/ever Not married
Education	Ddk	Kategorik	0 $\geq$ senior high school 0 $<$ SMA *
Have Received Training/Courses	Krss	Kategorik	1 No 0 Yes*

Variabel	Symbol	Information	value
Have Work Experience	Krj	Kategorik	1 No previous job/business 0 Have a previous job/business *
Education of the Head of the Household	Ddk K	Kategorik	0 $<$ senior high school 0 $\geq$ senior high school *
The number of children in the household	JA	Numerik	1 Number of children $>$ 2 0 Number of children $\leq$ 2*
Toddlers or the Elderly	BL	Kategorik	1 There are Toddler 0 There is no*
Number of Working Household Members	JAK	Numerik	
Regional Classification	Wil	Kategorik	1 Urban 0 Rural
Impact of Covid-19 (Fear of being infected with Covid-19, social/physical distancing, isolation, large-scale social restrictions (PSBB))	Cov	Kategorik	1 Yes 0 No*

Description: \*) reference category

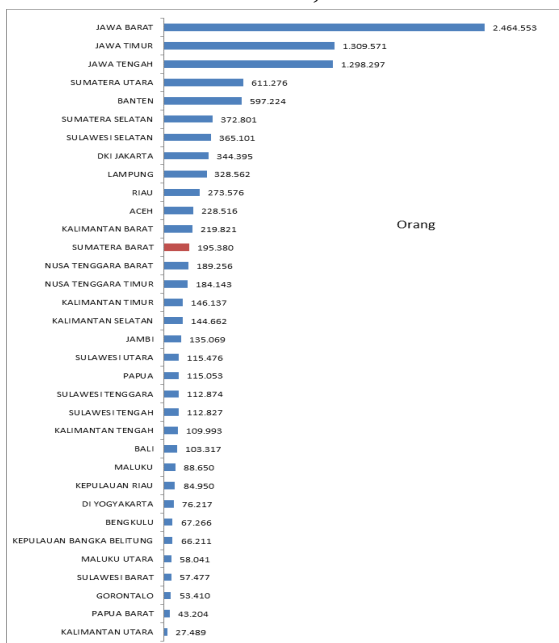
**Descriptive Statistical Results**

*NEET* in Indonesia for the last five years is still above the 20 percent mark. The national *NEET* in 2020 was 24.28 percent. Meanwhile, the West Sumatra *NEET* figure is below the national figure of 20.5 percent

or 195,380 people or 1.8 percent of the total National NEET<sup>17</sup>. Nationally, NEET West Sumatra is ranked 13th highest. The number of NEET per province in Indonesia can be seen in Figure 1.

In 2020 the West Sumatra TPT was dominated by the age group of 15-19 (11.29 percent) and 20-24 years (23.19 percent). When detailed according to the level of education completed, the West Sumatra TPT is the majority of higher education graduates (11.5 percent), vocational schools (10.58 percent), diplomas (9.12 percent) and high schools (8.38 percent). The West Sumatra regional government must immediately take the right policies to overcome NEET in West Sumatra, because this indicates that many West Sumatran youth are unemployed and also outside the education system.

**Figure 1.** Number of NEET per Province in Indonesia, 2020.

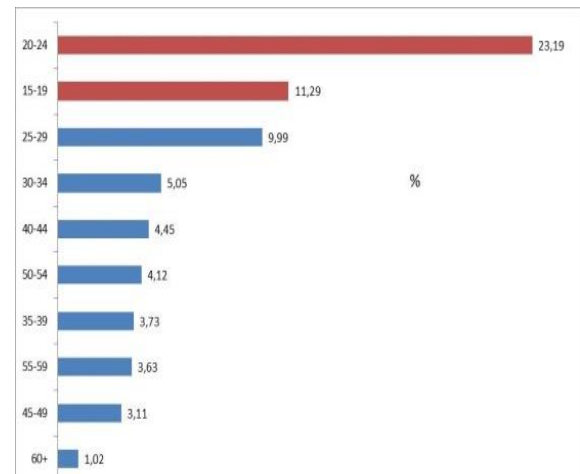


Source: BPS Sumatera Barat 2020

<sup>17</sup>Badan Pusat Statistik, “Persentase Umur Muda 15-24 Tahun yang sedang Tidak Sekolah, Bekerja atau Mengikuti Pelatihan, 2015-2020,” 2021 <<https://www.bps.go.id/indikator/6/1186/1/persentase-umur-muda-15-24-tahun-yang-sedang-tidak-sekolah-bekerja-atau-mengikuti-pelatihan.html>> [diakses 3 September 2021].

