Report No. 3181a-YAR

Manpower Development in the Yemen Arab Republic

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Country Programs Department I
Europe, Middle East and North Africa Region

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CURRENCY UNIT:

Yemeni rial (YR1)

CURRENCY EQUIVALENTS 1/
(As of February 1973)

YR1s 1 = US$ 0.22
US$ 1= YR1s 4.50

ABBREVIATIONS

CPO	Central Planning Organization
CYDA	Confederation of Yemeni Development Associations
DTC	District Training Center
ETS	Education/Training System
FFYP	First Five-Year Plan (1976/77-1980/81)
HA	Highway Authority
HMI	Health Manpower Institute
IBRD	International Bank for Reconstruction and Development
ILO	International Labor Organization
LDA	Local Development Association
MOA	Ministry of Agriculture
MOC	Ministry of Communications
MOE	Ministry of Education
MOH	Ministry of Health
NIPA	National Institute of Pubilc Administration
NWSA	National Water and Sewerage Authority
SBU	School Building Unit
SFYP	Second Five-Year Plan (1982-1986)
TTI	Teacher Training Institute
TTS	Technical Secondary School
UN	United Nations
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VTC	Vocational Training Center
YAR	Yemen Arab Republic
YGEC	Yemen General Electricity Corporation
YR1	Yemeni Rial

FISCAL YEAR

July 1 to June 30 (Prior to 1980)
July 1 to December 31 (1980)
January 1 to December 31 (As of 1981)

1/ No par value for the Yemeni rial has yet been declared to the IMF. Exchange transactions are effected at the Central Bank rate which has been pegged to the US dollar since February 1973.

MANPOWER DEVELOPMENT

IN THE

YEMEN ARAB REPUBLIC

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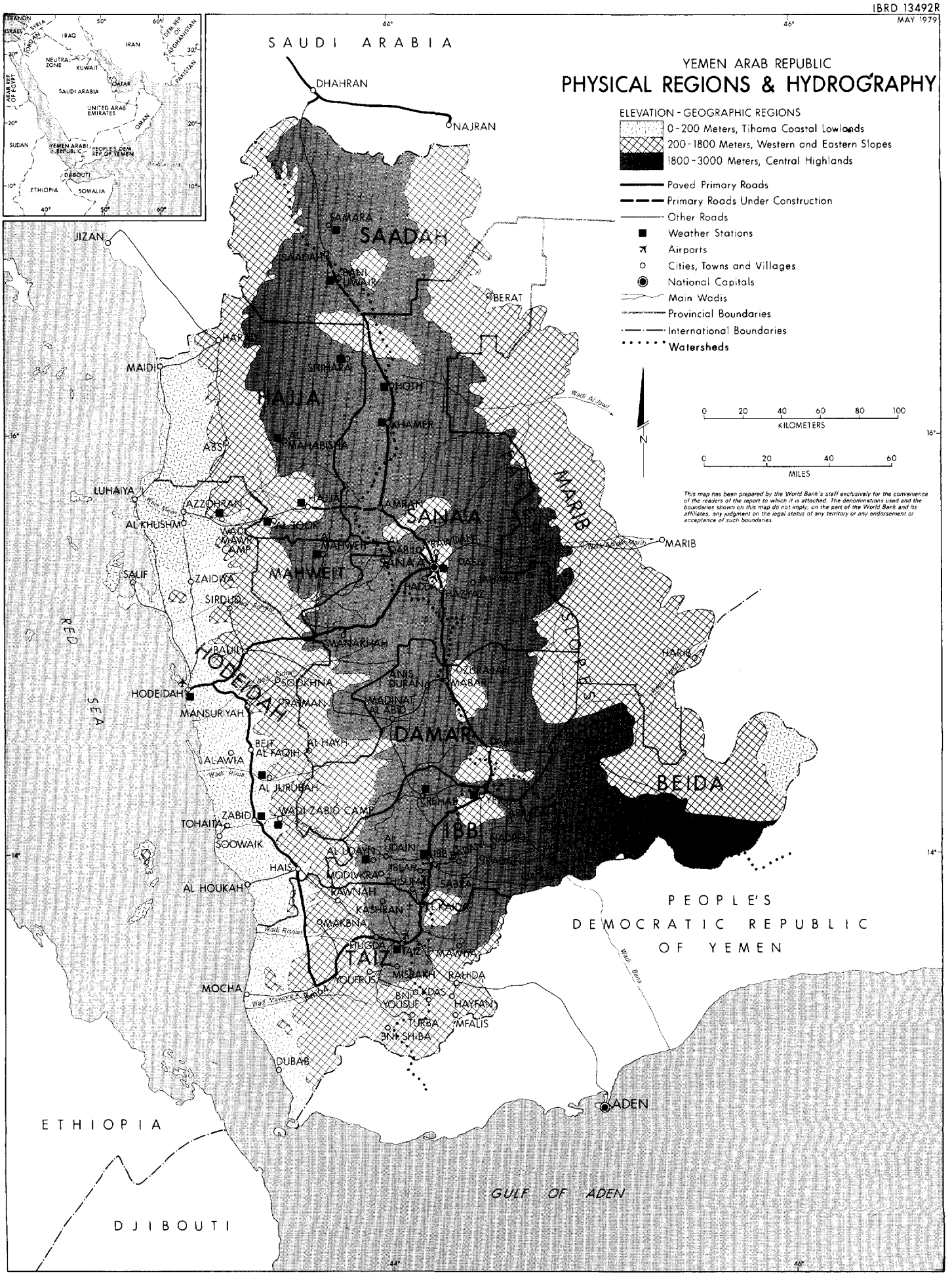
STATISTICAL ANNEX

IBRD 13492R
MAY 1979



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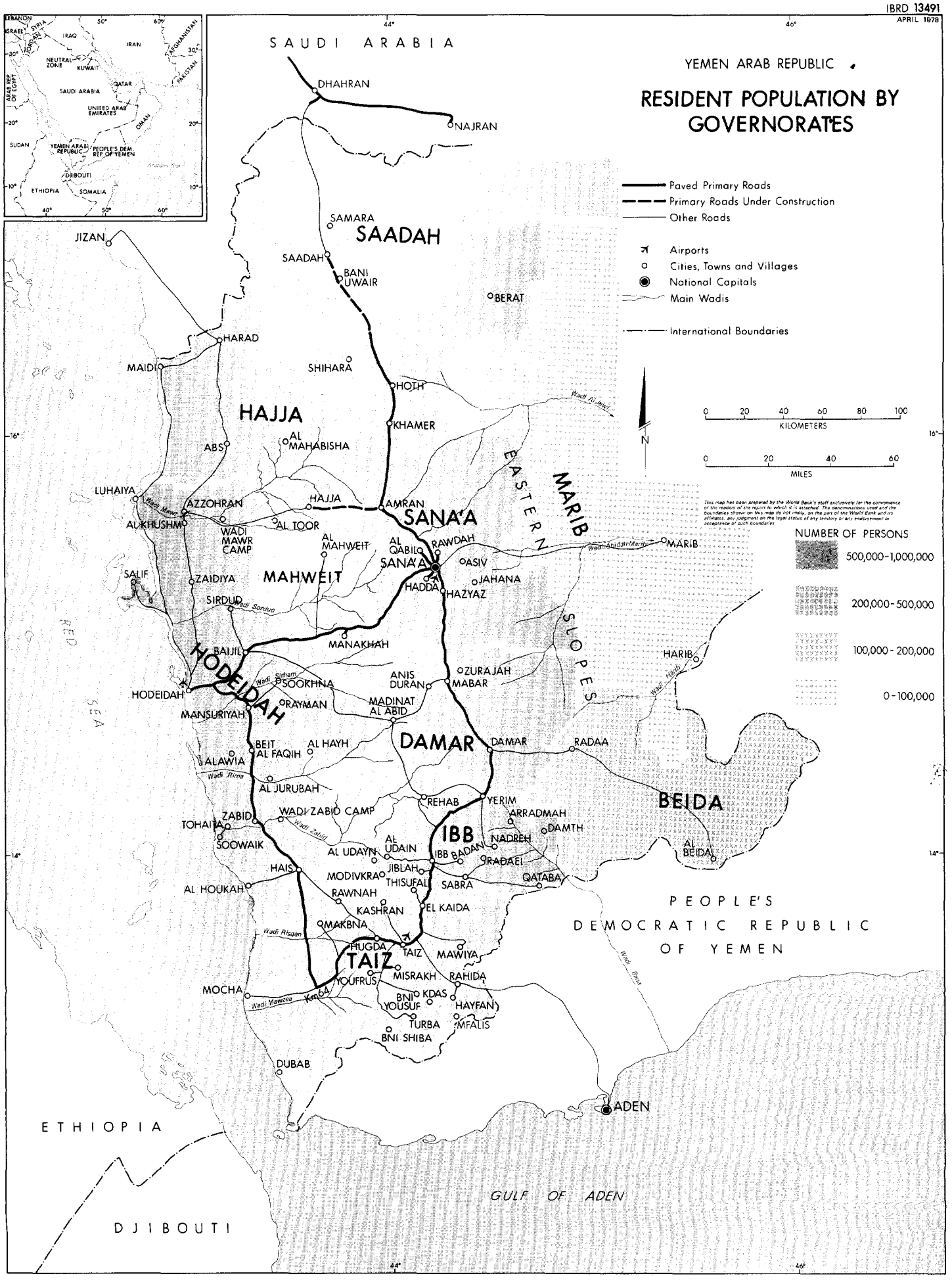
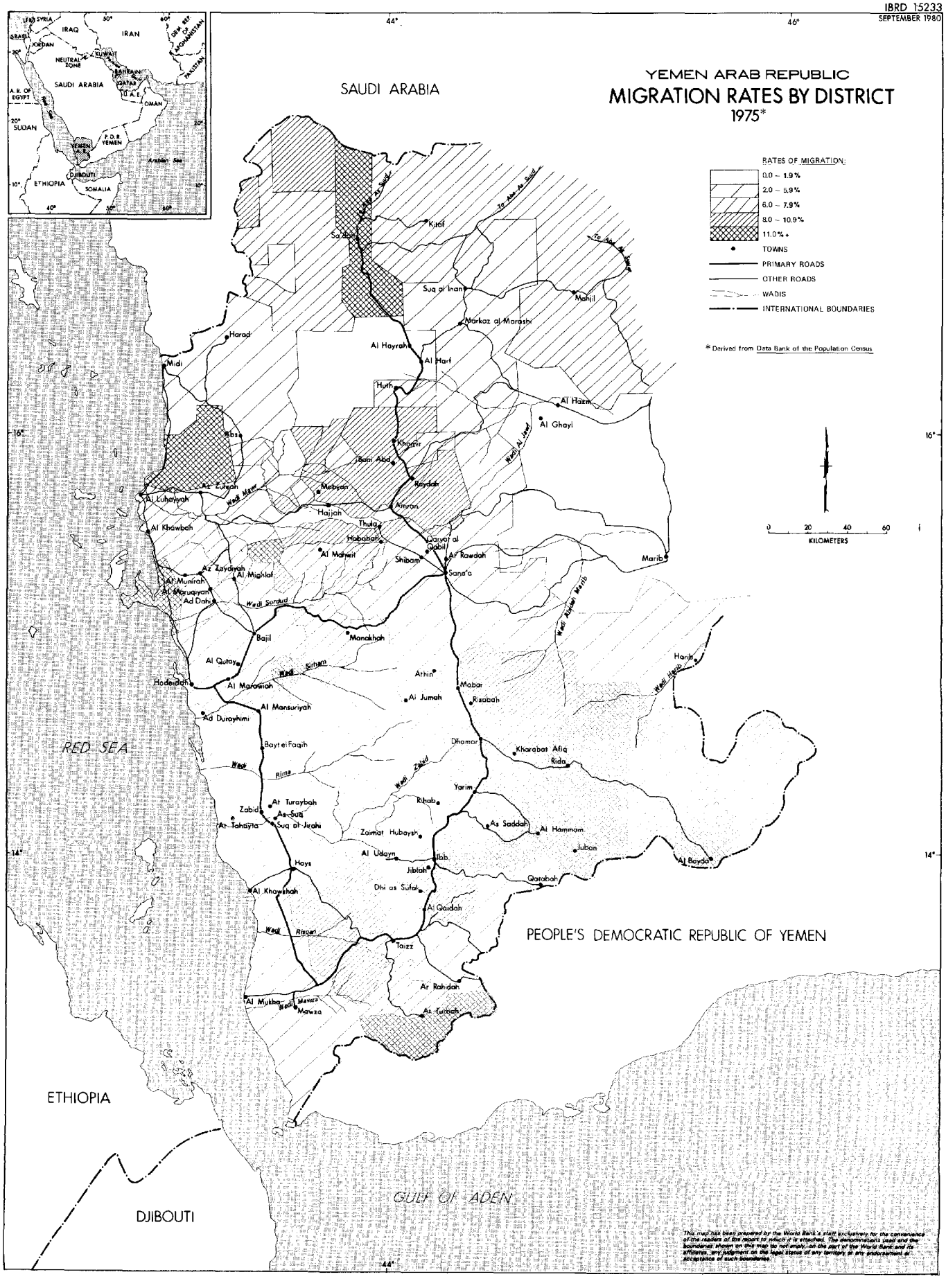
APRIL 1978



IBRD 15233
SEPTEMBER 1980



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وثيقة

للبنك الدولي

لا تستعمل سوى في الاغراض الرسمية

سرى

التقرير رقم YAR-٣١٨١

خلاصة وتوصيات

تقرير

تطوير وتنمية القوى العاملة

في

الجمهورية العربية اليمنية

٢٧ مارس ١٩٨١

مقدمة

١- لقد أعد هذا التقرير بناء على النتائج التي توصلت اليها بعثة قامت بزيارة الجمهورية العربية اليمنية خلال شهري ابريل ومايو ١٩٨٠ . وقد تألفت البعثة من السادة عادل كنعان (رئيس البعثة)، وفالنتين دي سا (خبير التدريب)، وبهارات كرشنا (خبير القوى العاملة)، وبرنارد ماسترز (خبير التعليم)، و س . رانجاتشار (الشؤون الاقتصادية العامة)، وكلايف سينكلر (ديموغرافي)، وجيمس سوكنات (خبير القوى العاملة).

٢- ان هدف هذا التقرير، بادئ ذي بدء ها تقديم استعراض لتطور القوى العاملة في الجمهورية العربية اليمنية خلال الفترة ١٩٧٥-١٩٨٠ . وتنفيذا لذلك فقد تمّ حصر المعلومات عن سكان اليمن والقوى العاملة والمهاجرين والمغتربين وبرامج التدريب في محاولة لرسم صورة موحدة للوضع الشامل للقوى العاملة. وقد تمّ على اساس هذا التقرير اعداد وتقديم اسقاطات للاحتياجات من القوى العاملة والمعروض منها حسب الفئات الوظائفية لعام ١٩٨٥. وعلى الرغم من ان هذه الاسقاطات قاصرة على ما هو متوفر من معلومات وبيانات الا انه من المأمول فيه ان تكون درجات الحجم والاتجاهات العريضة التي توصي بها مفيدة للقائمين على التخطيط للقوى العاملة في الجمهورية العربية اليمنية عند اعدادهم للخطة الخمسية القادمة (١٩٨٢-١٩٨٦).

٣- لقد تم حصر فحوى ما تضمنه التقرير في التلخيص والذي أعدّ بحيث يتفق مع مجرى الابواب الخمس التي ينقسم اليها التقرير. مع تقديم جزء مركّز يعرض التقييم الشامل والتوصيات على انفراد. وقد اعدّت ترجمة كل من التلخيص والتقييم والتوصيات الى اللغة العربية وذلك لزيادة عدد من يحتمل قراءتهم للتقرير في اليمن. وقد تعمّد التقرير عرض الملاحق الاحصائية بالتفصيل وذلك لأن احدى كبرى اغراض هذا التقرير تنصبّ على توفير معلومات شاملة عن تطور قوى العمل في الجمهورية بطريقة منتظمة تضمها وثيقة واحدة. كما يوجد ملخص للمعلومات الخاصة بالمؤشرات الاساسية الاقتصادية والاجتماعية في آخر نص لمذكرة البنك الدولي الاقتصادية عن الجمهورية العربية اليمنية (تقرير رقم ٢٨٥٦- اليمن).

٤- وتود البعثة ان تقرّ بكل امتنان بالمساعدة والمساندة التي قدمتها جميع وكالات كل من القطاع العام والخاص وخاصة الجهاز المركزي للتخطيط.

٥- جرت مناقشة مسودّة هذا التقرير من السلطات اليمنية في صنعاء خلال شهر ديسمبر ١٩٨٠، وفي مدينة واشنطن دي.سي. في يناير عام ١٩٨١.

تلخيص (١)

١- السكان وقوة العمل

(أ) السكان عام ١٩٧٥

(١) تم اجراء التعداد الوحيد حتى الآن لسكان الجمهورية العربية اليمنية في شهر فبراير ١٩٧٥. ولقد قدر التعداد عدد السكان المقيمين بحوالي ٣ر٥ مليون نسمة، والمهاجرين (سواء المغتربين منهم أو المهاجرين في الأمد الطويل) بنحو ٢ر١ مليون. وتضمن التقدير ٥ر٤ مليون من السكان حسب الواقع الفعلي مع افتراض اقامة بقية عدد السكان في مناطق لم يتطرق اليها التعداد وغيرهم من السكان فات المشتغلون في الميدان حصرهم.

(٢) وقد كلفت بعد ذلك "الخدمات السويسرية للمعونة الفنية" بالتأكد من مدى "الحصر الناقص" في المناطق التي تم فيها التعداد وكذلك "الغير محصورين" في المناطق التي لم تمتد اليها العملية في شرقي وشمال البلاد. وقد أيدت النتائج التي توصل اليها الفريق السويسرى مضمون ارقام التعداد بالنسبة للسكان الذين تم حصرهم، الا ان تقدير الفريق لعدد بقية السكان المقيمين حدد العدد بما يقل بنحو ٥٣٠ر٠٠٠ فردا عن النتائج الاولية للتعداد.

(٣) وقد استجدّ ما دعى الحكومة موءخرا الى الاعتقاد بأن تقديرات التعداد المبدئية بالنسبة للحصر الناقص ولغير المحصورين كان اقرب الى الواقع، وعلى ذلك فقد عهدت على ان تقوم باجراء بحث بالعينة للمناطق التي لم يمتد اليها التعداد لتتحقق من تلك النتائج. والى ان يتم ذلك فقد أعد هذا التقرير على اساس النتائج المبدئية للتعداد وعلى اعتبارها تقديرا رسميا للحكومة عن السكان المقيمين على ان يظل من المفهوم ان تلك الارقام تعتبر تجريبية وقابلة للمراجعة.

(٤) وقد تمكنت لأول مرة البعثة من وضع مرسومة للعمر والنوع لتركيب السكان في اليمن ثم تحديد معالم تلك المرسومة لتتضمن جميع السكان الذين تمّ تقديرهم رسميا واولئك المهاجرين المسجلين رسميا في البلدان المنتفعة (الفقرة ١-١٣ والجدول ١-١) وذلك بحصر المعلومات الديموغرافية عن المواطنين اليمنيين في دول اخرى من شبه الجزيرة العربية.

(٥) على الرغم من ان السواد الأعظم من السكان ما زال ينتمي الى الريف فان بيانات التعداد عن نسبة النوع حسب المحافظات والمدن تشير الى ان

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(١) يحتوى هذا التلخيص على عدد من المراجع الى فقرات وجداول موجودة في التقرير الكامل باللغة الانجليزية.

العديد من الذكور في سن العمالة قد هاجر من المناطق الريفية الى مراكز الحضر الهامة. وقد تناقصت نسبة النوع حتى بلغت ٨٢ في محافظة البيضاء، بينما ارتفعت بحيث بلغت ١٤٥ في مدينة الحديدة في عام ١٩٧٥.

(ب) قوة العمل عام ١٩٧٥

(٦) كما قامت البعثة بحصر المعلومات عن تركيب قوة العمل اليمنية لعام ١٩٧٥ (الجدول ١-٢). بلغت نسبة العاملين اليمنيين المسجلين في بلدان اخرى من شبه الجزيرة ما يقرب من خمس اجمالي العدد والسواد الأعظم منهم من الذكور (٩٩ ٠/٠). بالنسبة للعاملين في الجمهورية فان الاغلبية الكبرى كانت ايضا من الذكور (٨٨ ٠/٠). الا ان عدد الاناث العاملات جاء بخس التقدير في الاحصائية وذلك لمجموعة من الاسباب المختلفة (انظر الفقرة ٢ر٠٨).

(ج) اسقاطات السكان وقوة العمل

(٧) قامت البعثة، مع مراعاتها لعدد من التحفظات (الفقرات ١-٢٣ الى ١-٣١)، باعداد اسقاطات تجريبية عن سكان اليمن (الجدول ١-٣) وقوة العمل (الجدول ١-٤) بالنسبة للسنوات ١٩٨٠ و ١٩٨٥ و ١٩٩٠. ان هذه الاسقاطات لشديدة الحساسية الى اية افتراضات بالنسبة لمعدلات الاخصاب ووفيات الرضع والأجل المتوقع للعمر ونسبة الاشتراك في العمالة، وتعتبر اية معلومات خاصة بتلك المقوّمات غير وافية حاليا بما هو مطلوب. ان الافتراضات المبنية على المقوّمات الديموغرافية توحي بنمو معدل عدد السكان من ٢ر٦ ٠/٠ في عام ١٩٧٥ الى ٢ر٩ ٠/٠ في عام ١٩٩٠. ويقدر ان يبلغ عدد السكان عام ١٩٩٠ نحو ٨ر٥ مليون نسمة. وقد طبّقت اسقاطات قوة العمل بعض الافتراضات لتكييف معدلات المشاركة الخام للتوقعات الناتجة عن آثار التعليم والتدريب وتغير الاعتبارات الاجتماعية المختلفة. اما التركيب الخاص بقوة العمل اليمنية (وهنا ايضا ضم التركيب التقدير الرسمي للسكان والمغتربين المسجلين فقط) فيقدر له ان يزداد من ١ر٦ مليون عام ١٩٧٥ الى ٢ر٢ مليون عام ١٩٩٠.

٢- تركيب استخدام العمالة

(٨) ان من الاهداف الرئيسية التي يتوخاها استعراض حالة العمالة في الجمهورية والمقدم في الباب الثاني من التقرير محاولة تجميع صورة اقرب ما تكون الى الواقع حسبما يمكن استقاؤها من مختلف المصادر المبعثرة للمعلومات. ونظرا لأهمية تطوير وتنمية موارد قوة العمل بالنسبة للتنمية الشاملة لاقتصاديات البلاد فينبغي العمل على توحيد مهمة حصر الاحصائيات الخاصة بقوة العمل على اساس استمراري ومقارن، ويفضل ان يتم ذلك تحت رعاية وحدة خاصة بالقوى العاملة تابعة للجهاز المركزي للتخطيط.

(أ) مميزات قوة العمل

(٩) التوزيع : بلغت قوة العمل المسجلة عام ١٩٧٥ حوالي ١٫٤٠ مليون عاملا (الجدول ٢-١) يعمل منهم بالخارج ما نسبتهم حوالي ٢٠ ٠/٠ . اما بقية العاملين المحليين والبالغ عددهم ١٫١٤ مليون فان الأغلبية العظمى منهم كانت تعمل في القطاع الخاص وبصفة اساسية في القطاع التقليدى (الجدول ٢-٢) واما القطاعان العام والمشترك فكانا يوظفان ما يزيد عن نحو ٣٠٫٠٠٠ عاملا، بينما بلغ عدد العاطلين ٨٠٫٠٠٠ فردا (أو ما يقرب من ٦ ٠/٠ من اجمالي قوة العمل).

(١٠) تحصيل التعليم والتدريب : ان من سمات العمال اليمنيين المميزة انخفاض معدل تعليمهم وتدريبهم اذ انهم ينتمون الى جمهرة من السكان بلغت فيها نسبة الأمية المشتركة للذكور والاناث ٧٨ ٠/٠ . وعلى الرغم من انه لا تتوفر اية معلومات جارية عن مستوى تحصيل القوة العاملة من التعليم والتدريب فانه يمكن بكل صواب افتراض حدوث تقدم كبير خلال السنوات الخمس الماضية على الرغم من انه ما زال الكثير الذى يجب انجازه في هذا المجال.

(١١) تركيب العمر والنوع: تتسم قوة العمل اليمنية بشبابها وبأن السواد الأعظم من افرادها من الذكور، على ان نتائج التعداد لم تأخذ في الحسبان وجود العديد من العاملات وبصفة خاصة في المناطق الريفية. ويضاف الى ذلك قيام عدد هام من الذكور في سن العمالة بالهجرة للعمل بالخارج مما يؤدى الى تباين هام في توزيع العمر بصفة اساسية وكذلك في توزيع النوع بين العناصر المقيمة والمغتربة. فعلى سبيل المثال يبلغ ثلثا عدد المغتربين المسجلين ما بين ١٥ و٤٩ سنة من العمر، بينما قلّت النسبة المطابقة داخل البلاد عن الخُمسين. ثم ان النساء اللائي ينسب اليهن حوالي ١٢ ٠/٠ من قوة العمل المحلية لا تتعدى نسبتهن ١ ٠/٠ من قوة العمل المغتربة. لقد قامت الاناث بدور حيوى في الحياة الريفية الا انهن اصبحن اكثر تبيّنا وانكشافا مؤخرا في الوظائف الحضرية. وعلى الرغم من انه لا يتوقع حدوث اى تغيرات جوهرية في التركيب العمرى لقوة العمل اليمنية خلال العقد المقبل الا انه من المأمول فيه ان تؤدى زيادة فرص التعليم والخدمات المساندة كرعاية الطفل الى المزيد من اشتراك الاناث في قوة العمل الماهرة او النصف الماهرة فهناك فرص عمل متعددة للاناث المؤهلات وخاصة في قطاعي الرعاية الصحية والتعليم.

(١٢) التوزيع القطاعي والوظائفي: أن الغالبية العظمى من العاملين (٨٧ ٠/٠) كانت تعمل بالزراعة في عام ١٩٧٥ بينما تعمل نسبة ١٢ ٠/٠ في التجارة والخدمات، و ٥ ٠/٠ في الانشاءات، والنسبة المتبقية وهي ٥ ٠/٠ في القطاعات

الاخرى مشتركة (الجدول الاحصائي الملحق ٢-٩). وتمشيا مع ذلك التوزيع القطاعي لقوة العمل فقد بلغت نسبة العمال الزراعيين ٧٨ ٠/٠ بينما تم توظيف ١١ ٠/٠ منها في اعمال مرتبطة بالانتاج. وبذلك شغلت ٩٠ ٠/٠ من القوة العاملة وظائف في الجانب الادنى من مجموعة المهارات. أما في الطرف الاعلى فلا نجد اكثر من ١ ٠/٠ من المهنيين، ثم ٥ر٠ ٠/٠ من الاداريين والمديرين (الجداول الاحصائية الملحقة ٢-٦ و ٢-٧).

(ب) معدل نمو التوظف (١٩٧٥-١٩٨٠)

(١٣) لسوء الحظ لم تكن المعلومات المتوفرة لدى المصادر المختلفة المتباينة عن احوال التوظف في عام ١٩٨٠ أو خلال الفترة ١٩٧٥ الى ١٩٨٠ بالاكتمال الذى اتسمت به احصائيات ١٩٧٥. لقد تم اجراء بحث بالعينة للاسر المعيشية عام ١٩٧٨ الا انه يبدو وكأن النتائج التي تم الحصول عليها لا تتفق مع تعداد ١٩٧٥. وعلى ذلك فينبغي اعتبار الصورة التي تمكنت البعثة من رسمها عن تطور التوظف خلال الفترة ١٩٧٥-١٩٨٠ على اساس كونها دليلا للاتجاهات المتمثلة.

(١٤) القطاعان العام والمشترك: ومع مراعاتها للاعتبارات الخاصة بالبيانات المشار اليها آنفا فقد قامت البعثة بتقدير الزيادة المحتملة في عدد العاملين في القطاعين العام والمشترك باستثناء رجال الأمن الذين يتبعون وزارة الداخلية من حوالي ٢٦٫٠٠٠ عام ١٩٧٥ الى نحو ٣٦٫٠٠٠ في عام ١٩٨٠. وكانت النسبة الكبرى من هذه الزيادة (حوالي الثلثين) في عدد المدرسين والعاملين في مجال الصحة لشغل الوظائف اللازمة في نظامي توصيل التعليم والرعاية الصحية. ومع توسع اجهزة الادارة العامة فقد تبين تحوّل ملحوظ خلال السنوات القليلة الماضية نحو زيادة نسبة العاملين في الوظائف الادارية العليا والمتوسطة (الجدول ٢-٥) مع توفر المزيد من العاملين الموءهلين، على انه لا بد من مرور بعض الوقت قبل ان يتمكن الموظفون ذوو المهارات والموءهلات المناسبة من شغل جميع الوظائف الشاغرة.

(١٥) القطاع الخاص: تكاد ألا توجد اية بيانات منظمة عن تطور الحالة العامة للعمالة في القطاع الخاص منذ تعداد ١٩٧٥ ونشاط سوكنات وسينكلر. وعلى ذلك حاولت البعثة تقدير ذلك بطريقة غير مباشرة بالنسبة لعام ١٩٨٠ على اساس معدل نمو القيمة المضافة ومتوسط انتاجية العامل خلال السنوات المعنية. ونظرا لشحّة المعلومات عن الاتجاهات الاصلية للانتاجية في الجمهورية، ناهيك عن احتمالات تلك الاتجاهات في المستقبل لذا فتعتبر تقديرات اسقاطات العمالة تقريبية بالضرورة. فعلى افتراض زيادة الانتاجية زيادة معتدلة خلال الفترة ١٩٧٥-١٩٨٠ تمّ التوصل

الى تقدير تقريبي للعمالة في القطاع الخاص عام ١٩٨٠ بحوالي ٢٩٢٫٠٠٠ر١ عامل (الجدول ٢-٨).

(ج) العاملين الاجانب

(١٦) ان المعلومات المتوفرة عن عدد الاجانب العاملين بالجمهورية معلومات مبعثرة وربما ليست كاملة. وقد تم عرض تلخيص للمعلومات التي تمكنت البعثة من حصرها في الجدول ٢-٤ . ومن المعتقد ان مجموع عدد اولئك العاملين في اوائل ١٩٨٠ بلغ نحو ١٧٫٠٠٠ (منهم ١٠٫٠٠٠ بالقطاع الخاص و ٦٫٠٠٠ بالقطاع العام وألف بالقطاع المشترك). يمثل اولئك العاملين اربع فئات تعمل بالجمهورية (أولا) نسبة صغيرة نسبيا من الخبراء المرتبطين بنشاط المعونة الفنية يشغلون مناصب فنية وتقنية رفيعة، (ثانيا) مجموعة كبيرة من المدرسين والممرضات ينتمون بصفة اساسية الى كل من مصر والسودان، (ثالثا) موجة جديدة نسبيا من المهاجرين الى الجمهورية من منطقة شرق افريقيا (القرن الافريقي) يفد بعضهم الى البلاد للاقامة بها فترة ثم يمضون الى انحاء اخرى من شبه الجزيرة، وأخيرا (رابعا) الموجة الاخيرة التي وفدت موءخرا من العاملين من الهند والباكستان والشرق الاقصى يعملون مع مقاولي الانشاءات الكبار والاجانب.

(٥) الاجور والمرتبات

(١٧) ولعل الأقل تلبية للمطلوب عن الحالة العملية هي تلك المعلومات المتاحة عن اتجاه حركة الاجور والمرتبات وعلى الاخص في القطاع الخاص. وحتى بالنسبة للقطاع العام حيث تحدد المرتبات ضمن مربوطات ومعدلات ثابتة لا تتوفر اية معلومات عن ما يحصل عليه الموظفون المدنيون فعلا من مرتبات ومزايا الا من زاوية المبالغ الاجمالية في هذا الشأن. اما فيما يتعلق بالقطاع الخاص فان المعلومات التي حصلت عليها البعثة لا بد وان تعبر بالضرورة عن انطباعات امكن التوصل اليها.

(١٨) القطاع العام: تم سن قانون شامل بالنسبة للخدمة المدنية (قانون رقم ٤٩) في عام ١٩٧٧ لتطوير هيكل موحّد يشمل ١٣ درجة. وبالاضافة الى التعاريف الجديدة والقواعد والاحكام التي نص عليها القانون فقد حقق القانون نفسه زيادة في مربوطات الاجر وبدلات شاملة ينتفع بها جميع العاملين في خدمة الدولة، الا ان تلك تتزايد بصفة عامة كلما تابعنا هبوط سلم الدرجات. وقد تم تعديل ذلك القانون بموجب القانون رقم ٣ لعام ١٩٧٩ والذى نصّ عن زيادات اضافية للمرتبات وبدل طبيعة العمل. (الجدول الاحصائي الملحق ٢-١١ بمقارنة مستويات الاجور قبل سن القانون والتعديل وبعده). وقد ارتفع في المتوسط مستوى المرتبات الى اكثر من

الضعف عام ١٩٧٧ ثم زيد بنحو ٤٠ ٠/٠ عام ١٩٧٩. على انه لا بد من مراعاة انها تركت دون تغيير خلال السنوات الست السابقة على عام ١٩٧٧، وعلى ذلك ينبغي ترجمة تلك الزيادة الى معدل نمو سنوى بواقع ٥ر١٢ ٠/٠ خلال الفترة ١٩٧١-١٩٧٧ وهو معدل منخفض عن معدل التضخم (والذى قد يتراوح في المتوسط ما بين ١٥ ٠/٠ و ٢٠ ٠/٠ سنويا) خلال نفس المدة. وتنقسم البدلات التي تضاف الى المرتب الاساسي للموظفين المدنيين العاملين بالخدمة الحكومية الى خمس بدلات : (اولا) بدل طبيعة عمل، (ثانيا) بدل تخصص ، (ثالثا) بدل تخرج ، (رابعا) بدل سكن بالريف ، (خامسا) بدل تمثيل. وبالاضافة الى ذلك يتقاضى العاملون بخدمة الدولة بدلات حضور مقابل خدماتهم في اللجان، وبالتالي فباستطاعة اصحاب المؤهلات العالية والعناصر النشطة او اولئك الذين يتميزون بالصفتين مضاعفة مرتباتهم الاساسية بكل سهولة عن طريق ما يمكنهم اكتسابه على هيئة بدلات ، الا ان فرص تحقيق ذلك محدودة.

(١٩) القطاع الخاص : لقد تمكنت البعثة بصفة غير رسمية من جمع بيانات عن الاجور بالنسبة لعدد من المهن المختارة (الجدول الاحصائي الملحق ٢-٢٦). ان مستويات الاجور تعتمد اساسا على درجة مهارة العامل كما تعتمد على جنسيته. فبالنسبة لعديمي المهارات يكتسب المواطن بصفة عامة ضعف الاجر اليومي الذى يكتسبه العامل الاجنبي، الا انه قد لا يعمل بنفس صفة الدوام التي يعمل بها الاجنبي. وتعكس الاجور الراهنة زيادة جوهرية عن مستويات اجور السنوات الماضية. ولعل الاكثر دلالة من ذلك ما حدث من تناقص هام في الفارق بين اجور عديمي المهارات في المملكة العربية السعودية وفي اليمن في السنوات الخمس الاخيرة. ونتيجة لذلك لم يصبح لعجز عدد عديمي المهارات نفس الوقع الذى اتسم به منذ سنوات ، وهذا يدل على حدوث شيء من التراخي في سوق العمالة بالنسبة لمستويات المهارات المدنية مما يوحي بالتالي الى احتمال استواء منحنى الاجور، بل وقد يعود الى الانخفاض بالقيمة الحقيقية على رغم صعوبة التكهن بمثل تلك التطورات نظرا لارتباط سوق العمالة اليمنية باسواق البلاد المجاورة.

٣- هجرة العمالة

(٢٠) لقد استمرت هجرة العمالة من الجمهورية الى مختلف انحاء شبه الجزيرة العربية ما لا يقل عن ٢٥ سنة. ومن ناحية اخرى فقد حدث خلال السنوات الاخيرة ان تمثل اشتداد الطلب على العمالة في البلدان المجاورة المنتجة للبترول على شكل اجور شديدة الجاذبية عملت على اغراء اعداد غفيرة من المواطنين اليمنيين على عبور الحدود الى المملكة العربية السعودية بالدرجة الاولى وانحاء اخرى من شبه الجزيرة. وبحلول عام ١٩٧٥ بلغت نسبة المغتربين المسجلين حوالي ٢٠ ٠/٠ من اجمالي

قوة العمل اليمنية عملت على تحويل ما يقدر بنحو ١٫٦٨٨ مليون ريال يمني (٣٧٥ مليون دولار) الى الاقتصاد اليمني. وقد ارتفعت هذه التحويلات بدرجة مثيرة الى حوالي ٦٫٥٥٢ مليون ريال (١٫٤٥٦ مليون دولار) في عام ١٩٧٩.

(٢١) ينقسم المواطنون اليمنيون المقيمون بالخارج الى مهاجرين لآجال طويلة ومغتربين لأجل قصير. والمعلومات الخاصة بالمجموعة الاولى معلومات شحيحة، بيد انه من المعروف انهم مشتتون بدرجة متسعة عبر اندونيسيا في الشرق الاقصى الى اوروبا وامريكا في الغرب. وينصب هذا التقرير على المغتربين الذين لهم الوقع الأكثر مباشرة على اوضاع الايدى العاملة والتخطيط لها في الجمهورية.

(أ) مميزات الاغتراب

(٢٢) المكان : يعمل المغتربون في شبه الجزيرة العربية بالدرجة الاولى وغالبا ما يكون ذلك في المملكة العربية السعودية. ان الحدود بين الجمهورية والمملكة العربية السعودية تعتبر "حدودا مفتوحة" الى حد كبير، وعلى ذلك فالسفر "غير الرسمي" من الامور السهلة والشائعة ويتم دون تسجيل.

(٢٣) مدة الاقامة (١): ينقسم المواطنون اليمنيون المقيمون في شتى الانحاء الاخرى من شبه الجزيرة الى مجموعتين. فهناك مجموعة صغيرة (الا انها تعتبر ايضا ذات شأن) تضم حوالي نصف عدد النساء واكثر من خمس عدد الرجال اقاموا هناك بحلول ١٩٧٥ لمدة خمس سنوات او اكثر. ويبدو ان هذه المجموعة قد استوطنت بالخارج. اما المجموعة الثانية فينطبق عليها الوصف الاصلي والتقليدى "للمغترب" الذى يسعى الى العمل في الخارج ويدخر مما يكتسبه حتى يحصل على مبلغ مستهدف ثم يعود بعد ذلك الى الوطن. وتضم تلك المجموعة اكثر من نصف عدد المغتربين الذين بلغت مدة اقامتهم بالخارج في حدود سنة وغيرهم مما دامت مدة اقامتهم بين سنتين واربع سنوات. (الجدول الاحصائي الملحق ٣-٣). وتوجد ثلاثة اسباب على الاقل قد تؤدى الى اطالة متوسط مدة الاقامة بالخارج في المستقبل. أولا، احتمالات التجنيد عند العودة الى الجمهورية تطبيقا لاحكام قانون التجنيد الجديد، وهي احتمالات قد تثبط من النية على العودة الى الوطن في وقت مبكر. وثانيا، لقد خفّ الطلب على العمال

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(١) المعلومات الواردة في هذه الفقرة مبنية على البيانات الخاصة بالمواطنين اليمنيين المقيمين في المملكة العربية السعودية فقط، ومنها استمد التطبيق على غير السعودية من البلدان المستوردة للعمالة.

اليمنيين بعض الشيء في شبه الجزيرة وقد يؤدى ذلك الى تفضيل الكثير منهم المكوث في اعمالهم لمدة اطول لتفادى احتمالات عدم امكانية الحصول على عمل جديد فيما بعد. وأخيرا، فمع الثبات النسبي لمعدلات الاجور الاسمية في السعودية سيتطلب تحقيق العامل اليمني لمدخراته المستهدفة مدة اطول مع استمرار زيادة تكاليف المعيشة.

(ب) القضايا الرئيسية بالنسبة لهجرة العمالة

(٢٤) لقد كان لتوسع نطاق هجرة العمال اليمنيين آثارا اقتصادية واجتماعية غاية في الأهمية تتراوح فيما بين تلك الآثار التي يمكن الوقوف عليها على الفور وتلك الاكثر دقة ذات تشعبات في الأمد البعيد يصعب التكهن بها بنفس الوضوح. ومن الامثلة على العواقب قصيرة الأمد صافي المفعول بالنسبة لأوضاع ميزان المدفوعات، كما ان الامثلة الخاصة بالآثار الهيكلية والمتشعبة تتضمن التغيرات في انماط اذواق المستهلكين وتركيب الانتاج الزراعي وزيادة تكاليف عوامل الانتاج وبعض المشاكل المرتبطة بزيادة التحضّر والتشتت الاسرى. فاذا تم موازنة تكاليف الهجرة ومنافعها فان النتيجة المبدئية التي يمكن التوصل اليها انه بالنسبة للأجل القصير ربما يمكن اعتبار صافي الاثار ايجابيا الا انه ينبغي اتخاذ اجراءات سياسية لتقويم بعض العواقب الاكثر سلبية التي قد تتزايد ضراوتها بمرور الوقت. وتعرض الفقرات التالية بيانا موجزا بالآثار المختلفة.

(٢٥) الأثر على التوظف : ان السواد الاكبر من المهاجرين والمغتربين يتألف من عمال عديمي المهارات. وعلى ذلك يعتبر القول الذى يتردد كثيرا بان فرص العمل في انحاء اخرى من شبه الجزيرة تعمل على استنزاف العمالة المدرّبة من الادارة الحكومية في الجمهورية موضع تساؤل. لقد كان الاثر المباشر الفورى لتدفق العمالة عديمة المهارات الى الخارج تناقصا مبدئيا محليا لهذه الفئة من العمالة ادت الى زيادة سريعة لمعدلات الاجور في الجمهورية. ومن ناحية اخرى فمع زيادة الاجور في اليمن اخذ الفارق في الاجور بين السعودية واليمن في الانكماش. ان هذا التطور مع غيره من العوامل قد ادى الى تثبيت مستوى الهجرة الى الخارج خلال السنوات القليلة الماضية. ونتيجة لذلك يبدو وكأن العجز السابق في العمالة عديمة المهارات خلال السبعينيات قد خفّ مؤخرا.

(٢٦) مكتسبات المهاجرين الغير الملموسة : ان الشواهد على المهارات والعادات التي يكتسبها المهاجرون او يفقدونها شواهد غير رسمية الا انها متطابقة. ان العديد منهم يكتسب مهارات جديدة خلال مدة الاقامة بالخارج. وبالتالي تفيد المعلومات بقيام عدد من العائدين بافتتاح محال عمل للتجارة او الحدادة والاعمال

الكهربائية ... الخ، بينما يبتاع غيرهم جرارات او سيارات للنقل او مولدات كهربائية لبيع خدماتهم للجمهور. فلا شك اذا ان هذه المكتسبات وغيرها قد اضفت روحا من الازدهار على المجتمعات المحلية وان هذا الازدهار، وخاصة في الاجل القصير، قد ادى مباشرة الى الرفع من قدر رفاهية المجتمع.

(٢٧) الآثار على تكاليف عوامل الانتاج والمستوى العام للاسعار: كان لتزايد تكاليف العمالة وثمن الارض في الجمهورية خلال السنوات القليلة الماضية آثارا عمت وانتشرت في باقي جوانب الاقتصاد. وعلى الرغم من ان هذه التطورات جاءت كنتيجة منطقية لقوى اقتصادية محلية واقليمية الا انها ادت الى تغير جوهرى في السوق اليمنية لعوامل الانتاج قد تدفع بالاسعار الى مستويات يصعب معها انتاج البضائع للتصدير وكذلك للاستهلاك المحلي على اسس تنافسية. ومما يزيد المشكلة تعقيدا ان المركز المؤاتي لميزان المدفوعات قد دعم سعر التحويل الثابت والذى يعني بالتالي ان التكاليف المحلية المرتفعة تتحول آليا الى اسعار مرتفعة يتحملها المصدرون المحتملون في الجمهورية مع اشتداد في الطلب الانفاقي تدفعه تحويلات العاملين. وقد تمثلت الزيادة في تكاليف عوامل الانتاج في معدل تضخم مرتفع بلغ متوسطه حوالي ٢٢٫٥ ٪ سنويا خلال الفترة ١٩٧٤/١٩٧٣ الى ١٩٧٩/١٩٧٨ (حسب ما جاء قياسه بموجب موءشر تكاليف المعيشة لمدينة صنعاء).

(٢٨) الآثار بالنسبة للانتاج الزراعي: ان الآثار المترتبة عن الهجرة على الانتاج الزراعي متعددة وتعكس الى حد ما ارتفاع تكاليف الانتاج الناتجة عن ارتفاع الاجور وتزايد ايجارات الاراضي. ولعل اهم تلك الآثار هو التحول من المحاصيل منخفضة القيمة (الحبوب اساسا) الى المحاصيل النقدية (الفاكهة والخضروات والقات). وبالاضافة الى ذلك، وعملا على التعويض عن النقص في العمالة فقد حدث توسع في الميكنة الزراعية وفي استخدام النساء والاولاد في المزارع وكذلك مبادرة بعض الملاك الى تعديل ترتيبات المشاركة في الاستزراع وذلك للاحتفاظ بمستأجرى اراضيهم. كما يبدو ان هناك حالات لشراء بعض المزارعين للاراضي التي كانوا يستأجرونها في الماضي.

(٢٩) الآثار بالنسبة لميزان المدفوعات: من اهم الآثار المباشرة المترتبة على ميزان المدفوعات من هجرة العمالة ثلاث: (اولا) تحويلات اليمنيين من الخارج، (ثانيا) زيادة حجم الاستيراد نظرا لارتفاع مستويات الدخل، ثم بطريقة اقل مباشرة، (ثالثا) تحويلات الى خارج الجمهورية من غير المواطنين اليمنيين. لقد ازدادت الايرادات من التحويلات بشكل مثير منذ ١٩٧٥/١٩٧٤ الا انه يبدو انها قد ثبتت في ١٩٧٩/١٩٧٨. وربما احتفظ مستوى المدفوعات، بما في ذلك التحويلات الخاصة، باتجاهه المتصاعد كما استمر تزايد الاستيراد بخطوات سريعة وكان صافي اثر ذلك الوضع حدوث تحول في منتصف السبعينيات من عجز معتدل للحساب الجارى الى فائض هام، ثم ما يبدو من انعكاس حاد تجاه عجز له شأنه في ١٩٧٩/١٩٧٨.

(٣٠) الآثار بالنسبة لمستوى الدخل وتوزيعه : لعل اكثر الآثار مباشرة وأهمية لهجرة العمالة لهو الزيادة الكبيرة في متوسط مستوى الدخل في اليمن. فعلى اساس الحسابات القومية التي لم تتم مراجعتها بعد بلغت تحويلات العاملين، معبّرا عنها كنسبة الى اجمالي الدخل القومي، ذروتها التي ارتفعت الى ٥٠ ٠/٠ عام ١٩٧٦/١٩٧٧. ويمثل ذلك تحسن كبير في كل من مستوى المعيشة المباشر وفي مستواه في المستقبل نتيجة لزيادة حجم الاستثمار. الا انه يصعب من الناحية الاخرى التكهّن بالآثار الشاملة طويلة الأجل المترتبة على توزيع الدخل من هجرة العمالة. فقد يمكن القول مبدئيا بأن تدفق التحويلات الى البلاد ربما عمل على رفع مستوى دخل قطاع مستعرض من السكان، الا انه نظرا لانفاق ذلك الدخل المتزايد في الاستهلاك او اقتناء العقارات فلعله قد تطور بالتالي اسلوب لتركيز الدخل شوهد معه نمو فئات تجار الجملة والمضاربين بالعقارات.

