Working in Saudi Arabia:
A Labor Market Update
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Abstract:

This report discusses the underlying issues pervasive in Saudi Arabia’s labor market and the resulting challenges faced by both employers and job seekers. It highlights recent statistics, the mechanisms at work in the supply and demand side of the market, and recent initiatives outlined by the Saudi Government, especially the Ministry of Labor and Social Development, as well as private companies. Data from Saudi Arabia’s Labor Force Survey and Regional Economic Models, Inc. (REMI) support discussion of broad workforce trends along with occupational forecasts in the private sector, broken down by occupation and industry. Other outcomes include labor productivity by industry sector. Data from REMI are derived from an input-output (I-O) model that uses Computable General Equilibrium (CGE) techniques, econometric estimation, New Economic Geography theory, and agglomeration effects from broad access to labor and commodity markets.
Vision 2030 and the way forward

In recent years, a series of challenges have marked Saudi Arabia’s labor market, framing labor and human capital issues as a central topic of discussion for both policymakers and the business community. The Kingdom has strategized to improve job matching and to expand the number of suitable jobs by working with the private sector. Yet, intrinsic to Saudi Arabia’s demographics and culture, broader obstacles have underpinned Saudi’s labor market. High levels of unemployment among Saudi youth, a large number of foreign nationals in the workforce, and relatively low rates of economic participation among women have emerged as themes for Saudi Arabia along its path to fully realizing its goals.

Last year, Saudi Arabia released Vision 2030 and the National Transformation Program (NTP) 2020, a strategic blueprint for economic transformation and the adjoining key performance indicators and initiatives across various ministries and levels of the Saudi Arabian Government. This transformation involves a multipronged approach spanning public-private partnerships, new policies and programs, and reorganization of government entities. As part of this transition in Saudi Arabia’s economy, Vision 2030 intends to create over 450,000 jobs.

The Ministry of Labor and Social Development (MLSD) was formed through the merger of the Ministry of Labor and the Ministry of Social Affairs, and the newly formed entity is tasked with strategic objectives and targets as part of Vision 2030.

Not only will Saudi Arabia need to expand the number of jobs, including those in the private sector, to employ its young population, but it will also be critical to cultivate a stable and sustainable labor market in the medium and long horizon to transform the economic landscape. Indeed, Vision 2030 and the National Transformation Program strongly account for these labor needs, especially related to training and hiring. As table 1 highlights, the Kingdom aims to provide suitable jobs for citizens through job creation and training programs for positions with the greatest demand.

As the Government continues to rollout training programs and establish joint ventures with the private sector, Saudi Arabia has the potential to equip its labor force with the skills needed for the Kingdom’s future.

A picture of Saudi Arabia’s labor market

With Saudi Arabia’s large expatriate workforce, increasing role of women in the labor force, shifting demand for skills, and rollout of Vision 2030 initiatives, gaining a thorough understanding of underlying labor market failures and ways to remake the Saudi labor

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<td>Develop employment in ICT sector</td>
<td>Rehabilitation of specialized Saudi human capital increased to 20,000 employees</td>
<td>Boost university training in information technology</td>
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<td>Increase job opportunities in small and medium enterprises</td>
<td>Raise the share of employees in SMEs to 53 percent</td>
<td>General Authority for Small and Medium Enterprises empowerment of SME growth</td>
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<td>Develop quality standards</td>
<td>Decrease unemployment of Saudis to 9 percent</td>
<td>Leadership and online training programs</td>
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<td>Improve work culture in government sector</td>
<td>Increase the share of females in civil service to 42 percent from 38 percent; raise the share of females in top positions to 5 percent</td>
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<td>Provide suitable jobs for citizens</td>
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<td>National Qualification Framework</td>
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<td>Match Saudi skills with labor market needs</td>
<td>Increase the share of high school graduates in vocational training from 7 percent to 13 percent</td>
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<td>Raise the number of leaders completing the National Program for Preparation and Development of Management Leaders</td>
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Source: USSABC, Saudi Arabia Vision 2030, National Transformation Program 2020
force remain central topics for the Saudi Government, private companies, and individuals residing and working in Saudi Arabia. The labor market in Saudi Arabia has been characterized by a large expatriate workforce, high rates of unemployment among Saudis, and low levels of female labor force participation. As shown in figure 1, in 2016, men comprised 86 percent of Saudi Arabia’s labor force, while women accounted for only 14 percent. Economic participation of men was 79.5 percent, and the economic participation of women was 22.8 percent.

According to data from the General Authority for Statistics (GaStat), Saudi youth, classified as those ranging 20-29 years, make up nearly 30 percent of the Saudi working age population. This data shows there were over 2.8 million employed persons in Saudi Arabia ages 20-29 at the end of 2016, with approximately 920,000 employed Saudis in this age group. This group continues to make up a growing proportion of the Saudi labor force, contributing to increased youth labor force participation but also higher unemployment, including among bachelor’s degree holders. The number of unemployed youth in Saudi Arabia has increased over the past year. According to estimates from the International Labor Organization, the percentage of the youngest unemployed youth (classified as ages 15-24) increased from 27.1 percent in 2015 to 31.2 percent in 2016. With the large share of a young workforce, Saudi Arabia can expect to have sufficient supply of workers for years to come.