The 2020 National Labor Force Survey (Sakernas) also showed that as many as 531,556 working-age residents in West Sumatra Province were affected by Covid-19, of which 6.67 percent became unemployed (35,457 people), 2.62 percent became non-labor force due to Covid-19 (13,922 people), 5.22 percent while not working due to Covid-19 (27,763 people) and 85.49 percent experienced a reduction in working hours due to Covid-19 (454,414 people). Not the Labor Force because of Covid-19 means residents aged 15 years and over who only go to school, take care of the household, or do other activities because of Covid-19. It can also be interpreted as not performing activities that can be included in the category of working, while not working or looking for work. The city of Padang as the capital of West Sumatra province is the area that has felt the most impact from Covid-19 and the smallest impact felt by Mentawai Regency.

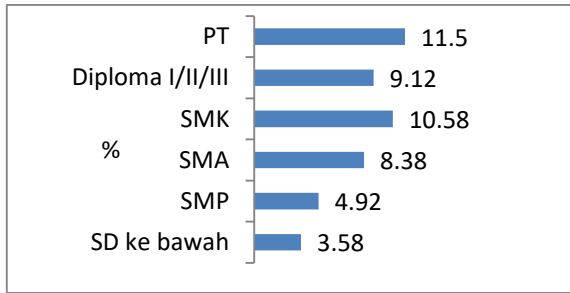
**Figure 2.** TPT West Sumatra by age group, 2020<sup>18</sup>



Source: BPS Sumatera Barat 2020

**Figure 3.** West Sumatra TPT based on the Highest Education Completed (Percent), 2020<sup>19</sup>

<sup>18</sup>BPS Provinsi Sumatera Barat, Keadaan Ketenagakerjaan Indonesia Agustus 2020 (Padang: BPS Provinsi Sumatera Barat, 2021).



Source: BPS Sumatera Barat 2020

The impact of Covid-19 is deeply felt by the community, especially during the implementation of PSBB (Large-Scale Social Restrictions). The first case of Covid-19 in West Sumatra occurred on March 26, 2020, and continued to increase in the following months. The first effort made by the West Sumatra provincial government to reduce the spread of Covid-19 is to implement PSBB (Large-Scale Social Restrictions) on April 22, 2022. However, like two blades this policy also has a negative impact, namely the increasing unemployment rate in West Sumatra, especially in the city of Padang