(٣١) الخلاصة : ان الآثار المترتبة من هجرة العمالة على الاقتصاد اليمني يمكن اعتبارها نعمة ذات وجهين تدرّ بعض المزايا الواضحة في الأمد القصير تواكبها مصادر للقلق بالنسبة للأجل الطويل. وعلى ذلك فمن الأسئلة الواردة التي قد يمكن اثارتها هي مدى وكيفية الحفاظ على المنافع مع الحد من التكاليف الى ادنى حد. ومن الاجراءات التي تستطيع السلطات دراستها زيادة الرسوم على الواردات عملا على تشجيع تكوين هيكل استيرادى يدعم الانطلاقة الانمائية وكذلك وضع سياسة للاسعار والتكاليف خاصة بالتنمية الزراعية تعمل على تشجيع المستثمرين والعاملين على زيادة تطوير وتوسيع القطاع الزراعي بموجب اهداف استراتيجية طويلة الأمد عوضا عن مكاسب قصيرة الاجل ثم تدعيم وارشاد البنك التعاوني كوسيلة لتوجيه التحويلات تدعيما لقطاع الزراعة على اساس المبادرات المحلية، وأخيرا زيادة عدد الضرائب التصاعدية على الدخل والارباح بما يضيف الى حصيلة الخزانة العامة ويعمل على تقليص الفوارق في الدخل.

٤- نظام التعليم والتدريب

(أ) التعليم النظامي

(٣٢) ان التوسع في حجم جهاز التعليم النظامي والذى يتميز ببنيان ٦-٣-٣ المعهود لمثير حقا للاعجاب. وهذا النظام اذ لم يكن قائما بالمعنى الدنيوى الحديث قبل ثورة ١٩٦٢ اصبح يضم الآن ما يقرب من ٤٠٠٠ مدرسة مقيد بها ما يزيد جملتهم عن ٣٦٠٫٠٠٠ تلميذ في المراحل الثلاث الابتدائي والاعدادى والثانوى. ولقد تأسست جامعة صنعاء عام ١٩٧٠ وتضم كلياتها الخمس نحو ٤٫٣٠٠ من الطلبة المسجلين. ويجرى حاليا التخطيط لانشاء كلية للهندسة واخرى للعلوم الصحية في

المستقبل القريب . وبالاضافة الى ذلك يواصل عدد هام من الطلبة اليمنيين دراساتهم في البلدان المجاورة او يسعون لمواصلة دراساتهم العليا في الخارج بموجب بعثات أو على حسابهم الخاص .

(٣٣) ان أخطر مشكلة تواجه جهاز التعليم النظامي هو العجز في هيئات التدريس المدربة تدريبا مناسبا وفي الاداريين. فبالنسبة للمدرسين يعتمد النظام اعتمادا كبيرا على مدرسين اجانب من مصر والسودان بصفة اساسية زيدت اعدادهم في السنتين الماضيتين، ولعل ذلك للحلول مكان المواطنين اليمنيين ناقصي التأهيل الذى كان يعتمد عليهم في السنوات الاولى من التعليم. ولقد احرزت السلطات تقدما كبيرا في محاولاتها لاعداد المدرسين اليمنيين الموءهلين. فقد تم حتى الآن انشاء ١٢ معهدا للتربية لمدرسي المرحلة الابتدائية وعشر معاهد اخرى لتخريج مدرسي المرحلتين الابتدائية والاعدادية .

(٣٤) ولسوء الحظ يواجه الجهاز في محاولته حل مشكلة العجز في المدرسين عن طريق معاهد التربية ، عجزا من نوع آخر وذلك هو عجز العناصر اللازمة لتدريب المدرسين. وهنا تظهر حالة من القصور الذاتي المميز لمعظم الاجهزة حديثة الولادة .. حالة تتسم بسلسلة من الاشتراطات المسبقة تجعل عملية التغلب عليها عملية مضنية في الطول. لقد تم فك هذه السلسلة التي لولا ذلك كانت لتنقلب الى حلقة مفرغة باستخدام الاجانب في جميع مراحل التدريس تقريبا . الا انه على الرغم من تلك الصعاب فقد جاء التقدم الذى تم احرازه مشجعا وسيظل التعليم دون شك احدى المجالات ذات الاسبقية العالية في الجمهورية خلال العقد القادم وما بعده .

(ب) <u>نظام التدريب</u>

(٣٥) ان نظام التدريب في الجمهورية العربية اليمنية يتألف من عنصرين اساسيين. يتضمن الاول نشاط وزارة التربية والتعليم وعدد من الوكالات الاخرى في مجال التدريب المهني والفني والتعليم غير النظامي. اما العنصر الثاني فهو ينصب على التدريب اثناء الخدمة والذى يتم محليا وفي الخارج.

(٣٦) <u>التدريب المهني والتعليم الغير النظامي:</u> بالاضافة الى مركز صنعاء ستبدأ خلال العام القادم اربع مراكز اخرى للتدريب المهني نشاطها من المتوقع ان تساهم في تخريج ١٤٠ من العمال الفنيين ذوى المهارات في عام ١٩٨٠/١٩٨١، ومن المتوقع ايضا ان يبلغ عدد المتخرجين منها ٨٠٠ في ١٩٨٢/١٩٨٣. وسيتخصص الخريجون في مجالات عمل كالانشاءات والسيارات والكهرباء والاعمال الميكانيكية العامة واللحام

والمعادن والتجارة والسباكة. ويتم توفير التدريب الفني والمهني على مستوى الدراسة الثانوية في ثلاث مجالات مختلفة وهي الصناعة والتجارة اضيف اليها موءخرا المجال الزراعي (الجدول الاحصائي الملحق ٤-١١).

(٣٧) بالاضافة الى مراكز التدريب المهني والمدارس الثانوية الفنية والمهنية تشرف وزارة التعليم على ادارة عدد من مراكز التدريب الاقليمية وما يقارب من مائة مركز لمحو الأمية. وعلى الرغم من ان مراكز التدريب لم تبدأ نشاطها سوى منذ ١٩٧٩/١٩٨٠ الا ان هناك حوالي ٣٠٠٠ متدرب قاموا بقيد اسمائهم فعلا لمتابعة عدد من البرامج المتنوعة. ويجرى ادارة دورات للمهارات الاولية في مجالات الكهرباء والحدادة ولحام المعادن والانشاء والسيارات والاعمال الميكانيكية العامة والزراعة والرعاية الصحية والاقتصاد المنزلي والتغذية والحياكة والنسيج. وقد ضمت برامج مراكز التدريب ترتيبات لمكافحة الامية لحوالي ١٠٫٤٠٠ متدرب في عام ١٩٧٩/١٩٨٠. وكما هو الحال بالنسبة للتعليم النظامي يشكو التدريب الفني والتعليم غير النظامي من عجز في المدربين الموءهلين وخاصة المدربين اليمنيين.

(٣٨) <u>التدريب اثناء الخدمة:</u> بالاضافة الى نشاط معاهد التدريب المتخصصة العاملة تحت رعاية وزارة التعليم فقد شعرت العديد من الوكالات الاخرى بانه من الضرورى والمناسب لأغراضها ان تقوم بوضع برامجها الذاتية للتدريب اثناء الخدمة اما محليا أو في الخارج. ومن المعهود ان يتم التدريب الخاص بالمستويات الرفيعة والمتخصصة خارج البلاد. لقد ضم هذا التقرير لأول مرة حصرا للمعلومات المبعثرة المتوفرة بشأن ذلك التدريب. وعلى الرغم من ان المعلومات غير مكتملة الا انه يمكن اعتبارها بمثابة منطلق للمزيد من العمل في هذا المجال.

(٣٩) يتضح من المعلومات الضئيلة المتوفرة (انظر على سبيل المثال الجداول الاحصائية الملحقة ٤-١٠ و ٤-١٢) ان اكثرية المتدربين الذين يسافرون الى الخارج يعملون في المجالات المرتبطة بالعلوم (الهندسة والزراعة والطب) وعلى الرغم من عدم توفر اية بيانات شاملة عن مصير المتدربين بعد اكتمال فترة تدريبهم الا ان احدى دراسات المتابعة التي قامت بها الوكالة الامريكية للتنمية الدولية افادت بانه من المعلوم ان ٦٠ ٪ من المشتركين في برامج الوكالة قد عادوا فعلا الى الجمهورية.

(٤٠) يعتبر اسلوب التدريب اثناء الخدمة في داخل البلاد المعمول به في الجمهورية مزيجا مركبا من الآتي: (اولا) نظراء ومستشارون، (ثانيا) تدريب

اثناء العمل، (ثالثا) تدريب خارج مكان العمل، و(رابعا) تدريب في المعاهد. ولم يوجه سوى عدد محدود من الوكالات اهتماما وافيا باحتمالات التدريب المعهدي. ان المؤسسة العامة للمياه والمجاري هي الوكالة الوحيدة التي عقدت اتفاقا مع مركز التدريب المهني في صنعاء التابع لوزارة التعليم على تدريب ٣٠ من العاملين المعينين حديثا بالمؤسسة. من الصعب حصر مدى التدريب اثناء الخدمة أو بين النظراء والمستشارين. ان احدى المعوقات التي تقف في طريق تلك النوعية من التدريب هي عدم توفر المواطنين اليمنيين المؤهلين - أو تعيينهم في غير الاوان المناسب - الذين يستطيعون الافادة من صلتهم بالنظراء. ومن العوائق الاخرى في بعض الحالات قيام المستشارين باعتبار ان مهمتهم الاولى هي تنفيذ مشروعات التنمية بحيث تعتبر مهمة تدريب النظراء اثناء العمل كمهمة من المرتبة الثانية. اما بالنسبة للتدريب خارج مكان العمل فتعمل الهيئة القائمة بالتعيين على انشاء مركز للتدريب خاص بها تقوم فيه بتدريب العاملين بها. ويبين الجدول الاحصائي الملحق ٤-١٧ قائمة بمثل تلك البرامج التدريبية التي قامت البعثة بحصرها.

٥- تخطيط القوى العاملة

(٤١) لقد شكلت القصورات الخاصة بالقوى العاملة معوقا هاما للتنمية الاقتصادية الشاملة في الجمهورية العربية اليمنية. وليس هذا بالمستغرب اذ ان البلاد لم تتحرك في انطلاقتها الانمائية الحديثة سوى منذ ما يقل عن عقدين منذ حين عاشت في حالة من الانعزال تتسم بالأمية الجماهيرية وبقوة عاملة تفتقر الى الاساليب الحديثة على الرغم مما تمتعت بها عن جدارة بسمعة تتميز بالعمل الجاد والاقدام.

(٤٢) يسعى التقرير في الباب الخامس الى الربط ما بين الاعتبارات المختلفة التي تهيئ سوق العمالة في محاولة لتقييم طبيعة التوازن بين العرض والطلب بالنسبة للعمالة اليمنية في الوقت الحالي وخلال السنوات الخمس القادمة. ومن المأمول فيه ان تساعد تلك الدراسة السلطات على اعداد وتطوير العنصر الخاص بالقوى العاملة في اطار الخطة الخمسية القادمة (١٩٨٢-١٩٨٦). على انه لا بد من التأكيد على ان الاسقاطات التي تم اعدادها في الباب الخامس المذكور ليست سوى دليل لمدى اتساع درجات الاهمية والحجم لعدد من البدائل المحتملة، ولا تمثل بأية حال رسما لخطة القوى العاملة اذ ان المعلومات الاساسية التي بنيت عليها تلك الاسقاطات غير وافية، كما تضمنت عددا من الافتراضات تتطلب اقامة المزيد من الأدلة على صحتها.

(٤٣) اسقاطات العرض والطلب بالنسبة للعمالة : لقد تم تقديم عدد من الاسقاطات تمثل اربع تصورات مختلفة محتملة لتطور وضع العرض والطلب بالنسبة للقوى العاملة اليمنية ، كما تم توضيح الفئات الهامة من العجز بالنسبة لثلاث مهارات مهنية وذلك للتصورات المعروضة ، ألا وهي المهارات المكتبية (ج) ، المهارات اليدوية (د) ، وانصاف المهارات (هـ) . كما تم ايضا توضيح مواطن القصور بالنسبة للفنيين ودون الفنيين في مجال العلوم . ومن ناحية اخرى تشير جميع التصورات الى احتمال فائض بسيط بالنسبة للطلب المتراكم المتولد خلال ١٩٨٠-١٩٨٥ بالنسبة لفئتين وهما الفنيين ومرتبة دون الفنيين العاملين في مجال التعليم المتجهين الى الآداب والفنون . كما تدل الاسقاطات ايضا على ان النتائج التي امكن التوصل اليها بالنسبة للفئة عديمة المهارات تتميز بحساسية لأية افتراضات خاصة بمعدل الهجرة .

(٤٤) يدور الحوار اساسا في الباب المذكور حول " اكثر التصورات احتمالا " والتي تفترض معدل نمو اكثر علوا للقيمة المضافة القطاعية وانتاجية العمالة مع تثبيت الهجرة اليمنية الى ما يعادل مستويات عام ١٩٧٥ [١] . وقد تمّ تلخيص النتائج الرئيسية لتلك الاسقاطات الفردية في الجدول ٥-٣ والذى يبين المتراكم من العجز والفائض للعمالة اليمنية بالنسبة لعام ١٩٨٠ ولسنة ١٩٨٥ حسب المجموعات المهنية العريضة .

(٤٥) والصورة التي تتبلور بموجب هذا التصور الأكثر احتمالا تتميز بما يلي :

- يحتمل حدوث فائض في العمال عديمي المهارات (يبلغ عددهم ما يقرب من ٢٠٠٫٠٠٠ على اساس تراكمي بالنسبة لعام ١٩٨٥) ، الا اذا عادت الهجرة الى التزايد .

- ان جميع الفئات الاخرى غير المهنية ستتسم بالعجز خلال ١٩٨٠ الا انه سيحدث خلال السنوات الخمس المقبلة ان يعمل نظام التدريب التعليمي على تخريج ما يكفي من المهنيين ودون المهنيين الموجهين الى مجالي الآداب والفنون ممن يساهمون في سد الثغرات الخاصة بتلك الفئات .

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(١) تم شرح الاسلوب المنهجي المتبع وذلك في الملحق ٥-١ .

- من المتوقع من زاوية الارقام المطلقة ان يتزايد العجز في مستوى المهارات الدنيا بدرجة كبيرة حتى نهاية عام ١٩٨٥.

- اما بالنسبة للمتطلبات فمن ناحية اخرى يبلغ العجز في المستويات العليا من التأهيل العلمي نفس مستوى الشدة الذى تعاني منه المهارات اليدوية والكتابية المتدنية، وأخيرا

- على الرغم من ان معدل نمو النظام التعليمي والتدريبي قد بلغ درجة مثيرة للاعجاب الا ان متطلبات ارتفاع معدل النمو المستمر ستؤدى الى مستويات من العجز يمكن توقعها خلال الفترة ١٩٨٠-١٩٨٥ (مقارنة بالفترة ١٩٧٥-١٩٨٠) في الفئات التي تتسم فعلا بعجز، تفوق قصورا ما هو عليه الحال الآن، وذلك على الرغم من ان القصور الأكثر احتمالا الذى بنيت عليه هذه الملاحظات يفترض معدل نمو معقول لانتاجية العمال.

التقييم والتوصيات

(أ) تقييم عام

(٤٦) ان القاعدة المشتتة والمفتتة للبيانات تحدّ من امكانيات اجراء اى تقييم مكتمل لتطور القوى العاملة في الجمهورية العربية اليمنية. لقد حاولت البعثة ان تقوم بتجميع صورة تقرب الى الواقع الى أكبر حد ممكن على اساس المعلومات المتوفرة. ومن المأمول فيه ان يساهم هذا الجهد الى مدّ السلطات باحدى المدخلات المفيدة بالنسبة للخطة الخمسية القادمة، الا ان الجمهورية تحتاج الى نوعية من المتابعة والتخطيط الأكثر استمرارية لأوضاع القوى العاملة. وعملا على ذلك فلا بد من انشاء وحدة مركزية تتعاون مع الوكالات المعنية والمهتمة في جمع وتنسيق وتحليل البيانات الخاصة بتنمية القوى العاملة والعمل كذلك على وضع الخطط الخاصة بتلك القوى ومتابعة تنفيذها. وعلى ذلك تعزز البعثة توصيات البنك الدولي المسبقة بانشاء وحدة للتخطيط للقوى العاملة تابعة للجهاز المركزى للتخطيط.

(٤٧) وعلى اساس مشاهدات واستنتاجات البعثة تبلور التقييم الشامل الآتي لاوضاع القوى العاملة :

(٤٨) ميزان العرض والطلب : ان العجز الواضح في العاملين عديمي المهارات خلال السنوات القليلة الماضية قد بدأ يتراجع نظرا لتناقص الهجرة ودخول اعداد جديدة من العاملين الى سوق العمالة. وقد ولّدت هذه الظاهرة فائضا من عديمي المهارات خلال عام ١٩٨٠ من المتوقع ان يستمر في النمو الا اذا عادت معدلات الهجرة الى الارتفاع، وهو وضع يعتبر بعيد الاحتمال في مضمون هذا التقرير.

(٤٩) ان العجز في القوى العاملة الماهرة والنصف الماهرة وكذلك في العناصر الفنية ودون الفنية العاملة في مجال العلوم ما زال من السمات المنتشرة في كل من القطاع الخاص والقطاع العام. وبالنسبة لكل من القيم المطلقة والمتطلبات فان أقل عجز هو ذلك الواقع في الفئات الفنية ودون الفنية في مجال الآداب والفنون. ومن المتوقع ان يتزايد انكماش ذلك العجز خلال السنوات الخمس القادمة.

(٥٠) ان العجز الهام وخاصة اذا تم التعبير عنه بالصفة المطلقة ينطبق على انصاف المهارات تليها المهارات المكتبية واليدوية. على الرغم من تزايد التدفقات النابعة من نظام التعليم والتدريب فمن المتوقع ان يزداد العجز خلال

السنوات الخمس القادمة نظرا للتوسع في المتطلبات والاحتياجات اللازمة لتدعيم النمو الاقتصادى.

(٥١) من غير المتوقع ان تتمكن اية اعادة لتوجيه التدفقات في نظام التعليم والتدريب للتعويض عن العجز في المهارات المكتبية واليدوية - حتى على افتراض امكانية ذلك - من فرض أى وقع جوهرى حتى نهاية العقد الحالي. ولعل الاجراء الأكثر فعالية هو تطبيق نظام اكثر صرامة بالنسبة لسياسة القبول في الدراسة الجامعية عملا على تخفيف العجز في الوظائف التي تحتاج الى مهارات مكتبية عن طريق تعيين عدد من المتقدمين ذوى المؤهلات الدنيا الذين ينوون الانخراط في الدراسة الجامعية. وفي نفس الوقت على جامعة صنعاء والمعهد القومي للادارة العامة ان ينسقان الجهود التي ينويان بذلها والتي تهدف الى اعداد برامج على المستوى الجامعي مدة كل برنامج سنتين والتي توفر حلا في الأمد الأطول لاهتزاز التوازن المتوقع بالنسبة للحدّ الفاصل بين وظائف دون الفنيين (ب ٢) والمهارات الكتابية (ج) القائمة على التخصص في الآداب.

(٥٢) وعملا على معالجة العجز الكبير المتوقع في اعداد العاملين المهرة وخاصة في المستويات الدنيا من تلك الفئة، يتطلب الأمر اتخاذ اجراءات سياسية فورية في احدى المجالات. وينصبّ هذا الاجراء على تدعيم وتوسيع البرامج القائمة التي تساهم في الارتقاء بالفائض من العاملين عديمي المهارات عن طريق التدريب على القراءة والكتابة والعمليات الحسابية البسيطة، ونسبة معقولة من التدريب كالذى تقدمه مراكز التدريب الاقليمية. وعلى الرغم من انه لم يمض بعد من الوقت ما يكفي للحكم على فعالية تلك المراكز الاقليمية الا ان مما لا شك فيه انه ينبغي ان يتمتع هدفها المبني على تحويل العمال الأميين عديمي المهارات الى حرفيين انصاف مهرة يتمتعون بدرجة مقبولة من الالمام بالقراءة والكتابة والاعمال الحسابية البسيطة... ينبغي ان يتمتع ذلك الهدف بأسبقية عالية ضمن اطار سياسة القوى العاملة والذى لا بد من المضي في تحقيقه بكل عزم ونشاط.

(٥٣) اما في المراحل المتقدمة من مجموعة المهارات فان من المحتمل ان تظل أكثر المشاكل ضراوة مشكلة سد احتياجات البلاد من الفنيين في الفئات العليا ذوى خلفية من التعليم والتدريب العلمي. ان اى حل لهذه المشكلة يتطلب بالضرورة توقيت طويل الأجل نظرا لأن اعداد وانشاء الخدمات والهياكل الاساسية التي تعمل على تدعيم استمرارية نوعية التعليم العلمي في تلك المستويات تتطلب وقتا طويلا. لقد تم سد هذه الاحتياجات جزئيا حتى الآن عن طريق المواطنين اليمنيين الذين يتابعون

دراساتهم بالخارج وبتوفير نسبة من التدريب اثناء الخدمة محليا وتعيين اجانب . انه لا بد من الاستمرار في اتباع مزيج مركب من هذه الاساليب لفترة ما في المستقبل على انه من رأى البعثة لا بد من ايلاء المزيد من التركيز على التدريب اثناء الخدمة في الجمهورية عما تم حتى الآن علما بأن الجهود الحالية تستحق كل ثناء. ان ما تتجه اليه جامعة صنعاء من انشاء كلية للهندسة واخرى للعلوم الطبية يمثل خطوة ذات شأن في الوفاء بالحاجة الى فنيين ذوى خلفية علمية . على انه ينبغي من ناحية اخرى ألا تأتي سرعة خطوات تطوير تعليم جامعي متقدم على حساب التدريب الفني والمهني في مستوى الدراسة الثانوية ودون الجامعية وذلك عن طريق الاستحواذ على نسبة هامة من الموارد العامة الاستثمارية.

(٥٤) الاستجابة الى نظام التعليم والتدريب : ان تطور نظام التعليم والتدريب خلال السنوات العشر الى الخمسة عشر الماضية من حالة تشبه عدم الوجود أصلا لتطور مثير للاعجاب . ان المشاكل التي تظهر تعتبر، على الرغم من تعددها، مشاكل خاصة بأى نظام حديث الولادة. لقد كان التوسع في برامج الأمية والتعليم الأساسي مثيرا للاعجاب كما هو الحال بالنسبة لتكاثر عدد برامج التدريب . وعلى حين انه ينبغي العمل الآن على زيادة التهاود في معدل اقامة المدارس الجديدة الا ان الجهود التي تبذل لزيادة التدفق في مجرى النظام تستحق كل تشجيع. ومن المشاكل التي قد تظل مزمنة لفترة ما والتي تتطلب الاهتمام المتواصل مشكلة ضرورة اعداد واجتذاب المدرسين والمدربين اليمنيين الموءهلين والتمسك بهم.

(٥٥) وعلى العموم فقد استجاب نظام التعليم والتدريب بطريقة وافية عموما لسد احتياجات البلاد من القوى العاملة مع مراعاة الحالة التي كانت عليها عند بداية الانطلاق . ان التركيز النسبي على التعليم النظامي والتربية المبنية على الآداب أمر شائع بين الدول النامية، الا انه يعتبر مشجعا ما يشاهد الآن من تكاثر عدد برامج التدريب على الرغم من النقص الشديد في هيئات التدريس . وعملا على الرفع من شأن استجابة النظام لمتطلبات المستقبل على واضعي السياسات ان يقوموا باختيار اية اجراءات للارتقاء بالوظائف عديمة الموءهلات أو نصف الماهرة وتحويل عدد من تلاميذ المدارس الاعدادية والثانوية عن التيارات النظرية النمطية الى برامج للتدريب الفني والمهني. ثم انه من المستحسن العمل في وقت مبكر على اثباط عزيمة المتقدمين للجامعات والذين لا يتمتعون بالموءهلات الوافية من مواصلة الدراسة الجامعية وتحويلهم الى التدريب في المراحل التالية للمرحلة الثانوية في الاعمال والوظائف المكتبية دون الفنية والتقنية. الا ان ذلك الاتجاه لا بد من اتباعه داخل اطار استراتيجية شاملة تواصل اعطاء اسبقية متقدمة للتيارات

الدراسية النظرية النمطية اذ ان تلك التيارات هي التي توفر الاساس للتطوير السليم للقوى العاملة في جميع مستويات المهارات .

(٥٦) الرفع من شأن الادارة العامة : لقد كان على الادارة العامة موءخرا ان تقوم بدور رئيسي متزايد الاهمية في توجيه انطلاقة البلاد الانمائية . وعلى الرغم من انها شاهدت تحسنات كبيرة خلال العقود الماضية الا ان زيادة حجم وتشعب برنامج الاستثمار العام يتطلب اتخاذ اجراءات خاصة تهدف الى زيادة الارتقاء بفاعلية النظام . ونظرا لأهمية هذا الموضوع فقد افرد قسم من الباب الثاني لمناقشة هذه القضية ولاقتراح حلول مناسبة . وقد تم تلخيص التوصيات في فقرة لاحقة (الفقرة ٥٩) .

(٥٧) معالجة آثار هجرة العمالة : انه في حالة استمرار الاتجاهات السابقة على ما كانت عليه لن يتوقع لأية هجرة اضافية من الجمهورية ان تستنزف اليمنيين المهرة باية اعداد ذات شأن ولا يحتمل لها ان تتزايد بنفس المعدلات المرتفعة التي شوهدت في منتصف السبعينيات . الا انه لا بد من الاهتمام بتقويم بعض المشاكل التي ارتبطت مباشرة او غير مباشرة بالهجرة . فعلى سبيل المثال هناك حاجة لسياسات مناسبة تهدف الى: (اولا) اعادة توجيه القوى العاملة وتشجيع الاستثمارات عملا على زيادة تنمية القطاع الزراعي، (ثانيا) معالجة علاقات التكاليف والاسعار بطريقة توءدى الى انعكاس اتجاه تدهور تنافسية الانتاج في اليمن، (ثالثا) اعادة هيكلة الواردات بما يكون اكثر تدعيما لانطلاقة البلاد الانمائية، و (رابعا) تقويم الامور بما يحبط اية احتمالات لتضرر توزيع الدخل.

(ب) التوصيات

(٥٨) التخطيط للقوى العاملة ونظام التعليم والتدريب

١- انشاء وحدة للتخطيط للقوى العاملة تابعة للجهاز المركزي للتخطيط تعمل على جمع وتنظيم وتحليل البيانات على اساس مستمر من المعلومات المتعلقة بتطور وتنمية القوى العاملة في البلاد . وعلى الوحدة ان تتولى بالدرجة الاولى مسوءولية اعداد الخطط الخاصة بالقوى العاملة وذلك بالمواظبة على تحديث تقييمها للاحتياجات من القوى العاملة والعرض المتوقع عن طريق نظام التعليم والتدريب .

٢- توسيع وتدعيم البرامج وخاصة تلك الخاصة بمراكز التدريب الاقليمية والتي تهدف الى تحويل العمال الاميين عديمي المهارات الى

حرفيين انصاف مهرة لهم المام اولي بالقراءة والكتابة والاعمال الحسابية البسيطة.

٣- تطبيق معايير اكثر صرامة لفرز المتقدمين للالتحاق بالدراسة الجامعية والذين لا يتمتعون بالصلاحية المدرسية التي تساعدهم على استكمال التعليم الجامعي واقناعهم بالتوجه الى برامج التدريب الفني والمهني التالي للمرحلة الثانوية.

٤- على الرغم من الحاجة الى توفير الدراسات الجامعية المتقدمة في العلوم في الجمهورية الا ان سرعة تقدم تلك البرامج التي تخدم ذلك الغرض ينبغي ان يكون واقعيا وألا يضير ببرامج التدريب التالية للمرحلتين الاعدادية والثانوية.

٥- تكثيف الجهود لتدريب واجتذاب المدرسين اليمنيين واستعراض وتكييف مرتباتهم بصفة دورية. دراسة احتمال ادخال دورات تجديدية لأولئك المدرسين باستخدام الخدمات القائمة في فترات مسائية.

٦- دراسة احتمال ادخال برنامج لدبلوم تالي للدراسة الثانوية مدته سنة الى سنتين لمدرسي المرحلة الاعدادية.

٧- العمل قدر المستطاع على تطبيق معايير اكثر صرامة لتعيين المدربين الاجانب للمدرسين.

٨- الارتقاء بنوعية تدريب المدرسين في كلية التربية والتعليم التابعة لجامعة صنعاء.

٩- الحد من سرعة اقامة المدارس الجديدة نظرا لانخفاض معدلات القيد وزيادة استخدام المدارس القائمة فعلا وخاصة عن طريق زيادة اشتراك الاناث.

١٠- اتخاذ الاجراءات اللازمة لزيادة التدفق في تيارات نظام التعليم وذلك بالعمل على تغيير وجهة نظر المدرسين تجاه رسوب التلاميذ واعادتهم للسنة الدراسية.

١١- ربط فرص التدريب بطريقة اكثر مباشرة مع التقدم المهني.

١٢- المبادرة بتوفير التدريب للمدرسين اليمنيين في المراكز الفنية وذلك بمساعدة الهيئات المساهمة بالمعونة الفنية.

١٣- النظر في انشاء مجلس قومي لتنسيق التدريب يضم قسما خاصا من وحدة التخطيط للقوى العاملة التابع للجهاز المركزى للتخطيط يقوم باعمال السكرتارية .

١٤- تشجيع التعاون بين مراكز التدريب الاقليمية والجمعيات التعاونية . وقد يمكن في هذا الشأن اقناع مصرف التعاونيات بتدعيم المراكز ماليا .

(٥٩) الادارة العامة

١- حصر وتبويب وظائف الخدمة العامة حسب الوظيفة والمهمة . وضع وصف واضح للاعمال المناطة بكل من المناصب الرئيسية .

٢- اعادة التوزيع الافقي وربما ايضا الرأسي للعدد المتوفر من موظفي الدولة حسب نظام وظائفي. تشجيع تناوب العمل ما امكن ذلك .

٣- استعراض المرتبات بصفة دورية لتكييفها حسب تطورات تكاليف المعيشة .

٤- توسيع مربوط المرتبات الخاصة بدرجات الخدمة العامة كي تتوافق الدرجة الواحدة الى تلك التي تليها به ا قد [illegible] نص عليه قانون رقم ٣ لعام ١٩٧٩.

٥- النظر في ادخال وتنظيم وتبويب نظام تخيّرى ومدرّج لعلاوات الجدارة .

٦- التخيّر بين البدائل الواردة في التقرير (الباب الخامس) لمعالجة مشكلة ارتفاع تكاليف الاسكان التي تواجه موظفي الدولة وتطبيق البديل الذى يقع عليه الاختيار.

٧- الاستمرار ببرنامج التدريب الخاص بالمعهد القومي للادارة العامة مع تطبيق الاحتياجات الخاصة بالتعيين في سلك الخدمة العامة تدريجيا. مكافأة المتدربين . وعلى المعهد، بالاضافة الى البرنامج الجديد الجارى بحثه حاليا مع الجامعة الامريكية (واشنطن دى. سي.) ان ينظر في امر الدخول في ترتيبات مماثلة مع موءسسات اخرى في منطقة الشرق الاوسط تتولى ادارة برامج للتدريب على الاعمال والادارة في العالم العربي والتي توفر امكانيات ارشادية خاصة .

٨- بذل المزيد من الاهتمام الى الاستفادة من امكانيات زيادة التوسع جوهريا في اشتراك الاناث .

٩- يجب ان تسند الى ادارة المعونة الخارجية التابعة للجهاز المركزى للتخطيط مسوءولية تنسيق النشاط مع الخبراء الاجانب والذين ينبغي ان يتوفر بالنسبة لهم وصف واضح ومحدد للمهام يجرى متابعة تقدمهم فيها.

١٠- العمل على ضمان انسيابية الهيكل الادارى وذلك بفحص تكاثر عدد الوحدات "الخاصة" ونقل غيرها من الفئات العليا الى الفئات الاقل. تخويل سلطة اتخاذ القرارات الى المستويات الأقل كلما كان ذلك ممكنا.

(٦٠) توصيات عامة

١- دراسة العلاقة بين اسعار الانتاج وتكاليفه بغرض تطوير سياسات ترفع من شأن الوضع التنافسي للانتاج الزراعي والصناعي.

٢- بالاشتراك مع وضع سياسات مناسبة للتسعير، العمل على توفير الحوافز للمغتربين العائدين لتوجيه نشاطهم وروءوس اموالهم نحو تطوير وتوسيع القطاع الزراعي. التنسيق بين تلك الجهود ونشاط بنك التسليف الزراعي والبنك التعاوني.

٣- النظر في زيادة الرسوم الجمركية على البضائع الكمالية وتدريج اية ضرائب اخرى على الدخل والارباح.

PREFACE

1. This report is based on the findings of a mission that visited the Yemen Arab Republic in April/May 1980. The mission consisted of Messrs. Adil Kanaan (mission chief), Valentine DeSa (training specialist), Bharat Krishna (manpower specialist), Bernard Masters (education specialist), S. Rangachar (general economist), Clive Sinclair (demographer) and James Socknat (manpower specialist).

2. In the first place, the aim of this report is to provide a review of manpower developments in the Yemen Arab Republic (YAR) over the 1975-80 period. To this end, it has compiled information on the Yemeni population, labor force, migrants and training programs in an effort to give a unified picture of the overall manpower situation. On the basis of this review, projections of manpower requirements and supply by broad occupational categories for 1985 are presented. Although the accuracy of these projections is limited by data availability, it is hoped that the orders of magnitudes and trends they suggest are useful to manpower planners in YAR in their design of the forthcoming Second Five-Year Plan (1982-86).

3. The gist of the main body of the report is captured in the Summary which is written in a manner that corresponds to the report's five chapters. A compact section on overall assessments and recommendations is provided separately. Both the summary and the assessments and recommendations have been translated into Arabic to increase the size of the potential readership of the report in Yemen. The statistical annex is intentionally detailed since a major objective of the report is to make available in a systematic manner and in a single document comprehensive information on manpower developments in YAR. A summary of basic economic and social indicators data is available in the latest World Bank Economic Memorandum on YAR (Report No. 2856-YAR).

4. The mission wishes to acknowledge, with gratitude, the support it received from various agencies of the public and private sector, especially the Central Planning Organization.

5. The draft of this report has been discussed with the Yemeni authorities in Sana'a in December 1980 and Washington, D.C. in January 1981.

SUMMARY

1. Population and Labor Force

(a) The 1975 Population

(i) The only population census that has been carried out in the Yemen Arab Republic (YAR) so far took place in February 1975. It estimated the resident population at around 5.3 million and the migrant (both short-term and long-term) population at 1.2 million. The estimate of residents included 4.5 million enumerated persons, with the balance presumed to consist of people in areas not covered by the census and others that might have been missed by the enumerators.

(ii) The Swiss Technical Cooperation Service was subsequently commissioned to ascertain the extent of "underenumeration" in the covered areas and "unenumeration" in the uncovered areas in the east and northeast of the country. The Swiss team's findings essentially corroborated the census figures for those who were enumerated, but its estimate for the balance of the resident population was some 530,000 persons below the preliminary census results.

(iii) The Government has recently had reason to believe that the initial census estimates of the underenumerated and the unenumerated is closer to reality. As a result, it has undertaken to conduct a sample survey of the uncovered areas to verify these results. Pending such verification, this report uses the initial census results as the official Government estimates of the resident population with the understanding that these figures remain tentative and subject to revision.

(iv) By compiling demographic information on Yemenis in other countries of the Arabian peninsula, the mission was able to construct--for the first time--an age/sex profile of the composite Yemeni population which is defined to include all the officially estimated residents and those migrants who are officially recorded in recipient countries (see paragraph 1.13 and Table 1.1).

(v) Although the population remains predominantly rural, census information on sex ratios by governorates and by cities indicates that many working age males have migrated from rural areas to the main urban centers. The sex ratio was as low as 82 in the governorate of Beida and as high as 145 in the city of Hodeidah in 1975.

(b) The 1975 Labor Force

(vi) The mission also compiled information on the composite 1975 Yemeni labor force (Table 1.2). The recorded Yemeni workers in other countries of the peninsula were almost a fifth of the total and were almost entirely male (99 percent). Of those working in YAR, the bulk were also male (88 percent) although the number of working females is underestimated in the census for a variety of reasons (see para. 2.08).

(c) Population and Labor Force Projections

(vii) Subject to a number of caveats (see paragraphs 1.23-1.31), the mission has provided tentative projections of the Yemeni population (Table 1.3) and labor force (Table 1.4) for the years 1980, 1985 and 1990. These projections are very sensitive to assumptions on fertility, infant mortality, life expectancy and labor participation rates and information on these basic parameters is currently inadequate. The assumptions on the demographic parameters imply a population growth rate increasing from 2.6 percent in 1975 to 2.9 percent in the 1990. The total population is estimated at around 8.5 million in 1990. Labor force projections applied assumptions that adjusted crude participation rates in accordance with expectations regarding the effects of education, training and changing social considerations. The composite Yemeni labor force (again including officially estimated residents and only recorded migrants) is estimated to increase from 1.6 million in 1975 to 2.2 million in 1990.

2. The Structure of Employment

(viii) A major objective of the review of the employment situation in YAR that is presented in Chapter II is to piece together as complete a picture of this situation as the various scattered sources of partial information allow. Given the importance of manpower development to the country's overall economic development, the collection of manpower statistics on a continuous and comparable basis should be unified, preferably under the aegis of a special manpower unit within the Central Planning Organization (CPO).

(a) Labor Force Characteristics (1975)

(ix) Deployment. The total recorded labor force in 1975 was around 1.40 million workers (Table 2.1). Of those, almost 20 percent worked abroad. Of the remaining 1.14 million domestic workers, the bulk (90 percent) were employed in the private sector primarily in the traditional sector (Table 2.2). Public and mixed sector employment was just over 30 thousand workers, and the unemployed were around 80 thousand (i.e., nearly 6 percent of the total labor force).

(x) Education/Training Attainment. A striking characteristic of Yemeni workers is their low level of education and training since they are drawn from a population which, in 1975, had a combined male and female illiteracy rate of 87 percent. Although no current information is available on the present education and training attainment levels of the workforce, it is safe to assume that considerable progress has taken place in the past five years although much remains to be done.

(xi) Age/Sex Composition. The Yemeni labor force is very young and is predominantly male, although census results do not account for many female workers especially in rural areas. Moreover, a substantial number of working-age males have migrated to work abroad leading to a significant contrast mainly in the age distribution but also in the sex distribution between the resident and the migrant components. Thus, for example, among the recorded migrants, two-thirds were between 15 and 29 years of age while within the country the corresponding proportion was less than two-fifths. And women, who accounted for around 12 percent of the domestic labor force, accounted for less than one percent of the migrant workers. The role of women has been most crucial in rural areas but they have recently become more visible in urban occupations. Although the age structure of the Yemeni workforce is not expected to change significantly in the coming decade, it is hoped that with increased education and support services such as childcare, female participation in the semi-skilled and skilled workforce could increase. The opportunities for skilled females, especially in the health and education sectors, are numerous.

(xii) Sectoral/Occupational Distribution. The vast majority of workers (78 percent) were employed in agriculture in 1975; 12 percent were in trade and services, 5 percent in construction, and the remaining 5 percent in all the other sectors combined (Statistical Annex Table II.9). Consistent with this sectoral breakdown of the labor force, 78 percent consisted of agricultural workers and 11 percent were in production-related occupations. Thus, around 90 percent were in occupations at the lower end of the skill-spectrum. On the other side of the spectrum, only one percent were professionals and another 0.5 percent were administrators and managers (Statistical Annex Tables II.6 and II.7).

(b) Growth of Employment (1975-80)

(xiii) Unfortunately, the scattered sources of information on the employment situation in 1980 and in intervening years between 1975 and 1980 is not comparable to the more complete statistics of 1975. A one percent sample survey of households was conducted in 1978 but its results appear to be incongruous with the 1975 census. As a result, the picture that the mission has been able to piece together of the development of employment during the 1975-80 period should be viewed as mainly indicative of the trend that it represents.

(xiv) The Public and Mixed Sectors. Subject to the data limitations mentioned above, the mission has estimated that, excluding security personnel under the Ministry of Interior, employment in the public and mixed sectors may have increased from around 26 thousand in 1975 to around 36 thousand in 1980. Much of this increase (around two-thirds) has been in the number of teachers and health personnel to staff the expanding education and health delivery systems. Along with the expansion of the public administration, there has been a discernable shift in the past few years towards an increase in the proportion of employees at the higher and middle management positions (Table 2.5) as more qualified personnel become available, although it will still be some time before these ranks are completely filled by personnel with appropriate skills and qualifications.

(xv) The Private Sector. There is hardly any systematic information on the development of overall private sector employment since the 1975 census and the work of Socknat and Sinclair. The mission therefore attempted to indirectly estimate it for 1980 on the basis of the growth of value added and of average labor productivity in the intervening years. Since very little is known about historical trends of productivity in YAR, let alone its future prospects, the projected employment estimates are necessarily approximate. Assuming that productivity has increased moderately over the 1975-80 period, private sector employment in 1980 is roughly estimated to be around 1,292 thousand workers (Table 2.8).

(c) Expatriate Workers

(xvi) Information on the number of expatriate workers in YAR is scattered and probably incomplete. A summary of the information that the mission has been able to compile is presented in Table 2.4. Their total in early 1980 is thought to be in the neighborhood of 17 thousand workers (around 10 in the private sector, 6 in the public sector and one in the mixed sector). These expatriates represent four types of labor working in the country presently: (i) a relatively small number of experts typically involved in technical assistance work and occupying high professional and technical positions; (ii) a large group of teachers and nurses mainly from Egypt and the Sudan; (iii) a relatively new wave of migrants from around the African Horn, some of whom use Yemen as a staging post before moving to other parts of the peninsula, and finally (iv) a most recent wave of Indian, Pakistani and Far Eastern workers typically in the employment of the larger and foreign construction contractors.

(d) Wages and Salaries

(xvii) Information on wage and salary trends, especially in the private sector, is even less adequate than the employment data. Even for the public sector where salaries are defined within set scales, there is no information on the salaries and benefits actually received by civil servants except in aggregated terms. For the private sector, the information that the mission has obtained is of necessity impressionistic.

(xviii) The Public Sector. A comprehensive civil service code (law number 49) was promulgated in 1977 and created a unified structure of thirteen grades. In addition to the new definitions, regulations and procedures of the law, it increased the base pay and allowances across the board for all civil servants, but the increase is more or less progressively larger as one moves down the grade ladder. This law was amended by Law Number 3 of 1979 which instituted further increases in salaries and the nature-of-work allowance (see Statistical Annex Table II.19 for a comparison of the wage scales prior to and after this law and its amendment). On average, the salary level was more than doubled in 1977 and increased by around 40 percent in 1979. However, it must be kept in mind that it was left unchanged in the six years prior to 1977, so that this doubling translates into an annual growth of 12.5 percent over the 1971-77 period which is below the rate of inflation (probably averaging between 15 and 20 percent per annum) during the same period. There are five types of additional allowances to the basic salary of a civil servant: (1) nature-of-work, (2) specialization, (3) graduation, (4) rural location, and (5) representation. In addition, civil servants receive fees for serving on any of a number of committees. Thus, those who are highly qualified, active, or both could easily double their basic salaries through these allowances and fees although such opportunities are limited.

(xix) The Private Sector. The mission has informally collected wage data for a few selected occupations (Statistical Annex Table II.26). Wages are dependent on both the skill level and nationality of the worker. Among the unskilled, the nationals generally earn twice as much as the expatriates per day but may not be employed as uniformly. However, at the higher skill levels, the relationship is reversed. These current wages represent a substantial increase over the past few years. More significantly, the difference in wages for the unskilled between Saudi Arabia and YAR has shrunk considerably over the past five years. Partly due to this development, shortages of unskilled workers in YAR are no longer felt as they were a few years ago. This indicates some slack in the labor market at the lower skill levels which, in turn, suggests that future increases in wage levels should level off and would actually drop in real terms, although this is a difficult prediction to make in view of the linkage of the Yemeni labor market to those of surrounding countries.

3. Labor Migration

(xx) Labor migration from YAR to other parts of the Arabian peninsula has taken place over the past 25 years at least. However, in recent years, the intense demand for labor in neighboring oil-producing countries translated into highly attractive wages that lured large numbers of Yemenis to cross the border, primarily into Saudi Arabia but also to other parts of the peninsula. By 1975, recorded Yemeni migrant workers accounted for almost 20 percent of the total Yemeni workforce and remitted an estimated

YRls 1,688 million ($375 million) to the Yemeni economy. These remittances increased dramatically to YRls 6,552 million ($1,456 million) in 1979.

(xxi) Yemenis abroad divide between long-term emigrants and short-term migrants. Information about the first group is sparse although it is known that they have dispersed widely from Indonesia in the East to Europe and America in the West. This report focuses on the short-term migrants who have a more direct effect on the manpower situation and manpower planning in the YAR.

(a) Features of Short-Term Migration

(xxii) Location. Short-term migrants work primarily within the Arabian peninsula, and mostly in Saudi Arabia. The border between YAR and Saudi Arabia is, to a large extent, "open". Therefore, "unofficial" travel is easy, commonplace, and goes unrecorded.

(xxiii) Duration of Stay 1/. Yemenis living in other parts of the peninsula fall into two groups. A relatively smaller group (but still significant) comprising around half of the women and more than one-fifth of the men had lived there for five years or more by 1975. This group appears to have settled abroad. The second group fits the conventional view of the short-term migrant worker who saves to reach a given savings target and then returns home. This encompasses more than half the migrants who had lived abroad for one year or less and others whose duration of stay was between 2-4 years (Statistical Annex Table III.3). At least three reasons may work to lengthen the average duration of stay abroad in the future. First, the possibility of being drafted upon return to YAR in accordance with the new conscription law could act as a deterrent to earlier returns. Second, the demand for Yemeni workers in the peninsula has subsided somewhat and this could cause many of them to stay longer on the job in order to avoid the risk of not finding a new one later. Finally, with the relative stability of nominal wage rates in Saudi Arabia, it will take longer for the Yemeni worker to achieve his prior savings objective as the cost of living continues to rise.

(b) Key Issues in Labor Migration

(xxiv) The large scale migration of Yemeni workers has had profound socio-economic effects ranging from those that are immediately discernable to those which are more subtle and have less predictable long-range ramifications. An example of a short-term consequence is the net effect on the balance of payments positions. Examples of more structural and more complex effects are: changes in consumer taste patterns and in the composition of agricultural production, increases in the costs of factors of production,

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1/ This paragraph is based on information on Yemenis in Saudi Arabia only, which is extrapolated to the other labor-importing countries.

and some social problems associated with increased urbanization and family fragmentation. If the various costs and benefits of this migration were to be balanced, the tentative conclusion that would emerge is that, in the short-run, the net effect has probably been positive, but that policy measures would be needed to rectify some of the more adverse consequences that might prove more intractable over time. A brief statement of the various effects is presented in the paragraphs that follow.

(xxv) Effects on Employment. The bulk of short-term migrants are unskilled workers; therefore the often quoted view that government administration in YAR is being drained of trained manpower by opportunities in other parts of the peninsula is questionable. The most immediate effect of the outflow of unskilled labor was an initial shortage of this type of labor domestically which led to a rapid increase in wage rates in YAR. However, as wages in Yemen increased, the wage-differential with Saudi Arabia shrank. This development, combined with other factors, has led to a stabilization of the level of outmigration in the past few years. As a result, the previous shortage of unskilled workers of the mid-seventies appears to have eased recently.

(xxvi) Intangible Aquisitions of Migrants. Evidence on the skills and habits that migrants acquire or lose is informal although consistent. Many acquire new skills during their tenure abroad. Thus, a number of returnees are reported to open up shops as carpenters, blacksmiths, electricians, etc. Others purchase tractors, trucks or electric generators and sell their services to the community. There is no doubt that these and other similar acquisitions have injected a sense of prosperity in the local communities and that, especially in the short-run, this prosperity has directly improved the welfare of the community.

(xxvii) Effects on the Cost of Factors of Production and the General Price Level. The increase in the cost of labor and land in YAR in the past few years has had a pervasive influence on the rest of the economy. Although these developments were logical consequences of domestic and regional economic forces, they have resulted in a significant change in the Yemeni market for factors of production which could end up pricing the country out of competitively producing export goods as well as goods for local consumption. This problem is complicated by the fact that the favorable balance of payments position has supported the fixed exchange rate which meant that high domestic costs translated automatically into high prices for prospective importers from YAR. Combined with a strong demand-pull which has been fueled by workers' remittances, these factor cost increases translated into a high rate of inflation averaging around 22.5 percent per annum over the 1973/74 - 78/79 period (as measured by the Sana'a cost-of-living index).