Labor laws in Saudi Arabia impact both Saudi and foreign families, alike. As of Q4 of 2016, data from GaStat shows that 78 percent of employed persons in Saudi Arabia were foreign nationals, who comprise approximately 30 percent of Saudi Arabia’s 31.7 million population. Both the Ministry of Interior and MLSD oversee the regulation and recruitment of foreign labor. MLSD has said that it aims to reduce the share of foreign nationals to 20 percent of the population.

Nearly one-third of the total workforce is employed by the public sector and two-thirds at private companies. Historically, a larger share of Saudis have been employed in the public sector. Foreign workers are almost exclusively employed in the private sector. The high concentration of Saudi workers in the public sector is partially driven by a strong preference to work there because of higher salaries and the perception that jobs are more stable.

While unemployment among Saudis increased through the end of 2016, there was overall positive employment growth. The labor force consists of those employed individuals and unemployed workers who are actively seeking work. There was a large improvement in labor force participation, especially among women, with participation rates for Saudis reaching approximately 20 percent.

However, unemployment and underemployment are both projected to persist. According to the General Authority for Statistics, at the end of 2016, Saudi Arabia’s total unemployment was 5.6 percent (21.3 percent for women), and the unemployment rate among Saudis was much higher at 12.3 percent (34.5 percent for women). In addition, unemployment is much more prevalent among the youth of the nation with rates of nearly half who are unemployed. Underemployment is also increasingly an issue as young educated Saudis struggle to find work that uses their training and specialized expertise. Demographics amplify this issue, with nearly half of the population younger than 25, the labor market must accommodate a larger number of trained workers every year. By the end of 2016, there were 917,563 Saudi job seekers, of which 81 percent were women and 19 percent were men.

### FIGURE 1: Key Labor Statistics 2016

**Saudi Arabian Workforce Composition**

- Men: 86%
- Women: 14%

**Saudi Arabian Economic Participation**

- Men: 79.5%
- Women: 22.8%

**Unemployment**

- Overall: 2.6%
- Saudis: 21.3%
- Women: 5.9%
- Men: 34.5%

Source: USSABC, General Authority for Statistics

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1 Refers to the active labor force, including those who are employed or actively looking for work.
To a large extent in Saudi Arabia, underemployment remains a significant issue, especially for women, leading to loss of efficiency at the firm-level and within the economy as a whole. Underemployment measures when individuals want to work more hours and are not being paid to do so, or when they are not making use of their full skillset in their work. When Saudi Arabian workers have skills that firms need, but firms are biased against those workers, this creates a substantial loss. Simultaneously, education is free to most Saudis, and unemployment is amplified when workers are over-educated and unwilling to take jobs in fields that are perceived as beneath them. This in turn, leads to firms hiring foreign labor. While there are many more women in the workforce than decades past, many women have high-level skills and college training but remain underemployed.

Labor force participation rate is the proportion of a population group working or seeking work, depending largely on regional population structure of age, gender, and ethnicity. Overall in Saudi Arabia, the total labor-force participation rate for persons 15 years and older based on 2016 GaStat data was 56.5 percent (22.8 percent for women). Among Saudis, the labor force participation rate was 42.2 percent (19.3 percent for women). While the extent to which participation rates adjust with economic factors depends on inherent characteristics of the underlying population structure, individuals are generally more likely to participate with higher wages and greater opportunities.

The status quo in Saudi Arabia is not sustainable, and unemployment and underemployment will remain an issue unless jobs can be created that are both satisfying to workers and productive in the economy at large. Saudi leaders recognize that these labor issues must be addressed and are taking initiatives with private sector participation to create new employment opportunities.

**Foreign workers and labor laws**

It is widely recognized that there is a mismatch between the education that Saudis receive and industry demands for worker skills, requiring a larger number of workers from foreign countries to fill certain occupations. The General Authority for Statistics estimates that over ten million foreigners are employed in Saudi Arabia. In total, there were over 12 million foreigners living in Saudi in 2017, this figure including persons outside of working ages. Undoubtedly, foreign workers play a substantial role in Saudi Arabia’s economy. This has arisen from the fact that, historically, investments in human capital have aligned poorly with the skills that employers require. Demands for either highly-skilled jobs inaccessible to Saudis or low-skilled jobs that Saudis are unwilling to take, have led to hiring of expatriates in a variety of sectors.

International labor mobility theory states that international workers will immigrate in search of higher wages. Empirically it has been shown that, especially for low-skilled workers, immigration will result in higher wages in the home country because of a decline in worker supply and lower wages in the foreign country because of an increased worker pool. This is a point of debate because those in support of eased immigration policies argue that immigrants allow firms to be globally competitive, leading to economic growth by way of growth in companies. Firms will expand and thus require more workers, resulting in increased income and consumption. Those in opposition argue that immigrants will work for less, and therefore, native workers will be unable to compete and require social welfare.

Large shares of expatriate workers travel to Saudi from Bangladesh, Egypt, India, Pakistan, Philippines, and Yemen. Beginning in 2011, the Ministry of Labor implemented the Nitaqat plan, dividing companies into sectors and assigning quotas for Saudi workers relative to firm size. Since the program’s onset, the Government has taken strides to align the Nitaqat program to further meet labor goals and to increase the required employment of Saudis. The program classifies companies based on percentages of Saudi employees. A designation of yellow or red indicates a failure to meet the standard for a number of Saudi employees given the size and sector of the company, while green and platinum designation indicate that companies meet or exceed the quota. Under the initial designations, 50 percent of firms were marked as ‘compliant’ and 50 percent of firms as ‘non-compliant.’ Companies with green or platinum designations exceeding at Saudization have the freedom to more easily secure expatriate workers. Beginning in 2012, workers were required to work only under one sponsor, and could be deported if found working for another company. Under this program, nearly 20 percent of foreign labor was deported, reducing competition for available jobs.