Figure 4. Number of Working Age Residents in West Sumatra Affected by

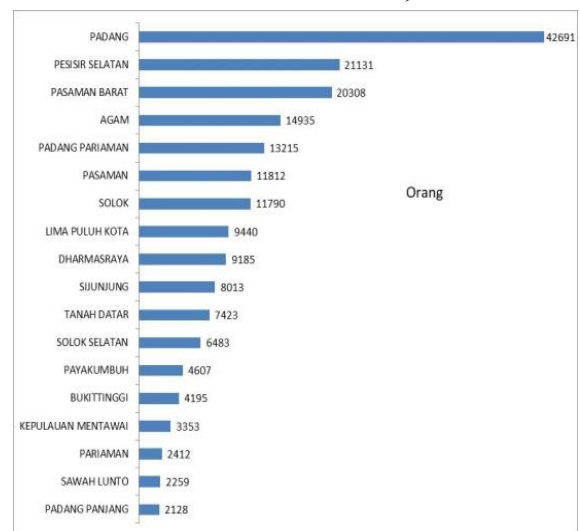
Kabupaten/Kota	Jumlah Penduduk Usia Kerja yang Terdampak Covid-19 (orang), 2020					Persentase
	Pengangguran karena COVID-19	Bukan Angkatan Kerja (BAK) karena COVID-19	Sementara Tidak Bekerja karena COVID-19	Pengurangan Jam Kerja karena COVID-19	Jumlah	
Kab. Kepulauan Mentawai	116	81	181	6679	7057	1,33%
Kab. Pesisir Selatan	2525	1532	1553	22628	28238	5,31%
Kab. Solok	660	1044	743	28989	31436	5,91%
Kab. Sijunjung	525	1023	623	12775	14946	2,81%
Kab. Tanah Datar	1543	677	2228	22557	27005	5,08%
Kab. Padang Pariaman	3933	1273	3575	35484	44265	8,33%
Kab. Agam	1700	799	2435	46073	51007	9,60%
Kab. Lima Puluh Kota	1488	1309	2686	30261	35744	6,72%
Kab. Pasaman	1064	249	482	13419	15214	2,86%
Kab. Solok Selatan	570	288	452	11686	12996	2,44%
Kab. Dharmasraya	1553	278	468	11890	14189	2,67%
Kab. Pasaman Barat	1285	278	1221	27786	30570	5,75%
Kota Padang	13012	3143	5837	115270	137262	25,82%
Kota Solok	705	173	273	6748	7899	1,49%
Kota Sawahlunto	625	386	746	7296	9053	1,70%
Kota Padang Panjang	411	203	632	6410	7656	1,44%
Kota Bukittinggi	1723	261	1279	19168	22431	4,22%
Kota Payakumbuh	1551	268	1519	18464	21802	4,10%
Kota Pariaman	468	657	830	10831	12786	2,41%
Provinsi Sumatera Barat	35457	13922	27763	454414	531556	100,00%
Persentase	6,67%	2,62%	5,22%	85,49%		

Source: BPS Sumatera Barat 2020

<sup>19</sup>BPS Provinsi Sumatera Barat, *Keadaan Ketenagakerjaan Indonesia Agustus 2020*.

As for the NEET indicator, the highest number of NEET in West Sumatra is in Padang City, which is 42,691 people (21.85 percent of the total NEET West Sumatra), and the second most in the South Coast Regency is 21,131 people, while the least in Padang Panjang City, is 2,128 people (1.09 percent of the total NEET West Sumatra). In detail, the number of West Sumatra NEET in 2020 is presented in Figure 5.

Figure 5. NEET Kabupaten/Kota di Provinsi Sumatera Barat, 2020



Source: Processing Results

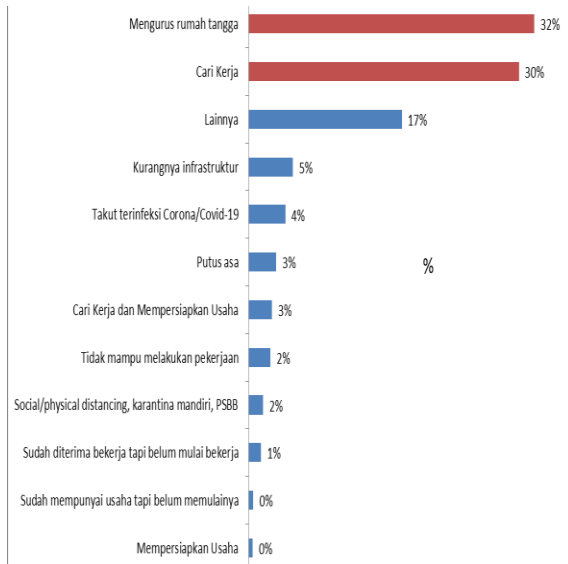
As can be seen in Figure 6, in general, the main reason a person becomes NEET is that 32 percent are looking for a job, 30 percent are taking care of the household, while the rest are for other reasons, lack of infrastructure (assets, roads, transportation, employment services) or no capital, fear of contracting Covid-19, despair, unable to do work, large-scale social restrictions (PSBB), have been accepted to work but have not yet started and are preparing for business.

The majority of NEET in West Sumatra are taking care of households (58,880 people) and looking for work (62,289 people). This shows the problem of underutilized labor or insufficient availability of job opportunities in West Sumatra, so it



is necessary to conduct an in-depth analysis to detect the determinants or characteristics that trigger a person to become a NEET in order to determine the right policy.