(xxviii) Effects on Agricultural Production. The effects of migration on agricultural production are many and, in part, reflect the higher production costs due to higher wages and land rentals. The most important

has been the shift from low-value crops (mainly cereals) to cash crops (vegetables, fruits and qat). In addition, and in order to make up for the shortage of workers, there has been an increase in mechanization and in the use of female and child labor on the farms as well as in initiatives by some landowners to alter cropsharing arrangements in order to retain tenants. Land purchasing by previous tenants appears to have taken place as well.

(xxix) Effects on the Balance of Payments. The most direct effects of labor migration on the balance of payments are threefold: (i) remittances of Yemenis from abroad; (ii) larger import levels due to higher incomes; and less directly (iii) remittances out of YAR by non-Yemenis. Receipts from remittances increased dramatically since 1974/75 but appear to have stablized in 1978/79 (Table 3.3). The level of payments including private transfers has probably maintained its upward trend. Imports have also continued their increase at a rapid pace. The net effect has been a shift in the mid-seventies from moderate deficits on the current account to substantial surpluses with a strong reversal to a substantial deficit in 1978/79.

(xxx) Effects on the Level of Income and its Distribution. The most direct and important effect that labor migration has had has been the substantial increase in the average level of income in Yemen. On the basis of the unrevised national accounts series, workers' remittances as a proportion of GNP peaked at around as much as 50 percent in 1976/77. This represents a considerable improvement in both the immediate standard of living and, through higher investment levels, the future one as well. However, the overall long-term effects of labor migration on the distribution of income are difficult to predict. Initially, the inflow of remittances most probably raised the level of income of a broad cross-section of the population. However, as these higher incomes were spent on consumption or real-estate, a second order process of income concentration could have developed that witnessed the growth of wholesale traders and real-estate speculators.

(xxxi) Conclusion. The effects of labor migration on the Yemeni economy have been a mixed blessing with obvious short-term benefits coupled with some serious concerns for the long-run. A relevant question to raise, therefore, is whether the benefits may be retained while minimizing the costs. Some of the measures that could be considered by the authorities are: increases in import duties in order to encourage an import structure that would support the development drive; a price/cost policy for agricultural production that would encourage investors and workers to further develop and expand the agricultural sector in accordance with long-term strategic objectives rather than short-term gain; supporting and guiding the Cooperatives Bank as a vehicle for channeling remittances in support of the agricultural sector on the basis of local initiative; and finally, more progressive income and profits taxes that would add to the public coffers and tend to reduce income differentials.

4. The Education and Training System (ETS)

(a) Formal Education

(xxxii) The expansion of the size of the formal education system, which is characterized by a typical 6-3-3 structure, has been remarkable. Having been essentially non-existent in a modern secular sense prior to the 1962 Revolution, it now encompasses close to four thousand schools with a total enrollment (primary, preparatory and secondary) exceeding 360 thousand students. The University of Sana'a was established in 1970, and its five faculties currently have around 4,200 registered students. Both a faculty of engineering and of health sciences are being planned for the near future. In addition, a significant number of Yemenis study in neighboring countries or seek higher education abroad either on scholarship or at their own expense.

(xxxiii) The most serious problem facing the formal education system is the shortage of adequately trained teaching staff and administrators. For teachers, it relies heavily on expatriates, mainly from Egypt and the Sudan, whose number has increased further in the past two years, presumably to replace poorly qualified Yemenis who had been relied upon in the early days of schooling. The authorities have made considerable progress in attempting to produce qualified Yemeni teachers. A dozen teacher training institutes for primary school teachers and ten institutes for primary/preparatory school teachers have been established so far.

(xxxiv) Unfortunately, in attempting to solve the teacher shortage problem through training institutes, the system runs against another shortage--that of teacher trainers. A type of inertia, which is characteristic of most nascent systems, sets in and is characterized by a backward chain of preconditions which makes the process of overcoming it painstakingly long. This chain which would otherwise close into a viscious cycle has been broken so far by the use of expatriates at almost all teaching stages.
Despite these difficulties, the progress made so far is encouraging and education will undoubtedly remain one of the priority areas for YAR in the next decade and beyond.

(b) The Training System

(xxxv) YAR's training system consists of two main components. The first encompasses the activities of the Ministry of Education (MOE) and some other agencies in the areas of vocational/technical training and non-formal education. The second consists of in-service training which is conducted domestically and abroad.

(xxxvi) Vocational Training and Non-Formal Education. Within the next year, in addition to the Sana'a center, four other vocational training centers (VTCs) will become operational with an anticipated output of 140 skilled tradesmen in 1980/81 and expected to reach around 800 by 1982/83.

These tradesmen will be in such areas as construction, automotives, electricity, general mechanics, welding, metalwork, woodwork and plumbing. Secondary level technical/vocational instruction is provided in three areas: industrial, commercial, and most recently, agricultural (Statistical Annex Table IV.11).

(xxxvii) In addition to VTCs and the secondary technical/vocational schools, MOE operates several district training centers (DTCs) and close to a hundred literacy centers. Although DTCs have only started their operations in 1979/80, over 3,000 people are already enrolled in a variety of programs. Elementary skill training courses are conducted in electricity, sheet-metal and welding, construction, automotives, general mechanics, agriculture, health care, home economics, nutrition, sewing and weaving. The DTCs literacy programs currently reach over 2,200 adults. In addition, MOE's direct literacy program had over 10,400 students in 1979/80. As with formal education, technical training and non-formal education suffer from a shortage of qualified instructors, especially Yemenis.

(xxxviii) In-Service Training. In addition to the activities of specialized training institutions working under the auspices of MOE, many agencies have found it necessary and expedient to design their own in-service training programs either within the country or abroad. Typically, the higher level more specialized training is done outside the country. This report has compiled, for a first time, the scattered information that exists on such training. Although this information may not be complete, it provides a point of departure for further work in this area.

(xxxix) It appears from the available fragmented information (see for example, Statistical Annex Tables IV.10 and IV.12) that a majority of trainees that go abroad are in science-related fields (including engineering, agriculture and medicine). Although there is no comprehensive information on what trainess do following completion of their training, a USAID tracer study showed that some 60 percent of participants in USAID programs were known to have returned to YAR.

(xl) The form of in-country in-service training used in YAR is a mix of: (i) counterparts-to-experts; (ii) on-the-job; (iii) off-the-job; and (iv) institutional. Few agencies have given adequate attention to the potential of institutional training. Only the National Water and Sewerage Authority has entered into agreement with the Sana'a VTC of MOE to train 30 of its recruits. The extent of on-the-job and counterpart-to-expert training is difficult to document. A major constraint to such training has been the untimely recruitment or non-availability of qualified Yemenis who could benefit from attachments to counterparts. Another constraint, in some cases, has been that experts have viewed their primary task to consist of the implementation of development projects, and the training of counterparts on-the-job as a subsidiary task. In off-the-job training the

employing authority establishes its own training center for training its employees. Statistical Annex Table IV.17 is a listing of such training programs that the mission compiled.

5. Manpower Planning

(xli) Manpower limitations have been a major bottleneck to YAR's overall economic development. This is not at all surprising since the country started its modern development drive less than two decades ago from a state of isolation characterized by mass illiteracy and a labor force that was very poorly qualified in modern methods, though with a well-earned reputation for hard work and enterprise.

(xlii) In Chapter V, this report attempts to relate the various considerations that shape the labor market in an effort to assess the nature of the balance between the supply of and demand for Yemeni labor at present and over the next five years. It is hoped that such an exercise will assist the authorities in the formulation of the manpower component of the forthcoming Five-Year Plan (1982-86). It should be stressed, however, that the projections developed in this chapter are only indicative of broad orders of magnitude of some possible alternatives and certainly do not represent a blueprint for a manpower plan since the data base on which they build is inadequate and a number of assumptions have been employed that require further substantiation.

(xliii) Projections of Manpower Demand and Supply. A number of projections that depict possible scenarios of the evolution of supply of and demand for Yemeni manpower are presented. Under all four scenarios that are considered, major shortfalls are indicated for three occupational categories: skilled office (C), skilled manual (D), and semi-skilled (E). Shortfalls are also indicated for science-based professionals and subprofessionals. On the other hand, small surpluses in relation to incremental demand generated during 1980-85 are also predicted by all scenarios for two categories: professionals and subprofessionals with an arts-oriented education. The projections also show that the results for the unskilled category are sensitive to assumptions on migration rates.

(xliv) Much of the discussion in this chapter centers on the "most likely scenario" which assumes relatively higher growth of sectoral value added and labor productivity and stable Yemeni migration at around the 1975 level. 1/ The main results of this particular projection are summarized in Table 5.3 which depicts cumulative shortfalls or surpluses of Yemeni labor for 1980 and 1985 by broad occupational groupings.

1/ The methodology employed is described in Annex V.1.

(xlv) The picture that emerges in this most likely scenario is characterized as follows:

- a surplus of unskilled workers (reaching close to 200,000 on a cumulative basis for 1985) could be expected, unless increases in migration resume;

- all other occupational categories show deficits in 1980 although during the coming five years the ETS is expected to produce enough arts-oriented professionals and subprofessionals to significantly narrow down the gaps in these categories;

- in absolute numbers, the shortfalls through 1985 are expected to be considerably larger at lower levels of skill;

- in relation to requirements, on the other hand, the shortages of higher science-based qualifications would be as severe as the lower-skilled manual and office occupations; and finally

- although the growth of the education/training system has been remarkable, the requirements of sustained high economic growth translate into even larger shortages that could be expected over the 1980-85 period (compared to 1975-80) in the main deficit categories. This, despite the fact that the most likely scenario on which these observations are based assumes a respectable rate of growth of labor productivity.

ASSESSMENT AND RECOMMENDATIONS

A. Overall Assessment

(xlvi) An assessment of manpower development in YAR is limited by the partial and fragmented data base. The mission attempted to piece together as complete a picture of the manpower situation as possible on the basis of existing information. It is hoped that this effort will provide the authorities with a useful input for the forthcoming Five-Year Plan. However, the country is in need of a more continuous monitoring and planning of the manpower situation and for that, it is essential to establish a centrally located unit that would, in collaboration with related agencies, gather, systematize and analyze information on manpower developments as well as design manpower plans and monitor their implementation. The mission, therefore, confirms previous World Bank recommendations for the establishment of a Manpower Planning Unit at the Central Planning Organization.

(xlvii) On the basis of the mission's observations and findings the following overall assessment of the manpower situation has emerged:

(xlviii) Demand/Supply Balances. The shortage of unskilled workers that was apparent in the past few years has eased due to a slowdown of migration and to the entrance of new workers into the labor market. This has generated a surplus of the unskilled in 1980 which is projected to grow further by 1985 unless significant increases in migration levels resume--a development which is judged unlikely in this report.

(xlix) Shortages of skilled and semi-skilled manpower as well as science-based professionals and subprofessionals, on the other hand, are still prevelant in both the private and public sectors. Both in absolute terms and in relation to requirements, the smallest shortages are in the professional and subprofessional categories with an arts-based education. These two particular shortages are expected to shrink further over the coming five years.

(l) The large shortfalls, particularly in absolute terms, are in the semi-skilled followed by skilled office and manual occupations. Despite increasing inflows from the education/training system (ETS), these shortages are expected to increase further over the coming five years due to the rapidly expanding requirements needed to sustain economic growth.

(li) It is unlikely that redirection of flows through ETS, even if they were possible, to make up for shortages in the skilled office and manual occupations could make a significant impact by the end of the

current decade. What could be more effective is to enforce stricter university admissions policies in order to alleviate shortages of skilled office occupations with some of the less qualified would-be entrants into university arts streams. Simultaneously, the University of Sana'a and NIPA should coordinate their prospective efforts that are designed to establish two-year university level programs that could serve as a longer-term solution to the projected imbalance along the border between the arts-based subprofessionals (B2) and skilled office (C) occupations.

(lii) In order to address the projected large deficiencies in semi-skilled workers, especially at the bottom end of this particular level, an area for immediate policy intervention is indicated. This would consist of strenthening and expanding existing programs that would upgrade surplus unskilled workers through literacy and numeracy instruction and modest training, as is currently being done by the District Training Centers (DTCs). Although it is still too early to judge the effectiveness of the DTCs, there is no doubt but that their objective of transforming illiterate unskilled labor into semi-skilled tradesmen with a basic working knowledge of literacy and numeracy should be a high priority area for manpower policy that should be followed with vigor.

(liii) At the upper end of the skill spectrum, the most tenacious problems are likely to consist of meeting the country's requirements for professionals and higher level technicians with a science-based education or training. The solution to this problem is necessarily of long-term duration because building up the infrastructure that would sustain quality science instruction at these levels requires a considerable length of time. So far, such requirements have been partially met by Yemenis who study abroad, some in-service training domestically and abroad, and by expatriates. A combination of these avenues will need to be followed for some time to come. However, in the mission's opinion, even greater emphasis should be given to in-service training in YAR than what is already being done although the present effort is commendable. The establishment of both a school of engineering and of health sciences, which is being considered by the University of Sana'a, would represent a significant step in meeting requirements for science-based professionals. However, it is important that the pace of development of advanced university education should not be at the expense of secondary and post-secondary technical and vocational training by pre-empting a substantial portion of limited public investment funds.

(liv) Responsiveness of the Education/Training System. The rapid development of the ETS in the past 10-15 years from a state of virtual non-existence has been remarkable. The problems encountered, though considerable, are characteristic of any nascent system. The spread of literacy programs and basic education has been impressive and so has the prolifera-

tion of training programs. Although the rate of construction of new schools needs to be moderated now, efforts which are underway to increase the flow through the system should be encouraged. A serious problem that is likely to persist for some time and that requires unrelenting attention is the need to produce, attract and retain qualified Yemeni teachers and trainers.

(lv) By and large, the ETS has responded fairly adequately to meet the country's manpower requirements considering the state from which it took off. The relative emphasis on formal education and arts streams is common among developing countries, but it is encouraging to witness the recent proliferation of training programs despite severe shortages of teaching staff. In order to enhance the system's responsiveness in the future, policy-makers should experiment with measures that would upgrade the unskilled to semi-skilled positions and divert some preparatory and secondary school students from the standard academic streams into expanded programs of technical and vocational training. Moreover, it is desirable to discourage the less qualified university applicants at an early stage from pursuing advanced university education and divert them to post-secondary training in subprofessional office and technician occupations. This, however, needs to be done in the context of an overall strategy that continues to give high priority to standard academic streams because it is those streams that provide the basis for sound manpower development at all levels of skills.

(lvi) Improving the Public Administration. The public administration has recently had to play a more central role in directing the country's development drive; and although it has witnessed marked improvements over the past decades, the increasing scale and complexity of the public investment program requires that special measures are taken to further improve the system's efficiency. Given the importance of this topic, a separate section of Chapter II of this report was devoted to discuss it and suggest appropriate action. These recommendations are summarized below (para. lix).

(lvii) Dealing With the Effects of Labor Migration. If previous trends are maintained, any further labor migration from YAR is not likely to drain skilled Yemenis in significant numbers, nor is migration likely to increase at the high rates of the mid-1970s. However, attention is needed to rectify some of the problems that have directly or indirectly been related to migration. Thus, for example, appropriate policies are required to: (i) redirect manpower and encourage investments to further develop the agricultural sector; (ii) deal with price/cost relations in the manner that would reverse the trend of deteriorating competitiveness of production in Yemen; (iii) restructure imports in a manner that is more supportive of the country's development drive; and (iv) correct for any possible worsening of the distribution of income.

B. Recommendations

(lviii) Manpower Planning and the Education/Training System.

1. Establish within CPO a Manpower Planning Unit to collect, systematize and analyze on a continuous basis information on manpower developments through the country. The Unit should have primary responsibility for designing manpower plans by continuously updating its assessment of manpower requirements and the potential supply through the ETS.

2. Expand and strengthen programs, in particular those by DTCs, designed to transform unskilled illiterate workers into semi-skilled tradesmen with a rudementary working knowledge of literacy and numeracy.

3. Apply stricter criteria for screening out those university applicants who are not scholastically prepared to complete a university education and induce them to post-secondary technical/vocational training programs.

4. Despite the desirability of providing advanced university education in science-related fields within YAR, the pace of development of programs that could do so should be realistic and should not be to the detriment of post-preparatory and post-secondary training programs.

5. Intensify efforts to train and attract Yemeni teachers, and review and adjust their salaries periodically. Consider the introduction of refresher courses for these teachers using existing facilities in the evenings.

6. Consider the introduction of a 1-2 year post-secondary diploma program for preparatory school teachers.

7. Apply more stringent criteria, to the extent possible, in the recruitment of expatriate teacher trainers.

8. Upgrade the quality of teacher training at the College of Education of the University of Sana'a.

9. Decelerate the pace of construction of new schools in view of low participation rates, and increase the utilization of existing schools especially through higher female participation.

10. Take measures to increase the flow through the education system by changing the attitude of teachers toward student failure and repetition.

11. Link training opportunities to career development more directly.

12. Initiate, with the aid of technical assistance donors, in-country training for Yemeni instructors in vocational/technical centers.

13. Consider the establishment of a National Training Coordination Council with a special section of the proposed Manpower Planning Unit at CPO to act as its secretariat.

14. Encourage collaboration between District Training Centers (DTCs) and the Local Development Associations (LDAs). Perhaps the Cooperatives Bank could be induced to financially support DTC activities.

(lix) <u>The Public Administration</u>

1. Classify civil service jobs by function/task. Write up unambiguous job descriptions for key positions.

2. Redistribute horizontally, and possibly vertically, the stock of available civil servants along functional lines. Encourage job rotation where possible.

3. Review salaries periodically for cost-of-living adjustments.

4. Widen salary bands associated with civil service grades so they overlap even more than what was prescribed by Law Number 3 (1979).

5. Consider introducing and institutionalizing a selective and graduated merit salary increase system.

6. Choose among alternatives provided in the report (Chapter II) for dealing with the problem of the high cost of housing facing civil servants and apply the chosen method selectively.

7. Carry on with training programs at NIPA and gradually enforce requirements for civil service employment. Reward trainees. In addition to the new program that is being discussed with the American University (Washington DC), NIPA could consider

a similar association with institutions in the Middle East region that have programs for business and management training in the Arab world with special out-reach capabilities.

8. Make a greater effort to tap the potential for greater participation by females.

9. The Foreign Aid Department of CPO should be given responsibility for coordinating the activities of foreign experts who should have clear and specific terms-of-reference and whose progress should be monitored.

10. Streamline the administrative structure by scrutinizing the proliferation of "special" units and shifting others from upper to lower strata. Delegate decision-making authority to lower levels in the hierarchy to the extent feasible.

(1x) General

1. Study the relationship between prices and costs of production with a view to designing policies that would enhance the competitiveness of agricultural and also industrial production.

2. In conjunction with appropriate pricing policies, provide incentives for returning migrants to employ their labor and capital in developing and expanding the agricultural sector. Coordinate such efforts with activites of the Agricultural Credit Bank and the Cooperatives Bank.

3. Consider increasing import duties on luxury commodities and graduating further taxes on income and profits.

I. THE POPULATION AND THE LABOR FORCE

A. The 1975 Population and Labor Force
Background to the 1975 Census

1.01 Until the population census of 1975 there had not been an accurate count of population in YAR. Estimates calculated earlier in the century were generally for taxation purposes and their coverage was incomplete. The 1975 Housing and Population Census was carried out in February of that year by the Statistics Section of the Central Planning Organization with technical assistance provided by the United Nations. 1/ Subsequently the Swiss Technical Cooperation Service carried out airphoto and field surveys to verify reported results and to provide estimates of population for a few uncovered areas of sparse population or difficult access. 2/ The census was a de facto count of inhabitants, although questions were asked regarding those absent, since a considerable number of migrant workers and some of their families were believed to be abroad at the time.

1.02 The population survey collected data on population by governorates, cities, age, sex, marital status, educational attainment, employment and occupational status. It was supplemented by a survey of housing, which covered a description of the dwelling unit, the type of tenure, and access to water by governorate and city.

1.03 The census was a remarkable accomplishment which has transformed the country's capacity for accurate economic and social planning dramatically. In view of the excellent enumeration of the majority in the country, it was important to complete the task of adjustment and amendment which every census requires. For example, whereas the census appears to have been remarkably complete and accurate in most areas, it has suffered from three sources of incompleteness or underenumeration.

1.04 First, with regard to the resident (de facto) population, sections of the eastern and northeastern parts of the country were not completely covered and a proportion of all households was believed to have been missed by the enumerators. Second, women were believed to have been undercounted for social reasons and some babies and small children may not have been fully enumerated as well. Finally, the census naturally did not enumerate all those persons abroad at the time since only one question was asked on this subject which gave a simple numerical indication of the reported number of Yemenis abroad. Both government and other technical observers believe that the census was not accurate in this respect.

1/ The preliminary census findings have been reported in: Central Planning Organization, The Housing and Population Census - February 1975 Preliminary Results, Second Edition (Sana'a 1975).

2/ Swiss Technical Cooperation Service, Final Report of the Airphoto Interpretation Team (Zurich, April 1978).

Preliminary Census Results and Swiss Team Estimates

1.05 Initially, the government released a total population figure of 6.49 million comprising 5.26 million residents (including 4.54 recorded persons, and estimates of 0.29 million persons in areas not covered by the census and 0.42 million persons "missed") and 1.23 million persons abroad (Statistical Annex Table I.1).

1.06 The Swiss Technical Cooperation Service was subsequently commissioned to ascertain the extent of underenumeration in the enumerated areas and the size of the unenumerated population in the east and the northeast of the country. The Swiss team's findings have been fully reported in their Final Report. In summary, the team has estimated that only 48,602 persons were living in the areas of the east and northeast not covered by the census. It also estimated that enumerators missed approximately 3 percent of all households, or some 137,141 persons. On the question of non-response or age misreporting by women they concluded that "investigations carried out by the team showed that the great majority of the persons interviewed were willing to supply any information about their family and did not hesitate to mention either the number of female members of their families nor their names. Furthermore, the sex ratios elaborated in random surveys of our team were in close agreement with the ratios obtained by the census." 1/ Therefore the Swiss team did not make any allowance for misreporting or underreporting of females. Neither did they make an adjustment for the underrecording of babies and small children. To do so would not have been practicable, since mortality and fertility statistics are slender and incomplete in YAR and since an unknown number of the population with an unknown age/sex distribution were temporarily abroad. Thus the Swiss team concluded a resident population of 4,726,042 persons (Statistical Annex Table I.2).

1.07 The Central Planning Organization (CPO) in its first Five-Year Plan (1976/77-80/81) adopted the findings of the Swiss team concerning the resident population and used a figure of 4,758,000 inhabitants for mid-1975. 2/ However, CPO has subsequently had reason to believe that the initial census estimates of the population in the uncovered areas and of the underenumerated households is closer to reality. As a result, it has undertaken to conduct a sample survey of the uncovered areas to verify these results. Pending such verification, this report uses the census results (shown in Statistical Annex Table I.1) as the official Government estimates of the resident population with the understanding that these figures remain tentative and subject to revision. 3/

1/ Swiss Technical Cooperation, op. cit., page I/77.

2/ This estimate accounts for an interpolated population growth between February and June at an assumed rate of 2 percent per annum.

3/ In many instances in this report, the analysis is of necessity restricted to the enumerated resident population only on whose composition there is general agreement.

The Migrant Population

1.08 With regard to the number of Yemenis abroad on census night, an important distinction must be made between "short-term" migrants and "long-term" emigrants. The estimate of 1,234,000 persons which is reported by the census includes both groups. Steffan has defined long-term emigration as the "movement of Yemeni nationals to foreign countries for longer than five years, normally without a return to Yemen." 1/ The Yemeni communities living in Detroit (USA), Swansea (UK), Sunderland (UK) and Sheffield (UK) provide examples of this "long-term" or "permanent" emigration. (See Statistical Annex, Table I.12.)

1.09 Several unoffical estimates of the number of "short-term" migrants have been made. 2/ Some of these have used remittances, passport issues, arrivals and departures data, and imputed sex ratios, as well as receiver country population data. These estimates range from 350,000 to 850,000 short-term migrants on census night. Naturally, all of these estimates are based on certain assumptions. For example the estimate used in the cited World Bank report is based on assumptions pertaining to the likely sex composition of both the total population which is assumed to resemble normal population patterns and the migrant population which is assumed to be 90 percent male. In this manner, a population of approximately 600,000 short-term migrants is obtained for 1975. Similarly, if estimates of average remittances per worker are matched with total recorded remittances, it is possible to arrive at a rough estimate of the number of migrant workers and by assuming an average size for the migrant family, also of the short-term migrant population. The value of such an estimate would depend on a number of factors including the average savings rate, the daily wage rate, the number of days a worker is employed per year, etc. By using a range of assumptions over these factors the short-term migrant population in 1975 could be estimated in this manner to have fallen between 315,000 and 845,000. 3/ This wide range indicates the sensitivity of such estimates to relatively small changes in the underlying assumptions, since small changes affecting a number of factors do add up to a substantial total change. As such, the estimates could not be considered reliable.

1/ H. Steffan, "Population Movement" (Zurich, n.d.), p. I/91.

2/ See World Bank, Yemen Arab Republic: Development of a Traditional Economy, p.162; J.A. Socknat and C.A. Sinclair, "An Estimate of Yemen's Total Population and Workers Abroad in 1975" (ILO/UNDP, Sana'a, 1975) Working Paper No. 1; J. Allman and A.G. Hill, "Fertility, Mortality, Migration and Family Planning in the Yemen Arab Republic," Population Studies, No.32, 1 (London): Swiss Technical Cooperation Service, Final Report (Zurich 1978) p. I/73; J.S. Birks and C.A. Sinclair, International Migration and Development in the Arab Region (Geneva, ILO, 1980), Tables 10 and 14.

3/ See Annex I.1.

1.10 Useful as these estimates may be as broad indicators, the previous absence of reliable information on the population of Yemenis from the countries to which short-term migrants travel has limited their accuracy. However, the recent publication of censuses in Saudi Arabia, Kuwait, the United Arab Emirates, together with an ILO regional study of migration which covered Bahrain and Qatar, permits, for the first time, an estimate of the number of "short-term" migrants who are duly registered in those countries. 1/ In addition, the availability of these data by age and sex together with the recent release of the YAR census results by age and sex makes possible, again for the first time, the construction of an age and sex profile of those inhabitants of and short-term migrants from the YAR that have been recorded in these censuses. (Statistical Annex Tables I.3-I.9.) However, it must be very clearly understood that these estimates only account for those migrants who are officially recorded in five countries only and, as such, set a minimum which misses a considerable number of unrecorded migrants there, or migrants in other countries. The under-recording in neighboring countries is primarily due to unrecorded crossings over a large and under-patrolleed border, but could also be due to a tendency of the neighboring countries to underestimate the numbers of their foreign residents. In any case, considerably more research is required before the number of Yemeni short-term migrants is known with accuracy. The Government has recently issued estimates of 740,400 short-term migrants and 493,600 long-term emigrants for 1975 (Statistical Annex Table I.1), but the first of these estimates is most probably on the high side.

1.11. Figure 1.1 shows graphically the age/sex profile of recorded short-term migrants in the peninsula in 1975. It appears that these short-term migrants comprise two groups: one group is single males between the ages of 15-45, the other is families who are distributed normally by age and sex. It may be that this latter group consists in reality of long-term emigrants that have settled in other parts of the peninsula, although this report treats them as short-term migrants. The number of long-term emigrants remains uncertain, and further research is required on this topic if substantiation is to be given to the official figure of 1,234,000 long-term and short-term emigrants cited in the census results.

The Composite 1975 Population

1.12 The mission has constructed an age/sex population profile of the *de facto* and "short-term" migrant population for February 1975 (Figure 1.2). This age/sex profile should not be seen as that of the *de jure* population,

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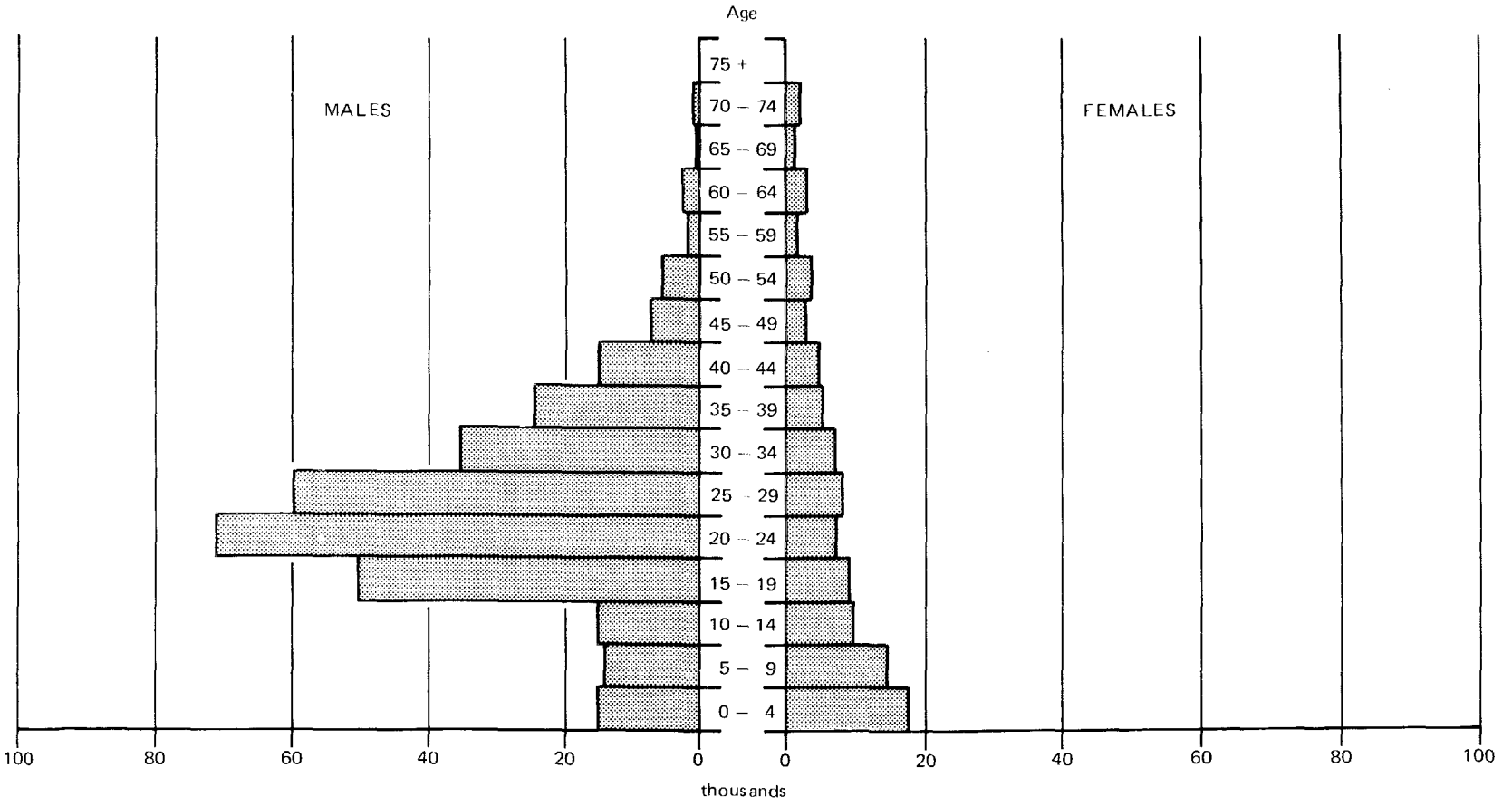
1/ See Kingdom of Saudi Arabia, Ministry of Finance and National Economy, Central Department of Statistics, Population Census 1974 (Riyadh, 1977); Kuwait, Ministry of Planning, Department of Statistics, Census 1975 (Kuwait, 1976); United Arab Emirates, Ministry of Planning, Department of Statistics, Census 1975 (Abu Dhabi, 1976); J.S. Birks and C.A. Sinclair, *op. cit.*

Figure 1.1
Estimated YAR population[1/] temporarily abroad in Saudi Arabia, Kuwait, Bahrain, Qatar and the United Arab Emirates at 1st Feb 1975

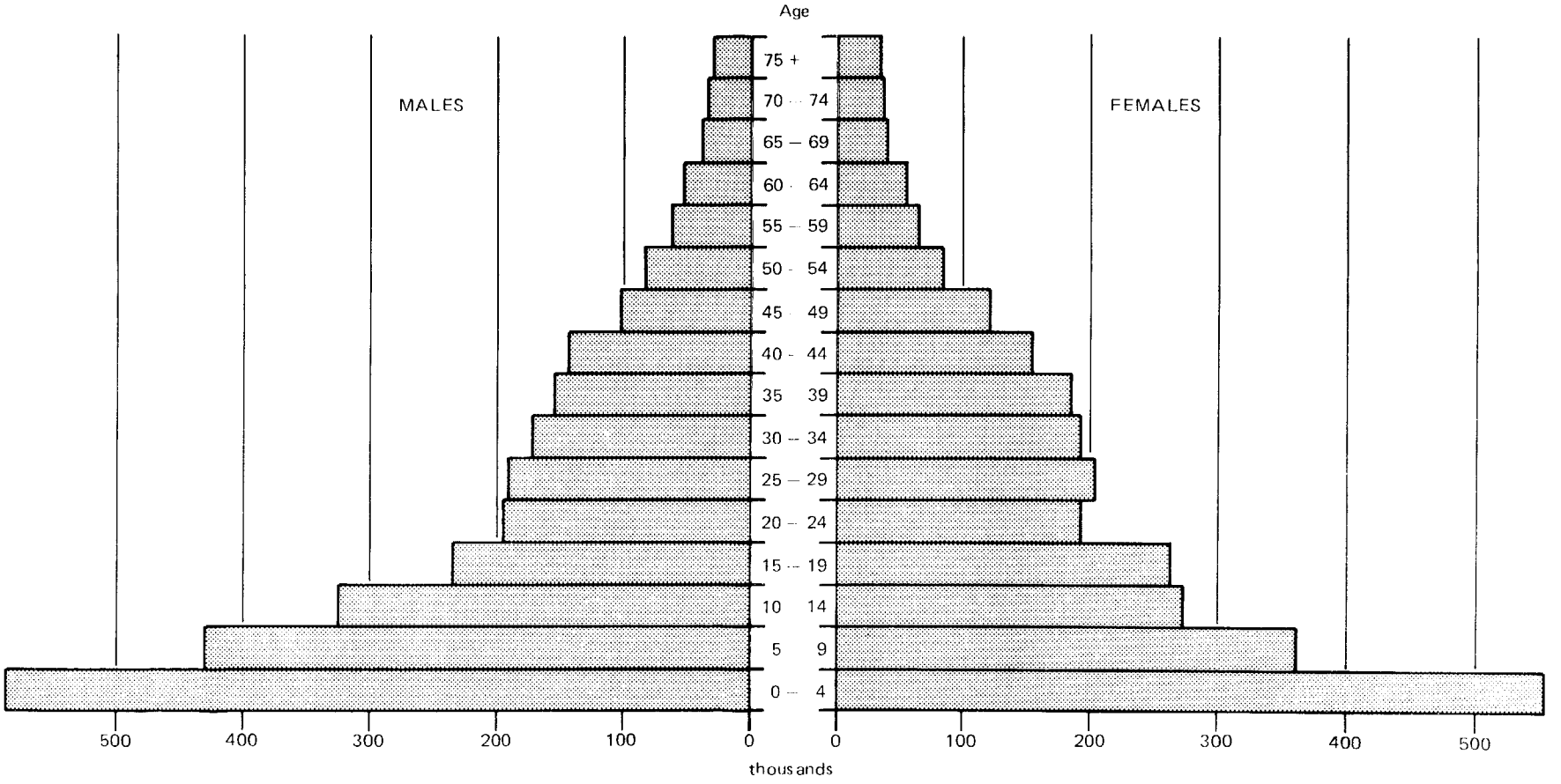


1/ Those recorded only.

Source: data based on the censuses of Saudi Arabia, Kuwait, Bahrain, Qatar and the United Arab Emirates, and; country specific arrivals and departures data

World Bank – 21935

Figure 1.2
Smoothed YAR population adjusted to include estimated population in "un-enumerated areas", "under enumerated households", YAR citizens abroad[1/] and under-counted babies and small children, 1975



1/ Those recorded only.

Source: Compiled by mission

World Bank – 21936

as it does not include data for long-term emigrants, and it only includes short-term migrants who are recorded in neighboring countries. It is, however, intended as a useful guide to government for the purpose of economic and social planning. In practical terms it is by and large the requirements of this population in terms of social welfare and employment that are the concern of government in planning development.

1.13 The construction of this age/sex profile involved several steps (see Statistical Annex, Tables I.10 and I.11). First, to the enumerated population by age and sex were added those YAR citizens recorded as living in Saudi Arabia, Kuwait, the United Arab Emirates, Qatar and Bahrain in February 1975. These data were available by age and sex. Standard smoothing techniques were used for those aged 10 to 69, for both sexes. The 5-9 cohort was accepted without adjustment, and the 0-4 cohort was

Table 1.1: SMOOTHED YAR POPULATION BY AGE ADJUSTED TO INCLUDE POPULATION IN UNDER-ENUMERATED AND UN-ENUMERATED AREAS AND THOSE RECORDED AS LIVING IN PARTS OF THE ARABIAN PENINSULA

	Males	Females	Total
0-4	589,799	555,019	1,144,818
5-9	429,654	361,260	790,914
10-14	323,486	273,224	567,710
15-19	234,773	263,241	498,014
20-24	197,805	194,047	391,552
25-29	192,225	204,526	396,751
30-34	173,985	193,803	367,788
35-39	156,115	187,095	343,210
40-44	146,776	155,017	301,793
45-49	103,576	121,339	224,915
50-54	84,138	86,588	170,726
55-59	64,145	68,597	129,742
60-64	54,676	55,996	110,672
65-69	39,233	39,602	78,835
70-74	32,933	36,341	69,274
75+	30,408	33,607	64,017
TOTAL	2,853,424	2,826,302	5,679,726

Source: Statistical Annex, Tables I.10 and I.11.

adjusted by visual extrapolation to allow for undercounting of babies and small children. Standard UN techniques were used to smooth the distribution of those aged over 70 Then, the 423,800 resident persons whom enumerators missed in areas which were enumerated by the census together with the 294,500 persons living in areas which were not covered by the census were added on a "pro-rata" basis. 1/ Those whose age or sex was recorded as "not stated" were also added in on a "pro-rata" basis.

Population by Governorate

1.14 The information available on population by governorate describes the resident population only, and does not cover those Yemenis abroad. Taiz governorate is slightly larger in population terms than the capital governorate of Sana'a. Taiz governorate is densely populated and much of the more productive agricultural land is in the south of the country. Sa'adah, Marib and Beida are the three smallest governorates, only accounting for some 9 percent of the total population.

Sex Ratio

1.15 The sex ratio of the total resident population and of its distribution by governorate and city reflects the pattern of migration abroad and within the country. Thus, because of the high level of male migration abroad, the sex ratio (i.e., the ratio of males to females) of the total resident population is low and stood at 91 on the eve of the census. It is even lower in governorates like Beida (82) and Taiz (84) that have witnessed relatively larger outflows of male workers. By contrast, the ratio is relatively high in the cities that have attracted domestic male migrants. Thus, it reached as high as 145 in Hodeidah city, 132 in both Sana'a city and Taiz city and 116 in Ibb city. The pattern that emerges is a countryside that has lost a large portion of its working-age males to the main cities and to other parts of the Arabian Peninsula.

More on Migrants 2/

1.16 It should be borne in mind that the boundaries of the governorates have been drawn for administrative purposes, and often were influenced by tribal, religious and political factors. They do not necessarily reflect economic considerations. As a result, economic forces, both domestically and abroad, have led to migration of labor across international and governorate boundaries, as well as to main cities within some governorates.

1/ As stated earlier, this report uses official government estimates for these two categories with the understanding that they are tentative and subject to revision.

2/ This topic, because of its importance to the YAR economy, is dealt with in more detail in a separate chapter (III).

1.17 Map number IBRD-15233 is coded to display migration rates for each of the districts (see also Statistical Annex, Table I.13). Reference to the map helps in understanding some of the factors accounting for variations in the migration rates. For example, the displayed migration rates in districts of the Governorate of Saadah, situated adjacent to Saudi Arabia, suggest that proximity to opportunity is important.

1.18 The Tihama lowlands districts along the western coast generally show less than average migration rates, while the more mountainous areas tend to show higher than average migration rates. Possibly the most striking feature of the map, however, is the message that migration for employment is pervasive. Only one of the 171 districts reported no migrants. This does not mean that there are not significant variations in custom affecting the pattern and duration of migration. Detailed village studies would be required to discover such intra-district variations.

The 1975 Labor Force

1.19 The census results show the participation rate for those persons actually enumerated. Although the enumerators did not count every person living in Yemen, the census results are useful and reliable in respect of crude labor participation rates. Participation rates among men are very high. Naturally they are lower for women, although underrecording of economically active women occurred for certain. For the population aged 10 years or more, the crude participation rate was 74.9 percent for men and 8.7 percent for women (Statistical Annex, Table I.14). For the entire inhabitant population, the male participation rate in 1975 was 46.3 percent. Among male migrant workers recorded abroad it was much higher: 80.5 percent. For the inhabitant and short-term migrant male population combined it was 50.8 percent (Table 1.2).

1.20 For women this pattern was reversed. Those women who remain in YAR have a greater propensity to work than those who travel abroad. This is a reflection of the general preclusion of women from modern sector employment in Saudi Arabia, and the fact that women typically travel abroad within families. In addition, many women who have stayed behind have had to take up jobs that have been traditionally performed by men.

1.21. For the inhabitant population as a whole the crude participation rate is 25.1 percent. As one would expect, it is considerably higher for those abroad, 62.5 percent. As for the composite population and work force, it is 28.3 percent, reflecting a total recorded labor force of around 1.14 million workers, most of whom (88 percent) are male.

B. Population and Labor Force Projections

1.22 Sound economic and social planning requires a good knowledge of the expected growth of the population and the labor force. The remainder of this chapter attempts to project the size of the YAR population and labor force through 1990. These projections should be viewed as indicative of orders of magnitude since they are handicapped by a number of shortcomings.

Table 1.2: ENUMERATED POPULATION AND WORKFORCE OF YAR - INHABITANTS AND SHORT-TERM MIGRANTS 1/

(mid-1975)

		Population	Distribution (%)	Workforce	Distribution (%)	Crude Participation Rate (%)
YAR	Males	2,163,142	87.0	1,001,660	79.3	46.3
	Females	2,377,107	96.1	138,094	98.3	5.8
	Total	4,540,249	91.5	1,139,754	81.2	25.1
Gulf Countries (Recorded)	Males	323,952	13.0	260,770	20.7	80.5
	Females	97,228	3.9	2,327	1.7	2.4
	Total	421,180	8.5	263,097	18.8	62.5
TOTAL	Male	2,487,094	100.0	1,262,430	100.0	50.8
	Females	2,474,335	100.0	140,421	100.0	5.7
	Total	4,961,429	100.0	1,402,851	100.0	28.3

1/ Enumerated population only: not adjusted

Source: Cited population census of YAR and of relevant Peninsula countries.

First, they build on the 1975 data base which, though a considerable improvement over previous years, is not complete as discussed in earlier parts of this chapter. Second, the population projections are based on an insufficient knowledge of key demographic parameters (para. 1.24 below). As this knowledge improves, a revision of these projections will most likely be required. Finally, the assumptions on crude participation rates of the labor force may also require revision as more information is gathered about the general manpower situation. However, despite these shortcomings, the projections that follow still provide a useful first step in the direction of better manpower planning.

Fertility and Mortality

1.23 The 1975 population did not include questions which would permit the estimation of fertility and mortality. Until 1980 no comprehensive survey of mortality and fertility had been undertaken. Figures quoted on this subject are therefore either estimates based on partial data or the result of a small scale study of a group of villages or towns.

1.24 The different climatic and social environments found within Yemen make generalizations from small surveys for the whole country impracticable. Some commentators in the YAR suggest that the infant mortality rate may lie

between 150 and 210 deaths per thousand infants, and that life expectancy is around 37 years. Official estimates, however, place the infant mortality rate at around 138 deaths per thousand and life expectancy at 47 years. The crude birth rate is officially believed to be around 45 per thousand and the death rate around 20 per thousand, leading to a population growth of around 2.5 which may in fact be on the high side 1/.

1.25 In the early part of 1980 the World Fertility Survey completed its work in Yemen. In September 1980 the United Nations is expected to execute a household survey primarily designed to analyze labor migration. Questions on fertility and mortality will be included in that survey, and so considerably more demographic information will be available than is at present.

1.26 The population is thought to have grown from natural increase at approximately 1.9 percent per annum in the early days of the Republic. More recently, it is believed that with improving health conditions and greater awareness of proper methods of infant care, the population growth rate may have increased substantially as suggested in para. 1.24 above.

1.27 It is difficult at this stage (without the benefit of the results of the fertility survey) to ascertain such a significant increase in the population growth rate. Whereas a general improvement in health and education standards is likely to have a favorable effect on infant mortality, other factors come into play and their effect on fertility and mortality is not clear. Three of these are prominent: urbanization, migration abroad for employment, and the use of contraception.

1.28 Thus, for example, it is not yet clear whether rural or urban areas are more "healthy" for infants. Inadequate water supplies, overcrowding and the prevalence of communicable diseases in towns and cities are factors that could increase infant mortality and counterbalance the effects of improved access to medical facilities.

1.29 The absence of male spouses who are working abroad for periods greater than one month will diminish the likelihood of conception. Yemenis have been travelling abroad for employment for some years, so the impact of worker migration should already be present in fertility rates. However, if the pattern of migration alters so that short-term migrants spend longer periods at home fertility rates are likely to rise.

1.30 One survey of women in rural areas 2/ reports that 9 percent of women use contraceptive aids of some sort. However, the same author reported that their efficiency in using such aids was limited, partly through a lack of understanding of the need for regularity in use. Remarkably, vasectomy among men is reported to be a growing phenomenon in the YAR.

1/ Most recently, these demographic parameters have been officially revised to yield a population growth rate of 2.9 percent.

2/ C. Myntti, Women and Development in the Yemen Arab Republic, (Eschborn 1979).

1.31 Many factors affect fertility and mortality rates. At this point it is possible only to suggest the complexity of the topic and the impracticability of attempting accurate prediction. The information which the two surveys mentioned above will generate should facilitate understanding and prediction of population growth in the future.

Population Projections

1.32 The assumptions underlying the poplation projections are as follows: (1) life expectancy for men is 46 years at birth and for women 48 years (yielding an average of around 47 years); (ii) the crude birth rate is 45 births per thousand; and (iii) infant mortality is 138 infant deaths per 1,000 live births. The projection period is 1975 through 1990. Life expectancy is set to increase at half a year per calendar year thereby reaching 53 years for men and 55 years for women by 1990. Fertility rates are held constant over the projection period.

1.33 Table 1.3 presents a summary of the assumptions employed by the projection exercise as well as its results in aggregated form. The projections are of the resident population (including the official estimates of the underrecorded and unrecorded portions) and of the recorded short-term migrant population. By 1990, the total YAR population would be expected to increase to around 8.5 million. Within such a population, the number of those aged 14 or less grows from 2.5 million in 1975 to 3.7 million in 1990, which translates into a slight drop in proportion of the total population from 44.5 to 43.5 percent. Thus, the country will continue to have to support a substantial segment of its population that is very young.

Labor Force Projections

1.34 The 1975 Census has provided participation rates by age and sex for the recorded resident population, and these form a basis for future judgments regarding the labor force.

1.35 Various adjustments were made to participation rates by age after 1975. For males, the participation rate of persons aged 10-14 and 15-19 is projected as falling progressively to 1990. This is to allow for the broadening impact of school enrollment. The impact on the 10-14 age cohort is expected to take place a little sooner than in the case of the 15-19 age cohort. It is worth mentioning that the number of economically active children aged 10-14 was some 125,000, roughly 10 percent of the entire work force in 1975. (Statistical Annex Tables II.15 and II.16.)

1.36 For females, three adjustments were made to their participation rates. First, as in the case of boys, the participation rate of the 10-19 age group is reduced, to allow for increased access to education. Secondly, the participation of those aged 20-24 and 25-29 is slightly increased over the period also in order to account for the effect of education. In the Middle East region, increased schooling and particularly higher education has traditionally led to a sharp increase in labor participation for those age cohorts. Thirdly, in 1990, the population aged 40-44 will be the first

to experience a wider access to education and even to have participated when they were aged 20-24. Thus the rate of economic reentry is raised slightly (from 10.3 percent to 12.0 percent) to allow for this development.