Throughout 2015, growth in employment opportunities for young Saudis existed primarily in low skilled, labor-intensive positions. Hiring of Saudis with high school degrees increased while employment opportunities for Saudis with advanced degrees declined. Various Saudi sources note that Saudi youth face competition from expatriate workers for jobs, and that it would be better for the country if more locals could compete and secure these jobs. As a result, building skills through relevant training programs has been noted as a key area of long-term focus. Investment in entrepreneurship has also been laid out as a target, especially for those with high-potential to foster employment growth that will create jobs for young Saudis. Providing seed capital to entrepreneurs identified as likely to have success in this area may be more cost-effective than career-long employment in the public sector.
Public administration and defense account for nearly 15 percent of employment and has the highest Saudization ratio. The wholesale and retail sector accounts for nearly 14 percent of employment. The MLSD has targeted this sector for Saudization as nearly 80 percent of new jobs went to non-Saudis. In 2016, the ministry launched Saudization of all positions related to the mobile phone industry.

The Saudi Ministry of Labor and Social Development reported that in 2016, 68.5 percent of sales staff were foreigners. The Ministry began restricting jobs in shopping malls to Saudis beginning only in April 2017. The policy also restricts the sales assistant jobs to women in women’s clothing stores.

In total, there are 19 professions limiting employment of foreign nationals. This list of professions includes directors of personnel and labor affairs, customs clearance, timekeepers, managers of HR in government and the private sector, clerks, hotel and hospital receptionists, cashiers, security guards, and female workers in women’s clothing and lingerie shops. The Government has banned renewal of licenses for expatriates holding positions that have since been limited to Saudis and has banned the issuance of new work visas.

Although there have been improvements in the employment of Saudis, a large amount of overall employment growth continues to be driven by the hiring of non-Saudis. To curb the inflow of foreign workers, the Government has introduced a minimum wage and placed harsher restrictions on the foreign labor force. These restrictions include deporting those who are not compliant with labor laws.

While KSA aims to ease dependence on expatriate labor, it has recently recruited foreign labor from countries that have skilled domestic workers. For instance, earlier this year, Saudi Minister of Labor and Social Development, H.E. Ali Bin Nasser Al-Ghafees, signed an agreement with the Kenyan Labor Ministry for the recruitment of Kenyan domestic workers, providing the legal framework to facilitate and control the employment process, protect employers and workers, with costs covered by both countries.

The Government has begun, however, taking steps to train its citizens for skills that are needed in the long run. New training classes through the Technical and Vocational Training Corporation (TVTC) are free and will teach technical skills like automotive repair and computer technology. Following the launch of new pilot training programs for Saudis beginning in June 2017, Saudi Arabia has allotted illegal foreign workers three months to leave the country without penalty. Over 345,000 workers requested amnesty within the first month.

The MLSD announced initiatives in the first quarter of 2017 to professionalize jobs in the non-profit sector. These initiatives will create an estimated 60,000 new job opportunities. Reportedly, the Ministry has planned initiatives to train 50 percent of those employed in the sector by 2020.

As of early 2017, the Ministry has frozen foreign recruitment at firms that reduce Saudi staff. That is, the Saudi Ministry of Labor will punish firms that are involved in layoffs of one percent of Saudi employees or layoffs of at least ten Saudis, halting their ability to recruit new workers.

Also in the first quarter of 2017, the MLSD unveiled its plans to implement a new Saudization percentage for the Nitaqat, with changes intended to further increase employment for Saudis. The update to the program will include new percentages by firm sector and size, now applying to firms with greater than six employees as opposed to greater than ten employees. The scheme divides SMEs into a larger number of groups than previously and intends to make compliance less burdensome.

Last year, a scheme known as ‘Balanced Nitaqat’ was halted, and the new scheme seems to replace this update which was never implemented. The new changes are reported to go into effect as early as August 2017.

**Discrimination Mechanisms**

Programs with quotas like Nitaqat intend to address various types of discrimination against Saudis in the workforce, especially on the labor demand side, to lessen losses in efficiency from highly productive workers who remain excluded from positions based on group identity. Taste-based discrimination can arise in Saudi Arabia’s labor market when employers hold pre-existing biases about a certain group of workers’ identity independently from anticipated differences in cost or productivity. On the other hand, statistical discrimination arises from an information problem when firms do not have enough information on the productivity of prospective workers. In Saudi Arabia, the latter might be a widespread phenomenon in the private sector simply because there are historically more expatriate workers, so firms have more first-hand knowledge about this group’s abilities. Also, if Saudis cost more to hire, and if it is impossible to differentiate which applicants are highly productive from those with average productivity, firms may continue hiring expatriates based on previous beliefs. Quota programs can be effective to build referral networks of Saudi job applicants to find qualified and productive applicants, but if firms end up hiring poorly qualified Saudi workers in order to meet quotas, this could worsen discrimination. Finally, discrimination could be rooted in operational
mechanisms of firms. Whether or not firms originally hired foreign laborers out of a belief of superior productivity, it may be costly for firms to adjust existing organizational structure in order to employ Saudis. Therefore, without proper incentives, private firms may continue to hire expatriates in order to avoid adjusting fixed costs like hiring practices and production processes. Thus, the burden of these fixed costs may possibly be offset by compensation paid to firms.