**Figure 6.** NEET in West Sumatra by main reason, 2020



Source: Processing Results

**Inference Statistics Results**

Figure 7 (a) shows the results of the overall fit test of the model using the statistics of the G test, resulting in an Omnibus Test of Model Coefficients value of 0.000, meaning that with a 99 percent confidence level there is at least one free variable that significantly affects a person's status to be NEET. Meanwhile, the results of the model feasibility test (Goodness of fit) with the Hosmer-Lemeshow test produced a significance value (p-value) of 0.011 greater than the  $\alpha$  value of 1 percent (0.010), meaning that it does not reject Ho, the model is feasible / able to explain the data and can be used for further analysis.

**Figure 7.** (a) Simultaneous Test Results; (b) Model Feasibility Test Results

a.

Step	Step	Chi-square	df	Sig.
1	Step	1263.613	13	.000
	Block	1263.613	13	.000
	Model	1263.613	13	.000

**Hosmer and Lemeshow Test**

b.

Step	Chi-square	df	Sig.
1	19.830	8	.011

The Pseudo R-Square value in the study model is 0.283 meaning that free variables can explain a person's status to NEET by 28.3 percent, the rest is influenced by other factors outside the model. The models obtained after testing are as follows.

**Table 2.** NEET Determinant Binary Logistic Regression Results.

	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 <sup>a</sup> U	.112	.017	43.871	1	.000	1.118
JK	.059	.073	.650	1	.420	1.061
Dis	1.827	.215	72.380	1	.000	6.214
Kwn	1.252	.131	91.270	1	.000	3.497
SMAPLUS	1.085	.091	141.381	1	.000	2.958
Krss	.450	.106	18.042	1	.000	1.569
Krj	.482	.098	24.296	1	.000	1.620
DdkK	.486	.080	37.039	1	.000	1.626
JA	.276	.034	64.094	1	.000	1.317
BL	.298	.096	9.734	1	.002	1.347
JAK	-.707	.037	372.134	1	.000	.493
Wil	.045	.075	.362	1	.547	1.046
Cov	.856	.113	56.932	1	.000	2.353
Constant	-4.284	.339	159.404	1	.000	.014

a. Variable(s) entered on step 1: U, JK, Dis, Kwn, SMAPLUS, Krss, Krj, DdkK, JA, BL, JAK, Wil, Cov.

Source: Processing Results

$$y = -4,284 + 0,112 U + 1,827 Dis + 1,252 Kwn + 1,085 SMAPLUS + 0,45 Krss + 0,482 Krj + 0,486 DdkK + 0,276 JA + 0,298 BL - 0,707 JAK + 0,856 Cov$$

The above equation shows that the value of the constant -4.284, meaning in the age group of 15-24 years, which has the status as NEET is less than that of non-NEET. The smallest risk opportunity for a person to become a NEET is if they are 15 years old, have no disability, have not married, are not high school graduates and above, have had courses, have work experience, high school domestic violence

education and above, the number of children from KRT 2, do not live with toddlers or the elderly, there is at least 1 art who works and is not affected by the presence of Covid-19, which is :  $P =$

$$\frac{\exp(-3,843 + \sum_{i=1}^{13} \beta_i x_i)}{1 + \exp(-3,843 + \sum_{i=1}^{13} \beta_i x_i)} = 0,130 = 13,0 \%$$

On the other hand, the biggest risk opportunity for a person to become a NEET is if they are 24 years old, have a disability, are married, graduated from high school and above, have never had a course, have no work experience, junior high school education and below, the number of children from KRT 3, live with toddlers or the elderly, there is no art that works and feels the impact of Covid-19, which is as big as

$$P = \frac{\exp(-4,284 + \sum_{i=1}^{11} \beta_i x_i)}{1 + \exp(-4,284 + \sum_{i=1}^{11} \beta_i x_i)} = 0,997 = 99,7 \%$$

Partial testing was carried out to see the effect of each free variable in the research model on non-free variables. Wald's test showed that almost all free variables had a p-value of less than  $\alpha$  (5 percent), except for the variables of sex (0.42 percent) and region (0.547 percent), this means that 11 variables actually have an influence on a person's status to be NEET, while the variables of sex and region have no influence.