Table 1.3: KEY ASSUMPTIONS AND AGGREGATED RESULTS OF POPULATION PROJECTIONS (1975-1990) 1/

	1975	1980	1985	1990
Total population (000)	5,679	6,470	7,381	8,482
Males - Number	2,853	3,255	3,719	4,280
- (%)	(50.2)	(50.3)	(50.4)	(50.4)
Females - Number	2,826	3,215	3,662	4,202
- (%)	(49.8)	(49.7)	(49.6)	(49.6)
Population age group 0-14 (%)	(44.6)	(46.1)	(45.8)	(43.5)
Crude birth rate (per thousand)	45.4	42.6	41.0	42.2
Crude death rate (per thousand)	19.7	16.4	14.2	13.1
Population growth rate (%)	2.57	2.62	2.68	2.91
Total fertility rate	6.58	6.58	6.58	6.58
Life expectancy at birth (years)				
Males	46	48	51	53
Females	48	50	53	55

1/ Includes the resident population and recorded short-term Yemeni migrants.

Source: Mission estimates.

1.37 These developments and the detailed calculations are reflected in Statistical Annex Tables I.15 and I.16. Table 1.4 summarizes the growth of the workforce from 1975 to 1990, over which time it is estimated to increase from 1.6 million to 2.2 million. By 1990 this implies the need to create approximately 56,000 jobs each year. Again, as with the provision of education and health care for the nation's future young population, this seems a considerable challenge.

Table 1.4: POPULATION AND LABOR FORCE PROJECTIONS BY SEX (1975-1990)

	1975	1980	1985	1990
Population (000)	5,679	6,470	7,381	8,482
Crude participation rate (%)	27.8	27.0	26.6	26.2
Labor Force (000)	1,582	1,747	1,963	2,228
Male	1,417	1,552	1,748	1,985
Female	165	195	215	243

Source: Mission estimates.

1.38 The crude participation rate declines slowly from 27.8 percent to 26.2 percent, a reflection of the broadening base to the population pyramid and increasing school enrollments.

II. THE STRUCTURE OF EMPLOYMENT 1/

A. Introduction

2.01 The previous chapter dealt with the size and composition of the YAR population and its potential labor force. The main objective was to estimate in broad and purely demographic terms the potential supply of Yemeni labor over the coming decade. The potential labor force was projected by applying age and sex specific crude participation rates to the projected population profile.

2.02 Although projecting such a broad aggregate as the potential labor force is a useful first step in identifying the supply of manpower, it is necessary to characterize and define this supply more precisely to render the exercise more useful for purposes of manpower planning. This is done in Chapter V which builds on the material presented in this and the following two chapters.

2.03 This chapter describes in as much detail as practicable the structure of employment in YAR. One of its major contributions is an attempt to put together in a comprehensive fashion information on the labor force that originates from a number of agencies, in a number of forms, and for a number of different years. 2/ Unfortunately, the sources of information on manpower in YAR collect partial information on a relatively ad hoc basis and the totality of this information is not unified and smoothed out to give a clear idea of the whole manpower picture, and more importantly, how it is evolving. Although this report, and in particular this chapter, attempts to make a contribution in this direction, it is of prime importance that a manpower planning unit is established, preferably within CPO, to address matters related to manpower planning on a continuous basis.

B. Characteristics of the Labor Force (1975)

2.04 As with population statistics, a discussion of labor force statistics should make a distinction between those workers who are recorded in a census or a survey and those who are not. Table 2.1 presents a compilation of the recorded Yemeni labor force both domestically and those working in other countries of the Arabian peninsula (see Statistical Annex Table II.1 for more detail). The table shows that of the workers who were recorded in 1975, around 80 percent made up the domestic labor

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1/ Since the discussion of this report with the Governmment in January 1980, there have been some very minor revisions by CPO of some of the labor force and employment statistics. These revisions do not affect the thrust of this report's analysis nor its conclusions and recommendations.

2/ This explains the large number of tables in the Statistical Appendix.

force and around 20 percent worked in neighboring countries. The total labor force was slightly in excess of 1.4 million and was comprised of 90 percent male and 10 percent female workers. 1/ A considerable 8 percent were below the age of 15 and should normally have been in school. Figure 2.1 is a schematic representation of the age/sex profile of the population, the potential labor force, and the actual labor force including workers abroad.

Table 2.1: RECORDED LABOR FORCE (1975) 1/
(1000)

	Male	Female	Total
Domestic Recorded Labor Force	1,002	138	1,140
(% of Total)	(79)	(99)	(81)
Yemeni Workers Recorded in Neighboring Countries 2/	261	2	263
(% of Total)	(21)	(1)	(19)
Total Recorded Labor Force	1,263	140	1,403
(% of which under 15 years of age)	(7)	(16)	(8)

1/ Does not include workers either in or outside YAR who are not recorded by a census or survey.

2/ Saudi Arabia, Kuwait,Bahrain, Qatar and the United Arab Emirates.

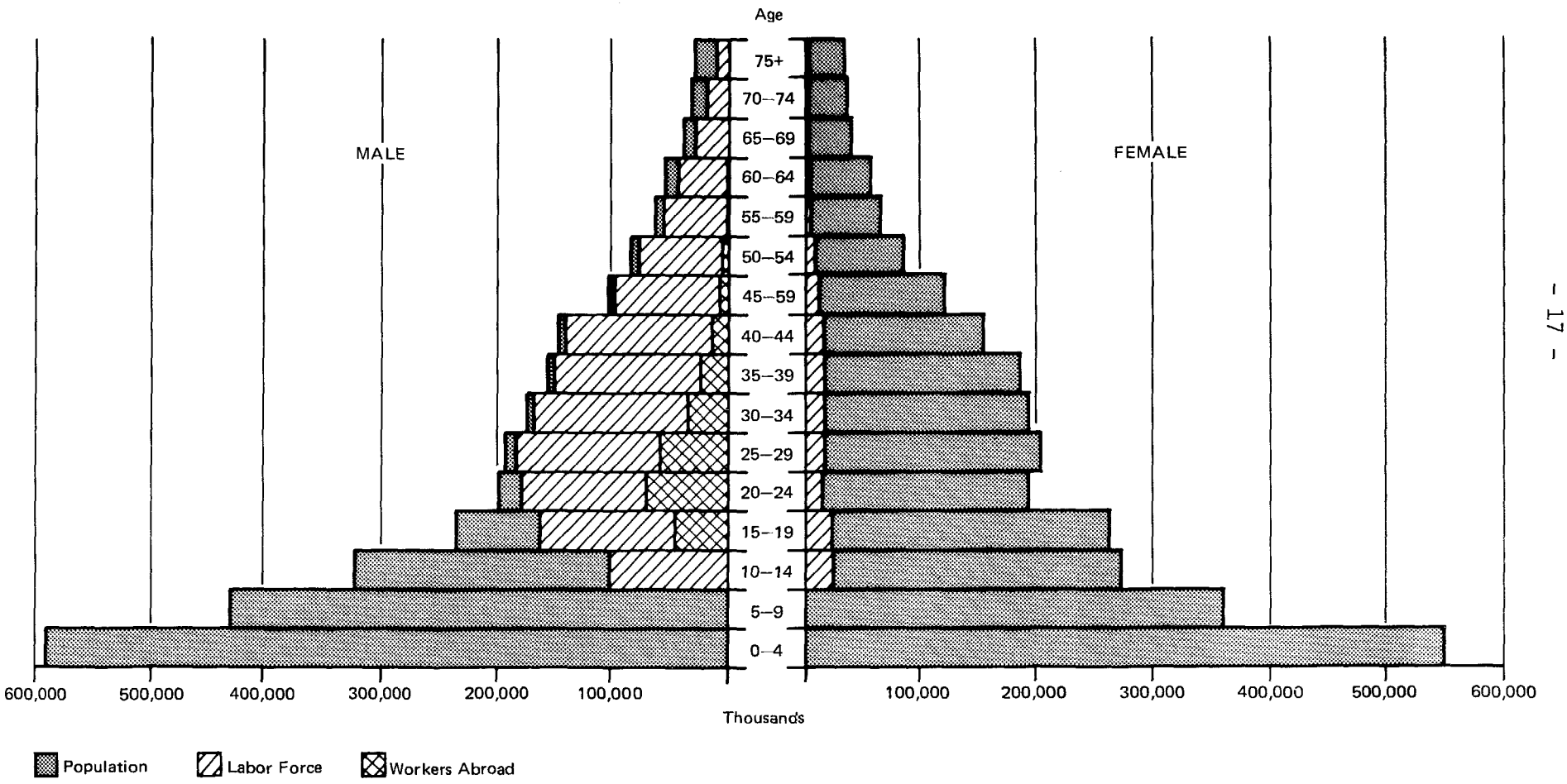
Source: Statistical Annex Table II.1.

(a) Education and Training Attainment

2.05 A most striking characteristic of the Yemeni labor force is its low level of education and training attainment. Within the total population, three out of every four males and almost all females (98 percent), ten years old or older, were unable to read and write at the time of the Census (Statistical Annex Table II.2). The corresponding figure for the males and females combined is 87 percent. Among governorates, Taiz had the highest proportion of population able to both read and write. On the national level, only 1.5 percent of the population had a certificate of having attained some level of education: less than 3 percent of the males and less than one half of one percent of the females. This, of course, has been due to the fact that formal education was introduced only in 1963, and did not really become effective until the end of the Civil War in 1969; higher education within YAR began only in 1970 although a number of Yemenis had previously gone abroad for their higher education as they still do today; and technical and vocational training were still at a very rudimen-

1/ See para. 2.08 for qualifications.

FIGURE 2.1: AGE/SEX PROFILE OF THE POPULATION, LABOR FORCE AND THE WORKERS ABROAD, 1975[1/]



1/ Includes estimates of the population and the labor force in the underenumerated and uncovered areas by the census.

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tary level in 1975. Considerable progress has taken place since then, with enrollments in formal education and in training programs continuously on the rise (see Chapter IV).

2.06 Since the labor force is drawn from this population pool, the vast majority of the Yemeni workers at home or abroad, in the public or private sector, were not able to read and write, and only a very small proportion of them had a certificate of any kind in 1975. Even among occupations normally associated with higher education, such as scientific/technical and managerial occupations, the vast majority of workers were without the qualifications that would normally be required for such positions.

2.07 The education/training attainment profile of the labor force has improved during the last five years. A number of training institutes have started operating in the country, many of these are open to both the males and the females. 1/ There is also some evidence (see Chapters III and IV) that confirms that many Yemeni workers have attained training for themselves and education for their children while abroad although it would have been possible for them to take advantage of similar opportunities within YAR. Enrollments in the primary level of education, as well as other levels, are increasing. However, due to the naturally long period required for any education/ training program to bear fruit, it is doubtful that the change in the training attainment profile of the labor force has been significant so far.

(b) Sex Composition

2.08 The labor force in the YAR is predominantly male, in keeping with the culture and tradition of the area. 2/ A little over one in ten members of the total recorded labor force were females in 1975. Among the resident labor force, the females accounted for nearly one in every eight and for less than one percent of migrant workers (Statistical Annex Table II.1). Though the share of females in the total labor force is small, they were represented in all occupations (Statistical Annex Table II.3) and in almost all sectors of economic activity.

2.09 The role of the female worker is most crucial in rural areas. Except for applying chemical insecticides and fertilizers, she participates in all aspects of farming, either exclusively, or in partnership with male workers. She also works as a seamstress, water carrier, clothes washer, bread maker, basket maker, traditional health worker including midwife, servant, animal tender, potter, weaver and occasionally as a construction

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1/ For a more complete discussion, see Chapter IV.

2/ The figures on female participation cited here reflect the census results only and, therefore, underestimate the extent of actual female participation which is known to take place but whose magnitude is not certain. A number of factors also lead to an underrecording of female workers by the census itself.

worker or trader. 1/ In the modern sector, women are mostly employed in education, and health. The poor among them work as street cleaners in the employment of the Ministry of Municipalities, or in the Sana'a Textile Factory. More recently, women are becoming more visible in the banks and the government offices.

(c) Age Composition

2.10 Just as the population in the YAR is very young (almost half of it under age 15 in 1975), so is the labor force. Almost half of the total recorded labor force was under 30 years old in 1975, and 8 percent was under 15 years of age. Nearly 4 percent of the workers were 65 years old or older.

2.11 The contrast between the age distribution of workers in the YAR and those outside is significant. Among the recorded Yemeni workers abroad, two-thirds were between 15 and 29 years of age, while within the country the corresponding proportion was less than two-fifths, and only less than one-half of one percent belonged to the "65 and over" age group among the migrant workers (Statistical Annex Table II.1).

C. Deployment of the Labor Force

2.12 Of the total recorded labor force in 1975, 19 percent was employed in one of the oil-rich countries of the region; approximately 75 percent was employed domestically; and 6 percent was either unemployed, or seeking employment for the first time. Around 69 percent was engaged in traditional employment, 4 percent in the urban private sector establishments, and only 2 percent in government (see Table 2.2). A schematic representation of how the labor force was deployed in 1975 is shown in Figure 2.2. Geographically, the governorates of Sana'a, Hodeidah, and Ibb accounted for over one half of the total (Statistical Annex Table II.5).

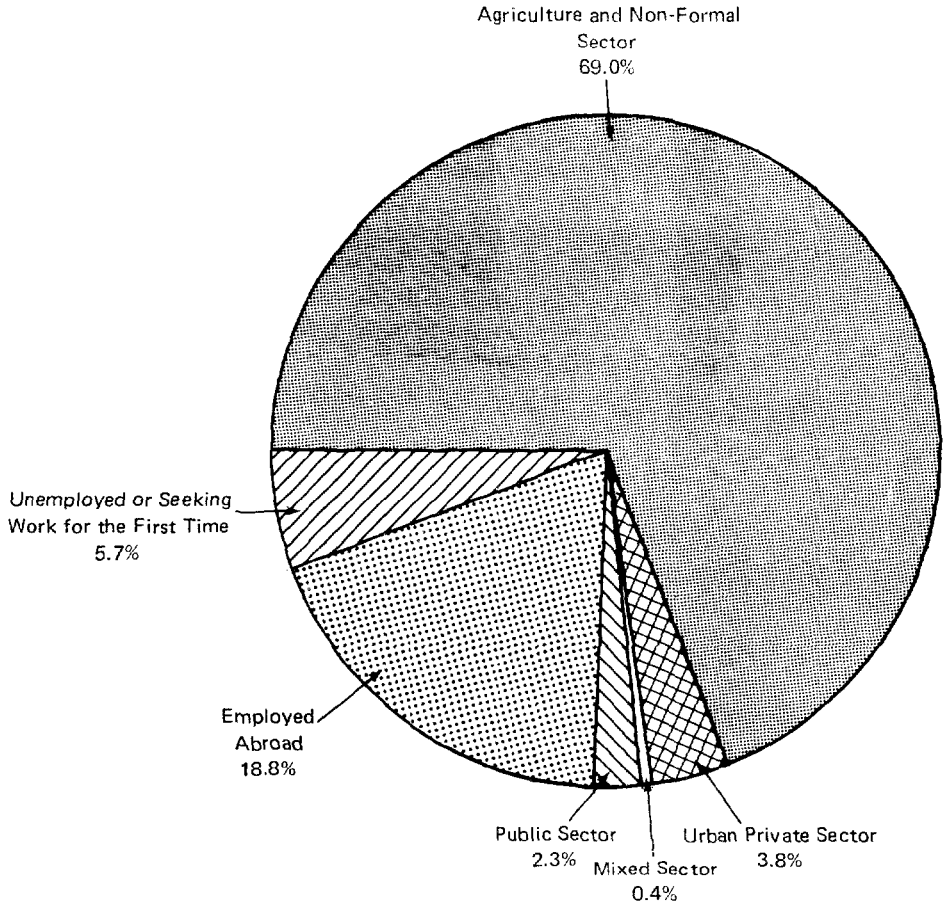
Table 2.2: SUMMARY OF LABOR FORCE DEPLOYMENT
(1000)

	Number	%
Domestic Employment	1,060	75
(Public Sector)	(31)	(2)
(Private Sector)	(1,029)	(73)
((Modern))	((53))	((4))
((Traditional))	((976))	((69))
Employment Abroad	263	19
Total Employment	1,323	94
Unemployed	80	6
Total Labor Force	1,403	100

Source: Statistical Annex Table II.4.

1/ Cynthia Myntti, op. cit., pp. 57-62.

FIGURE 2.2: DEPLOYMENT OF THE RECORDED LABOR FORCE, 1975



Source: Statistical Annex Table II.4

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(a) Occupational Composition

2.13 Consistent with the preponderance of the traditional sector's share of the labor force, 78 percent of workers were employed as agricultural workers; and 11 percent were in production-related occupations. Thus, around 90 percent were in occupations with limited traditional skills. On the other side of the spectrum, only one percent of employment was in professional and technical occupations, another 0.5 percent were administrators or managers (Statistical Annex Tables II.6 and II.7).

2.14 In their manpower survey, Sinclair and Socknat classified modern sector employment in 1975 by occupational clusters that they linked to presumed educational/training requirements. The distribution they generated is shown in Statistical Annex Table II.8. According to their assumptions, 8 percent of occupations in the modern sector required post secondary education and less than half of those required a university degree. 41 percent required secondary school completion plus some on-thejob or prevocational training; 17 percent required functional literacy plus on-the-job training; and 13 percent required no special skills. Thus, even on the basis of the actual occupational distribution (which is already biased towards the lower skills) the educational/training requirements of the labor force are far above the actual level of educational/training attainment.

(b) Sectoral Composition

2.15 The vast majority of workers (78 percent) were employed in agriculture in 1975; 7 percent were in services and another 10 percent in construction and trade (Statistical Annex Table II.9). Mining and quarrying, electricity, gas and water, finance, insurance and real estate combined accounted for less than three-tenths of one percent, while manufacturing and transport together made up less than 5 percent. It is interesting to note that 90 percent of all workers in the professional, technical and service occupations were in the services sector (a significant proportion in government employment), as were 92 percent of the administrative/managerial and 82 percent of clerical workers. On the other hand, the four sectors of mining and quarrying, utilities, construction and finance together accounted for less than 2.5 percent of all professional and technical occupations.

2.16 Very low proportions of the professional, technical, administrative and managerial occupations in the agriculture, construction, trade, transport and manufacturing sectors suggest that most of these activities took place in a non-formal environment and presumably included: subsistence farming, construction of homes, selling dairy products, eggs, fruits and vegetables in the market, taxi or truck operation, and personal and household services. Another indication of the dominance of the informal sector is the fact that almost 60 percent of the labor force consisted of either own-account workers or unpaid family workers (Statistical Annex Table II.10).

D. Employment in the Public and Mixed Sectors

(a) Growth of Overall Employment (1975-80)

2.17 Employment in the public and mixed sectors has undoubtedly continued to grow though it is difficult to determine, from the data available, the relationship between the rate of growth during the 1975-80 period and the 18 percent per annum growth rate experienced during the 1970-75 period. As mentioned earlier in this chapter (para. 2.3), one of the major problems in manpower planning faced by the YAR, as indeed by many countries at a similar level of development, is the absence of a single agency charged with the responsibility of maintaining employment data, properly disaggregated, on a comparable annual basis.

2.18 The total public and mixed sector employment in 1975 was recorded by Sinclair and Socknat 1/ to have been 37,471 of which 31,315 were employed by the public sector and the remaining 6,156 were presumably in the mixed sector (Statistical Annex Table II.11). The public sector employment figures were rather comprehensive and included, for example, both nationals and expatriates as well as civilian security forces (the bulk of the 11,512 employees of the Ministry of Interior)

2.19 The General Department of Personnel tabulated civil service employment (i.e, in the public sector only) as it stood on April 1, 1977. 2/ Similarly, the Administrative Reform Committee, which is attached to the Office of the Prime Minister, has compiled comparable data for 1980 (unpublished). The 1977 total public employment stood at 18,910 and in 1980 at 22,091 (Table 2.3). These figures, however, are not comparable to the 1975 Sinclair and Socknat estimates since the figures for the later years include only Yemeni employment in the agencies covered by Law Number 49. All expatriates are therefore excluded, as are the higher level political positions (above the level of a Deputy Minister), the diplomatic corps associated with the Ministry of Foreign Affairs, the Judiciary, probably the employees of the radio and television stations and the printing and publication agencies, the army and police personnel, and employees of mixed sector enterprises.

2.20 Shortcomings of available data notwithstanding, some comparisons are possible. Thus, for example, Table 2.3 reveals an annual growth rate of public sector employment of 5.3 percent between 1977 and 1980 with the share of middle management positions showing some gain and of the higher level support staff showing some loss. Comparability with the 1975 figures requires that expatriate workers are taken into consideration.

1/ Sinclair and Socknat, op. cit.

2/ The figures are published in a booklet in Arabic entitled: En Route to Administrative Reform

2.21 Information on the number of expatriate workers and their occupational characteristics is scattered and probably incomplete. Statistical Annex Table II.12 pieces together some data (that could be partial) obtained from the Ministry of Labor and Social Affairs and from the Administrative Reform Committee. A summary of this information is reproduced in Table 2.4 below. These expatriates represent four types of labor working in the country presently. First, some experts who are few in number are typically involved in some form of technical assistance work. Generally, they work at the highest professional and technical level. Until Yemenis acquire comparable skills and experience, their presence will be necessary. A second group comprises the small army of teachers and nurses which Yemen has recruited to staff schools and hospitals. Almost without exception this

Table 2.3: PUBLIC EMPLOYMENT IN CENTRAL ADMINISTRATION BY GRADE, 1977 AND 1980

	April 1, 1977 a/		1980 b/	
	Number	Percent	Number	Percent
Top Level	448	2.3	660	2.99
Grade One	193	1.0	223	1.05
Grade Two	21	0.1	56	0.25
Grade Three	234	1.2	371	1.68
Middle Management	2,963	15.7	4,211	19.06
Grade Four	477	2.5	719	3.25
Grade Five	946	5.0	1,557	7.05
Grade Six	589	3.2	723	3.27
Grade Seven	951	5.0	1,212	5.49
Support Staff	15,499	82.0	17,220	77.95
Higher Level	10,814	57.2	11,817	53.49
Grade Eight	1,795	9.5	2,262	10.24
Grade Nine	1,009	5.3	1,184	5,36
Grade Ten	3,116	16.5	3,574	16.18
Grade Eleven	4,894	25.9	4,797	21.71
Lower Level	4,685	24.8	5,403	24.46
Grade Twelve	1,066	5.6	1,065	4.82
Grade Thirteen	3,619	19.2	4,338	19.64
TOTAL	18,910	100.0	22,091	100.00

Source: a/ General Department of Personnel, op. cit.

b/ Administrative Reform Committee.

group is comprised of Arabs, mainly Egyptians and Sudanese, but includes some Jordanians and Syrians. The third group is relatively new to the Yemeni labor market, and is the migrant worker from the area around the Horn of Africa comprising Sudanese, Somalis, Ethiopians, and Eritrians. Many in this group use Yemen as a staging post before moving on to other parts of the peninsula. The fourth group arrived most recently. These are the Indians, Pakistanis and Far Easterners who work on construction sites, doing work which previously Yemenis did, and which Yemenis now do in Saudi Arabia.

2.22 For the public sector alone, if the estimated 5,915 expatriates are added to the Yemeni employment of 22,091 reported in Table 2.3, one arrives at Yemeni plus expatriate employment of 28,006 in the central agencies in 1980. Now, if one were to exclude only the Ministry of Interior employment (Civilian Security Forces) of 11,512 from the 1975 employment, a partially comparable figure of 19,803 is arrived at. Growth in public sector employment during 1975-80 period would then have been from around 19,800 to around at least 28,000 (7.2 percent per annum). 1/

Table 2.4: ESTIMATES OF EXPATRIATE WORKERS (1980) 1/

	Number	Percent
Private Sector	10,138	60
Public Sector	5,915	35
Mixed Sector	840	5
TOTAL	16,893	100

1/ These figures probably do not include foreign experts of bilateral and multilateral agencies who are not paid by the government.

Source: Statistical Annex II.12.

2.23 Employment in the mixed sector agencies was recorded in 1975 to be 6,156. In 1978, it was estimated at 7,764 (Statistical Annex Table II.13), but presumably excluding expatriate workers. If the 840 expatriates estimated to be employed in these establishments were added, a total of 8,604 is arrived at, reflecting an annual growth rate of employment in the mixed sector of 3.5 percent.

2.24 In view of the uncertainty of what the data include and/or exclude, and due to the lack of detail available at this time, the growth rates

1/ In all likelihood, to be completely comparable, many other exclusions from the 1975 data, and/or inclusions to the 1980 data are necessary.

derived above should be viewed as a lower limit only. Even so, during the last ten years the employment in the public and mixed sectors may have increased from 13,000 in 1970 to 26,000 1/ in 1975 and to 36,000 in 1980.

(b) Growth in Selected Clusters of Public Agencies (1975-80)

2.25 The three agencies of the central government associated with human resources development (Ministry of Education, Sana'a University and the Education Development Project) accounted for 14 percent of the total government employment in 1975 (Statistical Annex Table II.11). In April 1977, there were 5,082 Yemeni workers engaged in this subsector accounting for 27 percent of the total Yemenis in the Central Administration (Statistical Annex Table II.14). In addition, there must have been around 3,000 expatriate teachers working for the Ministry of Education and around 200 expatriate professors and other employees at the University of Sana'a. Thus, the total employment in this subsector could have amounted to around 8,280 workers in 1977/78, representing an increase of around 3,840 over the 1975 level, which represents a dramatic 85 percent growth over a twoto three-year period. Given the continued increase in the size of the educational labor force since 1977/78, it is quite possible that more than half of the increase in public sector employment over the decade of the seventies is accounted for by teachers.

2.26 Ministry of Health employment in 1975 was 2,199 (Statistical Annex Table II.11); among these were 1,337 health personnel in various occupations. Employment of only the Yemenis in the Ministry of Health in 1977 was 2,472 and accounted for 13 percent of the total Yemeni employment (Statistical Annex Table II.14) although this figure includes other than health personnel in the Ministry. By 1979, the total number of health personnel only had climbed to over 2,613 (Statistical Annex Table II.15) representing around a doubling in a four-year period.

2.27 It appears then that close to two thirds of the increase in public sector employment in the seventies could have been accounted for by education and health personnel so that although at first glance it may appear that the public administration is expanding too rapidly in size, a closer look indicates that, in fact, much of the growth is concentrated in two vital services areas and is justified. This is not to say that the public administration is not in need of some streamlining along the lines suggested below (paras. 2.69-2.71).

2.28 Impressive as the growth rates in the education and health sectors have been, the need for even greater growth is apparent. There were as many as 110,720 recorded workers in the age group 10 to 14 years in 1975, who should have been in school instead. The situation, though improved, is

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1/ Excluding the security personnel under the Ministry of Interior.

probably similar today. This, plus the requirements of an expanding population base, points to the potential for greater expansion of the education system (see Chapter IV for more details).

2.29 Similarly, in the health sector, while the number of physicians in 1979 is almost double of what it was in 1975, estimates of population per physician in mid-1980 vary from a low of 4,562 in Sana'a to a high of 45,000 in Hajjah, and a national average of 11,091 persons per physician (Statistical Annex Table II.16). 1/ Also, the number of nurses in 1979 was more than double that in 1975, yet the estimates of population per nurse varies from a low of 1,778 in Marib to a high of 8,761 in Ibb, with a national average of 3,911 persons per nurse. Clearly, the employment in these two sectors could grow at an even higher pace.

2.30 By contrast to the growth of employment in the public service agencies (health and education), the growth of employment in the strictly administrative agencies (i.e., Ministry of Municipalities, Ministry of Local Administration, and Department of Estates) has been relatively moderate. Thus, for example, total employment in these agencies was 3,239 in 1975. By 1977, the number of Yemenis working there was 3,412, and since these agencies do not employ many expatriates, it is unlikely that their total employment exceeded 3,500 in 1977 representing a growth of 4 percent per annum over 1975.

(c) Occupational Distribution in 1975 and 1980

2.31 Of the total employment in the central administration agencies, a little over 7.5 percent of the positions were in professional occupations presumably calling for a university degree in 1975. A little over one in every three workers were in the skilled manual occupations, presumably requiring secondary school completion plus pre-vocational and/or training related classroom instruction. Almost one in five of the positions were skilled office occupations, presumably requiring secondary school completion plus on-the-job training. One in every six of the positions were in semiskilled office occupations, presumably requiring completion of preparatory level education; and only one in eight jobs were in unskilled occupations presumably requiring no special skill or education (Statistical Annex Table II.8)

2.32 With investment increasing in the public sector during the last five years, it is likely that the above composition of occupation skills

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1/ Based on Ministry of Health figures for the 1980 population. Although these may differ from any revised population estimates, the health personnel ratios are not likely to be improved significantly by such revisions.

required has changed somewhat; however, it is unlikely that the change has been significant. Unfortunately, in the absence of a comparable distribution of occupation skills for 1980, it is not possible to analyze whatever change may have occurred. This is a task that could possibly be addressed by the proposed manpower planning unit within the CPO.

2.33 In the absence of comparable data on occupational classification of employment in 1980, it may be instructive to analyze the central administration employment in 1977 and 1980 according to grade classification. Table 2.5 shows that the largest increase occurred in the top level category, the second largest in the middle management, and the least proportional increase took place in the support staff. However, in terms of relative shares, middle management employment showed the largest gain. The broad picture that emerges is that a more even balance in numbers is being achieved between the upper/middle and the lower levels presumably as more qualified personnel become available for the middle and higher ranks. It will be a long time, however, before these ranks are completely filled by personnel with appropriate skills and qualifications.

Table 2.5: SUMMARY OF PUBLIC SECTOR EMPLOYMENT BY GRADE CLUSTERS (1977-1980)

Grade Cluster	EMPLOYMENT				Relative Increase In Employment
	1977		1980		
	Number	%	Number	%	%
Higher Management	448	2.3	660	3.0	47
Middle Management	2,963	15.7	4,211	19.0	42
Support Staff	15,499	82.0	17,220	78.0	11
TOTAL	18,910	100.0	22,091	100.0	17

Source: Table 2.3.

(d) Education/Training Attainment Profile of the Civil Servant

2.34 Overall, around 60 percent of workers in the Central Administration had below elementary level education in 1977 (Statistical Annex Table II.17); another 10 percent had completed elementary education. Thus, around 70 percent of the total workers had elementary level education or below, and only 6 percent had an undergraduate university degree. These figures represent a marked improvement over those for 1975 (Statistical Annex Table II.11). To be sure, the agencies recorded in the two tables are not identical, the biggest difference being due to the presence of 11,512 employees of the Ministry of Interior recorded in the 1975 figures and all reported to have had informal education only. However, even if those are accounted for, the proportion of employees below the elementary

level remains 75 percent in 1975, as opposed to 59 percent in 1977. Employees having elementary education accounted for 8 percent in 1975 as opposed to 10 percent in 1977, and the proportion with an undergraduate degree rose from 3.5 percent in 1975 to 6 percent in 1977. Clearly the proportion of the public sector employees having no to little education is decreasing and those having moderate to higher level is increasing. However, despite this improvement, much remains to be done to fully upgrade the level of public sector employment as depicted by Statistical Annex Table II.17.

(e) Evolution of Salary and Wage Scales

2.35 During the first decade of the Republic, salary scales within government departments were not standardized. Most agencies adopted their own scales and fringe benefit system. A first attempt at a standardized system was Law Number 5 of 1971. Public sector jobs were classified into ten grades (1A, 1B, 2A, 2B, 3A, 3B, 4A, 4B, 5A and 5B), in addition to the two grades of Director General (A) and (B), and a Deputy Minister Grade.

2.36 A more comprehensive civil service code (Law Number 49) was promulgated in 1977 and attempted to create a unified structure of thirteen grades and to define requirements for entering at a specific grade, promotion, rotation, etc. The law is fairly comprehensive in that it provides the essential rules and procedures characteristic of most modern public administrations. However, due to a lack of qualified civil servants and the legitimate competition by specific public agencies to attract good candidates, it is sometimes not possible to apply these regulations with rigor. The base salary structure and the nature-of-work allowance were further increased as of March 1, 1979, in accordance with the provisions of Law Number 3 of 1979.

2.37 A comparison of the grade structure embodied in the two laws is presented in Statistical Annex Table II.18. The main difference in terms of grade structure is that the new law introduced a new level (grade 2) between the old "Director General" and "Deputy Minister" grades. This opened up one more senior management level thereby creating greater opportunity for differentiation among senior level staff. In addition, by dissociating grade levels from titles at the higher level (the older law linked the two), the new law opened the opportunity for highly skilled technical staff to earn as much or even more than managerial staff who are administratively their superiors. This is indeed an attractive feature because it allows for more flexibility in recruitment and promotion.

2.38 Another important feature of the new law and its 1979 revision is that they increased the base pay and allowances for the various grades. A comparison of the basic salary scales is provided in Statistical Annex Table II.19. The table shows that the basic salary range for all grades was increased considerably in 1977 as well as in 1979, although by a smaller extent, with the increase being more or less progressively larger as one moves down the grade ladder. On average (and a rough average

indeed) the salary level was more than doubled in 1977 and increased by around 40 percent in 1979. However, it must be kept in mind that it was unchanged in the six years prior to 1977, so that this doubling translated into an annual growth of 12.5 percent over the 1971-77 period which was below the rate of inflation (probably averaging between 15 and 20 percent) during the same period. It is appropriate to mention at this point that it would be less disruptive if salaries were reviewed and adjusted periodically rather than in such an infrequent manner. In this context, it shoud be mentioned that the Government subsidizes some basic consumption items that are available to its employees through its consumer cooperatives, thereby partially offsetting the effects of inflation and the high cost of living (see also para. 2.59 for additional measures).

2.39 Table 2.6 shows that, in fact, actual salary outlays increased by around 60 percent as a result of the general increase in 1977. This table also shows a comparable relative increase in the actual outlays on allowances which amounted to around 35 percent of total compensation before and after the law.

Table 2.6: COMPARISON OF TOTAL SALARIES & ALLOWANCES FOLLOWING LAW No. 49 (1977), AS THE SITUATION STOOD ON APRIL 1, 1977 1/

(YRls Million)

	Before Law No. 49	After Law No. 49	Relative Change (Percent)
Basic Salaries	68.6	108.3	57.9
Allowances	37.2	60.3	62.1
(Representation)	(0.9)	(2.5)	(77.8)
(Nature of Work)	(28.3)	(51.1)	(80.6)
(Others)	(8.0)	(6.7)	(-16.2)
Salaries and Allowances	105.8	168.6	59.4

1/ Changes introduced by Law Number 3 (1979) are presented in Statistical Annex Table II.19.

Source: General Department of Personnel, op. cit.

2.40 There are five types of additional allowances to the basic salary of a civil servant: (i) nature-of-work, (ii) specialization, (iii) graduation, (iv) rural location, and (v) representation. The nature-of-work allowance was 40 percent of the basic salary for the top four grades and 50 percent for the bottom nine prior to 1979. However, Law Number 3 (1979) increased it to 50 percent for the top eleven grades, 60 percent for grade twelve, and 75 percent for grade thirteen. The specialization/education allowance ranges between 10 percent of the basic salary for holders of bachelors degrees (or equivalents) to 25 percent for holders of doctoral

degrees. The graduation allowance is actually a bonus that a graduate receives upon completion of his studies and it ranges from YRls 100 for graduates of technical schools and teacher training institutes to YRls 500 for doctors, engineers, pharmacists, etc. Depending upon location, civil servants also receive a hardship allowance ranging from 20 percent of the basic salary for residents of Sana'a, Damar, Ibb, or Taiz governorates to 40 percent for residents of Marib, and the residents of the other four governorates receive 30 percent. The representation allowance is limited to the top five grades and ranges between YRls 100 per month to YRls 400 a month for a Deputy Minister. In addition to these allowances, some civil servants receive fees for serving on any of a number of committees and boards and these fees could add up to a handsome sum for those who are active in many committees. Thus, those who are highly qualified and active can easily double their basic salaries through these allowances so that a highly qualified technician or manager at the second grade level whose base salary is, say YRls 1,500 per month could in fact be earning YRls 3,000. However, such opportunities are limited and are not part of a standard benefits package.

2.41 The question arises whether the salary and allowances plus whatever other benefits civil servants receive, are sufficient to attract and retain qualified personnel in key positions. This important question is related to a number of other considerations and issues surrounding public sector employment and is, therefore, discussed in a broader context below (paras. 2.54-2.61)

(f) Issues and Recommendations Regarding the Public Administration

2.42 The public administration system in YAR has been characterized by a nagging set of problems and issues, some of which are as old as the system itself and are not likely to be resolved for some time. Others are less overwhelming and could possibly be amenable to remedy by measures that would yield results in a relatively short time. Since the system itself is young and got started from a very low level of development, there is so much that needs to be done which cannot possibly be done simultaneously in the short run, that it may prove wise to concentrate immediate reform efforts on problems that are both pressing and could probably be lessened within a two-year horizon. In other words, what is needed is a focussed action program.

2.43 Setting priorities within such a program is naturally something for the Government to decide upon, but an attempt is made below (Table 2.7) to suggest a classification of issues along lines that would permit a prioritized set of actions. Of course, in some instances a recommended action can only call for identifying the nature and scope of further work that is needed on a particular issue before a more specific action can be recommended.

Table 2.7: MAIN ISSUES THAT CHARACTERIZE THE PUBLIC ADMINISTRATION IN YAR

1. Lack of functional job classification

2. Shortage of qualified civil servants
   - Redistributing available stock
   - Incentives
   - Accelerated training
   - Increased female participation

3. Utilization of foreign experts
   - Need for explicit TOR
   - Coordinating their activities
   - Monitoring their activities

4. Streamlining the administration
   - Top-heavy structure and proliferation of special units

5. Administrative prodecures
   - Delegation of authority

6. Ambiguous relations between central and local authorities

1. Classification of jobs by function/task.

2.44 There is a tendency, when compiling and analyzing information on public sector employment to emphasize classifications by civil service grade and/or agency and to shy away from a more functionally-oriented classification. Unfortunately, the first two types do not lend themselves to the type of analysis that is necessary when determining the best match between a civil servant's qualifications and the tasks that are expected of him in the normal course of his work. It seems that an important first step toward a better utilization of manpower in the civil service is to outline job descriptions for at least some of the key positions on an agency-by-agency basis. As a first step in this direction, job descriptions for managers of financial and administrative units as well as planning and follow-up units in various agencies should be developed in a more concrete fashion. Naturally, these descriptions should not be so detailed as to become self-defeating given the shortage of qualified staff and their degree of specialization. They should, however, be sufficiently differentiated to offer meaningful guidance for recruitment, reallocation of existing staff, and for giving the right signals to the training system, and to a less immediate extent, the education system to produce the required qualifications.

2.45 The reason that such a seemingly straightforward process as functional job classification is of such high priority is because it is conceived as an essential first step which if not taken would probably lead

to a distorted resolution of the other issues that plague the system. In other words, before determining the best recruitment policy, the structure of incentives, or the need for foreign experts, it is essential to know what type of people are needed in terms of what they are expected to do and not simply in terms of generallized occupational characteristics, or mechanistic grade levels. Some work 1/ along these lines has already been started, but it needs to be completed, refined and its policy implications brought out further.

2.46 Efforts should be made at as early a stage as possible to write up unambiguous job descriptions for key civil service positions and to arrive at a functional classification of all public sector employment. Such an effort could be coordinated and supervised by the central agencies directly involved with civil service matters, but the actual write-ups of the job descriptions should originate at the individual agency level which is normally in the best position to judge the nature of the tasks that need to be performed. Assistance by foreign experts should probably be sought during the early phases of this effort, but it is important that it is carried through with the active participation of local counterparts who should be trained on-the-job and assigned a specific responsibility for sections of the work in order to maximize their involvement and thus their training.

2. Shortage of qualified civil servants

2.47 As with the rest of the economy, the shortage of technically qualified personnel is a major and central difficulty for the public administration. Although the availability of progressively more qualified people is increasing in YAR, it will be some time before enough of them are sufficiently well trained and experienced to fulfill the country's requirements. In this sense,, the overall manpower problem, including the civil service, is one whose resolution can only come in time as the education and training system becomes more responsive to the country's needs (the long-term aspect of the manpower problem is discussed in Chapter V).

2.48 The shortage problem is compounded by an apparent mismatch between the education/training attainment of civil servants and the requirements of the jobs. Nearly eight of of every ten government employees in 1975 did not have the education/training necessary for the occupation they held (Statistical Annex Table II.20). Even among semiskilled occupations, presumably requiring functional literacy plus job training, nearly two out of every three incumbents did not have the skills necessary for their job in 1975. Unfortunately, comparable information for later years is not available to allow the evaluation of a change in the situation although some improvement has probably taken place.

1/ C. Sinclair and J. Socknat, op. cit.

2.49 The critical shortage of trained personnel is reflected in the administration in several ways. About 20 percent of the total number of approved positions remained vacant in 1977. 1/ The largest number of vacancies was in the technical departments where as many as half of the approved positions were vacant. The situation today could not be much different, although the exact number of current vacancies is not known. The greatest difficulties are experienced in filling higher-level managerial slots and specialized positions such as doctors, engineers and technical staff. A number of senior supervisory positions, such as directors-general, have to be filled with inexperienced graduates. In many instances, the requirements of Law No. 49 on minimum qualifications had to be relaxed in order to fill some positions. Even for elementary schoolteachers, required qualifications had to be downgraded to be able to staff the expansion in elementary schools.

2.50. Another indicator of the shortage of qualified Yemenis for public employment is the presence of a large number of expatriates. As stated earlier, the Administrative Reform Committee has given a preliminary estimate of a total of 6,755 expatriates in public and mixed sector employment in early 1980 (Statistical Annex Table II.12). This estimate is most probably on the low side since the Ministry of Education alone had around 5,500 expatriates in its employment in 1979/80 (Statistical Annex Table IV.5). 2/ Another hundred were employed by the University of Sana'a. Thus there must have been at least 5,600 expatriate employed by the public education sector alone. In addition, around 820 expatriates health personnel were in YAR in 1979 (Statistical Annex, Table II.15) making for a total in excess of 6,400 in these two sectors alone. It would not be surprising therefore, if the total number of the public sector expatriate workforce exceeds 9 thousand to 10 thousand workers although the lack of data makes a more accurate estimate not possible.

2.51 It is interesting to note, in the context of the health sector, that the distribution of manpower, both Yemeni and expstriate, among the various governorates is highly skewed in favor of those governorates that include the large urban centers. Thus, the total number of physicians in Sana'a, Taiz and Hodeidah governorates was 222, 116 and 78 respectively in 1979, and in other governorates it ranged from a high of 32 in Ibb to a low of only six in Sa'adah (Statistical Annex Table II.21). The corresponding population to physicians ratio also favors the urban centers. In five of the governorates (Hajjah, Mahweet, Beida, Sa'dah and Marib) there was not a single dentist of any nationality, and only one each in Ibb and Damar. Only in four of the governorates (Sana'a, Taiz, Ibb and Hodeidah) were there any pharmacists ranging from two in Ibb to 29 in Sana'a.

1/ IBRD, Yemen Arab Republic: Development of a Traditional Economy, p. 41.

2/ Excluding those engaged in secondary technical, teacher training and religious instruction.

2.52 Faced with these shortages and having to compete with other sectors for scarce qualified personnel, the public administration should endevor to ensure the best utilization of its existing stock of civil servants and to upgrade the quality of at least part of this stock, in stages, at as rapid a pace as possible. In other words, in the short-run, an effort should be made to: (i) redistribute the available manpower among agencies when this leads to better overall performance, (ii) support a selective recruitment and retention program with adequate incentives that emphasize career planning; and (iii) provide intensive training programs to help fill vacancies and to upgrade quality in the most critical positions. In addition, (iv) a greater effort at training and utilizing a larger share of the potential female labor force would help considerably.

2.53 (i) Redistribution and rotation of available manpower Since the size of the public administration expanded very rapidly in its formative years, it is quite likely that some positions were filled without sufficient attention given to ensuring as good a fit as possible between slots and people. If this was indeed the case, the efficiency of the system can probably be improved now with minimal cost by laterally and possibly vertically shifting the present civil servants to achieve a more appropriate job fit and by institutionalizing a system of job rotation. The functional classification of jobs proposed above would prove very valuable if not essential for such a redistribution.

2.54 (ii) Incentives Given that the public sector will have to be competing vigorously for some time with both the private sector and with neighboring oil-producing countries for scarce qualified Yemeni labor, the question naturally arises as to what is the appropriate salary/benefits package that would be necessary to attract and retain some of this labor. However, before attempting to propose any suggestions, it should be kept in mind that the problem may not necessarily be one of general recruitment but rather of filling key slots with the appropriate candidates. Again the functional classification of positions recommended above is a prerequisite for the identification of the types of candidates that are needed most. The available information on vacancies by broad occupational clusters, though helpful, is not entirely appropriate.

2.55 A systematic and comprehensive comparison of salaries/benefits between the private and the public sectors does not exist. In fact, information on salaries and allowances actually expended is available only in aggregate form. However, the report cited in the footnote 1/ gives some information that is intended to support the generally held belief that private sector jobs tend to be better paid. For example, the report asserts that the average of the highest salaries offered throughout the private, mixed and public sector enterprises was YRls 3,000 per month in 1977, which is between 2 and 2.5 times the salary of an undersecretary in a ministry. Similarly, at the bottom end of the scale, the report claims that the aver-

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1/ Administrative Reform Committee, Administrative Reform Project (Annexes 2-6), (Arabic).

age of the lowest salaries in public sector agencies is YRls 300 per month compared to YRls 400 in the private sector. Unfortunately, the report does not seem to take allowances and benefits into consideration in this comparison. Had it done so, it is possible that, on average, public sector employment would not have appeared at such a disadvantage.

2.56 Undoubtedly, there are specific instances where a former highly qualified civil servant was lured to the private sector and was able to multiply his income upon transferring. It is not clear however, whether such instances represent isolated observations or a general trend. There has been some concern within YAR government circles about the problems of leakage of qualified personnel from the public sector to either the mixed or the private sector (the latter directly or through the mixed sector), and the pirating of qualified civil servants from one public sector agency to another. Comprehensive, systematic information on such leakage and pirating is not available. The mission left with CPO, a questionnaire that it had designed to help generate such information in the future. In the meantime, discussion of these issues with a number of officials in key manpower-related positions did not yield a consistent pattern of responses that might have substituted for the lack of systematic data. Some feel the problems are serious; others feel they are exaggerated. On balance it seems that pirating among government agencies has probably subsided in comparison to the early years. Attempts to lure a good civil servant from one agency to another persist, but more agencies are now insisting on their prerogative to keep their good people. Formally, such transfers need to be approved by an interministerial committee although, in effect, the decision to allow release is usually exercised by the minister of the agency from which the person is being sought, and there is no uniform policy on this matter that is applied by all Ministers. To the degree that leakage from the public to the mixed and the private sectors occurs, it mainly concerns people at relatively high managerial or technical levels where, of course, the leakage hurts the most from the donor agency's point of view. Unfortunately, measures that could be designed to control it are politically sensitive and therefore difficult to implement. For example, among the possibilities that could be envisioned, is to increase salary allowances of the highly demanded people--a measure which is already being done. However, there is a limit to which ceilings on various allowances can be lifted without leading to strong feelings, justified or not, concerning inequity. Another possibility is to make income taxes significantly more progressive. This measure would have the double added advantages of increasing tax revenues for a revenue-poor public sector and of curtailing large differentials in disposable incomes.

2.57 Incidentally, it should be pointed out that across-the-board salary differrentials in favor of the formal private sector is rather common and by no means unique to YAR. In addition, it should be kept in mind that if the public sector loses some talent to the private sector it would still be serving the country and does not necessarily represent a net loss to the economy as a whole. A more harmful matter is the loss of qualified Yemenis who cross the border in search of jobs. In these instances, one would not expect the Yemeni Government to attempt to match the earnings

that they can make in Saudi Arabia, for example. Thus, in attempting to attract and retain employees, it may not be realistic for the civil service to achieve across-the-board parity with the highest domestic or foreign bidder. Instead, it would be more effective to focus this type of parity on specific critical positions that have proven particularly difficult to fill.

2.58 However, although it may not be necessary to shift the whole civil service wage structure at present, it is important to maintain its level in real terms. This would require its periodic review and adjustment in accordance with an appropriate cost-of-living index to protect civil servants against inflation, instead of disruptive large, discontinuous and infrequent increases.