The MLSD recognizes that this strategy will take time to implement. To do so, it plans to deploy online educational programs and policies that involve private sector participation to create jobs for Saudis. To take on these initiatives, the MLSD has begun forming councils regionally and nationally to support government organizations in gathering information on the labor market and directed at creating public-private partnerships. These councils will focus on cooperation with the private sector and with chambers of commerce to design effective policies.

Strategic Goals of the Ministry of Labor and Social Development

In the Ministry of Labor and Social Development’s Labor Market Report 2016, the Ministry outlines the following challenges that it plans to address:

- A lack of competitive and fulfilling private sector jobs attractive to Saudi nationals
- A disproportionate reliance on foreign labor within the private sector
- Youth unemployment is higher than the Saudi national average for unemployment as a whole
- Demand for labor is not being efficiently matched with the supply of labor
- Women’s labor force participation continues to be significantly lower than that of men

Given these labor market concerns, MLSD’s strategic plan includes eight pillars, shown in table 2.

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<tr>
<th>MLSD Identified Strategic Pillars for Labor Market Strategy</th>
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<td>Supporting the creation of sustainable jobs in the private sector and among non-profit organizations</td>
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<td>Developing the skills of the Saudi workforce</td>
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<td>Managing the Saudi-expatriate worker balance</td>
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<tr>
<td>Ensuring a rapid entrance or return to the labor market while supporting decent work</td>
</tr>
<tr>
<td>Providing fundamental mechanisms for an efficient labor market as well as social development</td>
</tr>
<tr>
<td>Preventing and reducing social issues affecting the most vulnerable groups of people while encouraging active participation in society</td>
</tr>
<tr>
<td>Protecting and supporting citizens through social welfare</td>
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<tr>
<td>Improving society through social development</td>
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Table 2: Strategic Pillars for Labor Market Strategy

As part of Vision 2030 and the National Transformation Program’s initiatives to improve working conditions, the MLSD created an incentive for citizens to report labor violations equal to ten percent of the violator’s fine. The incentive pay is in line with labor law and awarded upon collection of the fine. The new system called ‘Maan Monitoring,’ is a smart electronics application service. The application is available in the Kingdom, and authorities say the process adds to transparency by allowing authorities to more closely monitor violations when they happen. To enforce the process and credibility of the reports, the system requires the following: complaints must be received by Maan, the offense acknowledged, and the report must be accurate and reported within 30 days of the event. Following three false reports, an individual would be suspended from reporting. The six labor violations currently reported in the system are:

- Selling work visas or meddling in that process
- Employers registering Saudi citizens as workers without their knowledge or consent
• Laborers working in direct sunlight, bad weather, and during the ministry’s working hours ban without precaution
• Employing non-Saudis in jobs limited to Saudis
• Employing men for women’s jobs
• Meddling in the recruitment of workers without the ministry’s approval

Remittances

According to the World Bank, remittance outflows by expatriate workers in Saudi Arabia to their home countries have amounted to an estimated annual five to ten percent of Saudi Arabia’s GDP in recent years. Growth in remittances increased sharply from 2005 to 2015, the amount of foreign workers’ remittances nearly tripling. The World Bank noted that Saudi Arabia accounted for the second highest volume of remittances after the U.S. in 2015. While 2016 marks the first annual decline following growth in remittances in a decade, these outflows amounted to a notable 6.3 percent of Saudi Arabia’s GDP. Remittances transferred by expats out of Saudi Arabia decreased by three percent from 2015 to 2016, declining from SR156.9 billion ($41.84 billion) to SR151.9 billion ($40.5 billion).

Given this large sum, in 2016, the Ministry of Finance discussed placing a tax on remittances out of the country. One proposal included a six percent tax for the first year living in Saudi Arabia, followed by a drop to a two percent tax following five years of residency. However, following these newly proposed taxes, the Saudi Ministry of Finance stated there would not be a new tax and that Saudi Arabia supports free movement of capital across borders.

Although the tax on remittance will not move forward, effective July 1, 2017, Saudi Arabia’s General Directorate of Passports began placing new fees on dependents of foreign workers in the private sector in Saudi Arabia. Per the decision passed by the Saudi Cabinet in 2016 to boost state revenues, the fee will begin at SR100 for each dependent per month. This fee will incrementally increase to SR200 onwards of July 2018, to SR300 onwards of 2019, rising to SR400 per month in 2020.

Job Activity

Occupations

In Saudi Arabia, service positions, basic engineering and supporting positions, and technician positions employ the most workers. While modest levels of growth are expected to be seen across all occupations, certain classifications of occupations are projected to increase most quickly through 2030. The following occupations are expected to grow at a pace of greater than a one percent compound annual growth rate (CAGR). Positions related to agriculture have a projected CAGR of 2.4 percent; chemical and industrial occupations are expected to grow at a CAGR of 1.7 percent; basic engineering roles are expected to increase at a CAGR of 1.5 percent; directors and managers are expected to grow at a CAGR of 1.4 percent, and clerical workers with a 1.3

FIGURE 2: Saudi Arabian Employment by Occupation 2010-2030 Trends

Source: USSABC, Regional Economic Models, Inc.
percent CAGR. These growth trends are shown in figure 2. Gaining a better understanding of occupational growth trends and future employment needs at a finer level and across sectors in Saudi Arabia may be useful when considering training programs and workforce development resources.