## Discussion

### Age

Table 2 shows a positive age variable coefficient of 0.112, meaning that in the age group of 15-24 years, the older a person is, the greater the probability of becoming a NEET. This can be because the young population tends to be in school to complete basic education (9 years of compulsory education). Meanwhile, odds

ratio figures show that every one-year increase in age will increase a person's risk of becoming NEET by 1,118 times. This is in line with the results of the study Amini<sup>20</sup>, which states that the elderly population has a greater tendency to become NEET than the younger ones.

### Gender

Unlike other provinces, where women are usually more likely to become NEET. In West Sumatra province gender does not influence a person's decision to become a NEET. West Sumatra province with its matrilineal privileges glorifies the existence of a woman in its living system. BPS data in 2020 shows the West Sumatra Gender Development Index (IPG) of 94.17. This figure shows that women have almost the same opportunities as men in both education and the world of work. This fact is in line with the results of research by<sup>21</sup> which states that West Sumatra Province with its uniqueness as an area that adheres to the matrilineal system, this system is what causes the female factor to be meaningless in calculating one's chances of becoming a NEET, because women play a very active role in economic activities.

### Disability

In 2020 there were 5,437 people with disabilities who had NEET status (2.8 percent of the total West Sumatra NEET). Odds ratio figures show a person with a disability is 6,214 times more at risk of becoming a NEET than a non-disabled person. The odds ratio on the disabled variable of 6.214 is the highest value compared to other variables, meaning that the risk of a person with a disability being

<sup>20</sup>Ary Fauziah Amini, "Analisis Karakteristik Penduduk Usia Muda Tidak Bekerja, Sekolah, Atau Mengikuti Pelatihan (Not In Employment, Education Or Training/Neet) Tahun 2018" (Universitas Airlangga, 2020).

<sup>21</sup>Chintia Anggraini, Taifur, dan N.

NEET is the highest compared to other variables. This is in line with the results of Susiana<sup>22</sup> research which states that people with disabilities still experience challenges to work in SOEs, including discrimination in various aspects of the world of work, such as limited job opportunities due to only certain types of work / positions for disabilities, gaps between competencies and work requirements determined by users, limited information available in the job market, lack of education and training, a difficult to access work environment due to lack of supporting facilities such as not all buildings are equipped with elevators as well as the presence of a negative view and lack of public trust in their abilities.

### Marriage

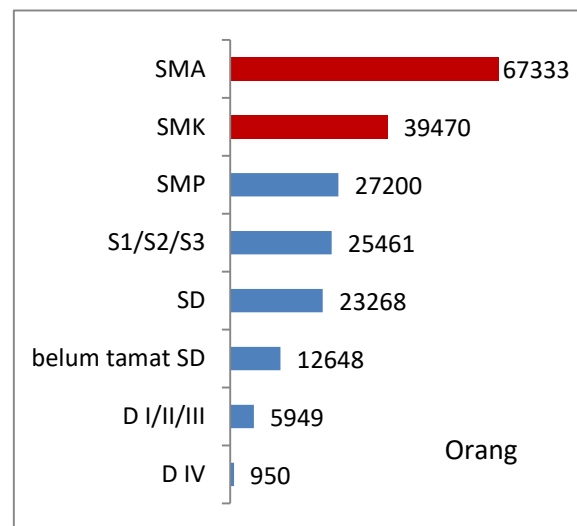
A resident aged 15-24 years who has mating/having mated status has a risk of becoming a NEET of 3,497 times compared to those who have never mated. This fact is in line with Chintia<sup>23</sup>, who posit that marriage becomes a significant factor for a person to become a NEET. A married person, especially a woman, tends to be more easily involved in housekeeping activities.

### Education

A resident aged 15-24 years with the last education completed by high school equivalent and above has a risk of becoming a NEET 2,958 times greater than the level of education below. This is in line with the results of Zoraya<sup>24</sup> research which states that

high school education graduates have the highest tendency to become NEET compared to other levels of education. This can be due to the increasingly expensive cost of high school and college education compared to the equivalent level of elementary and junior high school education and the tight competition for admission to higher education. When viewed according to the type of school, in Figure 4 we can see that NEET is dominated by high school and vocational school graduates.