2.59 A question that has surfaced on a number of occasions in connection with the adequacy of public sector salaries is how to deal with the high and increasing housing costs which have tended to claim an increasing share of employees' income. A number of possible solutions offer themselves. First, the Government could consider building houses and renting them or selling them to its employees on easy terms. Second, it may add an appropriate housing allowance to the package of existing allowances. Third, it may give preferential treatment to civil servants by charging them lower mortgage rates through the Housing Credit Bank--esentially subsidizing these loans. Finally, it may legislate a ceiling on the rate of increase of rents. Naturally, each solution has its advantages and disadvantages which affect different groups of the population. Subsidized government housing loans or housing allowances do not alienate landlords and do not discourage good maintenance but, to be a meaningful solution to the problem, would impose a large burden on the public finances which would have to be supported by larger revenues that may prove difficult to generate. Rent control, on the other hand, while free of charge to the public coffers might be defeated if the economic forces that would naturally encourage a black market are sufficiently strong. Government-owned housing that is leased to employees is a drain on the budget and could very well suffer from poor maintenance.

2.60 On balance, it seems that utilizing schemes through the Housing Credit Bank, as the Government is already doing, might be the most attractive alternative although the government itself will have to study these alternatives and make the appropriate choice. In any case, in view of the costs associated with the benefits of any of these alternatives, it would be prudent if the benefits are restricted to the most essential civil servants. Otherwise, the Government may find itself relieving the housing burden for its employees at the expense of a comparable burden which would be carried by another group of the population.

2.61 In summary, in its efforts to attract and retain highly qualified personnel, the public sector should exercise considerable selectivity by concentrating these efforts on the most essential candidates and take every precaution to ensure that they are not distorted by patronage considerations. The use of special allowances and benefits (including access to

Housing Bank loans at favorable rates) seems the most pragmatic approach to achieve such an objective although it is important that these allowances are granted in accordance with objective criteria and are not allowed to proliferate uncontrollably; otherwise they become self-defeating. In addition, it would be appropriate and desirable to widen base-salary bands so that they overlap in order to allow for more flexibility in linking actual salaries to the need for specific personnel instead of being restricted by fairly narrow salary levels associated with various grades.

2.62 (iii) Accelerated training. The need for focused and rapid training for civil servants has been universally recognized for some time, and the Government through the National Institute of Public Administration (NIPA) has already made considerable progress in this vital area. Unfortunately, enrollment in NIPA's courses at Sana'a has been disappointing, using less than 50 percent of the Institute's capacity. Dropouts and examination failures are estimated to amount to about one-third of those registering, so that effectively the throughput is around 30 percent of capacity. On the other hand, NIPA's branches at Taiz and Hodeidah are stretched beyond the limits of their current facilities and new buildings are under construction. The training offered is of the standard general type: public administration, finance and accounting, personnel management, office management, secretarial skills, and the English and French languages.

2.63 While it would be unrealistic at this stage of the Institute's development to expect it to offer more specialized training or to expect the dropout and failure rates to be significantly lower, it is wasteful that, despite its shortcomings, its Sana'a branch is not being utilized to full capacity. Although additional bonuses are paid to participants, not enough are showing interest. One possible way of addressing this problem is to enforce more dilligently the educational and training requirements for civil service employment. It is generally recognized that many civil servants occupy positions for which their qualifications are insufficient if the regulations were to be applied more strictly. Perhaps it is in order to require such people to upgrade their skills by attending relevant NIPA courses and, as a bonus, reward them by either a promotion or a salary increase. A balanced combination of "required and rewarded" training seems appropriate.

2.64 A concern that is sometimes voiced by officials is that after receiving their training, trainees soon find their way to more lucrative jobs in the private sector despite a regulation, which is not enforced, that requires them to stay a minimum period at their job following completion of their courses. Unfortunately, NIPA has so far not conducted a tracer study on its trainees to dispel or substantiate such a contention. A tracer study by USAID 1/ concerning its own training program suggests that, in fact, most trainees go back to their agencies and tend to get rewarded by promotion following their training. These trainees, it must be

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1/ USAID (Sana'a, YAR), unpublished mimeographed report on the tracer study concerning USAID's training projects 020 and 040.

added, receive more advanced overseas training and it might be expected that they would show a greater propensity not to go back to their old jobs than NIPA's trainees.

2.65 Other than the formal training offered by NIPA, all civil servants benefit in more subtle, but nonetheless very valuable, form of informal training on the job. The degree of such training depends on both the job environment and on the individual's initiative. The first factor is quite complex and difficult to institutionalize, but the second may be encouraged by appropriate recognition. This can take the form of selective merit salary increases. In this regard, it is interesting that in many instances it is not so much the absolute size of such an increase that motivates employees, but its relative size (in comparison to other merit increases) or simply the fact that it was earned. This, of course, either assumes or leads to a rather competitive work environment whose suitability depends on the cultural context, and the authorities will want to keep such a consideration in mind.

2.66 (iv) Greater Female Participation Only 1,156 females were employed in the Central Administration agencies in 1975, amounting to less than 4 percent of the total staff (Statistical Annex Table II.11). Distribution by sex in the Central Administration employment is not available for later years. However, employment in the mixed sector agencies by sex for 1978 shows that among the thirty agencies listed, female employment accounted for a little over 7 percent (Statistical Annex Table II.13). With the rise in female enrollment in the secondary and university education, it should be possible to tap this potential sources of much needed trained labor to the extent social and cultural constraints allow.

3. Foreign Experts

2.67 The need for foreign experts to assist in YAR's development drive is likely to continue for some time despite the understandable desire to limit and eventually reduce dependence on it. In the meantime, however, there is a need to ensure that maximum advantage is taken of the contribution of expatriate staff and consultants. This would require at least three things. First, when they are hired, they should have as clear and precise terms of reference as possible. General TORs that essentially consist of having the expert arrive in the country and then find something for him to do are unfair to both parties and usually unproductive. Second, within each agency to which foreign experts are attached, specific responsibility should be assigned to a national in a mangerial position to monitor the work of the expert so that he delivers in accordance with his TOR. Finally, there is an obvious need for coordinating the responsibilities, functions and activities of the various sources of technical assistance whether paid for by foreign aid donors or by the Government. Much of the coordination that exists is too often left to the goodwill of the experts themselves. This sometimes leads to wasteful duplication of effort or even a vacuum in the instances where the various teams are relectant to encroach on each others territories.

2.68 Since many of the foreign experts working in the public sector are linked to foreign-aid projects, it is recommended that the Foreign Aid Department of CPO be given the responsibility for coordinating the activities of foreign experts working in the public sector. The Department should ensure that all experts are working under precise and unambiguous terms-of-reference (TORs would probably be drafted by line ministries in conjunction--when applicable--with aid donors, but CPO must make sure that they exist and are sufficiently detailed). It should also devise a system for monitoring the progress of these experts and to coordinate their activities. The broader coordination function would become much more manageable and effective once clear TORs are written and a monitoring system is put into effect.

4. Streamlining the Administration

2.69 The public administration system appears to be unduly cumbersome and top-heavy with many agencies reporting directly to the Office of the Prime Minister, and a number of "special" agencies and committees created outside the formal structure in order to bypass it, rather than reforming and integrating the formal structure itself.

2.70 A brief look at the organizational chart of YAR's public administration 1/ immediately suggests that the structure may be overburdened by a relatively large number of administrative units at a high level in the heirarchy and reporting directly to the Office of the Prime Minister, or even to the Command Council. At least on paper, it appears that there are two strata that may be thinned out or eliminated by pushing the units that they are composed of further down in the structure. The first stratum consists of the various higher committees, councils and offices that are responsible to the Command Council but lie above the Office of the Prime Minister. Two possible candidates that may be painlessly dropped to a lower level in the structure are the General Authority for Monuments and the Guidance and Orientation Office. Both of them could, for example, possibly be placed under the jurisdiction of the Ministry of Information and Culture. It is in the second stratum, which reports to the Prime Minister but lies above the various ministries, that more thinning out can take place along the lines suggested by the report of the Administrative Reform Team. 2/ For example, the Public Authority for Tourism and Antiquities and Libraries may be subsumed under the Ministry of Culture and Information. The General Union of Expatriates may be attached to the Ministry of Foreign Affairs.

2.71 The above paragraph does not pretend to present a blueprint for administrative restructuring. It simply points to the desirability to unburden the higher levels of the administration by placing some units further down the structure, to the extent that this is feasible, given political considerations and the scarcity of highly qualified nationals.

1/ See Annex II.1.

2/ Administrative Reform Team, Report on the Administrative Reform Project, September 1977, Annex 13.

5. Administrative Procedures

2.72 Combined with the top-heavy nature of the structure of public administration is an apparent reluctance among managers to delegate authority further down the line. Undoubtedly, this is to some extent due to the non-existence in many cases of qualified subordinates to whom a superior may delegate. However, there may be instances where delegation is possible and would be rather beneficial to the system as a whole by providing in-house training to the subordinate and freeing the superior from some burdens. "Delegating a function to the lowest level that can handle it competently" is a good rule of thumb to practice.

2.73 Across-agency delegation is also important. For example, a number of reviewers who have studied the operations of the Central Planning Organization have pointed to the desirability of having CPO relinquish many of its purely administrative functions to the line ministries/agencies and to concentrate on its planning, supervision and follow-up functions. A similar type of conclusion could probably be reached if some of the other agencies are reviewed at the same level of detail as CPO has been. The proliferation of special committees that are needed to take action in routine operations is administratively cumbersome and should be discouraged.

6. Relations between Central and Local Authorities

2.74 The ambiguous nature of the relationship between central and local/regional government authorities has been pointed out by previous World Bank economic reports. The ambiguity derives from grafting a modern central administrative structure on a traditional decentralized tribal system. However, although it is desirable to reduce the ambiguity that persists, it is unlikely that much progress can be achieved overnight given the nature of this problem. One area in which the local/central relationships have apparently been successful is the system of Local Development Associations. There, the local initiative has been maintained and the central authorities have attempted to support their activities to the extent possible. It is important that the basic feature of this relationship is maintained and the temptation to "fall into" increased centralization is successfully resisted.

E. Private Sector Employment

(a) Occupational Distribution (1975)

2.75 Occupational distribution of the modern urban private sector employment in 1975, according to education/training requirements is shown in Statistical Annex Table II.8. Nearly half of the employment was in Skilled Office occupations, presumably requiring secondary school completion plus on-the-job training. This of course, does not imply that these workers actually had attained the presumed level of education/training. In fact, 94 percent of them had not (Statistical Annex II.22). Another one-quarter of the employment was in semiskilled occupations, presumably requiring functional literacy plus on-the-job training. On the other hand, occupa-

tions presumably requiring science or arts university degree (professional), or those requiring 3 to 5 years of post secondary science/mathematics-based education (high level technician), together comprised about one percent of the total urban private sector employment. Unskilled occupations, presumably requiring no special education or training, accounted for 14 percent.

2.76 A comparable distribution of occupations along the skills required is not available for the total private sector (including the traditional) in 1975. However, the information obtained during the 1975 census allows a one-digit ISCO distribution for the entire labor force, including those unemployed or seeking work for the first time. Since the public sector makes for only a small proportion of the total labor force (2 percent), the information on the total labor force may be used as a proxy for the private sector (modern plus traditional) employment. As discussed earlier, an overwhelming majority (82 percent) of the labor force was engaged in agriculture and production worker occupations. And only one in twenty workers was reported to be in each of the sales worker and service worker category. Professional/technical and administrative/managerial together accounted for 5 percent of the total employment as well, in 1975.

2.77 Comparison of occupational distributions, according to the level of education/training required, among public and modern urban private sectors indicate an even larger proportion of lower skilled occupations in the private sector than in the public (Statistical Annex II.8). In the public sector, in 1975, occupations requiring university education, for example, account for 8 percent of the employment as opposed to one percent in the private. Occupations requiring post-secondary education account for 5 percent of the employment as opposed to 4 percent in the private sector. Skilled occupations requiring secondary school education account for 53 percent of the employment in the public sector, compared to 49 percent in the private sector. Among semiskilled and unskilled occupations, however, the public sector employed only 18 percent of its workers, as compared to 38 percent of the employment in the private sector which includes a large proportion of agricultural workers.

(b) Growth in Employment (1975-80)

2.78. Although complete information on private sector employment is not available, it is possible to estimate it as a residual between projected total employment and actual estimates of public employment. Total employment in 1980 is, in turn, projected on the basis of assumptions regarding expected growth of sectoral output and labor productivity (see Annex V.1 for a more complete description of the methodology used).

2.79 On the basis of the assumptions employed, total employment in 1980 is estimated at 1,331,000 (Statistical Annex Table II.23). Subtracting a total public and mixed sector employment of around 39,000 (29,000 in the public sector agencies and 10,000 in the mixed sector), yields an estimate of private sector employment of around 1,292 thousands in 1980.

2.80 Table 2.8 summarizes the estimated growth of employment by sector on the basis of the assumptions implied in Statistical Annex Table II.23. It shows, as is expected, that employment in construction witnessed the

Table 2.8: ESTIMATES OF EMPLOYMENT BY SECTOR (1975, 1980)

(1000)

	1975	1980	Annual Growth (1975-80) (%)
Agriculture, Forestry and Fishing	826.1	876.1	1.1
Mining and Quarrying	0.6	1.0	10.8
Manufacturing	31.4	51.9	10.6
Utilities	1.0	1.5	8.5
Construction	48.7	148.6	25.0
Trade and Finance	58.5	106.7	12.8
Transport and Comm.	19.3	26.9	6.9
Services	74.4	118.7	9.8
TOTAL	1,060.0	1,331.3	4.6

Source: Statistical Annex Table II.23.

highest growth followed by that of the trade and finance sector. Again, as would be expected, employment in agriculture probably grew at the lowest rate. These estimates should be viewed as highly tentative and representing trends rather than actual absolute figures, and they are presented as orders of magnitude that might substitute for actual survey data.

2.81 It was hoped that the 1978 one percent sample survey of households covering district centers of five governorates 1/ would have thrown some light on the overall employment situation at the time of the survey. Unfortunately, there appears to be some serious problems with the tabulation of the results and/or the sampling employed in the survey. For example, in the whole of the five governorates, only 1,403 workers were said to be employed in the electricity, gas and water sector in 1975. However, according to the 1978 survey, in the administrative centers of the districts alone, the employment in this same sector is estimated at 2,400 (Statistical Annex II.24). It is highly unlikely that such a growth could have taken place in this sector in a short period of three years. In another sector (finance, insurance and real estate), again the same phenomenon is observed: over one and a half times as many (3,000) workers in the district centers alone compared to those (1883) in the whole governorates.

1/ Sana'a, Taiz, Hodeidah, Ibb and Damar.

(d) Wages

2.82 Comprehensive and systematic information on wages in the private sector does not exist. The 1978 one percent sample survey gives some aggregated information on wages and salaries (Statistical Annex Table II.25); but as stated above, this survey's results may suffer from shortcomings. Should a Manpower Planning Unit be established (as recommended in this and other World Bank reports), it could collect and systematize more comprehensive information on wages.

2.83 The manpower mission has informally collected wage data for selected occupations (Statistical Annex Table II.26). Apparently, wages are dependent upon both the skill level and the nationality of the worker. Among the unskilled, the nationals generally earn twice as much as the expatriates. In the urban construction sector, the unskilled Yemenis earn YRls 60 to 80 per eight-hour day while the non-Yemenis earn YRls 30 to 40. At the port of Hodeidah, Yemeni loaders are reported to earn YRls 200 to 250 a day, while the Pakistanis earn approximately YRls 120. However, at the higher skill level, the relationship is somewhat reversed. A Yemeni bulldozer operator, for example, earns YRls 2,500 per month, whereas an expatriate is paid YRls 3,375 for his higher level of training and experience. It must be pointed out in this context that unskilled foreign laborers are hired outside of YAR and, therefore, their wages are not determined in the Yemeni labor market, although the two wage levels affect each other over time. Most modern sector employers pay overtime (for work exceeding eight hours per day) at one and a half times the hourly wage rate. In addition, site allowance is generally paid if the worker is unable to return to his normal quarters every night. The allowance varies with the skill, and could amount up to 75 percent of the wage plus accommodation.

2.84 The wage levels represent a substantial increase over the past few years. Thus, for example, unskilled urban laborers probably earned less than YRls 20 a day in 1975 and around YRls 45 in 1977. More significantly, the difference in wages for the unskilled between Saudi Arabia and Yemen has shrunk considerably over the past five years.

2.85 A new development in the labor market is an apparent easing of shortages for unskilled manpower compared to past years. The mission received fairly consistent responses from many agencies of the public and private sectors in Sana'a, Taiz, Hodeidah and locations along the road that, by and large, "there is no problem in finding unskilled workers." In fact, informal interviews with members of the marginal work-force that congregates each morning in well-known labor-recruitment centers revealed that the unskilled among these marginal workers worked on average two to three days a week and the semiskilled (e.g., masons) three to four days. This indicates some slack at least in the large cities in the market for the unskilled and, although to a smaller extent, possibly at the lower end of the semiskilled spectrum. If this impression is correct, then increases in wage levels should level-off and would actually drop in real terms. This, however, is a difficult prediction to make with certainty in view of the linkage of the Yemeni labor market with those of surrounding countries.

2.86 Finally, it should be noted that expatriate laborers are primarily hired by well-organized large, usually foreign, contractors. Other than possibly costing less than Yemeni laborers (even when the cost of room and board for the expatriates is included), these workers are attractive because they are believed to be more reliable in reporting to work. One common complaint reported by a variety of employers in the private sector characterizes Yemeni unskilled workers as showing up for work only when in need of money, and likely to leave work suddenly for an indefinite duration. As for hiring skilled or semiskilled Yemenis, some contractors are reluctant to hire them because a reported lack of proper certification and training procedures employed by the Minister of Labor. "A worker's skill as certified has little to do with his actual skill, and that means risk for the employer in lost time, wasted material, possible injury and/or additional cost of repairing a job badly done," according to some employers. The authorities should investigate such a claim which, if correct, should lead them to take corrective action through better certification procedures to protect the long-run interests of Yemeni workers.

III. LABOR MIGRATION

3.01 Some aspects of labor migration, from and to YAR, have been adressed in the two preceeding chapters. In this chapter, this topic is dealt with in more detail given its importance to the economy in general and to an analysis of the manpower situation in particular. 1/ An attempt is made to throw some light on the various benefits and costs to the domestic economy that derive from migration.

3.02 It must be kept in mind that labor migration from YAR to other parts of the Arabian peninsula has taken place over the past 25 years at least. However, in recent years, the intense demand for labor in neighboring oil-producing countries translated into highly attractive wages that lured large numbers of Yemenis to cross the border, primarily into Saudi Arabia but also to other parts of the peninsula. By 1975, Yemeni migrant workers accounted for 19 percent of the total Yemeni workforce and remitted an estimated YRls 1,688 million ($375 million) to the Yemeni economy. 2/ Only a few years later, recorded remittances increased dramatically to YRls 6,552 million ($1,456 million) in 1979, reflecting higher wages and therefore savings in the labor-importing countries and an increase in the number of migrants. The benefits to the economy of such large inflows of income must be assessed in the light of other effects that migration has had. But before attempting such an assessment, the main features and characteristics of this migration is presented below.

A. Yemenis Abroad

3.03 Yemenis abroad divide between long-term emigrants and short-term migrants who usually leave their country for employment. These latter work primarily within the Arabian peninsula, and mostly in Saudi Arabia. Information on long-term Yemeni emigrants is naturally sparse. It is known that they have dispersed widely, travelling east to Indonesia, the Philippines and Vietnam, and west to Europe and America.

Short-Term Migrants

3.04 Short-term migrants are believed to travel primarily within the Arabian peninsula. The motive for their travel is, in order of numerical significance: employment; religious pilgrimage; education. Yemenis have

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1/ The discussion in this chapter is confined to the short-term migration of Yemenis abroad. The presence of non-Yemeni workers in YAR is discussed in Chapter II.

2/ This estimate accounts for officially recorded remittances only. The 19 percent corresponds to recorded short-term migrants out of the total recorded labor force.

been travelling freely within the peninsula since at least the early 1950s if not before. The border between the YAR and Saudi Arabia is, to a large extent, "open" and in many areas not well-defined. Thus "unofficial" travel to Saudi Arabia is easy, commonplace and goes unrecorded. 1/

3.05 Implementing Saudi Arabian development plans has required large numbers of migrant workers of many nationalities, and Yemenis have been attracted in large numbers. They have also travelled to the several religious shrines and holy places in Saudi Arabia, notably those in Mecca governorate. Many Yemenis remain in Saudi Arabia after completing their religious duties and take up employment for a period. Thus, pilgrimage ends up being used by some as a means for migration, though by itself it is not a reason to migrate. In 1974, Mecca region accounted for 41 percent of Yemenis recorded living in Saudi Arabia (Statistical Annex Table III.2).

3.06 Some 11,500 YAR citizens are registered as living in Kuwait, Bahrain, Qatar and the United Arab Emirates (Table 3.1). To reach any of those countries, travel through Saudi Arabia is common, unless a comparatively more costly air or sea voyage is undertaken. The intervening opportunities in Saudi Arabia outweigh the rewards to travelling further for the majority.

Long-Term Emigrants

3.07 Steffan 2/ has estimated the number of long-term YAR emigrants to be some 250,000 in 1975 (see Statistical Annex Table I.12). Ethiopia, the PDRY, Egypt, Djibouti and Somalia account for 62 percent of these; America, Great Britain and France for 16 percent. This estimate is highly speculative and falls well short of the official figure of 493,600 long-term emigrants. The significance of this uncertainty diminishes, from a domestic planning perspective, as the ties of these long-term emigrants with the YAR weaken although some, especially from East Africa seem to be returning to settle.

Duration of Stay Abroad.

3.08 Since the large majority of short-term migrants lives in Saudi Arabia, the data pertaining to the YAR community in that country may be extrapolated to describe all short-term migrants in the peninsula.

3.09 YAR citizens living in Saudi Arabia in 1974 and enumerated in the census tend to fall into two groups. More than one half of all the women and 22 percent of all the men had lived there for five years or more (Statistical Annex Table III.3). This group appears to be one which is

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1/ This, of course, is a source of considerable uncertainty affecting estimates of external migrants.

2/ H. Steffan, op. cit.

Table 3.1: POPULATION AND WORKFORCE OF RECORDED YAR SHORT-TERM MIGRANTS BY SEX IN SAUDI ARABIA, KUWAIT, BAHRAIN, QATAR, and the UNITED ARAB EMIRATES

(1975)

	Males	Females	Total	Distribution (%)
		POPULATION		
Saudi Arabia	314,051	95,602	409,653	97.3
Kuwait	3,654	1,029	4,683	1.1
Bahrain	1,826	174	2,000	.5
Qatar	1,734	166	1,900	.4
United Arab Emirates	2,687	257	2,944	.7
Total	323,952	97,228	421,180	100.0
		WORKFORCE		
Saudi Arabia	252,5222	2,297	254,819	96.9
Kuwait	2,660	13	2,673	1.0
Bahrain 1/	1,634	6	1,640	.6
Qatar 1/	1,551	4	1,555	.6
United Arab Emirates	2,404	7	2,411	.9
Total	260,771	2,327	263,098	100.0
		CRUDE PARTICIPATION RATE		
Saudi Arabia	80.4	2.4	62.2	
Kuwait	72.7	1.3	57.7	
Bahrain 1/	89.5	2.7	82.0	
Qatar 1/	89.5	2.7	81.8	
United Arab Emirates	89.5	2.7	81.8	
Total	80.4	2.4	62.5	

1/ Imputed value for crude participation rate: assumed to be the same as in the UAE.

Source: Population censuses of relevant countries (cited elsewhere in the report).

settling in Saudi Arabia. The second group fits with the conventional view of the short-term migrant worker who saves to reach a given savings target and then goes home. Fifty three pecent of the YAR male population had lived in Saudi Arabia for a year or less in 1974. In 1978, one report noted that "men are not staying away longer than three years at maximum and on average one year." 1/

3.10 If the conventional view of the average migrant being a "target worker" is correct, then the higher wage rates in Saudi Arabia since 1974 should work to diminish duration of stay abroad. The opinion of government officials in Sana'a in 1980 was that duration of stay had, in fact, diminished over the years. The considerably improved transport links between YAR and Saudi Arabia in recent years have certainly facilitated briefer visits. However, in the future, duration of stay may lengthen for three reasons. First, the government has instituted military conscription for all persons aged between 18 and 35. Certain categories are exempt from the draft, such as students and the handicapped, but the draft is being enforced on a wide basis, and exemption is possible by payment of YRls 2,050 per year. One effect of the draft has been to change the way in which migrants travel abroad. Officially monitored points of exit are now avoided, particularly the major ports and airports. Fewer migrants now travel by plane. Private taxi companies proximate to the borders have, on the contrary, picked up extra trade. For the migrant who has not served his military training nor paid the YRls 2,050 tax, the possibility of being drafted on his return is an incentive to remain abroad for a longer period. Secondly, the demand for Yemeni workers in the peninsula is now well past its zenith, and in the future migrants may be more inclined to remain in their jobs longer in case it proves difficult to find one on their return after a visit home. A third reason for duration of stay to lengthen is that it will probably take the migrant worker longer, in the future, to accumulate sufficient cash to achieve his savings objective. Wage rates in Saudi Arabia are static or even falling in real terms and inflation in the YAR has been high in recent years.

Yemenis in Saudi Arabia

3.11 An issue of major importance to Yemeni planners is the future demand for Yemeni workers abroad, and in particular in Saudi Arabia. One way of providing some illumination on this topic is to examine the pattern of previous demand in that country. Here we undertake this task by looking at "arrivals" and "departures" data collected in Saudi Arabia together with the number of passports and travel visas issued in the YAR. This gives an idea of those who are officially recorded to be there. Statistical Annex Table III.5 presents these data for those years when they were available, from 1959 to 1978.

1/ Myntti, C; "Women in Rural Yemen" (Sana'a, USAID, 1978), p. 44.

3.12 The estimate of the number of Yemenis who are officially recorded in Saudi Arabia centers around 1974, the year of the Saudi Arabian census. The 396,535 recorded Yemenis in that census are increased by one third of all net arrivals and departures in the same year to give an estimated Yemeni population of 403,186 persons at the end of 1974. From that figure the YAR population in Saudi Arabia is calculated for each year from 1969 to 1977 (year end) by adding or substracting net arrivals or departures. In this manner, the number of Yemenis could be estimated to have increased from 302,100 in 1970 to 444,700 in 1977 (Statistical Annex Table III.1). The increase was relatively gradual from 1971 onwards, and quite sharp during 1975, but then fell modestly.

3.12 Whether Saudi Arabia records all arrivals and departures is not clear. A brief inspection of Statistical Annex Table III.5, shows that in 1976 and 1977 recorded "departures" exceeded "arrivals." Informal evidence suggests that Saudi Arabian immigration authorities may record those leaving the country rather more rigorously than those entering. Many Yemenis enter informally on unmarked and unrecorded roads. On their return home they may use officially monitored channels more frequently. Not included in these statistics are pilgrims, who, in many cases, remain after their pilgrimage in Saudi Arabia to work, perhaps to pay for their pilgrimage. On entry they are not recorded in these statistics, on departure they are.

3.13 Interpreting the data on passport and travel visa issues in the YAR is also fraught with difficulties. The increase in the number of passports issued is at least partly a reflection of an increasing propensity to use travel documents. Visa issues give a truer picture of the pattern of travel, but even these data could reflect an increased propensity to travel officially. However, they do support the view that 1975 was the year of greatest intensity of migration. After 1975 passport issues plummet; visa issues rise in 1976 and then fluctuate at lower levels in 1977 and 1978.

3.14 These statistics are most useful in the trend that they suggest rather than their absolute values. Expressed simply, they suggest that 1975 was a year of maximum travel to and from Saudi Arabia and since then the volume has fluctuated around this constant level.

3.15 Confirmation is given to this view of a comparatively stable Yemeni population in numerical terms in Saudi Arabia after 1975 by the remittances recorded by the Central Bank. Not all remittances are recorded by the Central Bank, but it seems reasonable to assume that a constant proportion are. It also seems reasonable to assume that changes in remittances will lag changes in migrant workers abroad by a year or so. Therefore, 1976/77 remittances relate to the number of migrants working in Saudi Arabia in 1975/76. Table 3.2 shows that inflows of remittances doubled in 1976/77 over the preceding year, increased by 40 percent in 1977/78 and by one percent the following year, 1978/79.

Future Demand for Yemeni Labor in the Peninsula

3.16 The presently discernible labor market trends in the Arabian peninsula provide clues as to the future demand for Yemeni labor. However, it should be borne in mind that the second Saudi Arabian development plan is drawing to a conclusion, and the third Plan is now under review. Saudi Arabia's oil revenues are sufficient to pay for development on a scale which may once again transform the migration scene. On the other hand, domestic political considerations may result in the curtailment of the scope and scale development. The following discussion of the labor market makes the assumption that development in Saudi Arabia proceeds without major discontinuities.

Table 3.2: PRIVATE RECEIPTS BY THE YAR, 1971/72 TO 1978/79

(YRls Million)

Year	Receipts
1971/72	328
1972/73	564
1973/74	595
1974/75	1,013
1975/76	2,363
1976/77	4,561
1977/78	6,351
1978/79	6,404

Source: Central Bank of Yemen

3.17 There are several important economic factors relevant to the labor market of Saudi Arabia and the Gulf states which are working to reduce the number of Arab migrant workers, and in some instances, Yemenis particularly. First, there is the direction which large scale development has taken in Saudi Arabia. Overall development is monitored and controlled by government, but it is executed by private contractors. Because of the scale of Saudi Arabian development, contracts are being put out to tender increasingly in large self-contained blocks. Thus, the administrative problems to government are minimized, their principal task being to choose the best qualified contractor. Most large contracts now include the responsibility for every phase of a project, from financing, design, construction and subsequently manning the enterprise. Companies tendering for these massive contracts have to be capable of effecting each of these

components. Few Arab companies are capable of doing so, and so in this respect the market is moving against the Arab migrant worker.

3.18 The contract itself will generally be awarded to either the lowest bidder or the most efficient contractor, or on the basis of some combination of those two factors. The cost of labor is a major item in many contracts, and companies from the Indian sub-continent and the Far East have an acute advantage over other companies. Their labor is cheap, perhaps being less than half the unit cost of comparable Arab labor. Moreover, Far Eastern companies have proved capable of mustering highly efficient workforces, and generally have completed projects on time. Therefore, to the directors of Saudi Arabian development, Far Eastern companies are amongst the cheapest and most efficient in the market place at the present time. The proliferation of Korean, Filipino, Taiwanese and Indonesian companies on construction sites in Saudi Arabia bears witness to this. As a result, Arab companies and Arab migrant workers, including Yemenis, are not heavily involved in the larger scale components of Saudi Arabian development such as the industrial sites of Yanbu and Jubail.

3.19 A second recent development which directly affects the demand for Yemeni migrant workers is the success of the smaller Far Eastern contractors in the private construction market. In the past, many Yemenis worked on small construction sites, perhaps building a palace or a house. The Saudi Arabian authorities gave, until quite recently, grants to nationals to construct houses. The termination of this lending activity affected Yemenis particularly. Although loans are now being given again for house building, Far Eastern companies enjoy the same price and efficiency advantages in this sector of the construction market as their more prestigious colleagues do elsewhere in the economy. Far Eastern penetration of this market has actually led to complaints by small Saudi Arabian contractors (who typically use Yemeni labor) that their diminishing share of the market was unreasonable.

3.20 A third recent development which affects the demand for Arab migrants, and not so directly that for Yemenis, is the growing propensity of governments of oil rich states to sub-contract aspects of public sector projects to the private sector. For example, there are now several hospitals in the peninsula run by private companies who use Filipino or Korean staff. Telecommunications, electricity provision, 1/ water distillation, are all ripe candidates for subcontracting by government. Not many Yemenis work in these spheres, but if contracts go to Far Eastern companies, then even fewer Yemenis will be involved .

3.21 On a general level, there is a market trend towards capital intensity in production and construction technology. Capital is relatively abundant in Saudi Arabia, while labor is scarce and expensive. The workforce which advanced technology requires is likely to be a highly skilled

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1/ See Middle East Economic Digest, Construction (London, February, 1980) "Asian Workers", p. 7.

one. While Yemenis are highly skilled in traditional skills, such as masonry, they have not yet had sufficient access to education and training to allow them to compete for jobs which require modern skills and which use sophisticated technology. Another trend which is working against the Arab migrant and in favor of Far Easterners and Sub-Continentals is the comparatively limited demand of the latter group for social services such as housing, water, schooling and medical care. This is partly the result of the higher dependency ratios which Arab migrant communities have.

3.22 All the points mentioned above argue that the demand for Arab labor in Saudi Arabia, and in some cases specifically Yemeni labor, may decline or at least is not likely to increase significantly. Of course, there are points that argue in the opposite direction, such as the common language and similar heritage of Yemenis and Saudis. On balance, however, it seems that baring unforeseen and sudden changes in the pace of development in Saudi Arabia and the Gulf, the demand for Yemeni labor in the peninsula is not likely to increase significantly.

B. Key Issues in Labor Migration.

3.23 The large-scale migration of Yemeni workers has had profound socio-economic effects ranging from those that are immediately discernable to those which have more subtle and less predictable long-range ramifications. An example of a short-term consequence is the net effect on the balance of payments position with higher imports fueled by higher incomes, but affordable because of these higher incomes. Examples of more structural and more complex effects are: changes in consumer taste patterns and in the composition of agricultural production, problems associated with increased urbanization, and family fragmentation. In what follows, these and other issues are discussed in an attempt to identify the main socio-economic costs and benefits of migration. The tentative conclusion that emerges is that, in the short-run, the net effect has probably been positive, but that policy measures would be needed to rectify some of the more adverse consequences that will become increasingly intractable over time.

Effects on Employment

3.24 In determining the effects of migration on the labor market in YAR, a number of questions arise: (i) does labor outmigration create shortages in critical skills which constrain development; (ii) do migrants acquire or lose skills when they travel abroad; and (iii) where do they work and what do they do on return?

3.25 The conventional view of Yemeni outmigration is that it typically involves unskilled manual laborers from rural areas. This is supported by the 1975 census results which show low sex ratios in these areas. That the bulk of these migrants is unskilled is evident from Statistical Annex Table III.4 which compares the educational attainment of the Yemeni population in Yemen to that in Saudi Arabia. There seems to be no difference in educational attainment between the two populations, especially for men. In each case, around 75 percent were either illiterate or able only to read.

The proportion with university degrees was considerably higher, although still extremely small, for the resident population (0.17 percent) than for those living in Saudi Arabia (0.06 percent). This confirms the view that highly educated and skilled Yemenis are relatively few and they tend not to migrate to neighboring countries (although this observation may not be generalizable to longer-term emigrants to the West). Thus, on the face of it these figures appear to confirm the unskilled nature of Yemeni migration, and question the often quoted view that government administration is being drained of trained manpower by opportunities in other parts of the peninsula.

3.26 The most immediate effect of this outflow of primarily unskilled labor was an initial shortage of this type of labor domestically which led to a rapid increase in wage rates in YAR and to the partial replacement of male labor by female, child and elderly labor in rural areas. The combined effect of a reduced supply of unskilled labor due to this migration and of a sharp increase in domestic demand for this type of labor mainly for construction, which was fueled in large part by the remittances of migrant workers, pulled up wages in YAR and substantially reduced the difference between the earnings of a Yemeni worker in Saudi Arabia and in YAR . The shrinkage of this wage differential has probably combined with other factors to stabilize the level of outmigration from Yemen in the past few years. As a result, the shortage of unskilled workers which was apparently prevalent in the mid-seventies has recently eased, and informal evidence from various sections of the economy consistently suggests that there is currently little difficulty in recruiting common laborers whether in the main cities, or the smaller towns of the southern uplands and the Tihama plain.

3.27 An interesting question to raise in this context is the following: if the wage that a Yemeni worker can earn in neighboring countries is no longer substantially higher than what he can earn at home why are there so many Yemenis still working across the border instead of working at home close to their families and in their own environment? A large part of the answer seems to be a confirmation of the "savings-target" hypothesis (see paras. 3.09 and 3.10). Apparently, the propensity to save for the same Yemeni worker is higher when he is a migrant worker than when he is at home where the social pressure on him to consume and therefore demonstrate his wealth is considerably higher. It is much less embarrassing to live more humbly among foreigners than among ones own neighbors in the village. In particular, while abroad this worker does not have access to qat which is a status consumption commodity and a very expensive one in Yemen.

Intangible Acquisitions of Migrants

3.28 Evidence on the skills and habits that migrants acquire or lose when they migrate is informal although consistent. Discussions that the mission had with a number of local agencies suggest that many of the workers who come from rural backgrounds that employ traditional techniques acquire new skills during their tenure in the neighboring countries which have come to use more modern techniques. While the Yemenis are typically not involved in the more technologically sophisticated construction activities in these countries, they do work with medium-sized contractors and learn a variety of skills.

Thus, a number of returnees are reported to open up shops as carpenters, blacksmiths, electricians, etc. Others purchase tractors or trucks and rent their services to the community. A few enterprising returnees purchase electric generators and sell current at a price agreed upon with local authorities including the Local Development Associations (LDAs). A number open up retail stores and establish themselves as small traders, or they become taxi owners. There is no doubt but that these acquisitions that have been made possible by migration have injected a sense of prosperity in local communities and that, especially in the short-run, this prosperity has directly improved the welfare of the community. 1/

3.29 Counterbalancing these positive effects are some apparent changes in behavioral patterns that could, if not checked, have adverse consequences of long duration. One such change is in consumption behavior. With the increase in income there has apparently been some shifts in food consumption habits favoring processed food items. The frequency of intake of these items and their proportion of total food intake has increased over the past few years as can be seen from the large stocks of these products in retail stores throughout the country.

3.30 Another discernable change in attitudes that adversely affects agricultural production is the reluctance of landless migrant farmers to go back to agriculture when they come to resettle in Yemen. Many of them seem to disdain going back to the land as agricultural laborers and prefer to remigrate to the cities within Yemen or to get established in a new occupation in their home area (para. 3.28). This type of behavior is not altogether deplorable since these workers usually become productive workers in other sectors of the economy. It does, however, represent a drain of labor from the agriculture sector which is the mainstay of the economy. Although it is difficult to determine the net effect on the overall economy of such shifts in the labor market at a given point in time, this report argues that as a development strategy, YAR should give special emphasis to providing greater opportunities for employment in agriculture and attracting capital to further develop this sector which is judged vital for the country's overall economic well-being in the long-run. Changing cropping patterns and adopting new technologies may be called for in this regard.

3.31 It should be pointed out, strictly on the basis of informal evidence, that so far the bulk (around three quarters) of short-term migrants that return to YAR remigrate once they deplete their savings of the previous two to three years. Perhaps 10 percent might not come back and instead become long-term emigrants, and around 15 percent might come back to resettle.

1/ See for example, IBRD; Yemen Arab Republic, Local Development Associations: A New Approach to Rural Development, for a description of how local development has in large part been self-financed (indirectly by migrants).

3.32 Among those that resettle, some are landowners who invest part of their savings in agriculture. They might purchase a pump, a truck or even a tractor. This type of behavior is also true of some of those who remigrate but have relatives that work the newly acquired capital for them. There is little doubt but that the tenure pattern is an important factor that influences the job decisions of returnees. An analysis of the recently completed survey on land tenure should throw some light on these considerations. For example, the survey points to increased sales of agricultural land in certain areas indicating that migration may have indirectly evened out the distribution of land ownership.

Effects on the Cost of Factors of Production and on the General Price Level.

3.33 Perhaps one of the most important effects of labor migration that has had a pervasive influence on the rest of the economy is the dramatic increase in the cost of labor and land within Yemen in the past few years. As stated above (para. 3.26), the vigorous demand for labor in the rest of the peninsula has had a double effect on raising wages in Yemen by curtailing the supply of domestic labor while simultaneously fueling the demand for it, primarily through the remittance-financed construction activities (the ambitious public investment program represented a major component of this demand). The effect has been a dramatic increase in wage rates from at most YRls 5 per day in the early seventies to between YRls 60 and 80 per day in 1980 (depending on location) for unskilled workers. Although a wage series by skill level is not available, it can be safely assumed that similar, if not larger, wage increases have taken place across the whole skill spectrum.

3.34 The price of land has also increased considerably, especially in urban areas but also in locations surrounding rural towns. For example, government land around Sana'a which sold at around YRls 10 to 15 per square meter in the early seventies currently sells at ten times this price (YRls 100 and above). More desirable locations around Sana'a can sell at anywhere between YRls 200 to over YRls 500 per square meter. Such increases are not uncommon in the Arabian peninsula in general and primarily result from a similar set of factors. Because of high income levels (in the case of YAR mainly due to remittances), savings have tended to be high, and faced with relatively limited investment opportunities, have been directed into real estate speculation. At the same time, these countries have witnessed an extremely rapid expansion of infrastructure, including housing, as part of their ambitious development programs. This expansion also fueled the demand for land and has been translated into higher land prices and rentals. The increase in the costs of labor and land, combined with a strong demand-pull which was fueled by workers' remittances, translated into a high rate of inflation. Thus, for example, as a proxy measure of such inflation, the Sana'a cost of living index grew at an average annual rate of 22.5 percent over the 1973/74-78/79 period.

3.35 In the context of the YAR, the increases in wage rates and land prices which have taken place as a "logical" consequence of economic forces

domestically and across the border, could be said to have resulted in an unusual market for factors of production in comparison to other LDCs. This is so because, by a number of measures, the country is still relatively less-developed with a comparatively high population, the majority living on farms in rural areas. A large segment of the labor force is either unskilled or illiterate. Capital formation is still limited, and the productive base of the economy remains small and is principally confined to agriculture. Typically, within such an economy, labor is comparatively cheap compared with capital, which is comparatively dear. And more importantly, labor is cheap relative to labor in more economically advanced countries and it is this latter phenomenon that might give such a country a slight competitive edge to counterbalance its deficiencies in other areas. But with wages 1/ and land prices both relatively high while skills are limited and capital is both scarce and not productively utilized, costs of production are necessarily high and restrict productive activities that might have otherwise been economical. The effects of this cost structure on agricultural production have been reported in another World Bank report. 2/ In what follows, the main conclusions of that report are summarized.

Effects on Agricultural Production

3.36 The main effects of high production costs (but other factors have also played a role) in agriculture have been:

(a) A reduction in area planted in low-value crops (mainly cereals), a reduction in foodgrain output, and abandonment of marginal lands;

(b) intensification of land use,where water resources are available to substitute high-value for low-value crops;

(c) a drive toward partial mechanization of production, mainly ploughing;

(d) initiatives by some landowners to alter cropsharing arrangemnts in order to retain tenants, and,

(e) greater use of women and children in farm labor than in the past, particularly in planting, weeding, harvesting, winnowing, applying manure, and tending livestock. 3/

1/ Labor costs in Yemen (at the unskilled level) in 1975 represented 45 percent (in current prices) of those in Saudi Arabia. By 1977 this ratio had increased to 53 percent, and by 1979 it was 67 percent.

2/ IBRD, Yemen Arab Republic, Agricultural Sector Memorandum: Effects of Migration of Rural Labor on Agricultural Development, June 26, 1979.

3/ See in addition: C. Myntti, Women and Development in YAR, p. 57.

3.37 It is important to note that the crop substitution that has occurred has also been in response to a shift in the structure of demand due to higher incomes. Therefore, it is the overall profitability of the product rather than the cost of supply by itself that has been a determining factor.

3.38 While it is difficult to predict the future course of costs of production relative to product prices (i.e., of various profit margins), it is safe to assert that the potential commercial production of wheat, barley, sorghum, millet and maize is in jeopardy and will remain so unless the relationship between differential costs and product prices of agricultural production is altered.

3.39 An outcome of this type of development is an increasing dependence on the import of grains. Thus, for example, it has become cheaper to import wheat than to produce sorghum. The domestic market price for imported wheat currently ranges between YRls 1.20 to 1.40 per kilogram whereas sorghum sells between YRls 1.90 to 2.20 per kilogram. As a result, many people's diets, especially in urban areas have shifted from whole grains to nutritionally inferior white flour. Most farmers, however, continue to grow sorghum and maize for their own requirements and as fodder for their small flocks of sheep and goats.

Effects on Urbanization 1/

3.40 By international standards, YAR remains a predominantly rural society although the recent urban economic boom in construction, commerce, finance, industry and government services has attracted male labor from rural locations. Thus, the combined population of the six largest cities (each with a population of 10,000 inhabitants or more) 2/ grew by more than 6 percent annually between 1975 and 1979, increasing from around 7 to 9 percent of the total resident population over this period. This growth has taxed the capacities of existing urban infrastructure, housing and services; and although the new prosperity has drastically reduced urban unemployment and increased incomes of wage-earners, it has also created new problems. 3/ These include crowding of housing and streets, rapid depletion of water tables, and even stiffer pressure on the capacities of the

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1/ Urbanization is the direct result of domestic migration from the rural areas to the cities of YAR. However, it may be argued that external migration may exacerbate the problem since may external migrants, after working in urban centers in the Gulf countries, are believed to resettle in the cities of Yemen upon their return.

2/ Sana'a, Hodeidah, Taiz, Damar, Ibb, Beit-el-Fagih.

3/ See IBRD, Yemen Arab Republic: Urban Sector Report (November 1979), for a more detailed account.

drainage, waste-disposal, power supply, and emergency services delivery systems. These are typical problems that plague urban environments all over the world and that are also present in rural Yemen. However, their rapid concentration in the cities of YAR that are administratively and technically underequipped to handle larger scale infrastructural problems has made the situation comparatively more urgent.

Effects on the Balance of Payments

3.41 The most direct effects of labor migration on the balance of payments are threefold. First, Yemeni workers abroad remit a substantial part of their savings to their families or their own accounts at home. Second, a larger volume of imports, especially of consumer goods, is to a great extent financed indirectly by these remittances. Third, and more recently, there has been an inflow of non-Yemeni migrants to work in YAR and these workers in turn remit a part of their savings to their own countries.

3.42 Table 3.3 is a summary of some items of the balance of payments account. It shows that receipts from Yemeni workers abroad increased markedly over essentially the 1974-78 period and tapered off in 1978/79. Outflows by non-Yemenis working in Yemen along with private transfers to abroad by Yemenis also started their steep increase around 1975 but have not tapered off so far. Import payments have maintained a continuous increase throughout the decade, and in fact, the rate of increase appears

Table 3.3: SELECTED ITEMS FROM THE BALANCE OF PAYMENTS ACCOUNT
(YRls Million)

Year	Workers' Remittance 1/			Imports		Current Account Balance
	Receipts	Payments	Net	Value	As % of Net Remittances	
1971/72	328	35	293	433	148	-105
1972/73	564	59	505	573	113	87
1973/74	595	91	504	873	173	-222
1974/75	1,013	154	859	1,163	135	-111
1975/76	2,363	306	2,057	1,721	84	587
1976/77	4,561	770	3,791	3,318	87	753
1977/78	6,351	1,446	4,905	4,135	84	1,011
1978/79	6,404	2,363	4,041	6,244	155	-1,613

1/ Includes Private Transfers

Source: Central Bank of Yemen

to have accelerated to 51 percent in 1978/79. As a result, imports now represent more than one and one-half times the level of the net inflow of private transfers and remittances and the balance on the current account has flipped dramatically from a peak surplus of over one billion rials in 1977/78 to an estimated deficit exceeding one and the half times that much in a one year period (all in current prices). This development may have been influenced by special circumstances such as the border conflict in the southern part of the country in the spring of 1979. But there are also indications that net migration has also slowed down reflecting a weakening in demand for labor in the neighboring oil-producing countries and the emerging desire of some returnees to stay home because of improved opportunities reflected in a narrower wage differential between YAR and countries across the border (see para. 3.26). If these observations are correct and the trend that they represent is sustained, the era of balance of payments comfort that YAR had enjoyed for a short while could very well be over.

3.43 The import expansion has been in all categories: consumer and intermediate goods as well as machinery and equipment. Table 3.4 shows that although the import of machinery and equipment has witnessed the largest growth whereby their share of total imports has almost tripled over the 1973/74-78/79 period, the import of consumer goods has also grown rapidly in absolute terms and they still represent 60 percent of total imports. In fact, the import of manufactured consumer goods has increased its share from 27 to 32 percent.

Table 3.4: COMPOSITION OF IMPORTS

	1973/74 %	1978/79 %	Average Annual Growth (%)
Consumer Goods	78	60	39.5
Foodstuffs	51	28	30
Manufactured Consumer Goods	27	32	52
Intermediate Goods	11	9	41
Fuel	4	3	33
Raw Materials	.. 1/	.. 1/	75
Chemicals	7	6	44
Machinery and Equipment	11	31	80
TOTAL	100	100	47

1/ Negligible.