Private sector job creation

Given the targets outlined in the National Transformation Program 2020, Saudi Arabia is aiming to create more jobs, especially for Saudis and especially in the private sector. In 2016, there were approximately three times as many jobs in the public sector as the private sector, with nearly 70 percent of Saudis employed by the Government. The program’s goal is to create 450,000 private-sector jobs by 2020, cutting the size of civil service by 20 percent. The Government intends to reduce the overall amount of money spent on wages to 40 percent of its budget by 2020, down from 45 percent.

Forecasts suggest that 2.2 million private sector jobs will be required by 2025 for Saudis to reach full employment. This figure assumes that an additional one million jobs will be available in the public sector.

Near the end of 2016, Saudi Arabia established the National Center for Privatization to help achieve its privatization goals. The center will oversee national privatization policies and programs, and will facilitate public-private partnerships, managing the operations and financing of activities related to job creation and investment.

Breakdowns for private sector jobs are shown in table 3. We estimate that for 2017, the greatest number of private sector jobs are being driven by public administration and defense, with 2.16 million full-time and part-time jobs, followed by wholesale and retail trade (2 million), construction (1.51 million), education (1.2 million), and positions within private households (1.08 million). One source of private sector defense jobs are joint ventures with private companies. A recent example of this is a JV between TAQNIA Aeronautics and Lockheed Martin for the final assembly of helicopters. Other private sector jobs under this umbrella will be through firms that specialize in the protection of IT infrastructure and cybersecurity. Saudi Arabia’s cybersecurity market is expected to expand at a CAGR of 14.5 percent over the next two years.

Historically, Saudis have tended to seek work in the private sector because of greater job security and higher wages, though Government programs have aimed to close this gap. The Sanid program was created as a safety net to mitigate the risk for Saudis taking private sector jobs. During periods of unemployment, the program provides income and disability benefits, reducing the premium placed on job security in the public sector.

There is currently a SR3,000 per month minimum wage for Saudis employed in the public sector, a rate set in 2013. This is considerably higher than the SR1,500 per month for a foreign worker with less employment protections than Saudi workers, and this has resulted in foreign workers appearing more attractive to private firms. With measures being taken in Saudi Arabia to limit the pool of foreign workers, the supply shock to foreign labor has caused wages to rise, overall, making Saudis and foreign workers more comparable, while simultaneously making private sector employment more appealing to Saudis by increasing incentives to work.

Table 3: Private Sector Jobs in Saudi Arabia

<table>
<thead>
<tr>
<th>Employment Area</th>
<th>2017 Private Sector Jobs* (Millions)</th>
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</thead>
<tbody>
<tr>
<td>Public Administration and Defense</td>
<td>2.16</td>
</tr>
<tr>
<td>Wholesale and Retail Trade</td>
<td>2.00</td>
</tr>
<tr>
<td>Construction</td>
<td>1.51</td>
</tr>
<tr>
<td>Education</td>
<td>1.20</td>
</tr>
<tr>
<td>Private Households with Employed Persons</td>
<td>1.08</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>0.73</td>
</tr>
<tr>
<td>Transport and Storage</td>
<td>0.55</td>
</tr>
<tr>
<td>Health and Social Work</td>
<td>0.44</td>
</tr>
<tr>
<td>Real Estate and Rentals</td>
<td>0.43</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0.42</td>
</tr>
<tr>
<td>Hotels and Restaurants</td>
<td>0.33</td>
</tr>
<tr>
<td>Other Social and Personal Service Activities</td>
<td>0.23</td>
</tr>
<tr>
<td>Finance</td>
<td>0.13</td>
</tr>
<tr>
<td>Utilities</td>
<td>0.12</td>
</tr>
<tr>
<td>Petroleum and Minerals</td>
<td>0.10</td>
</tr>
</tbody>
</table>

*Estimation

Source: USSABC, Regional Economic Models, Inc.
According to Jadwa Investment, private sector wages have increased, with the average monthly wage for private sector Saudis increasing by SR5,625 ($1,500) in 2015, 6.7 percent year-on-year. Wages for non-Saudis in the private sector increased 12.2 percent year-on-year. Driven by labor market reforms such as Saudization, wage protection systems, and the correction of status to foreign workers, employment growth for Saudis in the private sector continues to outpace employment growth of non-Saudis.

With increased training and opportunities through private sector participation in sectors like healthcare and tourism, along with higher wages, Saudi Arabia hopes that more Saudis will want to be employed in the private sector by 2020.

**Labor Demand**

To model labor demand activity in an economy, capital demand, employment, labor productivity, and substitution among labor, capital, and fuel are interlinked. Total employment is comprised of farm, government, and private non-farm employment. Non-farm private industry employment is dependent on employment demand and the amount of workers required to produce one unit of output. Total employment demand is constructed from several components of employment from consumer demand, intermediate demand, local investment, demand from local and regional governments, and exports. Employment per dollar of output depends on the national employment per dollar of output, other costs, and access to specialized workers.