**Figure 8.** NEET Based on Education Levels Completed in West Sumatra Province, 2020



Source: Processing Results

### Training/Courses

A resident aged 15-24 years who has never received training/courses has a 1,569 times risk of becoming a NEET. This is in line with the results of research by Ahmad and Azim<sup>25</sup> and Albert Dagume and Gyekye<sup>26</sup>, young people who have attended

<sup>22</sup>Wardah Susiana, "Pemenuhan Hak Penyandang Disabilitas dalam Mendapatkan Pekerjaan di BUMN," *Law Reform*, 15.2 (2019), 225–38 <<https://doi.org/10.14710/lr.v15i2.26181>>.

<sup>23</sup>Chintia Anggraini, Taifur, dan N; Z. Bilgen Susanli, "Understanding the Neet in Turkey," *Eurasian Journal of Economics and Finance*, 4.2 (2016), 42–57 <<https://doi.org/10.15604/ejef.2016.04.02.004>>; Zoraya dan Wulandari.

<sup>24</sup>Zoraya dan Wulandari.

<sup>25</sup>Rizwan Ahmad dan Parvez Azim, "Youth Population and the Labour Market of Pakistan: a Micro Level Study," *Pakistan Economic and Social Review*, 48.2 (2010), 183–208.

<sup>26</sup>Mbulaheni Albert Dagume dan Agyapong Gyekye, "Determinants of youth unemployment in South Africa: evidence from the Vhembe district of Limpopo province," *Environmental Economics*, 7.4 (2016), 59–67 <[https://doi.org/10.21511/ee.07\(4\).2016.06](https://doi.org/10.21511/ee.07(4).2016.06)>.

training can reduce the chances of becoming unemployed.

### **Work Experience**

A resident aged 15-24 years who has no work experience has 1.62 times the risk of becoming a NEET. This is in line with the results of research by Abrar<sup>27</sup> which states that residents who have no work experience have a probability of becoming unemployed young by 2,568 times compared to residents who have had work experience.

### **Education of the Head of the Household (KRT)**

The level of education of the head of the household has a significant effect on the risk of a child becoming a NEET. A child with a head of household graduating from junior high school and below has a risk 1,626 times greater than a child with a head of household graduating from high school and above. These findings confirm several previous studies, namely: Chintia<sup>28</sup>, Lee Byoung-Hoon and Jong-Sung<sup>29</sup> and Alfieri<sup>30</sup> which state that the higher the education of parents will reduce the risk of children falling into NEET status. Parents with a better education tend to have extensive knowledge and provide support so that their children also get a decent education and work.

### **Number of Children in the Household**

The statement "The family planning program is a good program" is in line with the government's goal in initiating this program, namely the realization of happy

and prosperous families. In terms of family size, a resident aged 15-24 years who comes from a family with more than two children has a risk of becoming a NEET 1,317 times greater than someone who comes from a family with two or fewer children. This is in line with the results of research Hasanah<sup>31</sup> which found the influence of family planning programs on meeting children's educational needs.

Many children make parents have to work harder to provide for their families, so the time to devote affection to children is reduced, often causing children to lack education. Unlike the case with families that only have 2 children, they will be more relaxed at work, more time to pay attention and educate their children at home. So that children feel that they get the attention and affection of their parents.

### **The existence of toddlers or the elderly**

In terms of family composition, a resident aged 15-24 years with a household that has a toddler (under five years old) or the elderly (aged 60+) has a 1,347 times greater risk of becoming a NEET. This is in line with the results of the study Pattinasarany<sup>32</sup> which states that having a family member of a toddler or elderly is correlated with the likelihood of adolescents to be categorized as NEET, where adolescent boys have a smaller probability than adolescent girls.

### **Number of Working Household Members**

The age variable coefficient is negative 0.707, meaning that the more people who work in the household, the less likely it is to become NEET. Meanwhile, odds ratio figures show that each addition of one

<sup>27</sup>Abrar, Amalia, dan Handoyo.

<sup>28</sup>Chintia Anggraini, Taifur, dan N.