Source: Central Bank of Yemen, Annual Reports.

Effects on Income Distribution

3.44 The overall long-term effects of labor migration on the distribution of income are difficult to predict. Initially, the flow of remittances most probably raised the level of income of a broad cross-section of the population since the migrants were numerous and they sent their savings to families scattered all over the country. However, as these higher incomes were spent on consumption items or on real-estate, it is possible that a second order process of income concentration could have developed that witnessed the growth of some wholesale traders and real-estate speculators. Although it is not possible to completely substantiate such a trend, the fact that attractively high salaries are offered for key positions in the private sector points to some large profit margins that can support these salaries. Again, depending on the distribution of private ownership of land, the large increases in rental values could have been translated into increased skewness in income distribution. In this context, if it is in fact true that a higher average income level has been accompanied by a relative concentration at the top, then it may be possible, in time, to correct for large income differentials through a more progressive income tax structure which would have the added benefit of tapping domestic financial resources to support the public investment program. Naturally, this would need to be done in a manner which would not deter the further development of industry which has, to a large extent, been supported by some concentration of savings.

Effects on the Level of Income

3.45 The most direct and important effect that labor migration has had has been the increase in the average level of income in Yemen. Although national accounts figures are currently being revised by the Government, on the basis of the unrevised series, it can be seen that the inflow of workers' remittances accounted for a substantial part of the gross national product. Their share of GNP peaked at around 50 percent in 1976/77 but has since dropped to around one third as they stabilized in absolute value and as the value of domestic production increased in recent years. This represents a considerable augmentation of income and, as stated elsewhere in this report and other World Bank economic reports, represents both an immediate improvement in the standard of living and through higher investment levels, a potential or further improvement in well-being.

Conclusion

3.46 It should be evident from the above that the migration of Yemenis for short-term employment abroad has been a mixed blessing. Its benefits have not accrued without any costs and it is difficult to determine which side of the balance is favored. To briefly recapitulate, on the positive side migration has led to a higher income level that has enabled the country to enjoy a higher level of consumption and investment. Some migrants have acquired limited skills abroad and few of them who resettle

in Yemen use these skills in domestic productive activities. In the middle of the balance rests the increase in the prices of land and domestic wages. While such increases have benefitted the owners of these factors of production, the effect from the standpoint of the whole economy has been to make it more difficult for YAR to compete with other economies for export markets, for the satisfaction of import requirements, and in some cases for the satisfaction of consumption requirements that had traditionally been met by the local economy. An important point to mention in this context is that it is the combination of higher rates of increase of domestic costs coupled with a fixed exchange rate that has rendered Yemeni production less competitive for export purposes; and it is the remittances that give YAR a strong exchange position that it would not have had otherwise. Again, an effect that is close to the middle of the scale but probably tilted to the negative side is the change that has taken place in the composition of agricultural production. While the shift to higher-valued cash crops may have generated more income to agricultural producers and enabled consumers to enjoy fruits and vegetables that were not as plentiful previously, it has also led to an increasing dependence on the import of grains and, more importantly, could jeopardize the potential for the commercial production of cereals in the future.

3.47 When attempting to balance the positive and negative effects of migration, it should be kept in mind what the opportunities and alternatives to the economy are. After all, migration occured in response to real and attractive opportunities and it has made possible a standard of living that had not been possible in Yemen previously. The country had exportable surplus labor that took advantage of these unusually attractive opportunities across the border. Moreover, it is not clear what other resources Yemen possessed that could have yielded such a high return. It seems then, that on balance, the short-term income generating benefits of migration have been considerable and outweigh the most immediate disadvantages. However, some of the more structural indirect effects such as the shift in agricultural production (especially to qat) and the factor price changes could have significant adverse effects in the long-run that would considerably reduce the net benefit to the economy over a more distant horizon.

3.48 A relevant question to raise in this context is whether the benefits of migration may be retained while minimizing its costs; and although it may not be possible to give a definite answer to this question, it is surely instructive for policymakers to look into such possibilities. Possible solutions should be designed in a way that would not disrupt the flow of remittances, but would direct them even more to productive uses and in support of the public sector's development drive. Thus, it may be appropriate to increase import duties on luxury consumption items. Measures to encourage farmers, including returned migrants, to go back to the land, to increase their productivity and to plant in accordance with the country's strategic long-term requirements rather than short-term gain are needed. This might require policy intervention by the government to

establish price/cost relations in a manner that is consistent with its long-term development objectives. It seems that the nacsent but important agricultural cooperatives and the Cooperatives Bank could be utilized as effective vehicles for channeling remittances in support of a revived agricultural sector on the basis of local initiative.

IV. THE EDUCATION AND TRAINING SYSTEM

4.01 The preceeding three chapters essentially reviewed the various determinants and components of the supply of labor in YAR as it developed to its present situation. The concern in this chapter is with the main determinants of the future development of domestic labor supply--the education and training system (ETS). The chapter attempts to identify the nature of the flows through this system, which are subsequently used in the next chapter to assess the system's responsiveness to the country's manpower requirments.

A. The Formal Education System

Overview

4.02 A modern educational system began to be established only a decade ago. A typical 6-3-3 structure has emerged in formal public education. The university, established in 1970, has undergone rapid expansion with technical and financial support from Arab countries. However, the rapid pace of economic and social development has placed considerable strains on the development of the formal education system, especially the training of adequate numbers of teachers and administrators. Assisted by a Unesco team since 1973, the Ministry of Education (MOE) has shown some progress in training its personnel in adminstration techniques, in modernizing its procedures and in adapting its policies to meet changing demands. Despite a tradition of local autonomy, especially through the LDAs, responsibility for effective administration of the school system by the Regional Directorates of Education is only now emerging.

4.03 The problems that faced the education system in the early seventies were enormous. Thus, for example, according to Ministry of Education statistics only 12 percent and one percent of the respective school-age population were enrolled in primary and secondary schools, less than 10 percent of the adults were considered literate, about 92 percent of the primary teaching force was inadequately qualified and all secondary and higher education teachers were expatriates, and only about 20 officials within the Ministry of Education had completed secondary schooling. In comparison, by 1980, 36 percent and 4 percent respectively, of the corresponding school-age population were enrolled in primary and secondary schools; the literacy rate had appartently increased to above 20 percent, over 4,000 students were attending university, and most educational administrators in senior positions now hold university degrees.

4.04 Throughout this period, the Government has been evolving a development strategy for the education sector based upon: (a) provision of primary education for all children and non-formal education, particularly literacy training, for the unschooled; (b) improving the supply of qualified Yemeni teachers and teaching materials in the schools and developing an adequate pool of trained and educated manpower through diversification

of secondary education to serve the needs of all sectors, especially agriculture; (c) planning for the construction of needed school buildings with the formation of a school building unit; and (d) raising the educational and administrative efficiency of MOE and of the University. At the same time, the Government is conscious of the need to improve the educational opportunities for females (who now make up around 15 percent of enrollments at all levels) and to provide increased opportunities for the population in the more disadvantaged regions.

Enrollments

4.05 The impressive increase in enrollments, at all levels of formal education is summarized in Table 4.1 (for more detail, see Statistical Annex Tables IV.1-IV.4). Overall growth has averaged around 14 percent per annum which represents a remarkable achievement in terms of system expansion, although the 22 and 30 percent annual growth rates that had been averaged by primary and preparatory enrollments between 1970 and 1976 seem to be tapering off.

Table 4.1: GROWTH IN ENROLLMENT IN THE EDUCATION SYSTEM

(1971/72-1979/80)

	Thousands		Average Annual Growth (%)
	1971/72	1979/80	
Primary	119	332	14
Preparatory	6	21	17
General Secondary	2	11	24
Pre-University Total	127	364	14
University	0.7	4	24
TOTAL	128	368	14

Source: Statistical Annex Table IV.1

4.06 Whereas a slowdown in system expansion may be viewed with concern given that large proportions of respective age-groups that remain outside the school system, the rapid expansion of the system that has taken place so far has been at the expense of efficiency and quality. The attrition rate of students at every level is high. For example, according to Ministry of Education statistics, only 13 percent of boys and 16 percent of girls entering Grade 1 in 1971 are enrolled in Grade 9 in 1979, and only about half of the students completing each cycle proceed to the next level of schooling. In addition, the quality of schooling is relatively low and

reflects not only the continuing high proportion of poorly qualified teachers, but also the shortage of buildings, furniture, equipment, and other teaching materials. A possible indicator of poor education quality is the low pass rate in final examinations, especially at the general secondary level where it averaged around 65 percent in 1978/79.

Teachers

4.07 The most serious problem facing the formal education system is the shortage of adequately trained teaching staff. The number of teachers increased annually until 1975/76 when they were over 7,700. During the next two years, their number declined, especially in primary schools in a period when enrollment continued to increase. However, a new surge of recruitment, mainly overseas increased their number to over 8,300 by 1979/80 (Statistical Annex Table IV.5). However, despite this renewed overall growth, the number of Yemeni teachers has been dropping continuously and they are being replaced by expatriates, mainly from Egypt and the Sudan. Although this trend could in part be attributed to more lucrative opportunities for Yemenis within Yemen or abroad, it is quite likely that many of the very poorly qualified who were relied upon in the early days of schooling have since been replaced by more qualified expatriates.

4.08 In any case, this development points to the continued and pressing need for YAR to attract possible Yemeni candidates into the teaching profession and to provide them with adequate training. A country's education system, other than being a training ground for its future manpower, is also a basis for the perpetuation of its heritage and values and when a significant proporation of its primary school teachers are foreign, such objectives may not be fully met. The proportion of expatriates is significantly greater at the higher levels--89 percent and 94 percent respectively, at the preparatory and secondary levels--indicating that graduates from the College of Education of the University of Sana'a have not yet had any significant effect on the teaching force at this level.

4.09 The authorities are completely cognisant of the importance of producing well-trained teachers and trainers and have made considerable progress to this end. Statistical Annex Table IV.9 shows that a dozen training institutes for primary school teachers have been established in the past fifteen years and that enrollment in them increased from only 55 males in 1963/64 to a total of over 900 males and females in 1979/80. Similarly, ten institutes for training primary/preparatory school teachers have been established over the past ten years and their enrollment has increased from around 90 trainees in 1968/69 to 675 in 1979/80. Moreover, the table shows that the output of these institutes has been rising continuously.

4.10 It should be kept in mind that rapidly developing a viable education system that is self-reliant and self-perpetuating from extremely modest levels, as Yemen has had to do, requires overcoming a considerable inertia that is normally associated with any nascent system. A backward chain of preconditions is triggered off that makes the process painstak-

ingly long. Trainees need to start with some level of basic education which requires teachers, who in addition to needing an education for themselves need to be trained as teachers, and therefore a need is generated for teacher trainers. This chain which would otherwise close into a vicious cycle has been broken so far by the use of expatriates at almost all of the teaching stages.

University Education

4.11 The University of Sana'a opened in 1970/71 with 64 students in the Faculties of Literature, Sharia' and Science. The Faculties of Commerce and Education were added in 1973/74 when enrollments in all faculties reached 1,150. By 1979/80 total enrollment had almost quadrupled to 4,191, of which 319 were non-Yemenis. The growth of the university by faculty and full-time and part-time students is shown in Statistical Annex Table IV.6.

4.12 Despite the rapid growth in the enrollments at the university, the number of graduates (Statistical Annex Table IV.7) remains comparatively small. This indicates that the standard of formal schooling is low and therefore those who enter the university take longer than the normal period to graduate. An analysis of the success and failure rate of students also indicates that an increasing proportion of students (35 percent by 1978/79) fail annually. Although the proportion varies with each faculty and each year, more students absent themselves from the examinations than fail, hence the overall pass rate has been about 50 percent. This again suggests that some students (some of whom have full-time or part-time jobs) feel inadequately prepared for the examination and prefer to drop out during the year or absent themselves from the final exams rather than be classified as a failure. Others may drop out for financial as well as other social considerations.

4.13 Finally, an analysis of the growth of university enrollment (Statistical Annex Table IV.6) indicates that the Faculty of Commerce has developed more rapidly than other faculties and from its second year of operation has maintained the highest enrollment of any faculty. As with many emerging universities the Faculty of Science has been relatively slow in increasing its enrollments although its 1979/80 enrollment of 356 was double that of the previous year. Nevertheless, with only 12 graduates annually since 1977/78 this faculty is clearly still not able to meet the demand for science-trained graduates. With about 1,500 secondary graduates in science annually, it is not clear why the Faculty of Science could not increase its enrollments in the first year programs. This problem may be eased somewhat when, as of 1980/81, the university will enroll students in its first year science program who will later be able to enter the proposed faculties of health sciences and engineering.

Study Abroad

4.14 A significant number of Yemeni students go abroad each year mainly for higher education. Their number has exceeded 500 students each year at least in the past few years. Statistical Annex Table IV.10 lists most of

such students who left YAR in 1979/80. The table cannot possibly be complete since, for example, it misses those who went to the USA and other Western countries. In any case, it shows that most go to Arab-speaking countries and almost one half hope to specialize in agriculture and engineering, and close to another third in medical and other sciences. (See paras. 4.31 to 4.39 for more discussion of study and training abroad.)

4.15 In addition to those who pursue advanced studies abroad, many of the migrant families in neighboring countries enroll their children in schools there and many adults are enrolled in either literacy courses or at universities there. Thus, for example, the numbers of Yemenis attenidng primary, preparatory and secondary/vocational schools in Saudi Arabia, Kuwait and Qatar in 1975/76 where 20,716, 3,428, and 2,553, respectively (Statistical Annex Table IV.21). 1/ This amounts to around 8 percent, 20 percent and 33 percent of the corresponding enrollments in YAR in that year. Those attending university in Saudi Arabia totaled 445 students (i.e., around 10 percent of the corresponding enrollment in YAR). Also, the majority of non-Saudis participating in adult literacy classes in Saudi Arabia were Yemenis (13,168 out of 14,947, i.e., 88 percent).

Facilities

4.16 A major constraint to the rapid expansion of the formal education system is the inappropriate location of some school buildings throughout the country. While the number of primary schools has increased from around 900 in 1962/63 to over 2,500 in 1979/80, only about 25 percent of these schools have the complete 6 grades. Thus, especially in the more remote governorates, there is little opportunity for students to obtain a complete primary education. This is, at least in part, due to lack of appropriate space. With the establishment of the School Building Unit (SBU), standardized designs have been developed and advice is available to the governorates and LDAs on the types of materials and the cost of construction for each area. As the LDAs have been active in providing buildings for schools which are often unsuitable and as this initiative assists the Government in financing school construction, the continued expansion of the SBU activities should be encouraged.

4.17 In addition, the condition of many existing buildings is poor and little maintenance is provided, mainly because people have not been trained in proper maintenance skills and there is no organizational structure to oversee and finance such operations. Furniture is often cumbersome and in short supply, again with no facilities for repair. Equipment, especially in science at the secondary level, has improved in recent years but appears to be underutilized, despite in-service training programs, because most expatriate teachers are unfamiliar with practical teaching techniques in this field. In order to provide more adequate facilities in formal education, the first step should be to undertake a detailed inventory of exist-

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1/ These numbers have been obtained from these countries' statistics and are therefore not official from the standpoint of the YAR Government.

ing buildings, furniture and equipment and then to utilize this in a major school location planning exercise to indicate the major gaps in distribution of school facilities as well as the most urgent rehabilitation needs.

Materials for Instruction

4.18 The construction of an Educational Materials Production Center completed in 1979 was intended to provide a base from which Yemen could develop prototype instrtuctional materials and science equipment to improve both the quality and quantity of those used in schools. However, lack of trained staff have limited the initial operation of this center to continuing its in-service training function by instructing teachers in the more elementary uses of audio-visual aids and materials. While the potential for growth in instructional materials is available, such a center needs to be fully integrated with the teacher training institutes and curriculum development and textbook production units in order to be more effective. The Ministry of Education has also recently established an educational printing press which has undertaken to print most of the texts used in formal education. Radio and television have been only minimally utilized to supplement instruction in the formal school system. Again, the potential for development in these two spheres is considerable and even more so as a medium of instruction for non-formal and literacy training. The major constraint in each of these areas of production of instructional materials and equipment is again the lack of skilled and professional manpower to plan and implement an effective program.

Financial Considerations

4.19 Education has been a priority sector in terms of the Government's budget allocation. Around 8 percent of total as well as recurrent expenditures went to education in 1975 and this proportion is expected to increase to over 10 percent in 1980. In addition the sector receives considerable foreign financial assistance which accounted for approximately 42 percent of the educational recurrent budget and about 80 percent of investment in 1975. LDAs also contribute their share through their school-building programs which accounted for the construction of more than 900 schools by June, 1978. With the expected greater emphasis on higher education, such as the anticipated schools of engineering and health sciences at the University of Sana'a, as well as on vocational and technical training, this sector will undoubtedly continue to claim a substantial portion of the public finances and of foreign aid.

B. The Training System

4.20 YAR's training system consists of two main components. The first encompasses the activities of the Ministry of Education (MOE) and other agencies in the areas of vocational/technical training and non-formal education. These include: technical secondary schools (TSSs), teacher training institutes (TTIs), vocational training centers (VTCs), district training centers (DTCs), and literacy programs. The second component consists of in-service training (training of employees by the employing authority to

meet its needs for special technical and managerial skills) which is conducted through both out-of-country and in-country arrangements.

Vocational/Technical Training and Non-Formal Education 1/

4.21 Vocational/Technical Training. Within the next year, in addition to the center at Sana'a, four other vocational training centers (VTCs) will become operational. Their anticipated output in 1980/81 will be about 140 skilled tradesmen from 2-year day courses at Sana'a and about 300 from part-time evening courses at Sana'a, Taiz and Hodeidah. By 1982/83 the annual output is expected to reach about 800. These VTCs will provide tradesmen in such areas as construction, automotive, electricity, general mechanics, welding, metalwork, woodwork and plumbing.

4.22 Secondary level technical/vocational instruction is provided in three areas: technical, commercial, and most recently, agricultural (Statistical Annex Table IV.11). As for technical secondary education, the chief source of low-level technicians has been the technical school in Sana'a, supported by the Republic of China, from which some 60 students graduate annually mainly in construction, automotive and electrical technologies. In addition, three secondary schools (Sana'a, Taiz and Hodeidah) contain technical workshops which provide elementary skill training in woodwork, metalwork and some electricity. A new technical secondary school in Taiz is about to begin operation. The former five-year program in the Sana'a Technical School has been replaced by a three-year post preparatory program. Total enrollments in the technical school at Sana'a and the three secondary schools offering elementary trade training options was 1,200 students in 1980 (including only 2 females); from 1982, it is anticipated that the output from these schools will be in excess of 500 graduates annually.

4.23 Training in commercial studies is currently provided in seven secondary schools with commercial streams. Their 3-year program provides only a meager base of training and currently only about 100 students graduate annually. Despite the attraction of the Faculty of Commerce, it is surprising that more rapid expansion at the secondary level in commercial studies has not taken place. Enrollments have remained fairly constant at around 350 to 400 students.

4.24 The first year of the secondary agricultural program began in 1980 with 60 students enrolled. It is anticipated that 120 students will graduate annually by 1985 from the two new agricultural schools.

4.25 Non-Formal Education and Training. MOE has primary responsibility for non-formal education and training, although some programs are also

1/ Teacher training is discussed above (paragraph 4.09) in conjunction with the formal education system.

conducted by specialized ministries or agencies. In addition to the VTCs, it operates several District Training Centers (DTCs) and close to a hundred literacy centers through its Department of Non-Formal Education and Basic Training. Although the DTCs have only commmenced operation in 1979/80, over 3,000 people are already enrolled in a variety of programs. The centers also have outreach activities to over 40 surrounding villages. Elementary skill training courses are conducted in electricity, carpentry, sheet-metal and welding, construction, automotives and general mecahnics. Enrollments of over 200 in these courses at three of the centers are expected to increase to about a thousand in 1980/81 when all seven centers are fully operational. Basic skill training courses of five-month duration will later be extended to provide more advanced level training. Currently, these courses are scheduled for two hours a day, five days a week. The trainee receives a certificate after about 300 hours of training. Conceivably, DTCs could operate in two shifts bringing the instructor's teaching load to about 20-25 hours per week. At the same time courses will be initiated in the surrounding villages. Courses have also been provided in agriculture, health care, home economics, nutrition, sewing and weaving. The literacy programs in these seven centers and their surrounding villages currently reach over 2,200 adults.

4.26 In addition to the DTC activity in the literacy area, MOE's direct literacy program consisted of 378 literacy classes throughout the country with a total enrollment of over 10,400 students in 1979/80. These programs are intended to provide adults and out-of-school youths with the equivalent of Grade 4 literacy and numeracy skills.

4.27 Among the problems that afflict both the DTCs and other literacy programs is the fact that teachers are not trained in methods of teaching adults or literacy, textbooks are not specifically oriented to Yemeni conditions and facilities in all centers are minimal. A major deficiency is the lack of trained Yemeni staff especially in the skilled training areas. While technician level expatriates will continue to be required in the short-term to establish skilled programs in each DTC, Yemenis will also need to be trained at this level 1/ to become the Department Heads and to develop further the specific skill programs. At the same time, skilled craftsmen identified in the community or trained in the VTCs will be required to give instruction in each of the vocational skills both at the centers and in the villages. Additional literacy instructors will also be recruited depending on expansion needs.

4.28 Close cooperation between the Local Development Associations and DTCs has been maintained in order to provide mutual support for each other. In addition, Government discussions with bilateral agencies such as USAID and the German Overseas Development Agency as well as several voluntary agencies (Swedish, Dutch and German) have resulted in the appointment

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1/ As envisioned in the proposed World Bank Fourth Education Project

of four skilled trainers and five women's craft specialists and expectation of additional staff for these centers.

4.29 Other ministries have also been active in the area of non-formal education. At the Ministry of Health's health centers and subcenters, around 12,000 lessons in nutrition and health care were attended by some 90,000 persons in 1977/78 alone. The eight community development centers under the Ministry of Information and Culture provide training for women in embroidery, sewing and home economics.

In-Service Training

4.30 In addition to the activities of specialized training agencies working under the auspices of MOE, many agencies in YAR have found it necessary and expedient to design their own in-service training programs either within the country or abroad. Typically, the higher level more specialized training is done outside the country.

Out-of-Country (In-Service) Training

4.31 As the potential within YAR to provide advanced training for personnel has been severely limited, virtually all public sector development projects have included a fellowship component for training abroad. Out-of-country training is conducted through study visits, attendance at seminars, short practical instruction programs and long duration fellowships either through bilateral arrangements or as part of technical assistance in development projects. In the early 1970s, much of the out-of-country training was carried out through UNDP technical assistance projects in nearly all sectors of the economy until 1976 when UNDP faced a financial crisis, following which bilateral agencies and IDA projects took increasing responsibility for such training.

4.32 The Central Planning Organization (CPO) has published statistics of the numbers of Yemeni students abroad in higher education by field and place of study for the period 1976/77 (Statistical Annex Table IV. 12). There were then as many as 2,314 students abroad, 66 percent of whom were in science-related fields (including engineering, agriculture and medicine) and the rest in the arts. An MOE tabulation of fellowship holders (a total of around 580) who departed to study abroad in 1979/80 is presented in Statistical Annex Table IV.10. Unfortunately, there has been no recent systematic collection of data by CPO on the numbers of fellowships utilized in all sectors nor an analysis of the numbers who have successfully completed their training and returned to join their posts in YAR, although the First Five-Year Plan (1976/77-1980/81) devoted much attention to the nation's out-of-country training requirements to enable it to fulfill its investment targets. It was estimated that as many as 2,752 Yemenis would be sent abroad during the plan period for out-of-country training (Statistical Annex Table IV.13).

4.33 An interesing tracer study conducted by USAID in 1980 showed that of a total of 104 participants in USAID training programs (mostly academic courses at degree and diploma certificate levels) some 60 percent were known to have returned to YAR; the others could not be traced, stayed abroad or were participating in new scholarship training opportunities, also abroad. Most of the 49 participants who were contacted in the tracer study were in employment mainly in the goverment and public sector organizations.

4.34 The Ministry of Agriculture (MOA) has one of the largest out-of-country training programs for the staff of the central ministry and regional projects. Starting from 1974/75, about 80 students have been sent annually for studies in the fields of agriculture and veterinary medicine. By June 1976, some 72 agricultural graduates and 117 technicians had been trained. Since 1977, 382 students have been sent abroad for bachelor of science courses in agriculture and 44 in veterinary sciences. The anticipated number of agriculture students returning during 1976-80 is shown in Statistical Annex Table IV.14. With the return of such a number, the degree level training should have reached targeted levels for MOA operations. Instead, the employment situation of graduates in MOA in 1979 remained inadequate; only 22 of the 106 Yemeni personnel in all directorates had a B.Sc. degree or higher. Moreover, of the 30 graduates who were expected to join the MOA staff following completion of their training abroad after July 1979, only 10 returned to YAR and of these only 3 were recruited by the Ministry. The lack of a well-defined career structure could be a reason for this problem.

4.35 Difficulties were experienced in obtaining suitably qualified trainees for MOA's post-graduate training programs in the period 1975-78 (Statistical Annex Table IV.15). In the irrigation department of MOA, post-graduate training of short-term and M.Sc. courses did not materialize as there were no suitable Yemeni candidates holding a first degree in civil or agricultural engineering. Furthermore, a group of four trainees from the same department that were sent abroad on a three-year technician training program returned after three months because they could not keep up with the curriculum.

4.36 MOA's overseas training program for 1980-84 is currently being run with the assistance of the Training Division of the World Bank's International Relations Department. Under this program, some 86 staff are expected to receive training of duration varying from 4 to 48 months; in the Second Southern Uplands Rural Development Project alone, there is provision for 765 man-months of external training. Earlier emphasis on courses of long duration has been replaced by shorter-term programs with field visits and practical training, especally since the English language proficiency of many nominated candidates is lower than the acceptable standards for admission into the long duration programs.

4.37 Many other public sector authorities have prepared training plans. The National Water and Sewerage Authority (NWSA) training plan for 223 of its staff for the period 1979/80-1983/84 (Statistical Annex Table IV.16) includes both in-country and out-of-country arrangements. NWSA estimates the costs of out-of country training to be about $650,000 exclusive of air travel fares. The Yemen General Electricity Corporation (YGEC) training program for the period 1979-81, under the IDA First Power Project, provides for out-of-country training of 19 engineers and 31 technicians; the project includes a sum of $700,000 towards the foreign costs of such training, and to allow expatriate consultants to conduct training programs and seminars in YAR.

4.38 Other organizations such as the Ministry of Education (MOE), the Ministry of Health (MOH), the University of Sana'a and the National Institute of Public Administration (NIPA), that have in the past responded only to the availability of fellowships, are in the process of preparing long-term plans. MOH has been comparatively successful having had 255 Yemeni physicians return to YAR in 1978 following their training abroad.

4.39 Overall, resort to out-of-country training with the specific aim of meeting immediate manpower requirements of project authorities has met only with partial success since some of those who were sent abroad on long-duration fellowships did not return to join their posts in YAR. Furthermore, the in-service out-of-country training programs have now reached the stage where finding suitable Yemenis for long-duration fellowships has become difficult, partly as the absence of the few available qualified Yemeni employees would disrupt operations of the agencies/organizations and, partly, as likely candidates often fail to meet required levels of foreign language proficiency (English, French or German). In the meantime, the trend towards shortened practical non-academic training programs abroad has considerable merit. However, there remains the disturbing possibility that with the decline in attention to the longer-duration training programs by project authorities, the shortage of higher education qualified Yemeni manpower may be aggravated. Thus, the programs of the University of Sana'a which are designed to alleviate such shortages should receive support.

In-Country (In-Service) Training

4.40 The form of in-country in-service training used in YAR is a mix of: (i) counterparts-to-experts; (ii) on-the-job training; (iii) off-the-job training; and (iv) insitutional training.

4.41 (a) Counterparts and On-the-Job Training The use of counterparts-to-experts had been widely expected to be a rapid method of training, particularly in view of the employment of large numbers of expatriate experts under the various technical assistance programs. In the MOE as many as 24 specialists have served on the Unesco Task Force between 1974-80. Under the UNDP program, there were numerous experts in YAR in 1979. However, despite the abundance of experts in the country their impact on training counterparts has not been up to expectations. A 1978 report on

the institutional support project to MOA cites that MOA had not been able to provide sufficient numbers of counterparts to gain training with expatriate staff in the 25 projects that were being implemented during 1973-76. One major constraint, therefore, has been the untimely recruitment or the non-availability of qualified Yemenis who could benefit from attachments to counterparts. Another constraint, in some cases, has been that experts have viewed their primary task to involve the implementation of development projects or professional assignments and the training of counterparts as subsidiary tasks.

4.42 On-the-job training data have not been documented. It is generally believed, however, that this mode of training has been particularly successful in production enterprises, stimulated by the overseeing experts who see their performance evaluated in terms of the efficient utilization of production inputs or plant productivity. Quite often, however, on-thejob training has not been planned, organized and supervised specifically as a training activity.

4.43 (b) Off-the-Job Training In off-the-job training, the employing authority establishes its own training center in which its employees are trained. Statistical Annex Table IV.17 is a listing of project-related training centers established or being established in 1979, the levels and duration of training, and the planned numbers of entrants. As will be seen in the following paragraphs, this training mode has had its share of successes and failures.

4.44 The history of the Vocational Training Center (VTC) of the Highway Authority (HA) 1/ is illustrative of the problems associated with the establishment of in-service training institutions. This VTC was first established at Taiz in 1971 but commenced operation only after completion of construction of classrooms in December 1974 with ILO technical assistance. There were delays in agreement on the training program and recruitment of expatriate instructors and difficulty in coordinating with the main beneficiaries of the training, namely the HA. Although planned for training 50 employees annually in a 12-month course, the first training course in basic auto-mechanics lasted 18 months and only 23 trainees completed it. This course was followed up in Februay 1977 with upgrading courses of 2-4 weeks duration for auto-mechanics, heavy equipment mechanics and auto-electricians; some 52 HA personnel attended these courses. In addition, the three-month grader operator course was attended by six trainees and short four-week seminars on preventive maintenance by supervisory personnel. During 1974-77, a total of only 98 trainees attended the VTC courses, including 60 mechanics/operators. The problems encountered by the ILO team were many. The VTC practical training workshop was never built and this part of the intruction had to be arranged with the HA main workshop.

1/ Not all VTCs are under the jurisdiction of the Ministry of Education. This one, for example, was attached to the HA in 1978.

Eighty percent of those attending the skill training courses were illiterate. In 1978, the VTC operations under the ILO came to a close, and the HA took the facility over to be a part of their new training division, being financed under IDA's Third Highway Project. This training division is comprised of a central administraive unit, the VTC for classroom work, and training production units for mechanical and road maintenance works; all estimated to cost US$4.24 million for a three-year program to train some 227 existing employees, 417 new employees and 13 Yemeni instructors. The training will iclude the occupations of road maintenance supervisors and foremen, equipment operators and drivers, petrol and diesel engine mechanics, machinists, welders, storekeepers and accountants. Now that the participatory consultants have been appointed by HA in May 1980, it is expected that the new program will begin in early 1981. With these changes, it is expected that training of road and equipment technicians and administrative personnel will improve. While primarily directed to cater to the needs of the HA, LDA road builders would also be trained to the extent space is available.

4.45 The YGEC met its needs, initially from 1974, for electricians through a small training center at Sana'a (20 students annually in 6-month courses) and a training center at Taiz supervised by the Swedish technical assistance mission (9 trainees in 1975). As the output was inadequate to meet the new demands of skilled manpower, YGEC is establishing a new center outside Sana'a with 84 trainee places that is being constructed, equipped and operated under an agreement between the YAR government and l'Electricité de France at an estimated cost of US$1.074 million. This new center is expected to register 36 trainees annually for 15-18 month courses and 108 employees for shorter three-month upgrading courses. Currently, 24 employees are undergoing in-service training. However, the long-term training needs of foremen and charge-hands have not been explicitly addressed at the new center, although their training is currently being arranged in Sudan and Jordan.

4.46 The Ministry of Communications (MOC) operates a telecommunications training school with three-year courses of study for radio operators, telephone exchange operators, intrument cable and telex operators. The schoool was first opened in 1968 with a planned annual admission of 40 trainees. The school is currently housed in the wing of a secondary school of the MOE and has an enrollment of only 41 students. The students in the final third year complete their training in either Cairo or Khartoum, as the school's laboratory equipment are outdated. Furthermore, there are no permanent Yemeni instructors and the school has to depend on the part-time services of expatriate experts attached to the MOC who see their primary responsibility for the installation, operation and maintenance of MOC's telecommunication facilities. MOC may need to give consideration to conducting the initial two-year training at the technical secondary school of the MOE at Taiz, followed up with a final year on-the-job training at MOC telecommunication facilities. The Radio and TV Corporation operates its own training school. The Civil Aviation Department runs an orientation school, with technical assistance provided by the International Civil Aviation Organization that prepares trainees for further training/studies abroad.

4.47 The Ministry of Agricuture (MOA) currently oversees two centers for training agricutural extension agents and one center for training livestock assistants. At the Extension Agent Training Centers at Taiz and Zabid, admission to the 11-month training course, which was originally comparable to 9 grades of formal schooling, is now comparable to 6-9 grades (the majority of admissions, however, is from those who have completed only 6 grades of primary schooling); trainees on completion of courses are expected to subsequently be in the employment of MOA for 5 years. The training concentrates on extension activities that are designed to increase the productivity of subsistence farmers and the production of marketable surpluses. The capacity of the Taiz Center is for 30 trainee-places, while that of the Zabid Center is for 20. Between 1976-80, a total of 285 agents were trained at the 2 centers. The number of admissions from those with 9 grades of formal schooling has been low, principally because the centers are viewed as terminal institutions and close the door for further secondary schooling. There has been a felt need for training extension staff at a higher level than that currently trained at Zabid and Taiz and for new courses introducing subjects of farm mechanization, on-farm water management, range improvement, terraced land management, erosion control and dryland farming techniques.

4.48 At the Livestock Assistant Training Center, the duration of training was extended from 6 months to 12 months with entry qualifications of 6 grades of primary schooling, although preference is given to those completing 9 grades. In the past few years, some 18 out of the 24 admitted annually have completed the training satisfactorily. The training program suffers from an absence of Arabic speaking instructors and instruction is via interpreters to expatriate instructors. In recent years, demonstration/training centers for poultry production have been successfully set up at Sana'a, Taiz, Khaba and Damar with assistance from bilateral agencies.

4.49 A Fisheries Demonstration/Training Center was established in 1974 as a UNDP project in Hodeidah for training fishermen, and the center included a demonstration unit for boat mechanization, boat building, gear technology and engine operation maintenance. With the UNDP financial crisis of 1976, this center was abandoned.

4.50 A Rural Water Supply and Sanitation Project Training Center, as part of a development project of the Taiz Water System and Rural Water Supply, was set up in Sana'a in the early 1970s with assistance from USAID for training in the trades of machinists, auto and diesel engine mechanics, well-drillers, pipe-fitters and electricians. The duration of training varied from 6 to 12 months depending on the trade. Some 85 personnel were trained. However, with the completion of the main development project, the scope of the Training Center has been considerably curtailed.

4.51 The Ministry of Health (MOH) oversees the operation of the Health Manpower Institutes (HMIs) at the main campus in Sana'a (established in

1972) and also in Taiz and Hodeidah, with additional nursing training conducted in some hospitals. In addition to nursing, training has been introduced for laboratory technicians and assistant technicians, assistant nurses, sanitarians, medical assistants, pharmacy assistants and assistant midwives. The level of recruitment and length of training varies with each occupation. In 1977/78, 191 were enrolled in the 3-year duration courses and 208 in courses varying from 3 months to 1 year. During the period 1975-77, the numbers of admissions and graduates were 74 and 67, respectively, in nursing, 32 and 8 in laboratory technician courses, and 21 and 15 in sanitarian courses. Staffing at each institute is barely adequate, often relying on part-time and expatriate volunteer specialists. Little attention has been given to training Yemeni trainers in teaching methods as well as their fields of expertise. One of the major problems besetting the HMIs is the insufficient number of recruits due to competing demands on the output from the education system, and poor career incentives in the MOH system. High female dropouts occur due to lack of boarding accommodation and social tendencies for early marriage.

4.52 As early as 1963, the YAR government had identified the need for in-service training for its civil service personnel. It was in 1966 that an Institute for Public Administration and Secretarial Work was established under the aegis of the CPO, but later in 1970, the responsibility was transferred to the Civil Service Commission (also referred to as General Department for Personnel). Under a government's decree of 1974, the name of the Institute was changed to the National Institute of Public Administration (NIPA) and responsibility for it transferred to the Prime Minister's Office. In-service training was extended not only to personnel from the civil services but also from mixed sector establishments. NIPA benefitted considerably from the tecnical assistance provided under a UNDP project and from Arab states, while Saudi Arabia furnished funds for contruction of the NIPA buildings at Sana'a. NIPA opened branches in rented premises (new buildings are being contructed under the IDA Third Education Project) in Taiz and Hodeidah during 1974-76.

4.53 NIPA's regular training courses comprise: (i) 3-6 month duration courses in financial and personnel management; (ii) 5-month courses in typing and 8-month courses in secretarial practice; (iii) a 2-year language program; (iv) 6-12 month courses in public administration and project development; and (v) short 3-6 weeks duration of training seminars in public administration and organization and methods. The courses are offerred in the afternoons/evenings enabling employees to attend the training programs. During the period 1974 to mid 1976, NIPA had trained 1,167 public service personnel or around 5 percent of the total public service (162 in public administration, 26 in organization and methods, 60 in top management, 80 in personnel management, and 839 in financial management and secretarial practice). The percentage of trainees completing the courses ranged from 69-80 percent. With the opening of the branches at Taiz and Hodeidah, enrollments increased considerably. In the 1976/77 session, the numbers attending NIPA courses amounted to 1,437 and the number of trainees

who succesffully completed the long-duration courses were 219 in office management, 216 in financial management, 20 in personnel management, 13 in research and development and 17 in organization and methods. Statistical Annex Table IV.18 gives an indication of the internal efficiency of the training courses in typing and secretarial practice during the period 1969-79; 55 percent of those who initially started the courses (1,422) successfully completed the certificate examinations. The total number of trainee places will be 1,150 with the completion of construction of the buildings at Taiz and Hodeidah.

4.54 In addition to its regular courses, NIPA responds to specific requests by public or private sector agencies for special training seminars/courses or for studies that it conducts within its field of expertise. Thus, for example, NIPA held a total of 13 special courses in 1979 for the staff of the Confederatrion of Yemeni Development Associations (CYDA) and members of LDAs. At the request of the commercial banking community, it also conducted a survey of employment in commercial banks in 1980 and projected the training requirements of these banks over the 1980/81-1982/83 period (Statistical Annex Table IV.19). It concluded that more than 350 trainees would need to undergo different types of training of various duration. The second phase of the study is expected to consist of the requisite training programs.

4.55 Given the reported critical shortage of managers in both the public and private sector, the Institute is negotiating an agreement with the American University in Washington, D.C. to set up an M.A. program in public administration at NIPA. It is hoped that initially, i.e. in 1981, recepients of NIPA's current public administration diploma would proceed to American University to work for the M.A. degree. However, as of 1982 it is expected that the degree work would be done in Sana'a.

4.56 Again in collaboration with American University and with the University of Sana'a, NIPA's 1983-85 plan proposes the establishment of junior colleges in Sana'a, Taiz and Hodeidah which will grant diplomas in development administration. The expectation is that these colleges would be pragmatically oriented and geared to specific project needs. They would also absorb some of the secondary school graduates which cannot enter the University of Sana'a although students could conceivably continue their education at the university on a full-time or part-time basis.

4.57 In comparison to other off-the-job training centers in YAR, NIPA appears to have performed with greater success. A number of factors have contributed to this, the principal one being the unreserved commitment of the government to NIPA. With the representation of the Chairman of the Civil Services Commission on NIPA's board of management, that is wholly Yemeni, it was possible for personnel policies to be amended to include career incentives for those successfully completing its training courses. Furthermore, NIPA was able to secure, where needed, the services of Arabic speaking instructors through official agreements from sister institutions

in Sudan and Egypt. NIPA, too, had a long-term plan for training of its Yemeni instructors abroad, so that by 1978, it had a total of 19 full-time Yemeni instructors.

4.58 (c) Institutional Training Project authorities in YAR have not given adequate attention to the potential of institutional training for meeting their needs of skilled manpower. Only the NWSA has entered into agreement with the MOE's VTC at Sana'a for training 30 of its recruits as skilled workers (pipe-fitters, welders, electricians, general mechanics, machinists, auto-mechanics and construction workers) through enrollment in the two-year trade courses at the VTC.

C. Education and Training--Issues and Recommendations

4.59 It is evident from the preceding sections of this chapter that much progress has taken place in developing YAR's education/training system (ETS) in the past decade. New schools have been constructed in urban and rural locations, the number of students entering and graduating from these schools have increased considerably, specialized vocational/technical centers have been and continue to be established with their enrollments also on the increase, and a host of in-service training programs sponsored by various agencies are in operation and provide the country with much needed technically trained manpower. However, despite this progress which is indeed laudable, the ETS is still relatively young and, as such, is still characterized by a set of issues and problems whose resolution offers a serious challenge to manpower and education planners in the country.

Formal Education and Training

4.60 One of the most serious problems is the continued shortage of Yemeni teachers. The loss of some 1,100 primary school teachers during the past year, which could in part be attributed to the replacement of unqualified teachers who had been hastily recruited, by more qualified expatriates, indicates that the system is having difficulty in producing enough Yemeni teachers with appropriate qualifications. In addition, many Yemenis are often unwilling to teach in remote areas which required the recruitment of additional expatriates to staff these schools. Teachers' salaries, along with those for other civil servants, need to be reviewed on a periodic basis to keep them competitive. Linked to such a review is a need for a thorough, realistic and complete survey of schools leading to the preparation of a school location map for the establishment of new schools.

4.61 The key to improving the proportion of Yemeni teachers at all levels of schooling is to increase the flow in the formal system, especially by channelling preparatory school graduates into primary teacher training institutes and secondary graduates into the College of Education. The capacity of the 14 primary teacher training institutes is estimated to be four times that of the current enrollments; thus, further construction at

this level is unwise and measures need to be investigated to increase teacher trainee enrollments. Primary teacher training is currently provided at both the preparatory level (grades 7 through 9) and the secondary level (grades 10 through 12). It is proposed to delete the preparatory level in the training institutes in the four major cities as of 1980/81; and, while it is desirable to continue teacher-training in other regional locations, its level could be upgraded to the equivalent of the secondary cycle. Such upgrading would improve the general quality of teacher preparation.

4.62 The quality of specific teacher training needs improvement. This requires much more stringent selection procedures for the largely expatriate group of instructors in teacher training institutes. All such institutes will have to rely on expatriates throughout the decade as the training program supported by USAID/Eastern Michigan University is only preparing about 30 Yemeni instructors annually who will be available from 1983. In addition, the content of the program would benefit from dissociating pre-service training from general studies. At present, little specific practical training is undertaken and less than 10 percent of the program is devoted to methodology.

4.63 For the preparatory and secondary level teachers, university training at the College of Education needs upgrading in both context and practice. It is possible that assistance in this regard may be provided by USAID. At the same time, consideration needs to be given to the introduction of specialized courses for those secondary graduates who do not wish to undertake a full four-year degree program. The introduction of a one or two-year diploma program to train preparatory teachers could inject greater numbers of trained teachers into this cycle. At the same time, with the development of specialized secondary cycle programs, a need exists to train teachers in such fields as industrial crafts, commerce, home economics, agriculture and the arts. Such specialized teachers require not only a sound background in their particular discipline but pedagogical training (equivalent to a one-year course) at the university level.

4.64 With the relatively low participation rates at all levels of formal schooling, continued expansion of school construction should be discouraged. However, while emphasis should be placed upon the broadening of the primary school base in order to provide a more adequate pool for the other cycles, both the efficiency and the quality of the system needs improvement. The new cadre of supervisors in primary schools is attempting to change the attitude of teachers towards student-failure and repetition which should improve efficiency as more students flow through the system. A major priority especially in rural areas is to increase the utilization of schools having a complete primary cycle so that more students, including females, are able to graduate from this level. Although regional disparities in enrollments continue, further analysis is needed both of the statistics and the possible reasons for uneven development before substantive planning can be undertaken.

4.65 Each of the above measures has identified the need for technician and professional training in order to provide a well-informed cadre to lead Yemeni development in the education and training sector. Thus, one of the keys to future achievement is the continued expansion of quality programs at the post-secondary level to train technicians, managers and administrators, teachers, technical/vocational instructors and professionals. This is an urgent need because from such a pool of trained manpower will the administrators, planners and instructors be drawn.

In-Service Training

4.66 Many of the in-service training arrangements have been responses to meet the immediate needs of the development projects in YAR. Although the First Five-Year Plan gave some attention to the out-of-country training requirements for specific investment projects, it did not link these requirements to previous experience and policies. In general, higher priority has been given to training requirements for specific projects, than for programs aimed at institutional development.

4.67 In the out-of-country training leading to professional degrees, earlier fellowship programs of the Ministry of Health were successful in that the trained physicians returned to YAR. On the other hand, although the Ministry of Agriculture's fellowship program has been so extensive that if all the graduates return, their numbers wil reach the targeted levels for the MOA and its agencies, those actually returning have been much less than anticipated. Factors that could contribute to this state are the lack of a defined career structure in the MOA. The least successful has been the fellowship programs for the training of engineers that have been independently sponsored by many ministries and a variety of public sector agencies. Difficulties are being faced in finding suitably qualified Yemenis in these organizations that have the required levels of foreign language proficiency.

4.68 An assessment of off-the-job training institutions reveals an absence in some cases of coordination of efforts of these agencies with those of MOE's educational institutions. For example, the MOC telecommunication school program could benefit from an association with MOE's better equipped technical secondary school at Taiz. MOA extension agent training at the higher level can possibly be accomplished through MOE's agricultural secondary schools. In general, the success of off-the-job training institutions depends to a large extent on: (a) the Yemeni commitment of the supervising ministry/public sector organization to the training program; (b) the availability of Yemeni instructors, as dependence only on expatriate instructors makes the institutions vulnerable to variations in staffing and (c) national recognition of the training certificate for employment or further education and career advancement.

4.69 The complexity of out-of-country training programs of the different agencies needs a special unit to coordinate this activity. MOA is fortunate in having this arrangement through the institutional support

project (UNDP/IDA). While it is important that each ministry has a training department/section overseeing all in-service training programs, there is considerable merit in having an agency like the proposed manpower planning unit within CPO work closely with the special sections in the concerned ministries. The unit's functions in this area would include: (i) identification of suitable institutions/agencies that can provide the desired service; (ii) standaridize formats of contracts whether individual or institutional; (iii) expedite implementation of training programs including formalities for travel and settlement upon return of trainees; (iv) monitoring and evaluation of all training programs; and (v) act as an information base of all training facilities in YAR, including conducting periodic surveys of their utilization.

4.70 Major proposals need to be developed to begin filling out some of the gaps in the training policies and the education and training system through:

(a) cross-sectoral studies for identifying national training programs common across the sectors and long-term horizon planning for creating in-country training facilities with scope for economies of scale. The extensive use of out-of-country training of agricultural graduates makes it presently difficult, both to justify the creation of an agricultural college and to organize post-graduate courses in agriculture in YAR although the existence of many trainees is in itself an indication of potential demand that could justify such measures in the longer run;

(b) initiation of in-country training of Yemeni instructors required for the VTCs and of certain categories of medium-level (technician) manpower in the sectors of industry, construction, agriculture, commerce and health; and

(c) creating degree level training facilities, particularly in the fields of engineering, business management and public administration because of the difficulties attendant on securing training placements abroad of Yemeni candidates and their low proficiency in foreign languages.

4.71 Although the MOE has established an Agricultural Education Council and a Vocational Training and Educational Council, the functions of these Councils are specific to the MOE. An early establishment of a National Coordination Training Council could, inter alia: (a) remedy the current lack of awareness among the employing agencies/ministries about the existing or planned in-country training facilities, training programs and capacities and, thereby, assist in maximizing the use of these facilities; (ii) sponsor wider dissemination of information in the country's schooling system about in-service training opportunities; (iii) trace placement and performance of graduates of all skill training institutions; and (iv)

provide a forum for evaluating training certificates for employment or further education and help establish standards for skill training and a system for trade testing and certification. This training council would comprise representatives of all ministtries and public sector authorities and of private organizations. A special section of the proposed manpower planning unit in CPO could act as its secretariat.