We define the employment demand categories as follows:

- **Local consumption demand employment:** the employment needed to satisfy demand for consumer goods.

- **Export demand employment:** the employment needed to satisfy demand for a region’s goods and services from the other regions in a multi-area model, the rest-of-nation region, and the rest of the world.

- **Investment activity demand employment:** the employment needed to satisfy demand for capital goods.

- **Government demand employment:** the employment needed to satisfy demand for goods and services by government expenditures.

- **Intermediate demand employment:** the employment needed to satisfy demand for material inputs to the production of final goods.

Across sectors, the employment profiles look very different. Private sector jobs (available to both Saudis and expats) are created through demand from local consumption, exports, investment activity, government activities, and intermediate demand.

For instance, figure 3 shows that exports are the primary driver of employment in manufacturing (49 percent) in Saudi Arabia. Government expenditure demand dominates private-sector job creation related to public administration and defense (79 percent), and local consumption demand drives employment in utilities (66 percent).

Consider private employment generated by these three industries, all with modest employment growth expected over the next decade. In 2017, there were approximately 730,000 full-time and part-time private sector jobs available in Saudi Arabian manufacturing, and employment is projected to increase at a 1.4 percent CAGR through 2030. Of these jobs, approximately 357,000 were driven by export employment. Export employment has a projected CAGR of 2 percent, contributing the most to employment growth, followed by investment activity demand employment (CAGR 1.1 percent).

The greatest number of private sector jobs are created by public administration and defense spending, with 2.16 million jobs estimated in 2017. Private sector employment is projected to increase at a CAGR of 1.4 percent. Most of the private sector jobs in this space (1.71 million) are needed to satisfy demand for goods and services by government expenditures. Through 2030, government demand employment is expected to have a 1.3 percent CAGR. Substantial annual growth is also anticipated from local consumption demand employment (2.1 percent) and intermediate demand employment (2.0 percent).

Private sector employment in the utilities sector is projected to grow by a 1.2 percent CAGR. The largest share of these jobs are local consumption demand and intermediate demand; however, export employment and intermediate demand employment have the greatest projected levels of growth, 3.6 percent CAGR and 1.2 percent CAGR, respectively. Figure 4 shows private employment by demand activity for manufacturing in Saudi Arabia.

Full employment profiles for defense, utilities, and other selected sectors are shown in Appendix 1, figures A1-A5.

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2 Note that projections are based on current trajectories and do not account for future policy interventions to be implemented as part of Vision 2030 to create additional jobs.
Labor Supply

Labor productivity

Labor productivity is partially a result of a pool of workers within a region contributing to labor force productivity, with each worker offering a unique set of characteristics and skills, even within the same occupational category. While a neurosurgeon may be able to perform cardiac surgery, the surgeon is going to be less effective than the cardiac surgeon. An industry is more likely to meet staff requirements when the pool of qualified workers is large. Labor productivity at an occupational level at each location is based upon residential locations of potential workers and estimated commuting costs. Contribution of labor variety to productivity is measured by an occupation-specific elasticity of substitution. Matching of workers with specialized training to available jobs has more impact on productivity for certain occupations. For instance, this is highly important for medical occupations but less important for productivity in service occupations. Productivity due to specialization by industry is constructed from occupational productivity, using the proportionate number of workers in each occupation that are employed by a given industry.

In 2017, labor productivity, as defined by output per employee, is currently the highest for the petrochemicals, minerals, manufacturing, and finance sectors. The first two sectors align with Saudi Arabia’s current human capital expertise, with manufacturing and finance two industries in which the Kingdom has been able to attract highly productive labor. However, we project that the greatest productivity growth between 2017 and 2020 will be in retail, hotels and restaurants, manufacturing, and transport and storage. These growth rates are shown in figure 5. The same sectors are expected to lead productivity gains through 2030. Overall growth
in demand in the retailing sector is driven by increasing Saudi household purchasing power coupled with a boost in investment in the Kingdom by domestic and international retailers.

**Education and training**

With an increasing role of the private sector in Saudi Arabia’s economy, initiatives to employ more young Saudis, and continued growth in the number of young workers, the landscape of the country’s labor market is rapidly changing. While educational attainment in Saudi Arabia continues at high levels with near universal literacy and expanding rates of university enrollment over the past decade, firms have experienced a shortage of required labor. Some cite a shortage of technical skills reflecting the low number of technical schools in Saudi Arabia compared with the OECD average and limited on-the-job training opportunities to develop certain technical skills that are needed in practice.

With access to a range of educational and professional opportunities, investment choices by Saudi youth for training have proven to be mismatched with the skillsets demanded by employers. An overabundance of graduates in humanities and a low number of graduates in science, technology, engineering, and mathematics indicates that college students favor fields with lower job prospects in the private sector. This is partially the result of an information problem in that youth new to the job market do not themselves have firsthand information about personal costs and benefits of education, and information gained from personal networks may be out-of-date, creating misperceptions around existing job opportunities and expectations.