<sup>29</sup>Lee Byoung-Hoon dan Kim Jong-Sung, "A Causal Analysis of Youth Inactiveness in the Korean Labor Market," *Korea Journal*, 52.4 (2012), 139–65 <<https://doi.org/10.25024/kj.2012.52.4.139>>.

<sup>30</sup>Sara Alfieri et al., "Young italian NEETs (Not in employment, education, or training) and the influence of their family background," *Europe's Journal of Psychology*, 11.2 (2015), 311–22 <<https://doi.org/10.5964/ejop.v11i2.901>>.

<sup>31</sup>Putri Uswatun Hasanah, "Pengaruh program keluarga berencana terhadap pemenuhan kebutuhan pendidikan anak," *Lembaran Masyarakat: Jurnal Pengembangan Masyarakat Islam*, 1.2 (2015), 191–220.

<sup>32</sup>Pattinasarany.

working household member will reduce a person's risk to NEET by 0.493 times. This is in line with the results of research Susanli<sup>33</sup> which states that the more members of other households who are working in one household, a person has a smaller tendency to become NEET.

### **Regional classification**

The location of rural or urban residences does not affect a person's status as a NEET in West Sumatra Province. This shows the geographical similarity or infrastructure development that is almost evenly distributed in the province of West Sumatra.

### **Affected by Covid-19**

A resident aged 15-24 years who feels the negative impact of Covid-19 has a risk of becoming a NEET by 2,353 times greater than those who do not feel. The impact in question is a feeling of fear of being infected with Covid-19, social distancing (physical distancing), self-isolation and large-scale social restrictions (PSBB). This is in line with research Syahril<sup>34</sup> which states that the pandemic has economic impacts that can exacerbate the inequality of most groups of workers, such as: workers who already have problems with health conditions, young people who face higher unemployment and underemployment rates, elderly workers who may face a higher risk of developing serious health problems and the possibility of suffering from economic vulnerability, women who overrepresent frontline jobs in dealing with the pandemic, unprotected workers, including independent workers, gig workers and migrant workers.

Contextual factors such as budget allocations or policies of each local government related to employment and their effect on variations

in the NEET value of each district/city are quite important things to study. However, due to limited data, this has not been possible in this study.

### **Conclusion**

NEET indicates a deterioration in the quality of the youth who should hold the baton of leadership in the future. NEET in West Sumatra province must be overcome immediately so that it does not become a disease of society whose existence continues to mushroom every year. The area with the most NEET in West Sumatra Province is Padang City, while the least is Padang Panjang City. The determinants that cause a person to have the opportunity to become a NEET in West Sumatra in 2020 are age, disability, marital status, education, skills, work experience, education of the head of the household, the number of children, the presence of toddlers or the elderly, the presence of working household members and the perceived impact of COVID-19.

People with disabilities are 6 times more at risk of becoming NEET compared to non-people with disabilities, those with mating status are 3 times more at risk of becoming NEET than those who are not married, someone who graduated from high school and above is 3 times more at risk of becoming NEET than junior high school graduates and below and someone who feels the impact of covid-19 is 2 times more at risk of becoming NEET than those who do not feel the impact. While gender and location of residence do not affect a person's decision to become a NEET, this is related to the peculiarities of the Minangkabau tribal matrilineal system in the province of West Sumatra.

Based on the results of the study, some of the recommended policy recommendations for the government to overcome NEET in West Sumatra include: making regulations so

<sup>33</sup>Susanli.

<sup>34</sup>Syahril, "Dampak Covid-19 terhadap Tenaga Kerja," *Ners*, 4.23 (2020), 21–29.

that agencies/companies provide opportunities/open job vacancies for people with disabilities and providing facilities/accessibility in office buildings so as to make it easier for people with disabilities to work, creating innovations to facilitate licensing to attract investors to open new jobs, providing marriage age restrictions to prevent early marriage, providing scholarships or tuition waivers for the underprivileged, providing free internet/wifi so that people can access skills training videos, increasing socialization of birth control programs and facilitating access, building child and elderly care centers, accelerating efforts to deal with Covid-19 so that everyone can work or prepare for business without fear. Recommendations for further research to use the multilevel method of logistic regression, to see the influence of contextual factors such as budget allocation or policies of each local government related to employment on variations in district/city NEET values.

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