V. MANPOWER PLANNING

A. Overview

5.01 As should be evident from the previous chapters, manpower development has been a major bottleneck to YAR's overall economic development. This is not at all surprising since the country started its modern development drive less than two decades ago from a state of isolation characterized by mass illiteracy and a labor force that was very poorly qualified in modern methods, though with a well-earned reputation for hard work and enterprise.

5.02 Chapter II has shown, within the limits of the data available, that although the labor force is still largely involved in traditional occupations and still suffers from an inadequate education and training background, impressive strides have taken place in the last decade. A larger proportion of Yemeni workers has moved into higher occupational categories armed with relatively better education and, to a lesser extent, training.

5.03 In Chapter IV, it was shown that despite severe odds, the education/training system has managed to overcome the inertia that was naturally associated with its early development, and that with the flow of technical and financial assistance from abroad, has witnessed remarkable growth. Promise of further growth continues, especially in the area of technical/vocational training that got off the ground very recently. As the system develops further, it will be possible to devote more effort and attention to quality considerations.

5.04 Chapter III addressed the important question of migration of Yemeni labor, primarily to neighboring countries in the Arabian Peninsula. It concluded that this migration has been a mixed blessing whose benefits have probably outweighed its costs in the short-run, although the benefits/costs balance could be tipped the other way in the long-run if appropriate measures are not taken to check it. Barring unforseen marked shifts in the Saudi demand for foreign labor, it is not expected that the flow of Yemeni workers across the border will increase at the rates of a few years ago. In any case, manpower planners in Yemen must take the anticipated level of continued Yemeni migration into consideration as well as its long-run socioeconomic effects.

5.05 In the present chapter, an attempt is made to relate these and other considerations that shape the labor market in an effort to assess the nature of the balance between the supply of and demand for Yemeni labor at present and over the next five years. Such an exercise is intended to provide the authorities with a preliminary basis for manpower planning that could possibly be further developed for use in the country's forthcoming Second Five-Year Plan (1982-86). However, it must be emphasized from the onset that the manpower projections that are reviewed in this chapter are

indicative of broad orders of magnitude of some possible alternatives. They should certainly not be viewed as a blueprint for a manpower plan since the data base on which they build is inadequate and, therefore, a number of assumptions have been employed that require further substantiation.

Manpower Planning in the First Five-Year Plan (FFYP)

5.06 Volume VII of the FFYP was devoted to manpower planning. It contained a very detailed assessment of manpower requirements for the plan period on a project-by-project basis for the key sectors. (A summary, by sector, of these requirements is presented in Statistical Annex Table V.1). It then matched these requirements with the expected supply of indigenous labor and deduced the various needs for expatriates. In addition, the Plan included detailed schedules for training Yemenis--the numbers to be trained, type of training to be provided, its duration and location. (A summary, by sector, of proposed training is presented in Statistical Annex Table IV.13.)

5.07 Unfortunately, the valuable work in manpower planning that was started for the FFYP has not been kept up. The mission had hoped that follow-up reports on plan implementation would provide considerable insight into the manner in which the planning of manpower development has been responding to the country's needs and would thus serve as a point of departure for an assessment of the current manpower situation. It turned out, however, that other than the Ministry of Agriculture, no other agency has reported to CPO on the manpower side of plan implementation. This is indeed unfortunate because it negates much of the effort that went into designing the FFYP to begin with, and it compounds the efforts that are now required to design the manpower component of the SFYP. In this regard, it is hoped that the "Planning, Monitoring and Statistics" units that have been proposed by CPO to be established in the various line ministries would devote some effort in this direction and would provide the proposed manpower planning unit within CPO with the valuable follow-up information that is essential for the continuity of the planning exercise.

5.08 As mentioned in Chapter IV (paras. 4.34-4.36 and 4.47-4.48), the Ministry of Agriculture's training program has been producing a considerable number of trained workers although it appears that many do not go back to their jobs following the completion of their training. Statistical Annex Table V.2 compares the actual to the planned number of trainees for the third year of the FFYP. In terms of numbers, the record is very encouraging although a greater effort is needed to attract and keep a larger proportion of those receiving training.

Expatriate Workers as Indicators of Manpower Requirements

5.09 Information on expatriate workers in YAR is very useful for purposes of manpower planning. A knowledge of the numbers involved and their occupational and sectoral distribution provides a de facto indicator of

some of the key requirements for Yemeni labor. In a sense, manpower planning in YAR must meet the dual objective of replacing expatriates, especially in key government positions, as well as meeting the needs of further economic growth in the long-run.

5.10 As mentioned in Chapter II (para. 2.21), information on expatriate workers and their occupational and sectoral distribution is scattered, sometimes inconsistent, and probably incomplete. The tentative picture the mission has been able to piece together points to a total that is close to 17,000 expatriates in 1979/80 (see Statistical Annex Table II.12). Of those, around 10,000 are in the private sector, 6,000 in the public sector, and close to a thousand in the mixed sector. Moreover, the bulk of the public sector expatriate employees are to be found in education and health. Non-Yemeni teachers at the pre-university levels come to around 5,500 (Statistical Annex Table IV.5) and at least a hundred more are at the University of Sana'a. In addition, more than 800 expatriates are employed in the health sector in various occupational categories (Statistical Annex Table II.15). Thus, a total of some 6,400 out of 17,000 (i.e., 38 percent) are in the education and health fields. 1/ Of the 10,500 remaining, more than 4,000 are Indians and Pakistains. Most of those are probably employed by the large contracting firms as unskilled or semi-skilled laborers. The remaining 6,000 or so which are primarily in the private and mixed sectors probably span the whole skill spectrum from engineers and high level technicians to middle and lower level skilled occupations mainly in services. As indicated earlier, these numbers probably exclude expatriate experts that are attached to technical assistance programs of the various aid donors operating in YAR.

5.11 If this information on expatriates is improved by making it more complete, consistent and detailed, it should prove very useful for manpower planners in YAR. In the meantime, despite the shortcomings of what is available, it is evident that YAR should devote a concerted effort, as it is already doing, to produce teachers and health personnel. A more complete analysis of expatriate employment would most probably show that it might be an appropriate component of manpower policy to aim at replacing a portion of expatriates with Yemenis at the lower to middle level skill categories over the coming 5-10 years, but that reliance on higher skilled expatriates might increase as the country moves into more advanced stages of development. Naturally, a more complete manpower policy would have to address the requirements for Yemeni labor not only to meet such replacement demands, but also the demand due to domestic economic growth as well as the foreign demand for Yemeni labor. In the section that follows, an attempt is made to give a preliminary version of such a more balanced approach.

1/ That 6,400 expatriates are recorded in the education and health sectors alone indicates that the 6,500 estimate for total expatriate employment in the public sector is most likely understated.

B. Projections of Manpower Demand and Supply

5.12 In this section, an attempt is made to project requirements of Yemeni labor for 1985 and to match these requirements with projected supply. The method used starts with 1975 as a base and makes two forecasts: one for 1980 and another for 1985. It essentially starts with the 1975 structure of employment and projects manpower requirements for 1980 and 1985 on the basis of expected growth of sectoral value added and labor productivity. It then projects manpower supply on the basis of the 1975 demographic structure and expected flows through the education/training system and changes in the demographic and labor force-related parameters. The expected demand and supply are matched and the results, in terms of shortfalls or surpluses by broad occupational categories, are established. 1/

Estimates of 1980 Employment

5.13 Estimates of demand, supply and manpower shortages/supluses in 1980 in each occupational category are shown in Statistical Annex Table V.7. In arriving at these estimates, likely growth in value added per worker and the official estimates of growth in GDP in each sector have been used, and migration of Yemeni manpower is assumed to have stabilized at the 1975 levels. This is viewed as the "most likely scenario" for 1980, and is confirmed by at least two observations that the mission has been able to make. First, this estimate shows a surplus of unskilled workers in 1980 which is in accordance with the information obtained by the mission; and second, it shows a total deficit of Yemeni workers of around 30,000 in 1980. This deficit is presumably filled by expatriates since the 1980 "projection" should be consistent with actual information on employment for this year. In fact, estimates of expatriates working in YAR in 1980 place them at at least 17 thousand, but most likely more--say around 20-25 thousands--(See para. 2.21). This leaves between 5 to 10 thousand as an outstanding shortfall. But since the net shortfall/surplus figures are obtained as residuals, they necessarily include errors of measurement and estimation. Thus, this 5 to 10 thousand, out of an estimated total employment of around 1.3 million in 1980 can easily be attributed to statistical error.

5.14 Estimates of shortages/supluses in each occupational category under this mostly likely scenario for the 1975-80 period are shown in Table 5.1. The table shows that a considerable demand is indicated for the further expansion of literacy programs, preferably combined with job training since the greatest shortfall, in absolute terms, is for the semi-skilled category for which such literacy and job skills training are required. Shortfalls at the higher skill levels are also indicated,

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1/ A more detailed discussion of the methodlogy used is presented in Annex V.1.

because both their present stock and anticipated supply in the near future are limited. However, before attempting to compare the relative severity of shortfalls across occupational categories, projections of possible scenarios for the manpower situation in 1985 are presented and a comparative analysis of such shortfalls for both 1980 and 1985 is presented subsequently.

Table 5.1: ESTIMATED SHORTFALL (-)/SURPLUS (+) OF YEMENI MANPOWER BY OCCUPATIONS DURING 1975-80 PERIOD

(in thousands)

	Occupations	Shortfall/Suplus
A1	Professional occupations presumably requiring a science/math-based university degree	-1.3
A2	Professional occupations presumably requiring an arts based university degree	-2.1
B1	Subprofessional and technician occupations presumably requiring 1 to 3 years post-secondary science/math-based education	-5.8
B2	Subprofessional occupations presumably requiring 1 to 3 years post-secondary arts-based education	-0.7
C	Skilled and intermediate skilled office occupations presumably requiring 9 to 12 years of general education plus job training	-34.4
D	Skilled and intermediate skilled manual occupations presumably requiring 5 to 10 years of general education plus vocational and/or technical education	-26.7
E	Semi-skilled occupations presumably requiring functional literacy plus job training	-56.5
F	Unskilled occupations presumably requiring no special education or training	98.9
TOTAL		-28.6

Source: Statistical Annex Table V.7.

Manpower Estimates for 1985

5.15 Two estimates of manpower requirements in 1985 have been made using two possible sets of sectoral GDP growth rates, and two corresponding sets of sectoral productivity growth rates during the 1980-85 period. The higher and lower sets of growth rates define a range of possible outcomes. Thus, for example, these requirements could range between 1.45 to 1.54 million in 1985. Estimates of supply of trained Yemeni workers for each occupational category, demand due to attrition and due to growth, and the shortfall/suplus, for each of the two combinations of growth in output and productivity, for the 1980-85 period, are shown in Statistical Annex Table V.10 for the increasing migration alternative. Similar information under the alternative of migration stabilized at the 1975 level is shown in Statistical Annex Table V.9. Comparative information on incremental shortfall/suplus under all four scenarios is given in Table 5.2 (it should be reemphasized that the supply from ETS of trained manpower as well as demand due to attrition in Statistical Annex Tables V.7, V.9 and V.10 refer only to Yemenis).

5.16 The most likely scenario of the four presented in Table 5.2 for the 1980-85 period is the one represented by the second column which assumes higher growth in sectoral GDP and productivity (but lower than that experienced during the 1975-80 period), and migration stabilized at around the 1975 level. This scenario would result in a surplus of around 93 thousand workers in the unskilled category. Such a surplus could reach around 140 thousand for the stabilized migration scenario if economic growth is not as high (column 4 of the table). On the other hand, deficits in unskilled occupations would result under both the high and low growth alternatives if migration is assumed to increase.

5.17 It should be kept in mind that the total in each case is an algebraic sum which assumes that workers are interchangeable across professions, which is not always true. The reader is, therefore, cautioned not to use the total figure except with extreme care. What the totals do show, however, is that with prudent redirection of the flow of trainees and students, a near balance could possibly be achieved over the coming decade under the most likely scenario.

5.18 The projection for 1980-85 shows that major shortfalls are indicated, under all four scenarios, for three occupational categories: skilled office (C), skilled manual (D) and semi-skilled (E). Fortunately, these are also occupations where the supply should be relatively easier to increase. Also, under all four scenarios, small supluses, in relation to the incremental demand generated during 1980-85, are consistently shown in only two categories out of eight: (i) professionals, presumably requiring a university degree in arts (A2); and (ii) subprofessionals, presumably requiring 1 to 3 years post-secondary education (B2).

Table 5.2: ESTIMATED SHORTFALL(-)/SURPLUS (+) OF TRAINED YEMENI MANPOWER BY OCCUPATIONS IN 1985 (in thousands)

	High Growths in Output and Productivity		Low Growths in Output and Productivity	
	Migration Increasing	Migration Stabilized 1975 Levels	Migration Increasing	Migration Stabilized 1975 Levels
A1 Professional occupations presumably requiring a science/ math-based university degree	-1.2	-1.2	-0.7	-0.7
A2 Professional occupations presumably requiring an arts-based university degree	0.8	0.8	2.6	2.6
B1 Subprofessional occupations presumably requiring 1 to 3 years post-secondary science/ math-based education	-5.0	-5.0	-3.5	-3.5
B2 Subprofessional occupations presumably requiring 1 to 3 years post-secondary arts-based education	0.7	0.7	1.3	1.3
C Skilled and intermediate skilled office occupations presumably requiring 9 to 12 years of general education plus job training	-24.3	-23.9	-14.0	-13.6
D Skilled and intermediate skilled office occupations presumably requiring 5 to 10 years of general education plus vocational and/or technical education	-26.1	-25.8	-18.0	-17.7
E Semi-skilled occupations presumably requiring functional literacy plus job training	-45.3	-36.7	-23.3	-14.7
F Unskilled occupations presumably requiring no special education	-63.3	92.6	-14.4	141.2
TOTAL	-163.6	1.3	-70.4	94.5
Estimated total employment in 1985:	1.54 million		1.45 million	

Source: Statistical Annex Tables V.9 and V.10.

5.19 While the incremental supply of trained manpower exceeds the incremental demand for these two occupational categories in the 1980-85 period, thereby creating a surplus for that period, the cumulative balance in 1985 is still likely to show a shortfall of 1,300 in the A2 category, and to be in equilibrium in the B2 category, due to the shortfalls experienced earlier. However, if this trend is not reversed, there are likely to be absolute supluses in these two categories soon after 1985, and the employment opportunities for those pursuing general education would become more limited. At the same time, substantial supply shortfalls are likely to persist in the science-related professional (A1) and subprofessional (B1) categories, as well as the skilled office (C) occupations. The message to both planners and young Yemenis is clear: at the post-secondary level, some of those who plan to continue their education in arts-related fields should be dissuaded and instead encouraged to go into science. Furthermore, the expansion of arts-related education at the university level should be given low priority at this stage.

Assignment of Priorities

5.20 The preceeding paragraphs attempted to paint with a broad brush some possible scenarios for the manpower situation as it appears to have developed in 1980 and as it could possibly develop further to 1985. A summary of cumulative shortages/surpluses implied by the most likely scenario for 1980 and 1985 is reproduced in Table 5.3 below for further discussion.

Table 5.3: MANPOWER BALANCES FOR THE MOST LIKELY SCENARIO (1980, 1985)

Occupation Group		Cumulative Shortfalls (-)/Surpluses (+) (in thousands)		% of Requirements	
		1980	1985	1980	1985
A1	Professional scientific	-1.3	-2.5	-54	-58
A2	Other professionals	-2.1	-1.3	-20	-8
B1	Technicians	-5.8	-10.8	-72	-78
B2	Other subprofessionals	-0.7	0	-20	-0
C	Skilled office	-34.4	-58.3	-50	-61.2
D	Skilled manual	-26.7	-52.5	-60	-74.7
E	Semi-skilled	-56.5	-93.2	-46	-48
F	Unskilled	+98.9	+191.5	+9	+16.7

5.21 The last two columns of this table depict these cumulative shortages/surpluses as a percentage of total requirements. Reading down one of these colums gives some indication, a purely quantitative one, of the relative severity of these shortages at a point in time. Reading across these two columns gives an indication of the evolution of a particular shortage/suplus over time. The latter comparison is an approximate measure of how the ETS is responsing to the country's requirements, while the former gives some rough guidelines as to what still needs to be done.

5.22 An immediate conclusion of the horizontal comparison is that there appears to be some promise for substantial improvement only in the arts-based professional (A2) and subprofessional (B2) occupational categories. For all other categories, the situation is projected as deteriorating from an existing position of severe shortages.

5.23 The message to manpower planners that seems to be confirmed by Table 5.3 is that YAR should continue with efforts to increase the efficiency of flows through its ETS while simultaneously attempting to divert those that go through part of the formal education system into technical/vocational training programs (in-service and others). This is being done to some extent as discussed in Chapter IV, and such efforts should continue to be a focal point for manpower development policy. Another important conclusion is the high return that would come out of literacy programs coupled with some job training in order to transform supluses of unskilled (F) supply flows to meet the projected deficits of semi-skilled workers.

5.24 Some supply transformation of this kind, from the unskilled (F) category to semi-skilled, skilled manual and skilled office (E, D and C) categories, may already be taking place as a by-product of migration. In 1975, there were 260,000 Yemenis estimated to be working in neighboring Gulf countries (Table 1.2). Their average stay abroad was estimated to be two years. Under the assumption of stabilized migration, this would imply a turnover of 0.75 million workers during a five-year period. Of course, many (say about a half) of this turnover would be re-migrants and not necessarily new migrants. Therefore, during a five-year period over 300,000 workers would come back to YAR to settle down after having been to the other Gulf countries for work. If one fourth of these acquired skills abroad, then 75,000 of those appearing as a surplus in the unskilled category in the estimates of incremental demand/supply for 1975-80 and 1980-85 (Tables 5.1 and 5.2), might actually be qualified to work in categories other than F. It is possible that of these 75,000, as much as 50,000 could fit into E occupations, 20,000 in D occupations and 5,000 in C occupations. 1/

1/ Mostly persons who acquired capital abroad to become entrepreneurs or working proprietors on their return home.

5.25 The distribution of employment in 1975, 1980 and 1985 by occupational category under the most likely scenario is shown in Statistical Annex Table V.11. Total employment of 1.06 million in 1975 is estimated to have risen to 1.3 million in 1980, and to increase further to 1.5 million in 1985. Also shown are the demands due to growth during the 1975-80 and 1980-85 periods In relation to the 1975 stock, this demand is largest among the A1, the B1, the B2 and the E occupations. This is due largely to the small numbers representing these occupations in the 1975 stock. The proportion of the unskilled occupations in the total employment is estimated to decrease from 89 percent in 1975 to 80 percent in 1980, and further to 74 percent in 1985.

5.26 Sectoral employment in 1975, 1980 and 1985 is shown in Statistical Annex Table V.12 along with the estimated growth during the two intervals: 1975-80 and 1980-85. Largest growth in employment, in absolute terms, during the entire 1975-85 period is in four sectors: construction, agriculture, trade and services. The sectors showing the least growth are mining and quarrying, utilities, finance and real estate.

5.27 Cumulative shortfalls/surpluses in various occupational categories through 1985 under the most likely scenario are shown in Table 5.4. Among the higher level occupations, the largest shortfall is expected to be among subprofessionals (technical) (B1) and the next largest among the scientific/ professional (A1) occupations, while balance is expected at the subprofessional (non-science) (B2) level. At the lower end of the skill spectrum, the largest shortfall is expected in the semi-skilled (E) category, followed by skilled manual (D) and then by skilled office (C). As indicated earlier, a program of teaching literacy-numeracy skills along with prevocational and/or vocational skills should be initiated to augment the contribution of migration to the transformation of F category manpower to E, D and C categories. To be sure, the gaps would not be entirely closed for some time.

C. Issues and Recommendations

5.28 A number of general observations emerge from the analysis presented in this chapter and captured in Tables 5.1 through 5.4:

(i) unless increases in migration resume, a surplus of unskilled workers (reaching close to 200,000 on a cumulative basis by 1985) could be expected;

(ii) all other occupational categories show deficits in 1980 although during the coming five years the ETS is expected to produce enough arts-oriented professionals and subprofessionals to significantly narrow down the gaps in these categories;

(iii) in absolute numbers, the shortfalls are expected to be considerably larger at lower levels of skill;

Table 5.4: ESTIMATED TOTAL SHORTFALL (-)/SURPLUS (+) OF TRAINED YEMENI MANPOWER BY OCCUPATIONS IN 1985, UNDER THE MOST LIKELY SCENARIO 1/

		Shortfall (-)/ Surplus (+) Estimated to Have Occurred During 1975-80 (1)	Shortfall (-)/ Surplus (+) Estimated to Have Occurred During 1980-85 (2)	Total Shortfall (-)/ Surplus (+) Estimated for 1985 (3)=(1)+(2)
A1	Professional Occupations Presumably Requiring a Science/Math. Based University Degree	-1.3	-1.2	-2.5
A2	Professional Occupations Presumably Requiring an Arts Based University Degree	-2.1	0.8	-1.3
B1	Subprofessional and Technician Occupations Presumably Requiring 1 to 3 Years Post-Secondary Science/Math. Based Education	-5.8	-5.0	-10.8
B2	Subprofessional Occupations Presumably Requiring 1 to 3 Years Post-Seconday Arts Based Education	-0.7	0.7	0.0
C	Skilled and Intermediate Skilled Office Occupations Presumably Requiring 9 to 12 Year of General Education Plus Job Training	-34.4	-23.9	-58.3
D	Skilled and Intermediate Skilled Manual Occupations Presumably Requiring 5 to 10 Years of General Education Plus Vocational and/or Technicial Education	-26.7	-25.8	-62.5
E	Semi-skilled Occupations Presumably Requiring Functional Literacy Plus Job Training	-56.5	-36.7	-93.2
F	Unskilled Occupations Presumably Requiring No Special Education or Training	98.9	92.6	191.5
	TOTAL	-28.6	1.3	-27.3

1/ For 1980, likely growth rates in productivity; official estimates of growth rates in sectoral GDP during 1975-80. For 1985, high rates of growth in sectoral GDP and productivity during 1980-85. Migration of Yemeni workers stablized at 1975 levels.

Source: Statistical Annex Tables 5.1 and 5.2.

(iv) in relation to requirements, on the other hand, the shortages of science-based qualifications would be as severe as the lower-skilled manual and office occupations; and finally

(v) although the growth of the education/training system has been remarkable, the requirements of sustained high economic growth translate into even larger shortages that could be expected over the 1980-85 period (compared to 1975-80) in the main deficit categories (Table 5.3). This, despite the fact that the most likely scenario on which these observations are based assumes a respectable rate of growth of labor productivity.

The following paragraphs suggest some measures that could be considered in attempts to deal with this likely situation.

5.29 Since the largest cumulative shortfall that could be expected over the next five years is in semi-skilled occupations requiring some literacy plus limited job training, and since a substantial surplus of illiterate and unskilled workers could be expected to emerge during the same period, it would seem natural and judicious to encourage and expand the literacy and job training programs that are carried out by DTCs, MOE and other agencies. A concerted effort to increase the efficiency of such programs would have significant returns from the standpoint of the economy as a whole. In this context, particular attention should be given to increase female enrollment in these programs especially in rural areas where women are already active participants in the labor force. Children should also be encouraged to remain in primary school by relaxing the existing rigid attitude toward passing courses; otherwise dropouts tend to revert to illiteracy.

5.30 At present, there are no legal requirments for employers to accept any apprentice workers for training nor are there any incentives for them to do so. The Government may wish to consider legislation requiring establishments over a certain size to hire a certain percentage of their workforce as apprentice workers. This could be a condition for the issuance or renewal of business permits. In addition, as the tax system is built up it would be desirable to keep in mind the possibility of introducing tax incentives that would encourage employers to train workers.

5.31 During the 1980-85 period, a surplus in B2 occupations (one to three years of post-secondary education), relative to incremental job opportunities for that period, is expected and a shortfall in C occupations (preparatory or secondary completion). In the absence of corrective action, these imbalances are likely to become severe after 1985. For several years after 1985 when the B2 supply would likely continue to exceed cumulative net demands, some of the workers qualified for the B2 occupations would have to drop down to find employment in C occupations. For a long-term solution of this growing problem, however, a system of university

entrance examination would screen out those students who are not scholastically prepared to complete a university education. This would conserve the limited financial resources available for human resource development, as well as meeting the shortfall at the C level of occupations.

5.32 It might be tempting to mount a major effort at closing the gap at the highest occupational levels. However, higher education programs are not only very expensive to initiate, but also difficult to terminate when the supply from these institutions starts exceeding the demand for that level of education. Outputs from existing university programs and scholarships abroad are projected to increase substantially by 1985. Output of scientific professionals is projected to increase from an annual average of about 80 during 1976-80 to approximately 160 during 1981-85. For other (arts-based) professionals, the supply is projected to increase from an annual average of 700 during 1976-80 to 1,500 during 1981-85. The present pace of university output growth will be likely to result in a net demand/supply balance by the late 1980s. Unless significant steps are taken to redirect the flows away from arts toward science-based curricula, however, there may be continued shortages in science-based graduates alongside of a surplus of arts-based graduates.

5.33 More serious is the projected shortfall of the B1 occupational level. The demand for this set of highly specialized occupations should be met primarily through project-related training. Major efforts should be directed at locating the appropriate institutions and securing training for the needed workers at these levels. In selected cases, where the demand for particular clusters of technician occupations justifies, post-secondary technician training programs should be expanded. The Government could, therefore, consider rechannelling some funds earmarked for the expansion of university education to prevocational and vocational training at the post-primary level; technical education at the post-preparatory level, and technician training/education at the post-secondary level.

MANPOWER DEVELOPMENT

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ANNEXES

ANNEX I.1

AN ESTIMATE OF THE YAR SHORT TERM
MIGRANT POPULATION ON THE BASIS OF AVERAGE REMITTANCES
(1975)

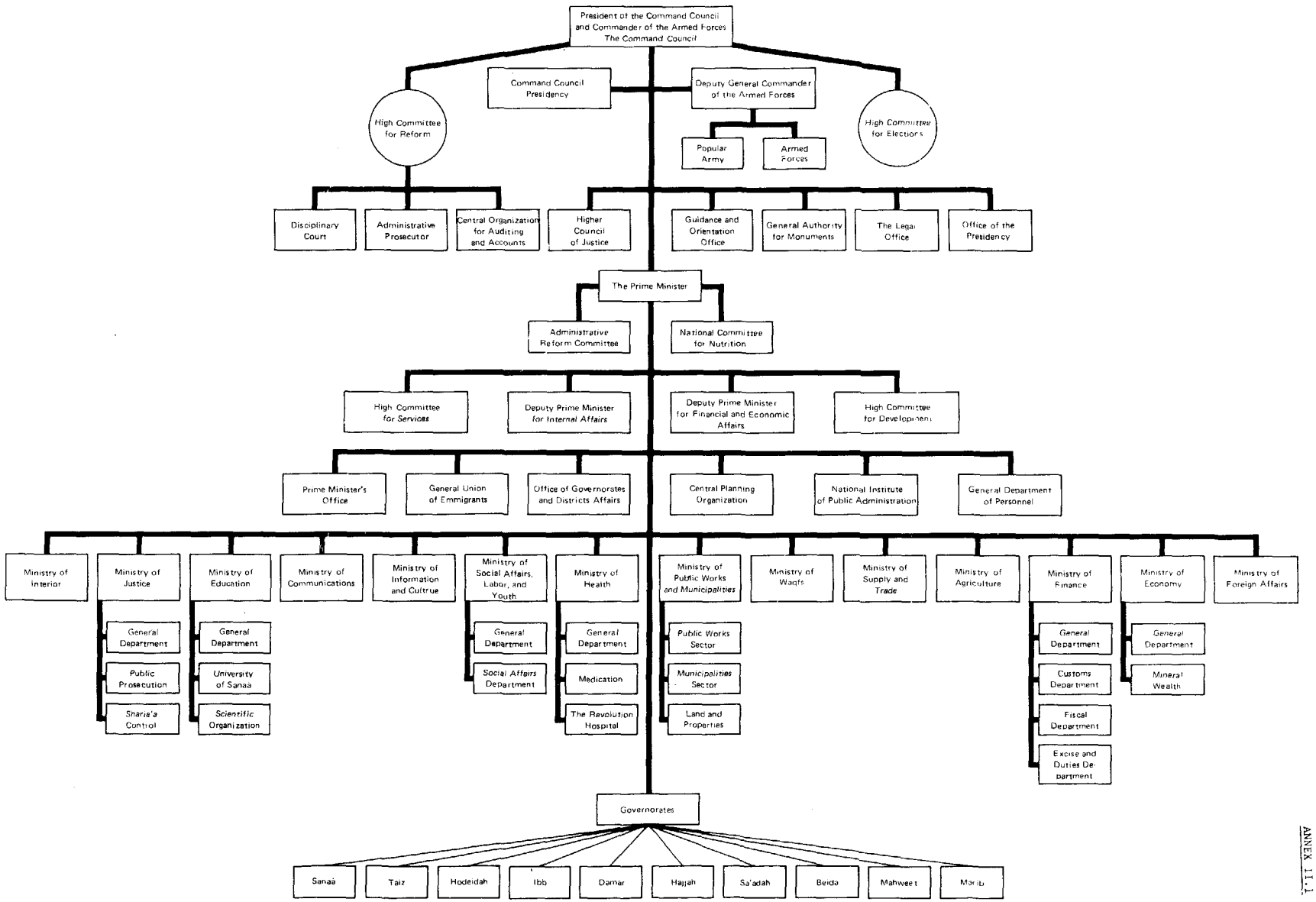
		High Variant 1/	Low Variant 2/
Assume:	Daily Wage Rate (YRls)	40	50
	Average number of days employed per year	250	300
Therefore:	Yearly income (YRls/worker)	10,000	15,000
Assume:	Average savings rate (%)	40	50
Therefore:	Yearly savings (YRls/worker)	4,000	7,500
Assume:	Average percentage of savings remitted (%)	75	90
Therefore:	Yearly remittances (YRls/worker)	3,000	6,750
Total remittances in 1975 3/ (YRls million)		1,688	1,688
Therefore:	Estimate of migrant workers (1975)	565,000	250,000
Assume:	Average family size	1.5	1.25
Therefore:	Estimate of migrant population (1975)	845,000	315,000

1/ "High" in the sense of yielding a large migrant population.
2/ "Low" in the sense of yielding a small migrant population.
3/ 1975 Level = 1/2 (1974/75 level) + 1/2 (1975/76 level).

Source: Mission estimates.

NOTE: These estimates do not take account of remittances that are not recorded as such and, therefore, may underestimate the size of the migrant population estimate in the above manner.

GENERAL ORGANIZATIONAL STRUCTURE OF THE STATE'S ADMINISTRATIVE BODY SEPTEMBER 1977



Source: General Department of Personnel

World Bank - 21962

ANNEX II.1

MANPOWER PROJECTIONS: METHODOLOGY 1/

V.1 Using the actual sectoral employment of the 1975 census and the sectoral output for that year, 2/ value added per worker is computed for each sector of the economy. Official figures on sectoral output in subsequent years provided the sectoral GDP growth rates for the 1975-80 period.3/ The estimate of GDP in 1980 by sector is thus arrived at. A likely scenario of growth in output per worker is used, where the growth rates for various sectors are estimated to range from 2.0 to 4.0 percent per annum (Statistical Annex, Table II.23). Value added per worker in 1980 is computed using the 1975 values derived above and these growth rates, for each sector. Using the value added per worker and the estimated sectoral GDP for 1980, an estimate of the likely employment in 1980 is derived.

V.2 In order to obtain the distribution of occupations which are based upon the education/training attainment expected of a worker, 1975 employment data are analyzed. As a first step, traditional employment in 1975 is classified according to 1 digit ISCO (Statistical Annex Table V.3). Next, taking advantage of the extensive work of Sinclair and Socknat 4/ in classifying the modern sector employment (Public and Private) in 1975 according to occupations related to education/training attainment level, the traditional employment obtained above is added to these occupational categories (Statistical Annex Table V.4). As a final step, public and traditional employment in these occupational categories is redistributed among the nine sectors of economic activity, similar sector/occupation distribution for the modern private sector employment already being available in Sinclair and Socknat. 5/ Occupation distribution related to the education/training attainment level for total employment (public, modern private and traditional) in each sector is thus arrived at (Statistical Annex Table V.5). Parenthetically, a more direct approach at the above classification would use 1975 census data classified according to the 3-digit ISCO and the sector of employment. These categories could then

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1/ This annex explains how the 1980 projections were made. The procedure is almost identifcal for the 1985 projections.

2/ Average of the official 1974/75 and 1975/76 figures.

3/ These are currently being revised and the revisions will most likely alter the results of this exercise.

4/ Sinclair and Socknat, op.cit.

5/ Ibid., Table IV.25.

be regrouped according to the presumed education/training attainment to arrive at the above sector/occupation distribution. Unfortunately, the census data so classified are not available at this time. However, it would be useful to take advantage of that information, when it becomes available, to recompute the sector/occupation distribution of the 1975 employment, as a refinement of the present exercise.

V.3 The occupational distribution obtained for 1975 employment in Statistical Annex Table V.5 is modified to account for increases in output per worker in each sector and to obtain a sector/occupation matrix for 1980 under the likely productivity growth assumption. In so doing, due account is taken of the experience with economies at similar levels of development in the region and the country comparison data showing the relationship between the occupational structure and output per worker. 1/ Estimated occupation distributions for each sector in 1975, 1980 and 1985 are shown in Statistical Annex V.6.

V.4 Projections of manpower requirements for 1980 are then made, using: output per worker in each sector in 1975 and 1980; attrition rates for each occupational category to account for death and retirement only (migration assumed to have stabilized at the 1975 levels and thus not resulting in any net loss of manpower); occupation distributions in 1975 and 1980; and the estimated sectoral GDP for 1980. At the same time, simulations of the education and training system are made to obtain the likely supply of Yemeni workers qualified to assume various occupations, i.e., for each of the five intervening years (1976, 1977, 1978, 1979 and 1980) graduates and dropouts from various courses, including those who would never enter school, were collected and grouped in accordance with the education/training requirements of various occupations, and the sex/education-attainment-specific labor force participation rates applied. Supply of the Yemeni workers from the eduction/training system is then compared with the demand (due to attrition, and due to growth in sectoral output) for their services. Shortfalls in the supply, or surplus of workers in various occupational categories are computed. Supply, demand and shortfalls in each occupational categories, are shown in Table V.7. Stable migration at the 1975 level is considered the more likely alternative in view of recent trends (see para. 3.14).

1/ These assumptions employ the observation by Horowitz, Zymelman and Herrnstadt that higher productivity is normally associated with a shift towards the higher level occupations. See: N.A. Horowitz, M. Zymelman and I. Herrnstadt, Manpower Requirements for Planning: An International Comparison Approach; North Eastern University; (Boston, 1966).

V.5 For the projection of manpower requirements to 1985, two alternative sets of sectoral GDP growth rates with two corresponding productivity growth rates for the 1980-85 period have been used. Thus two alternative estimates of the manpower requirements in 1985 are derived using: (i) likely sectoral GDP and productivity growth (lower than those used for 1975-80 period); and (ii) lower sectoral GDP and productivity growth (Statistical Annex Table V.8). For each of the two sets of sectoral GDP and productivity growth estimates, two alternative sets of attrition rates have been used: one assumes increasing migration of Yemeni manpower; the other assumes migration stabilized at the 1975 level. Thus four sets of projections of manpower requirements in 1985 are made, as opposed to one for 1980 (Statistical Annex Tables V.9 and V.10). Demand for manpower due entirely to increased migration is shown as a separate column in Statistical Annex Table V.10.

V.6 Steps taken to obtain supply, demand and shortfalls in each occupation category for the 1980-85 period are similar to those taken for the 1975-80 period, except for one modification. The demand for workers has two components, as pointed out earlier: demand due to attrition, including migration, and demand due to growth. Since employment in 1980, included a significant number of expatriates, a separate column of Yemeni employment is cmputed to estimate the demand due to attrition (Statistical Annex Tables V.9 and V.10). To obtain this column, employment in 1975 is assumed to consist almost exclusively of the Yemenis, is increased by the amounts of supply from the ETS during 1976-80, and decreased by the loss due to attrition during the same period. Appropriate attrition rates can then be applied to this Yemeni stock in 1980 to obtain a more accurate estimate of demand for the Yemeni workers due to attrition in 1985. This step was not taken in the computations of the demand for employment in 1980 because, as mentioned above, the participation of the expatriates in the 1975 employment was considered to be negligible.

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STATISTICAL ANNEX

STATISTICAL ANNEX

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Table I.1: PRELIMINARY RESULTS OF POPULATION CENSUS (February 1975) - Tentative

Resident Population	5,258,530
Enumerated	4,540,230
Underenumeration of households	423,800
Uncovered areas	294,500
Population Outside Country	1,234,000
Short-term migrants	740,400
Long-term migrants	493,600
TOTAL	6,492,530

Source: Central Planning Organization, The Housing and Population Census - February 1975 Preliminary Results

Table I.2: ESTIMATES BY THE SWISS TEAM OF INHABITANTS AND SHORT-TERM EMIGRANTS OF YAR IN FEBRUARY 1975

	Males	Females	Total	Sex Ratio
Resident Population	2,256,276	2,469,766	4,726,042	91.4
Population enumerated by the census	2,163,166	2,377,133	4,540,299	91.0
Population missed in areas enumerated by the census and not enumerated by the census	93,110	92,633	185,743	100.5
YAR citizens living temporarily abroad	323,952	97,228	421,180	333.2
Total	2,580,228	2,566,994	5,147,222	100.5

Source: Swiss Technical Cooperation Service, Op. Cit., adjusted to include most recent census figures.

Table I.3: ESTIMATE OF POPULATION DISTRIBUTION BY AGE AND SEX OF RECORDED YAR CITIZENS IN SAUDI ARABIA IN FEBRUARY 1975

Age	Males		Females		Total	
	%	Number	%	Number	%	Number
0-4	4.9	15,388	17.7	16,921	7.88	32,309
5-9	4.4	13,818	14.9	14,244	6.85	28,062
10-14	5.0	15,702	9.9	9,464	6.14	25,166
15-19	15.6	48,991	9.4	8,986	14.15	57,977
20-24	22.1	69,405	8.1	7,743	18.83	77,148
25-29	18.3	57,471	8.4	8,030	15.98	65,501
30-34	10.7	33,603	7.2	6,883	9.88	40,486
35-39	7.4	23,239	5.3	5,067	6.90	28,306
40-44	4.6	14,446	5.0	4,780	4.69	19,226
45-49	2.3	7,223	2.9	2,772	2.43	9,995
50-54	1.9	5,967	3.7	3,537	2.32	9,504
55-59	0.7	2,198	1.4	1,338	0.86	3,536
60-64	0.9	2,826	2.9	2,772	1.43	5,891
65+	1.1	3,454	3.2	3,065	1.59	6,519
n.s.	0.1	320	-	-	-	320
Total	100.0	314,051	100.0	95,602	100.0	409,653

Source: Based on: Kingdom of Saudi Arabia, Ministry of Finance and National Economy, Central Department of Statistics, Population Census, 1974 (Dammam, 1974) and arrivals and departures statistics.

Table I.4: POPULATION DISTRIBUTION BY AGE AND SEX OF RECORDED YAR CITIZENS IN KUWAIT IN FEBRUARY 1975

Age	Males		Females		Total	
	%	Number	%	Number	%	Number
0- 4	9.0	329	31.4	323	13.9	652
5- 9	6.4	236	15.7	162	8.49	398
10-14	3.4	120	9.7	100	4.69	220
15-19	12.7	464	5.8	60	11.18	524
20-24	13.7	500	12.2	125	13.34	625
25-29	19.2	700	12.2	126	17.63	826
30-34	14.7	539	5.2	54	12.66	593
35-39	10.9	400	4.6	47	9.54	447
40-44	8.2	300	1.2	12	6.66	312
45-49	1.4	50	1.0	10	1.28	60
50-54	0.4	16	1.0	10	0.55	26
55-59	-	-	-	-	-	-
60-64	-	-	-	-	-	-
65+	-	-	-	-	-	-
n.s.						
Total	100.0	3,654	100.0	1,029	100.0	4,683

Source: Kuwait, Ministry of Planning, Population Census, 1975 (Kuwait, 1976).

Table I.5: POPULATION DISTRIBUTION BY AGE AND SEX OF RECORDED YAR CITIZENS IN UAE IN FEBRUARY 1975

Age	Males		Females		Total	
	%	Number	%	Number	%	Number
0- 4	1.6	44	14.8	38	2.78	82
5- 9	1.5	40	10.0	32	2.44	72
10-14	1.1	31	8.0	14	1.52	45
15-19	9.3	249	16.0	41	9.85	290
20-24	25.8	693	20.0	51	25.27	744
25-29	27.0	725	10.4	27	25.54	752
30-34	14.5	390	10.4	27	14.16	417
35-39	10.2	274	4.6	12	9.71	286
40-44	4.7	126	3.5	9	4.58	135
45-49	2.5	67	2.3	6	2.47	73
50-54	1.5	40	-	-	1.35	40
55-59	0.3	8	-	-	0.27	8
60-64	-	-	-	-	-	-
65+	-	-	-	-	-	-
n.s.	-	-	-	-	-	-
Total	100.0	2,687	100.0	257	100.0	2,944

Source: Ministry of Planning, Population Census 1975 (Abu Dhabi, 1976).

Table I.6: ESTIMATE OF POPULATION DISTRIBUTION BY AGE AND SEX OF RECORDED YAR CITIZENS IN BAHRAIN IN FEBRUARY 1975

Age	Males		Females		Total	
	% 1/	Number	% 1/	Number	%	Number
0- 4	1.6	29	14.8	26	2.75	55
5- 9	1.5	27	10.0	17	2.2	44
10-14	1.1	20	8.0	14	1.7	34
15-19	9.3	170	16.0	28	9.9	198
20-24	25.08	471	20.0	35	25.3	506
25-29	27.0	493	10.4	18	25.5	511
30-34	14.5	265	10.4	18	14.15	283
35-39	10.2	186	4.6	8	9.7	194
40-44	4.7	86	3.5	6	4.6	92
45-49	2.5	46	2.3	4	2.6	52
50-54	1.5	27	-	-	1.35	27
55-59	0.3	6	-	-	0.3	6
Total	100.0	1,826	100.0	174	100.0	2,000

1/ Distribution based on YAR population in UAE, 1975

Table I.7: ESTIMATE OF POPULATION DISTRIBUTION BY AGE AND SEX OF RECORDED YAR CITIZENS IN QATAR IN FEBRUARY 1975

Age	Males		Females		Total	
	% 1/	Number	% 1/	Number	% 1/	Number
0- 4	1.6	28	14.8	24	2.73	52
5- 9	1.5	26	10.0	17	2.26	43
10-14	1.1	19	8.0	13	1.68	32
15-19	9.3	161	16.0	26	9.84	187
20-24	25.8	447	20.0	33	25.26	480
25-29	27.0	468	10.4	17	25.52	485
30-34	14.5	251	10.4	17	14.10	268
35-39	10.2	177	4.6	8	9.73	185
40-44	4.7	81	3.5	6	4.57	87
45-49	2.5	43	2.3	5	2.52	48
50-54	1.5	26	-	-	1.36	26
55-59	0.3	7	-	-	0.36	7
Total	100.0	1,734	100.0	166	100.0	1,900

1/ Age distribution assumed to be the same as for the United Arab Emirates.

Source: Absolute numbers based on J.S. Birks and C.A. Sinclair, International Migration and Development in the Arab Region (Geneva, ILO) Table 14, p. 138.

Table I.8: SUMMARY TABLE OF RECORDED MALE YAR CITIZENS RESIDING ABROAD BY COUNTRY OF RESIDENCE IN FEBRUARY 1975

	Country of Residence					
Age	Saudi Arabia	Kuwait	United Arab Emirates	Bahrain	Qatar	Total
0- 4	15,388	329	44	29	28	15,818
5- 9	13,818	236	40	27	26	14,147
10-14	15,702	120	31	20	19	15,892
15-19	48,991	464	249	170	161	50,035
20-24	69,405	500	693	471	447	71,516
25-29	57,471	700	725	493	468	59,857
30-34	33,603	539	390	265	251	35,048
35-39	23,239	400	274	186	177	24,276
40-44	14,446	300	126	86	81	15,039
45-49	7,223	50	67	46	43	7,429
50-54	5,967	16	40	27	26	6,076
55-59	2,198	-	8	6	7	2,219
60-64	2,826	-	-	-	-	2,826
65+	3,454	-	-	-	-	3,454
n.s.	320	-	-	-	-	320
Total	314,051	3,654	2,687	1,826	1,734	323,952

Source: Tables I.3 - I.7.

Table I.9: SUMMARY TABLE OF RECORDED FEMALE YAR CITIZENS RESIDING ABROAD BY COUNTRY OF RESIDENCE IN FEBRUARY 1975

Age	Country of Residence					Total
	Saudi Arabia	Kuwait	United Arab Emirates	Bahrain	Qatar	
0- 4	16,921	323	38	26	24	17,332
5- 9	14,244	162	32	17	17	14,472
10-14	9,464	100	14	14	13	9,605
15-19	8,986	60	41	28	26	9,141
20-24	7,743	125	51	35	33	7,987
25-29	8,030	126	27	18	17	8,218
30-34	6,883	54	27	18	17	6,999
35-39	5,067	47	12	8	8	5,142
40-44	4,780	12	9	6	6	4,813
45-49	2,772	10	6	4	5	2,797
50-54	3,537	10	-	-	-	3,547
55-59	1,338	-	-	-	-	1,338
60-64	2,772	-	-	-	-	2,772
65+	3,065	-	-	-	-	3,065
n.s.	-	-	-	-	-	-
Total	95,602	1,029	257	174	166	97,228

Source: Tables I.3 - I.7.

Table I.10: ESTIMATION OF COMPOSITE YAR MALE POPULATION, FEBRUARY 1975

Age	Enumerated Resident Population	Recorded YAR Citizens Temporarily Living Abroad	Sub-Total	Smoothed Sub-Total Population	Pro-Rated Under-enumerated Population and Population in the Uncovered Areas	Total Population
0-4	392,947	15,818	409,538	514,091	75,708	589,799
5-9	432,284	14,147	447,275	374,505	55,149	429,654
10-14	281,036	15,892	297,490	281,964	41,522	323,486
15-19	153,427	50,035	203,847	204,638	30,135	234,773
20-24	101,488	71,516	173,331	172,154	25,351	197,505
25-29	120,335	59,857	180,533	167,552	24,673	192,225
30-34	113,706	35,048	149,035	151,653	22,332	173,985
35-39	117,589	24,276	142,133	136,077	20,038	156,115
40-44	104,442	15,039	119,707	127,937	18,839	146,776
45-49	75,741	7,429	83,327	90,282	13,294	103,576
50-54	82,106	6,076	88,349	73,339	10,799	84,138
55-59	39,915	2,219	42,214	55,912	8,233	64,145
60-64	59,834	2,826	62,779	47,658	7,018	54,676
65-69	24,396	1,589	26,034	34,167	5,066	39,233
70-74	28,641	1,865	30,564	28,676	4,257	32,933
75+	30,904	-	30,962	26,489	3,919	30,408
Not Stated	4,351	320	4,671	-	-	-
Total	2,163,142	323,952	2,487,094	2,487,094	366,333	2,853,427

Source: Mission Estimates

Table I.11: ESTIMATION OF COMPOSITE YAR FEMALE POPULATION, FEBRUARY 1975

Age	Enumerated Resident Population	Recorded YAR Citizens Temporarily Living Abroad	Sub-Total	Smoothed Sub-Total Population	Pro-Rated Under-enumerated Population and Population in the Uncovered Areas	Total Population
0-4	393,969	17,332	412,187	485,653	69,366	555,019
5-9	401,496	14,472	416,864	316,359	44,901	361,260
10-14	243,576	9,605	253,726	239,266	33,958	273,224
15-19	185,794	9,141	195,355	230,525	32,716	263,241
20-24	159,447	7,987	167,795	169,931	24,116	194,047
25-29	185,731	8,218	194,367	179,104	25,422	204,526
30-34	165,678	6,999	173,044	169,715	24,088	193,803
35-39	143,951	5,142	149,414	163,840	23,255	187,095
40-44	125,601	4,813	130,695	135,742	19,275	155,017
45-49	81,976	2,797	84,956	105,973	15,366	121,339
50-54	91,371	3,547	95,122	75,822	10,766	86,588
55-59	39,211	1,338	40,636	57,441	8,156	65,597
60-64	65,237	2,772	68,155	49,034	6,962	55,996
65-69	22,746	1,273	24,071	34,678	4,924	39,602
70-74	32,041	1,792	33,906	31,823	4,518	36,341
75+	33,995	-	34,068	29,429	4,178	33,607
Not Stated	5,294	-	5,294	-	-	-
Total	2,377,107	97,228	2,474,335	2,474,335	351,967	2,826,302

Source: Mission Estimates

Table I.12: AN ESTIMATE OF LONG TERM YAR EMIGRANTS, 1975

Country of Residence	Number	Distribution (Percent)
Ethiopia	50,000	20.0
South Yemen	40,000	16.0
Sudan	30,000	12.0
Egypt	15,000	6.0
Djibouti	10,000	4.0
Somalia	10,000	4.0
America	20,000	8.0
United Kingdom	12,000	4.8
France	8,000	3.2
Jordan	5,000	2.0
Other countries	50,000	20.0
Total	250,000	100.0

Source: Steffan, H., Population Movement (Zurich, n.d.) Table 2-29.