Saudi Arabia’s Vision 2030 and National Transformation Program 2020 have a broad focus on expanding the role of the private sector and developing education and training capabilities. Education received the largest share of Saudi Arabia’s 2017 budget with an allocation of approximately SR200 billion ($53.3 billion). Projects under this segment include the development of King Abdullah Bin Abdulaziz Public Education Development Project, creation of new schools and facilities, expanding colleges for women, the Custodian of the Two Holy Mosques Scholarship Program, and NTP initiatives. The Scholarship Program currently serves over 207,000 students. In line with the country’s goals, Saudi Arabia has begun to expand its capacity to develop human capital, especially related to needs of the private sector and training for adults.

Initiatives have helped to address the mismatch of skills between the private sector and young Saudi workers. The Saudi Skill Standard (SSS) is a private company that gives guidelines to training programs reflecting the needs of employers in the private sector. SSS has made strides to standardize training and provide quality information to students to allow them to evaluate return on their own human capital investment.

Saudi Arabia is investing in its long-term labor market outcomes. The Technical and Vocational Training Corporation (TVTC), the government agency in charge of skills development, offers training programs, and the Ministry of Labor’s ‘Duroob’ program caters to the needs of Saudi jobseekers by helping them with training and employment opportunities, driving growth in the employment of Saudis. For job seekers who have limited resources, searching can be costly in both interviews and time, leading the individual to take the first job that is offered rather than one that aligns with the individual’s preferences and abilities. Saudi Arabia offers Sanid and Hafiz unemployment insurance to allow workers to find jobs for which they are well suited.

For many worker and specialties, necessary training often happens on-the-job. However, there are often minimal incentives for firms to invest in training workers. High turnover of workers can lead to poor returns on investment. Subsidies through Nitaqat limit these risks to firms. As Saudi Arabia increasingly works to promote foreign direct investment and to attract multinational joint ventures into many of its sectors, Saudi workers have the potential to gain skills on-the-job through the transfer of knowledge from the expertise of multinational employees in the country.

There are also benefits to employers with short-term working arrangements like apprenticeships and internships.
Short-term labor is low-risk and is a low-cost way to signal worker abilities to firms since it is often difficult to gather information on an individual’s productivity with respect to a certain job prior to employment. From the employee perspective, young job seekers struggle with gathering useful information on their own career preferences and the benefits they can expect from training tailored to employer needs in the current job ecosystem. According to microeconomic theory, a job seeker will invest in her own human capital when she can expect her private marginal benefits to exceed the private marginal costs. With the rapid change in Saudi Arabia’s labor market, it may be difficult for Saudis to accurately do this accounting, and the upfront costs for students already tend to be more apparent than the long-run benefits. Training programs like the Saifi program can help. Under this program, private companies in Saudi Arabia with 25 or more employees are required to provide internships to Saudi national students. The ‘Saifi’ initiative was first introduced in July 1997, but July 2017 is the first time the program will become a requirement for both Saudi men and women.

For the first time, Saudi Arabia has launched a set of courses for adults that are intended to provide further training for Saudi adults to lower dependence on foreign labor. These courses are free, short, and targeted towards older men and women well out of high school, and are intended to provide students with technical knowledge to compete on the job market. For men, courses focus on household electronics, automotive and computing courses. For women, the courses provide knowledge of computers, hairdressing and beauty.

The TVTC notes that the courses are not intended to qualify Saudis for the job market, but rather to help them develop enough knowledge of maintenance level skills needed to mitigate the need for expatriate labor. As reported in Arab News in June 2017, Ahmad Fahad Al-Fahaid, head of the TVTC said, “nobody told them, nobody taught them, nobody trained them, so that’s why we stepped in – to offer skills that will help Saudis do the repairs themselves or, at least, to better oversee those doing the work.” Prior to 2017 Ramadan, the pilot program took on over 4,600 trainees, indicating an appetite for this training, and the program will continue to expand course offerings in the future.

As Saudi Arabia invests in addressing issues underpinning the labor market like inefficient job placement and matching, information problems, and worker skills, time will tell the effectiveness of these initiatives. Will the information provided to workers on job searches and human capital investment lead to a change in individual decisions? Can retraining adults for demanded occupations better match supply of Saudi workers with firm demand?

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### Working women

A low labor force participation rate among Saudi women has become an increasing concern for Saudi Arabia’s economy. Despite improvements, female labor force participation in Saudi Arabia remains among the lowest in the world, hindered by concentration of women’s employment in only a few fields, limited transportation options, reluctance or inability to relocate, and social norms for working in mixed-gender environments.

By 2020, Saudi Arabia aims to boost the female workforce to 28 percent and lower unemployment to nine percent. Early data from the launch of Vision 2030 and the National Transformation Program indicate that the country is making strides.

Saudi female employees (registered with the General Organization for Social Insurance) increased from 203,088 in 2012 to 496,800 by the third quarter of 2016, an increase of 145 percent. During the same period, the number of private-sector jobs available to Saudi women increased to 30 percent of private sector jobs for Saudis. Approximately 40 percent of the jobs are in Riyadh, followed by 21.5 percent of jobs in Makkah, and 11.4 percent of jobs in the Eastern Province. The annual increase in the number of female employees increased most sharply in Jazan, with a 19 percent annual growth rate.

At the end of 2016, over one-third of employed Saudis were women. The labor force participation rate was nearly 20 percent for Saudi women, yet the unemployment rate for Saudi women 15 years and older was 34.5 percent. The MLSD reported that women employed in the private sector increased by 10 percent y-o-y in 2016, with the highest employment growth rates for women in the private sector among those with secondary levels of education.

While the number of female Saudi employees has increased, the number of women who are looking for employment face challenges, and there remain obstacles to increase participation rates for women. For one, access to transportation and lack of day-care centers creates a barrier for women who may otherwise desire to be employed.

Higher unemployment rates of women can be attributed to factors such as not enough employment opportunities for women to keep pace with the increase of women entering the workforce. From a firm’s perspective, it is marginally more expensive to hire a female worker than a male Saudi or expatriate. Firms who currently only employ men may continue this pattern because of fixed costs in hiring initial female employees like installing separate office spaces, both a legal requirement and preference for workers because of cultural norms. Employers who have previous experience working exclusively with male
employees also have asymmetric information on female work abilities, so there are greater search costs to find qualified candidates.

From a female candidate’s perspective, there may be monetary costs and high opportunity costs associated with being employed. For instance, a 2016 survey indicates that Saudi women have strong preferences for employment. This survey of Saudi nationals found preference differences for types of professions between men and women. Women were more likely to note administration as an ideal role than were men (41 percent versus 22 percent) or work in journalism (16 percent versus 7 percent). Women were also more likely than men to want to work for hospitals (34 percent versus 17 percent), Saudi Telecom Company (17 percent versus 9 percent), and Abdul Latif Jameel (19 percent versus 9 percent). Overall, women were significantly more likely to be career motivated by excitement of opportunity and work-life balance (43 percent versus 12 percent), whereas men were more likely than women to be motivated by money (48 percent versus 33 percent).

Given preferences for types of employment and segregated gender environments, differences in motivation, and costs of relocating, there may be a limited set of suitable employment opportunities. Policy initiatives like Women’s Employment in the Retail Sector, Support Women’s Jobs in Factories, and Nitaqat can reduce the cost in hiring women, and the Telework program effectively reduces the high transportation costs placed on women and their families.

Also, the unemployment figures may be overestimates since a person who applies for a monthly allowance through the Hafiz social welfare program may not actively look for a job. This program may be causing women to be counted as part of the labor force without effectively engaging in a job search. Among those counted as job seekers, nearly 81 percent of the total were women.

In order to confront obstacles that women face in the work environment, the MLSD aims to move forward with initiatives to set up workplace daycare centers and to achieve “a safe and friendly working environment for women.” Certain industries, like retail, have started to provide on-site daycare services. Broadly, the Saudi Government had directed that agencies review and remove existing rules limiting female professional access without guardianship approval.

Currently in its pilot phase, the Ministry also has started implementing a new initiative to facilitate commuting for women to and from their workplaces in Jeddah and Riyadh. Adjusted working hours for women also attempts to create a work-home balance, especially for mothers of young children. Reportedly, some employers have already begun to bear transportation costs by providing shuttle bus services for employees. Some companies have started to collaborate with the ride-hailing app Careem to provide female employees with reimbursement for ride services if the shuttle buses do not access certain homes.

Entrepreneurs have started to address labor market challenges for women as well, for example, inefficient job placement and matching. A website for Saudi women in the workforce to connect job seekers to opportunities was created early 2017. The free website Alajnabia is confronting the issue of matching women to jobs as the employment landscape changes. Among traditional jobs, Saudi women can now work in specified jobs in hospitality and retail. The website’s founder observed that there are not only limited jobs available to women, but the jobs that are available are often poorly advertised. The platform connects recruiters with jobs seekers, allowing workers to be hired based on qualifications and skills rather than solely on connections.

Glowork, an employment organization for women based in Saudi Arabia, launched a platform in 2011 to connect women with thousands of jobs in areas like digital marketing, research, and sales. This platform facilitates matching, providing jobs for women and also creating a conduit between highly skilled employees and jobs. Glowork’s virtual office technology allows women to work from home, offsetting fixed costs that small employers face in hiring female workers. This technology also creates opportunities for women who reside in remote locations. Employment matching services were created to help women move beyond the obstacles that they face in Saudi Arabia’s labor market, addressing high overall unemployment of women, and unemployment of highly educated women (an estimated 60 percent of women with PhDs in Saudi Arabia are unemployed). As of 2016, Glowork had placed over 30,000 women throughout the Saudi labor force over the course of four years.

This organization has created a well-established network of connections with the MLSD and every college and university that educates women in Saudi Arabia. Through work with universities, Glowork aims to address the skills gap between education and workforce by providing career workshops and mentoring, and has started working with high-school aged girls. To support women’s job searching skills, the organization established the ‘A Step Ahead’ career fair for women who are university students and recent graduates, resulting in the hiring of hundreds of women.
Appendix I: Private Employment by Demand Activity, Selected Industry Sectors

FIGURE A1: Public Administration and Defense: Private Employment by Demand Activity

Source: USSABC, Regional Economic Models, Inc.

FIGURE A2: Utilities: Private Employment by Demand Activity

Source: USSABC, Regional Economic Models, Inc.
FIGURE A3: Private Households with Employed Persons: Private Employment by Demand Activity

Source: USSABC, Regional Economic Models, Inc.

FIGURE A4: Healthcare: Private Employment by Demand Activity

Source: USSABC, Regional Economic Models, Inc.
FIGURE A5: Education: Private Employment by Demand Activity

Source: USSABC, Regional Economic Models, Inc.

Graph showing private employment by demand activity from 2010 to 2030.
Appendix II: Bibliography


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