Table I.13: KEY MIGRATION INDICATORS BY GOVERNORATES, 1975

Governorate	Emigration Rate (Percent)	Sex Ratio (M/F)	Absent Married Males as % of Emigrants	Population (Inhabitants & Emigrants) Per Square Kilometer
Marib	3.1	95	33.7	1.9 (3.8) 1/
Hodeidah	4.7	103	17.1	53.8
Sana'a	4.7	95	41.0	43.1
Hajja	4.7	96	41.3	45.3
YAR Average	6.6	91	50.3	37.3 (47.3) 1/
Dhamar	6.7	87	56.4	56.7
Mahweit	6.8	86	60.8	90.0
Saadah	7.1	90	38.7	14.9
Taiz	7.8	84	69.0	91.9
Ibb	8.2	88	51.2	137.9
Beida	11.4	82	54.9	17.5

1/ Excluding districts of Khabb, Hazm Al Jawf and Marib in Marib Governorate; those three districts are sparsely inhabited and primarily desert.

Source: Swiss Team, Op. Cit., Table I.

Table I.14: ENUMERATED YAR RESIDENT POPULATION AND WORKFORCE BY AGE GROUP (OVER TEN YEARS), 1975

	Male			Female			Total		
Age	Population*	Workforce*	C.P.R. (per cent)	Population*	Workforce*	C.P.R. (per cent)	Population	Workforce	C.P.R. (per cent)
10-14	281,036	87,839	31.3	243,576	22,071	9.1	524,612	109,910	20.9
15-19	153,427	106,011	69.1	185,794	16,988	9.1	339,221	122,999	36.2
20-24	101,488	91,310	90.0	159,447	12,613	7.9	260,935	103,923	39.8
25-29	120,335	114,387	95.1	185,731	14,634	7.9	306,066	129,021	42.1
30-34	113,706	109,358	96.2	165,673	14,609	8.8	279,379	123,967	44.3
35-39	117,589	113,430	96.5	143,951	13,190	9.2	261,540	126,620	48.4
40-44	104,442	100,085	95.8	125,601	12,881	10.3	230,043	112,966	49.1
45-49	75,741	72,035	95.1	81,976	7,839	9.6	157,797	79,874	50.6
50-54	82,106	75,305	91.7	91,371	8,446	9.2	173,477	83,751	48.3
55-59	39,915	35,263	88.3	39,211	3,054	7.8	79,126	38,317	48.4
60-64	59,834	47,849	80.0	65,237	4,530	6.9	125,071	52,379	41.8
65-69	24,396	17,836	73.1	22,746	1,335	5.9	47,142	19,171	40.6
70-74	28,641	16,698	58.3	32,041	1,574	4.9	60,682	18,272	30.1
75+	30,904	11,021	35.9	33,995	1,088	3.2	64,889	12,109	18.6
n.s.	4,375	3,173	72.5	5,318	3,242	61.0	9,693	6,415	66.1
Total	1,337,935	1,001,600	74.9	1,581,668	138,094	8.7	2,919,603	1,139,694	39.0

*enumerated population and workforce only

Source: 1975 Census

Table I.15: PROJECTIONS OF MALE POPULATION AND LABOR FORCE BY AGE COHORT (1975-1990)

	1975			1980			1985			1990		
Age Group	Population	C.P.R. 1/ (%)	Labor Force	Population	C.P.R. 1/ (%)	Labor Force	Population	C.P.R. 1/ (%)	Labor Force	Population	C.P.R. 1/ (%)	Labor Force
10-14	323,486	31.3	101,251	423,443	26.0	110,095	546,502	21.0	114,765	540,342	16.0	86,453
15-19	234,773	69.1	162,228	317,546	59.0	187,352	416,558	49.0	204,113	538,668	39.0	210,080
20-24	197,505	90.0	177,754	228,523	90.0	205,670	309,975	90.0	278,977	407,739	90.0	366,965
25-29	192,225	95.1	182,805	191,003	95.1	181,643	221,800	95.1	210,931	301,916	95.1	287,122
30-34	173,985	96.2	167,373	185,006	96.2	177,975	184,804	96.2	177,781	215,480	96.2	207,291
35-39	156,115	96.5	150,650	166,584	96.5	160,753	178,184	96.5	171,947	178,611	96.5	172,359
40-44	146,776	95.8	140,611	148,031	95.8	141,813	158,828	95.8	152,157	170,794	95.8	163,320
45-49	103,576	95.1	98,500	137,401	95.1	130,668	139,396	95.1	132,565	150,455	95.1	143,082
50-54	84,138	91.7	77,154	95,108	91.7	87,214	126,979	91.7	116,439	129,637	91.7	118,877
55-59	64,145	88.3	56,640	75,021	88.3	66,243	85,470	88.3	75,470	114,911	88.3	101,466
60-64	54,676	80.0	43,740	54,677	80.0	43,741	64,517	80.0	51,613	74,176	80.0	59,340
65-69	39,233	73.1	28,679	43,458	73.1	31,767	43,946	73.1	32,124	52,421	73.1	38,319
70-74	32,933	58.3	19,199	28,127	58.3	16,398	31,555	58.3	18,396	32,344	58.3	18,856
75+	30,408	35.9	10,916	31,122	35.9	11,122	29,597	35.9	10,625	31,369	35.9	11,261
Total	2,853,451 2/	-	1,417,500	-	-	1,552,504	-	-	1,747,903	-	-	1,984,792

1/ Crude Participation Rate
2/ Includes those under 10 years of age

Source: Mission projections

Table I.16: PROJECTIONS OF FEMALE POPULATION AND LABOR FORCE BY AGE COHORT (1975-1990)

Age Group	1975 Population	1975 C.P.R. 1/ (%)	1975 Labor Force	1980 Population	1980 C.P.R. 1/ (%)	1980 Labor Force	1985 Population	1985 C.P.R. 1/ (%)	1985 Labor Force	1990 Population	1990 C.P.R. 1/ (%)	1990 Labor Force
10-14	273,224	9.1	24,863	355,357	6.0	21,321	511,573	3.0	15,347	520,944	0.0	-
15-19	263,241	9.1	23,954	267,545	9.1	24,346	348,919	6.0	20,935	503,577	3.0	15,107
20-24	194,047	7.9	15,329	256,132	13.0	33,297	261,033	18.0	46,985	341,520	23.0	78,549
25-29	204,526	7.9	16,157	187,802	12.0	22,536	248,683	13.0	32,328	254,310	14.0	35,603
30-34	193,803	8.8	17,054	197,092	8.8	17,344	181,648	8.8	15,985	241,449	8.8	21,247
35-39	187,095	9.2	17,212	185,866	9.2	17,099	189,789	9.2	17,460	175,668	9.2	16,161
40-44	155,017	10.3	15,966	178,549	10.3	18,390	178,151	10.3	18,349	182,701	12.0	21,924
45-49	121,339	9.6	11,648	147,073	9.6	14,119	170,138	9.6	16,333	170,477	9.6	16,365
50-54	86,588	9.2	7,966	113,625	9.2	10,453	138,399	9.2	12,732	160,819	9.2	14,795
55-59	65,597	7.8	5,116	79,301	7.8	6,185	104,697	7.8	8,166	128,885	7.8	10,053
60-64	55,996	6.9	3,863	57,831	6.9	3,990	70,529	6.9	4,866	93,790	6.9	6,471
65-69	39,602	5.9	2,336	46,487	5.9	2,742	48,533	5.9	2,863	59,807	5.9	3,528
70-74	36,341	4.9	1,780	29,963	4.9	1,468	35,630	4.9	1,745	37,648	4.9	1,844
75+	33,607	3.2	1,075	36,288	3.2	1,161	34,898	3.2	1,116	38,244	3.2	1,223
Total	2,826,328 2/	-	164,319	-	-	194,451	-	-	215,210	-	-	242,870

1/ Crude Participation Rate.
2/ Includes those under 10 years of age.

Source: Mission projections

Table I.17: OFFICIAL ESTIMATES OF YEMENI SHORT-TERM MIGRANTS BY AGE GROUP AND SEX

Age Group	Males	Females	Total
0-4	27,821	30,363	58,184
5-9	24,914	25,339	50,253
10-14	27,992	16,825	44,817
15-19	88,082	16,007	104,089
20-24	125,880	13,981	139,861
25-29	105,356	14,390	119,746
30-34	61,686	12,261	73,947
35-39	42,701	9,008	51,709
40-44	26,453	8,429	34,882
45-49	13,055	4,904	17,959
50-54	10,718	6,216	16,934
55-59	3,877	2,350	6,227
60-64	4,960	4,853	9,813
65-69	1,767	1,362	3,129
70-74	2,052	1,941	3,993
75-79	741	596	1,337
80+	1,483	1,467	2,950
n.s.	570	--	570
Total	570,108	170,292	740,400

Source: Central Planning Organization, Statistics Department

Table II.1: RECORDED LABOR FORCE IN YAR AND ABROAD BY AGE GROUPS AND SEX, 1975

Age Group	N. Yemeni Male Workers in Saudi Arabia in September 1974 1/		N. Yemeni Workers in the Gulf Countries 2/ in February 1975		Labor Force in YAR in February 1975 4/		Total Labor Force			
	Number	% Distribution	Male	Female	Male	Female	Male	Female	Total Number	Total % Distribution
10-14	--	--	--	--	88118	22602	88118	22602	110720	7.89
15-19	42620	17.28	45061	402	106348	17396	151409	17798	169207	12.06
20-24	66562	26.99	70382	628	91600	12916	161982	13544	175526	12.51
25-29	55186	22.37	58334	521	114750	14987	173084	15508	188592	13.44
30-34	32361	13.12	34213	305	109706	14960	143919	15265	159184	11.35
35-39	21941	8.90	23209	207	113790	13507	136999	13714	150713	10.74
40-44	13150	5.33	13899	124	100403	13191	114302	13315	127617	9.10
45-49	6564	2.66	6937	62	72264	8027	79201	8089	87290	6.22
50-54	4686	1.90	4955	44	75544	8649	80499	8693	89192	6.36
55-59	1372	0.56	1460	13	35375	3127	36835	3140	39975	2.85
60-64	1113	0.45	1173	11	48001	4639	49174	4650	53824	3.84
65 +	1104	0.44	1148	10	45761	4093	46909	4103	51012	3.64
Total	246659	100.00	260771 3/	2327 3/	1001660	138094	1262431	140421	1402852	100.00

1/ Source: Saudi Census of Population, September 1974.
2/ Saudi Arabia, Kuwait, Bahrain, Qatar and the United Arab Emirates.
3/ Source: Table 1.2.
NOTE: North Yemeni male workers in Saudi Arabia account for 96% of all North Yemeni workers in the Gulf Countries. It is, therefore, reasonable to assume that the age distribution of North Yemeni male workers may apply to all North Yemeni workers (male and female) in the Gulf Countries as well. The assumption becomes necessary because, while the total number of North Yemeni workers in these countries in February 1975 can be estimated with reasonable accuracy from the census data of the respective countries, the age distribution is available only for workers in Saudi Arabia.
4/ Source: YAR Census of Population, 1975. "Not Specified" distributed on a prorated basis.

Table II.2: TOTAL AND ILLITERATE ENUMERATED POPULATION (10 YEARS OF AGE AND OVER) BY AGE GROUP AND SEX, 1975

Age Group	MALE			FEMALE			TOTAL		
	Total Population	Illiterates	Illiterates as a % of Total	Total Population	Illiterates	Illiterates as a % of Total	Total Population	Illiterates	Illiterates as a % of Total
10-14	285750	200034	70.0	251351	235382	93.6	537101	435416	81.1
15-19	157945	112522	71.2	184849	177520	96.0	342794	290042	84.6
20-24	104676	72856	69.6	160403	156062	97.3	265079	228918	86.4
25-29	121541	87273	83.4	183870	181065	98.5	305411	268338	87.9
30-34	112286	86013	76.6	164306	162394	98.8	276592	248407	89.8
35-39	120776	92619	76.7	148594	147451	99.2	269370	240070	89.1
40-44	103625	82247	79.4	124133	123498	99.5	227758	205745	90.3
45-49	76343	58655	76.8	87260	86410	99.0	163603	145065	88.7
50-54	81321	64109	78.8	97115	96601	99.5	178436	160710	90.1
55-59	45656	33728	73.9	39805	39386	99.0	85461	73114	85.6
60-64	58931	47598	80.8	65171	64651	99.2	124102	112249	90.4
65 +	80252	65559	81.7	89035	88451	99.3	169287	154010	91.0
Not Specified	2353	1692	-	2269	1388	-	4622	3080	-
Total 10 to 65+	1351455	1004905	74.4	1598161	1560259	97.6	2949616	2565164	87.0

Source: Yemen Arab Republic Statistical Yearbook, 1976-77.

Table II.3: RECORDED LABOR FORCE BY MAJOR OCCUPATION GROUPS AND SEX, 1975

Occupations	MALES		FEMALES		TOTAL		Males as a % of Total
	Number	Percent	Number	Percent	Number	Percent	
Professional, Technical	41,008	4.1	8,822	6.4	49,830	4.4	82.3
Administrative, Managerial	5,700	0.6	65	0.0	5,765	0.5	98.9
Clerical Workers	12,152	1.2	243	0.2	12,395	1.1	98.0
Sales Workers	51,445	5.1	1,619	1.2	53,064	4.7	96.9
Service Workers	49,868	5.0	4,529	3.3	54,397	4.8	91.7
Agriculture Workers	692,571	69.2	107,563	77.9	800,134	70.1	86.6
Production Workers	129,423	12.9	10,836	7.8	140,259	12.3	92.3
Not Stated	19,493	1.9	4,417	3.2	23,910	2.1	81.5
TOTAL	1,001,660	100.0	138,094	100.0	1,139,754	100.0	87.9

Source: Census of Population, 1975.

Table II.4: DEPLOYMENT OF RECORDED LABOR FORCE BY SECTORS OF ECONOMIC ACTIVITY, 1975

Sectors of Economic Activity	Total Labor Force at Home & Abroad	Employed Abroad	Within YAR: Total Employment b/	Public Sector Employment c/	Private Sector Employment	Employment in Urban Private Sector Establishments d/	Traditional Employment	Unemployed or Seeking Work For the First Time
	(1)	(2)	(3)	(4)	(5)=(3)-(4)	(6)	(7)=(5)-(6)	(8)=(1)-(2)-(3)
Agriculture			826,075	429	825,646	200	825,446	
Mining & Quarrying			588	22	566	51	515	
Manufacturing			31,378	0	31,378	8,473	22,905	
Utilities			964	88	876	870	6	
Construction			48,695	1,247	47,448	7,950	39,498	
Trade			57,360	219	57,141	27,570	29,571	
Transport & Communications			19,301	1,513	17,788	1,047	16,741	
Finance & Real Estate			1,576	388	1,188	1,126	62	
Services			73,984	27,409	46,575	5,422	41,153	
TOTAL	1,402,852 a/	263,098 a/	1,059,921	37,471 e/	1,022,450	52,709	969,741	79,833
Percent of total	100.00	18.8	75.5	2.7	72.8	3.8	69.0	5.7

a/ See Table II.1, sectoral breakdown not available.
b/ Census of Population, 1975. Employment data for Finance and Services Sectors adjusted to include the employees of the Central Bank in the Finance Sector rather than the services where these appear to have been placed.
c/ Derived from the results of the Manpower Survey, 1975 as reported in Table 12: Government Employees by Ministries, YAR Statistical Yearbook, 1976.
d/ C.A. Sinclair and J. Socknat, "An Assessment of Manpower Development and Policy and Programs Suggestions for YAR", May 1976, Table 3.2.
e/ Includes 6,156 in the mixed sector whose sectoral breakdown is not available.

Table II.5: RECORDED LABOR FORCE BY MAJOR OCCUPATION GROUPS, GOVERNORATES AND SEX, 1975

Occupations	Sex	Sanaa	Taiz	Hodeidah	Sa'adah	Hajjah	Mahweet	Marib	Damar	Ibb	Beida	Total
Professional, Technical	Male	6,362	10,420	6,728	624	3,715	1,291	336	3,179	7,298	1,055	41,008
	Female	1,467	2,080	1,174	142	2,107	342	50	539	809	112	8,822
	Total	7,829	12,500	7,902	766	5,822	1,633	386	3,718	8,107	1,167	49,830
Administrative, Managerial	Male	2,569	854	742	115	314	169	96	299	444	98	5,700
	Female	41	15	5	1	0	0	0	0	2	1	65
	Total	2,610	869	747	116	314	169	96	299	446	99	5,765
Clerical Workers	Male	5,239	2,004	2,327	258	592	148	70	476	895	143	12,152
	Female	129	58	40	0	3	0	0	3	7	3	243
	Total	5,368	2,062	2,367	258	595	148	70	479	902	146	12,395
Sales Workers	Male	8,471	10,284	14,818	1,336	4,214	1,183	380	3,051	6,320	1,388	51,445
	Female	114	424	711	32	101	32	2	59	127	17	1,619
	Total	8,585	10,708	15,529	1,368	4,315	1,215	382	3,110	6,447	1,405	53,064
Service Workers	Male	14,561	8,373	6,937	476	2,918	1,591	458	6,859	6,781	914	49,868
	Female	865	898	944	89	346	446	8	390	491	52	4,529
	Total	15,426	9,271	7,881	565	3,264	2,037	466	7,249	7,272	966	54,397
Agricultural Workers	Male	130,604	89,154	104,334	34,765	75,597	33,222	5,844	75,287	123,649	20,115	692,571
	Female	19,744	7,175	18,862	21,077	7,978	15,113	1,249	11,134	4,138	1,093	107,563
	Total	150,348	96,329	123,196	55,842	83,575	48,335	7,093	86,421	127,787	21,208	800,134
Production Workers	Male	26,279	31,335	30,918	2,579	7,164	1,866	1,041	8,181	15,557	4,503	129,423
	Female	1,642	903	5,187	281	892	295	140	400	606	490	10,836
	Total	27,921	32,238	36,105	2,860	8,056	2,161	1,181	8,581	16,163	4,993	140,259
Not Specified	Male	3,897	2,622	4,075	286	1,670	295	1,282	1,981	2,728	657	19,493
	Female	844	561	736	100	568	86	839	330	290	63	4,417
	Total	4,741	3,183	4,811	386	2,238	381	2,121	2,311	3,018	720	23,910
TOTAL	Male	197,982	155,046	170,879	40,439	96,184	39,765	9,507	99,313	163,672	28,873	1,001,660
	Female	24,846	12,114	27,659	21,722	11,995	16,314	2,288	12,855	6,470	1,831	138,094
	Total	222,828	167,160	198,538	62,161	108,179	56,079	11,795	112,168	170,142	30,704	1,139,754
Percent of Total	Male	19.77	15.48	17.06	4.04	9.60	3.97	0.95	9.91	16.34	2.88	100.00
	Female	17.99	8.77	20.03	15.73	8.69	11.81	1.66	9.31	4.69	1.33	100.00
	Total	19.55	14.67	17.42	5.45	9.49	4.92	1.03	9.84	14.93	2.69	100.00

Source: Census of Population, 1975.

Table II.6: RECORDED EMPLOYMENT BY INDUSTRY AND OCCUPATION, 1975

Occupation	Agriculture	Mining	Manufacturing	Utilities	Construction	Trade	Transport	Finance	Services	Total
Professional, Technical	268	12	331	61	97	138	129	103	10154	11293
Administrative, Managerial	15	6	62	30	45	80	76	85	4317	4716
Clerical Workers	32	14	167	104	120	233	433	599	7567	9269
Sales Workers	229	7	278	13	72	43593	28	220	172	44612
Service Workers	77	9	291	30	129	4464	114	34	41559	46707
Agricultural Workers	824220	9	491	3	65	1370	64	4	275	826501
Production	1234	531	29758	723	48167	7482	18457	143	10328	116823
TOTAL	826075	588	31378	964	48695	57360	19301	1188	74372	1059921

Source: Census of Population, 1975.

Table II.7: SHARES OF RECORDED EMPLOYMENT BY INDUSTRY AND OCCUPATION, 1975
(%)

Occupation	Agriculture	Mining	Manufacturing	Utilities	Construction	Trade	Transport	Finance	Services	Total
Professional, Technical	0.032	2.040	1.054	6.327	0.199	0.240	0.668	8.670	13.652	1.065
Administrative, Managerial	0.002	1.020	0.197	3.112	0.092	0.139	0.393	7.154	5.804	0.444
Clerical Workers	0.004	2.380	0.532	10.788	0.246	0.406	2.243	50.420	10.174	0.874
Sales Workers	0.028	1.190	0.008	0.013	0.147	75.998	0.145	18.518	0.231	4.208
Service Workers	0.009	1.530	0.927	3.112	0.264	7.782	0.590	2.861	55.879	4.406
Agricultural Workers	99.775	1.530	1.564	0.311	0.133	2.388	0.331	0.336	0.369	77.977
Production Workers	0.149	90.306	94.837	75.000	98.915	13.043	95.627	12.037	13.886	11.021
TOTAL	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000	100.000

Source: Census of Population 1975.

Table II.8: OCCUPATIONAL DISTRIBUTION OF PUBLIC AND PRIVATE SECTOR (MODERN URBAN) RECORDED EMPLOYMENT, 1975

	Occupational Categories	Public Sector		Private Sector		Total Modern Sector Employment	
		Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
A1	Professional Occupations Presumably Requiring Science/Math. Based University Degree	515	1.37	226	0.43	741	0.82
A2	Professional Occupations Presumably Requiring an Arts Based University Degree	2,357	6.29	268	0.51	2,625	2.91
B1	High Level Technician Occupations Presumably Requiring 3 to 5 Years Post Secondary Science/Math. Based Education	102	0.27	57	0.11	159	0.18
B2	Sub-Professional and Technician Occupations Presumably Requiring 1 to 3 Years Post-Secondary Science/Math. Based Education	1,212	3.23	696	1.32	1,908	2.12
B3	Other Sub-Professional and Technician Occupations Presumably Requiring 1 to 3 Years Post-Secondary Education	597	1.59	1,258	2.39	1,855	2.06
C1	Skilled Office Occupations Presumably Requiring Secondary School Completion Plus Job Training	7,359	19.64	24,116	45.75	31,475	34.90
C2	Skilled Manual Occup. Presumably Requiring Secondary Completion Plus Pre-Vocational and/ or Training Related Classroom Instruction	12,705	33.91	1,973	3.74	14,678	16.28
D1	Semi-Skilled Office Occupations Presumably Requiring Preparatory Completion	5,715	15.25	0		5,715	6.34
D2	Skilled Manual Occup. Presumably Requiring Preparatory Completion Plus Pre-Vocational and/ or Training Related Classroom Instruction	229	0.61	4,200	7.97	4,429	4.90
E	Semi-Skilled Occupations Presumably Requiring Functional Literacy Plus Job Training	2,180	5.82	12,795	24.27	14,975	16.60
F	Unskilled Occupations Presumably Requiring No Special Education or Training	4,500	12.01	7,120	13.51	11,620	12.89
	TOTAL	37,471	100.00	52.709	100.00	90,180	100.00

Source: C.A. Sinclair and J. Socknat, Op.Cit., Table 4.24.

Table II.9: SECTORAL DISTRIBUTION OF RECORDED EMPLOYMENT IN MAJOR OCCUPATION CATEGORIES (1 digit ISCO), 1975

Occupation	Agriculture	Mfning	Manufacturing	Utilities	Construction	Trade	Transport	Finance	Service	Total
Professional, Technical	2.373	0.106	2.931	0.540	0.858	1.221	1.142	0.912	89.914	100.00
Administrative, Managerial	0.318	0.127	1.314	0.636	0.954	1.696	1.611	1.802	91.539	100.00
Clerical Workers	0.345	0.151	1.801	1.122	1.234	2.513	4.671	6.462	81.637	100.00
Sales Workers	0.513	0.015	0.623	0.029	0.161	97.715	0.062	0.433	0.385	100.00
Service Workers	0.164	0.019	0.623	0.064	0.276	9.557	0.245	0.072	88.978	100.00
Agricultural Workers	99.724	0.001	0.059	0.0003	0.007	0.165	0.007	0.0004	0.033	100.00
Production Workers	1.056	0.454	25.472	0.618	41.230	6.404	15.799	0.122	8.840	100.00
TOTAL	77.930	0.055	2.960	0.090	4.594	5.411	1.820	0.112	7.016	100.00

Source: Census of Population 1975.

Table II.10: RECORDED LABOR FORCE BY GOVERNORATE AND EMPLOYMENT STATUS, 1975

Governorate	Employer	Own Account Worker	Employee	Unpaid Family Workers	Unpaid Apprentice	Not Stated	Total
Taiz	11568	64646	70128	15412	487	3971	166212
Sana'a	10348	94521	67432	45776	256	4490	222823
Ibb	10991	70905	61591	23056	406	3193	170142
Hodeidah	9339	64805	94405	25038	214	4163	197964
Damar	4464	51996	30264	23640	257	2495	113116
Hajjah	7324	47056	27824	23580	250	2145	108179
Marib	614	4408	2131	2386	1	2255	11795
Mahweet	2259	17968	14426	20832	120	474	56079
Sa'adah	1253	22647	6213	31562	66	420	62161
Beida	1469	15071	9066	4452	12	634	30704
TOTAL	59629	454023	383480	215734	2069	24240	1139175

Source: Census of Population, 1975.

Table II.11: GOVERNMENT EMPLOYEES BY MINISTRIES AND EDUCATION ATTAINMENT LEVEL, 1975

Ministries	Illiterate		Literate		Informal Educ.		Primary		Preparatory		Secondary		Post Second.		University		Total		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Total
Offices of the President & Prime Min.	69	0	21	0	237	0	26	0	24	0	19	0	0	0	1	0	397	0	397
Dept. of Antiquities	2	0	13	0	2	0	1	0	1	0	3	0	0	0	8	0	30	0	30
Civil Service Comm.	13	0	1	3	37	0	7	0	11	0	10	0	0	0	13	0	92	3	95
National Institute	6	0	3	1	10	2	3	2	9	1	2	2	1	1	16	2	50	11	61
Office of Legal Adv.	0	0	3	0	2	0	2	0	3	0	0	0	0	0	14	0	24	0	24
C. O. Control & Audt.	2	0	9	2	4	0	3	0	3	1	5	0	10	0	28	0	64	3	67
Fin. & Adm. Organ.	1	0	1	0	1	0	5	1	7	0	4	0	3	0	3	0	25	1	26
Min. of Interior	0	0	0	0	11512	0	0	0	0	0	0	0	0	0	0	0	11512*	0	11512*
Legislative Council	11	0	4	0	46	0	9	0	14	0	11	0	1	0	7	0	103	0	103
Min. of Justice	149	0	38	0	775	0	0	0	0	0	1	0	4	0	19	0	986	0	986
Min. of Education	632	59	99	3	2173	17	557	77	174	87	335	43	8	0	86	1	4064	287	4351
Sana'a University	7	2	26	0	4	0	3	0	4	0	15	0	0	0	10	1	69	3	72
Educ. Dev. Project	3	0	2	0	2	0	0	1	1	0	4	0	0	0	2	0	14	1	15
Min. of Health	707	290	240	2	327	5	35	0	61	0	201	114	62	4	150	1	1783	416	2199
Min. of Agriculture	88	6	85	1	44	1	31	0	59	0	43	0	8	0	54	0	412	8	420
Nat. Office for Food	0	0	3	0	1	0	1	0	0	0	1	1	1	0	1	0	8	1	9
Min. of Public Works	53	5	32	0	20	0	129	1	49	2	23	0	9	0	9	0	324	8	332
Sewerage & Water Dep.	1	1	50	0	8	0	3	0	5	0	3	2	7	0	8	0	85	3	88
Highway Authority	476	0	272	1	34	0	52	2	41	0	8	0	15	0	14	0	912	3	915
Min. of Municipality	1180	268	20	0	525	0	36	1	35	0	20	0	10	0	7	0	1833	269	2102
Min. of Communication	164	1	233	3	470	15	87	2	62	0	30	0	0	0	3	0	1049	21	1070
Civil Aviation Dept.	36	3	53	1	49	0	5	0	19	0	16	0	1	0	3	0	182	4	186
Yemen Airways	50	0	59	0	33	0	13	0	28	1	32	3	28	0	10	0	253	4	257
Min. of Local Admin.	176	2	55	0	690	0	34	0	14	0	6	0	0	0	1	0	976	2	978
Min. of Information	4	0	4	0	181	0	25	2	43	1	63	3	16	0	20	0	356	6	362
Dept. of Tourism	0	0	2	0	11	0	9	1	1	0	4	0	0	0	2	0	29	1	30
Min. of Foreign Aft.	11	1	6	2	40	0	8	7	14	1	30	0	13	0	54	0	176	11	187
Min. of Economy	15	0	6	0	24	0	11	2	24	0	21	0	1	0	27	0	129	2	131
Dept. of Min. & Petrol.	6	0	0	0	0	0	1	1	4	0	1	0	1	0	8	0	21	1	22
Min. of Finance	423	1	1014	0	298	5	134	3	96	1	38	0	5	0	22	1	2030	11	2041
Dept. of Taxation	4	0	20	0	107	0	68	0	62	0	22	0	1	0	2	0	286	0	286
Dept. of Customs	106	1	205	0	200	0	62	1	55	0	22	0	16	0	0	0	666	2	668
Dept. of Estates	5	0	7	0	133	0	1	0	11	0	1	0	0	0	1	0	159	0	159
Central Planning Org.	6	1	26	0	0	0	15	7	19	2	18	0	9	0	35	2	128	12	140
Min. of Supply	4	1	87	1	77	0	17	0	25	0	5	0	0	0	2	0	217	2	219
Min. of Social Affairs	16	0	1	0	68	0	6	0	17	0	5	0	2	0	14	0	129	0	129
Min. of Religious Endowment	26	0	1	0	218	0	4	0	3	0	4	0	1	0	1	0	258	0	258
Central Bank of Yemen	66	0	18	5	24	2	22	48	64	3	89	1	18	0	27	1	328	60	388
Total	4518	642	2719	25	18387	47	1425	159	1062	100	1115	169	251	5	682	9	30159	1156	31315
Percent Total	14.98	55.54	9.02	2.16	60.97	4.07	4.72	13.75	3.52	8.65	3.70	14.62	0.83	0.43	2.26	0.78	100.00	100.00	

* Total Number

Source: Manpower Survey 1975

Table II.12: ESTIMATES OF FOREIGN WORKERS IN THE PUBLIC AND THE PRIVATE SECTORS

Country of Origin	Number of Contract Workers Entered through March 1980
Egypt	3,566
Sudan	2,177
Syria, Lebanon and Other Arab Countries	1,500
India	2,737
Pakistan	1,420
Ethiopia	327
Italy	335
United Kingdom	300
Tanzania	38
Somalia	10
Germany	300
Philippines	400
Others	200
Foreign Workers Recorded by Ministry of Labor as of early 1979	13,310
Number of Workers Departed in 1979	2,272
Total Remaining as Recorded by Ministry of Labor	11,038
Of which in the Public Sector	900
in the Private Sector	10,138
Number of Expatriate Workers in the Central Administration	5,915
Number of Expatriate Workers in the Public Sector Corporations	840
Total in the Public and Mixed Sector 1/	6,755
Total in the Private Sector	10,138
Total Number of Expatriate Workers	16,893

1/ As estimated by the Administrative Reform Committee. Presumably inclusive of the 900 which are distributed among the various nationalities by the Ministry of Labor.

Source: Ministry of Labor and Social Affairs, and Administrative Reform Committee.

Table II.13: EMPLOYMENT BY SEX, AGENCY AND EDUCATION ATTAINMENT LEVEL OF THE PUBLIC AND MIXED SECTOR EMPLOYEES, 1978

	Employment			Education Attainment Levels						
	Male	Female	Total	Below Elementary 1/	Elementary	Preparatory	Secondary 2/	Post Secondary	University or above	Unknown
Yemen Land Transport Company	88	2	90	87	-	-	1	1	1	-
Yemen Bank for Reconstruction and Development	845	43	888	488	49	57	211	31	22	29
Government Employees Consumer Coop.	40	0	40	27	2	3	6	-	2	-
General Union of Yemeni Emigrants	28	2	30	6	7	4	7	3	3	-
Water and Sewerage Corporation	58	3	61	23	-	3	15	1	13	6
Project Implementation Unit - Ministry of Education	50	4	54	11	1	3	35	-	4	-
Industrial Bank of Yemen	24	2	26	6	3	1	2	1	9	4
Yemen Electric Power Corporation	905	5	910	644	69	70	64	3	14	96
Yemen Oil Company	708	2	710	454	28	10	22	4	5	187
Tourism Corporation	51	5	56	18	9	15	6	3	5	-
Ports and Marine Affairs Authority	394	0	394	301	12	19	13	-	4	15
National Tobacco and Matches Co.	202	3	205	174	6	2	3	-	2	18
Central Bank of Yemen	278	79	357	88	52	41	122	20	23	11
Yemen Aviation Corporation	584	33	617	374	22	16	101	19	9	76
Siba Authority for News and Press	189	1	190	33	33	35	58	6	9	6
Yemen Cement Corporation	351	1	352	285	27	4	18	2	8	8
Higher Council for Pharmaceuticals	7	0	7	1	1	1	1	-	3	-
Center of Yemen Studies	20	1	21	3	-	2	7	-	5	4
Agricultural Credit Bank	65	1	66	4	9	3	25	2	12	11
Permanent Committee on Nutrition	10	1	11	2	2	2	1	-	4	-
Public Broadcasting & Television Corp.	368	14	382	120	63	28	42	23	33	3
Yemen General Grain Corporation	10	2	12	2	-	1	5	-	3	-
General Corp. for the Manufacture of Salt	202	1	203	194	2	1	3	-	3	-
Yemen Printing & Publishing Co.	82	1	83	32	11	2	9	1	2	24
Yemen Co. for the Manufacture and Trade of Pharm.	107	10	117	75	6	4	15	-	7	10
Cotton General Corporation	215	1	216	182	8	2	12	1	2	10
Livestock Development Project	31	7	38	7	6	2	11	1	3	5
Bajel Textile Corporation	123	13	136	121	13	2	-	-	-	-
University of Sanaa	204	12	216	14	10	6	55	181	34	24
General Textile Corporation	953	323	1276	423	2	3	6	-	4	758
TOTAL	7192	572	7764	4199	453	342	876	303	248	1305

1/ Includes reading and/or writing ability and no formal education.
2/ or equivalent

Source: Administrative Reform Committee Report, November 1978.

Table II.14: DISTRIBUTION OF PUBLIC EMPLOYMENT IN THE CENTRAL ADMINISTRATION BY AGENCY AND GRADE
(April 1, 1977)

Agency/Grade	1	2	3	4	5	6	7	8	9	10	11	12	13	Total No.	Total %
Command Council & Cabinet	65	-	25	17	11	57	29	37	47	55	98	63	66	570	3.0
Prime Minister's Office	5	6	2	4	11	2	4	9	4	20	2	4	21	94	0.4
Legal Office	-	-	-	7	8	1	1	-	-	6	6	1	4	34	0.2
Central Org. for Auditing & Accounts	1	-	3	7	22	2	1	11	-	27	10	10	-	94	0.4
Administrative & Financial Office	1	-	1	1	3	-	-	6	-	9	5	-	4	30	0.2
Diciplinary Court	-	-	-	-	-	-	1	-	-	6	1	3	-	11	0.1
General Authority for Antiquity	2	-	-	3	5	2	2	5	3	6	20	-	16	64	0.3
Guidance & Orientation Office	-	-	-	-	4	-	1	2	-	4	4	-	4	19	0.1
Central Planning Organization	1	-	13	8	16	3	5	19	3	42	37	15	10	172	0.9
General Department of Personnel	1	-	5	4	25	4	6	12	3	25	9	1	12	107	0.6
Office of Governorate Affairs	44	-	14	14	44	74	210	39	64	62	276	39	302	1,182	6.3
National Institute of Public Affairs	-	10	11	6	4	6	4	5	4	15	25	5	9	105	0.6
Ministry of Foreign Affairs	-	-	-	-	11	5	-	15	7	22	33	14	16	123	0.7
Ministry of Economy	3	-	5	15	25	1	5	8	2	19	20	5	8	116	0.6
Gen. Dept. of Mineral & Petroleum	2	-	2	5	14	-	-	1	-	1	3	2	2	32	0.2
Ministry of Finance	11	-	24	28	78	53	84	109	101	196	246	42	68	1,040	5.5
Customs Department	3	1	9	11	42	33	108	82	50	104	202	69	42	756	4.0
Taxation Department	1	-	2	6	23	2	60	36	20	72	30	12	7	271	1.4
Excise & Duties Department	1	-	2	7	25	33	61	127	91	191	383	53	171	1,145	6.1
Ministry of Justice	3	-	-	-	12	6	12	1	10	21	23	36	198	321	1.7
Popular Army Command	1	-	2	1	2	3	2	3	3	10	8	6	3	43	0.2
Ministry of Education	12	-	25	75	234	15	44	864	348	1,329	1,182	6	929	5,063	26.8
University of Sanaa	-	-	-	-	-	-	-	-	-	-	-	-	9	9	0.1
Scientific Organization of Yemen	-	-	1	-	1	-	-	5	-	2	-	-	1	10	
Ministry of Health	4	4	35	149	105	115	92	110	76	328	764	3	687	2,472	13.1
Ministry of Social Affairs & Labor	6	-	7	7	5	4	23	4	1	36	29	1	23	146	0.8
Gen. Dept. of Social Affairs & Labor	1	-	4	1	2	-	-	7	-	11	11	-	10	47	0.2
Ministry of Information	7	-	5	11	17	4	16	27	4	42	46	27	9	215	1.1
Ministry of Waqfs	-	-	1	10	6	8	23	8	31	8	28	8	7	138	0.7
Ministry of Agriculture	8	-	6	46	39	33	18	50	22	73	81	46	11	433	2.3
Ministry of Public Works	2	-	5	13	22	13	30	20	31	46	94	30	5	311	1.6
Municipalities	2	-	3	10	12	11	26	34	21	72	450	559	899	2,099	11.1
Government Real Estate	3	-	1	3	17	6	14	17	15	13	36	6	-	131	0.7
Ministry of Communications	1	-	21	8	91	89	64	111	39	220	633	-	47	1,324	7.0
Ministry of Trade & Supply	2	-	-	-	10	4	5	11	9	24	99	-	19	183	1.0
	193	21	234	477	946	589	951	1,795	1,009	3,116	4,894	1,066	3,619	18,910	100.0

Source: General Department of Personnel.

Table II.15: HEALTH PERSONNEL BY OCCUPATION AND NATIONALITY, 1975 and 1979

Occupation	1975 a/ Total	1979 b/ Yemeni	1979 b/ Expatriate	1979 b/ Total
TOTAL	1337	1750	819	2613 1/
Professional	317	323	256	579
Physicians	280	282	231	513
Dentists	15	13	9	22
Pharmacists	22	28	16	44
Skilled Technicians	1020	561	518	1123 1/
Qualified Nurses	303	277	354	631
Physician's Assistant	519	24	6	30
X-Ray Technicians	26	19	31	50
Laboratory Technicians	57	53	46	99
Anesthesia Assistant	39	10	16	26
Health Inspectors	0	105	9	114
Dental Technicians	35	1/	1/	44 1/
Nutritionists	5	0	9	9
Pharmacists Assistants	9	51	0	51
Qualifed Midwives	27	22	47	69
Semi-Skilled Technicians		834	45	879
Nursing Assistants		707	33	740
Operation Theater Assistants		3	12	15
X-Ray Technician's Assistant		18	0	18
Laboratory Assistant		106	0	106
Unskilled		32	0	32
Restaurant Workers		32	0	32

1/ **Dental technicians are not broken down by nationality, therefore the figures in the total column exceed the corresponding sums by 44.**

Source: a/ C.A. Sinclair and J. Socknat, Op.Cit, Table 4.24.

b/ Ministry of Health

Table II.16: ESTIMATED POPULATION AND POPULATION PER PHYSICIAN BY GOVERNORATE, 1980

Governorates	Estimated Population Mid 1980 [1/]		Physicians		Estimated Population per Physician
	Number	Percent	Number	Percent	
Sana'a	1,012,767	17.8	222	43.3	4,562
Taiz	1,098,112	19.3	116	22.6	9,466
Ibb	990,008	17.4	32	6.2	30,938
Hodeidah	853,455	15.0	78	15.2	10,942
Damar	568,970	10.0	19	3.7	29,946
Hajjah	495,004	8.7	11	2.1	45,000
Mahweet	221,898	3.9	10	2.0	22,190
Beida	199,140	3.5	11	2.1	18,104
Sa'adah	193,450	3.4	6	1.2	32,242
Marib	56,898	1.0	5	1.0)	7,112
			3	0.6)	
Total	5,689,702	100.0	513	100.0	11,091

[1/] As estimated by Ministry of Health.

Source: Ministry of Health.

Table II.17: DISTRIBUTION OF PUBLIC EMPLOYMENT IN THE CENTRAL ADMINISTRATION BY GRADE AND EDUCATIONAL ATTAINMENT

(April 1, 1977)

Educational Level / Grade	Graduate	Under-Graduate 1/	Post-Secondary	Secondary 1/	Preparatory 1/	Elementary	Sub-Elementary	Total
One	7	47	2	35	12	-	90	193
Two	-	21	-	-	-	-	-	21
Three	2	95	6	53	26	4	48	234
Four	-	363	2	50	17	-	45	477
Five	-	469	16	184	78	30	169	946
Six	-	4	26	200	97	19	243	589
Seven	-	10	11	194	177	81	478	951
Eight	-	102	11	1,155	132	55	340	1,795
Nine	-	1	-	7	260	73	668	1,009
Ten	-	17	-	146	1,660	181	1,112	3,116
Eleven	-	3	-	35	158	1,291	3,407	4,894
Twelve	-	-	-	-	3	37	1,026	1,066
Thirteen	-	-	-	-	1	17	3,601	3,619
Total	9	1,132	74	2,059	2,621	1,788	11,227	18,910
Percent	--	6.0	0.4	10.9	13.9	9.5	59.3	100.0

1/ Or equivalent.

Source: General Department of Personnel, Op.Cit.

Table II.18: PUBLIC EMPLOYMENT CENTRAL ADMINISTRATION

GRADE EQUIVALENCE BETWEEN LAW #5 (1971) AND LAW #49 (1977) CLASSIFICATIONS

According to Law # 5 (1971)			According to Law # 49 (1977)		
Grade	Number	Percent	Grade	Number	Percent
Deputy Minister	191	1.0	1	193	1.0
			2 1/	21	0.1
Director General (A)	199	1.0	3	234	1.2
Director General (B)	192	1.0	4	477	2.5
One (A)	1,090	5.8	5	946	5.0
One (B)	592	3.1	6	589	3.2
Two (A)	1,124	5.9	7	951	5.0
Two (B)	684	3.6	8	1,795	9.5
Three (A)	1,267	6.7	9	1,009	5.3
Three (B)	2,140	11.3	10	3,116	16.5
Four (A)	2,965	15.7	11	4,894	25.9
Four (B)	3,356	17.8			
Five (A)	1,400	7.4	12	1,066	5.6
Five (B)	3,710	19.7	13	3,619	19.2
Total	18,910	100.0		18,910	100.0

1/ This grade was added in Law #49 (1977).

Source: General Department of Personnel, On the Road to Reform - Administrative Reform of Law #49 (1977).

Table II.19: COMPARISON OF BASIC SALARY SCALES CORRESPONDING TO CIVIL SERVICE LAWS NUMBER 5 (1971), NUMBER 49 (1977) AND NUMBER 3 (1979)

Law Number 5 (1971)		Laws Number 49 (1977) and Number 3 (1979)			Relative Increase in Midpoint of Salary Range (%)	
Grade	Basic Salary Range 1/	Grade	Basic Salary Range 1/ Law Number 49	Basic Salary Range 1/ Law Number 3	Between 1971 and 1977	Between 1977 and 1979
Deputy Minister	850 and above	1	1,350 and above	1,650 - 2,150	59 2/	22
		2	1,165 - 1,350	1,450 - 1,930	3/	34
Director General (A)	560 - 650	3	1,015 - 1,215	1,300 - 1,660	84	33
Director General (B)	500 - 560	4	950 - 1,090	1,200 - 1,550	92	35
One (A)	440 - 500	5	840 - 1,015	1,100 - 1,450	25	37
One (B)	380 - 440	6	735 - 910	950 - 1,230	100	33
Two (A)	330 - 380	7	635 - 760	850 - 1,130	97	42
Two (B)	280 - 330	8	555 - 655	750 - 990	98	44
Three (A)	240 - 280	9	510 - 585	650 - 890	111	41
Three (B)	210 - 240	10	450 - 510	600 - 800	136	46
Four (A)	180 - 210	11	400 - 450	550 - 750	136	53
Four (B)	150 - 180					
Five (A)	150	12	350 - 400	490 - 690	150	57
Five (B)	130	13	300 - 350	420 - 620	150	60
Memo. Item Average relative increase (unweighted)					103	41

1/ YRls per month.
2/ Increase in minimum.
3/ New grade established by Law Number 49.

Source: Law Number 49 (1977) (Arabic) and Collection of Civil Service Legislation (1976-80) (Arabic), both documents published by the Civil Service Commission.

Table II.20: SUMMARY OF EDUCATIONAL ATTAINMENT OF GOVERNMENT WORKERS, 1975

Occupational Group	No. with Required Education or Training	%	No. Without Required Education and Training	%	Total
Total	6,851	21.8	24,473	78.2	31,324
A-1	194	81.6	44	18.4	238
A-2	398	16.9	1,969	83.1	2,367
B-1	40	39.3	62	60.7	102
B-2	78	7.6	947	92.4	1,025
B-3	1	5.3	18	94.7	19
C-1	763	10.9	6,259	89.1	7,022
C-2	3	0.1	12,319	99.9	12,322
D-1	102	7.8	1,222	92.2	1,324
D-2	4	1.8	225	98.2	229
E	768	35.3	1,408	64.7	2,176
F	4,500				4,500

Source: C.A. Sinclair and J. Socknat, Op.Cit., Table 3.13.

NOTE: See Table II.8 for the definition of the occupational groups.

Table II.21: PROFESSIONAL HEALTH PERSONNEL BY NATIONALITY AND GOVERNORATE, 1979

Governorates	Physicians		Dentists		Pharmacists		Nutritionists	
	Yemeni	Expatriate	Yemeni	Expatriate	Yemeni	Expatriate	Yemeni	Expatriate
Sana'a	121	101	8	5	15	14	0	5
Taiz	89	27	2	1	8	1	0	0
Ibb	11	21	1	0	1	1	0	1
Hodeidah	39	39	2	2	4	0	0	2
Damar	8	11	0	1	0	0	0	0
Hajjah	4	7	0	0	0	0	0	0
Mahweet	3	7	0	0	0	0	0	1
Beida	6	5	0	0	0	0	0	0
Sa'adah	1	5	0	0	0	0	0	0
Marib	0	8	0	0	0	0	0	0
	0	3	0	0	0	0	0	0
Total	282	231	13	9	28	16	0	9

Source: Ministry of Health.

Note: In addition, 28 expatriate pharmacists working as sales or public relations representatives in the Yemen Arab Republic.

Table II.22: URBAN MODERN PRIVATE SECTOR EMPLOYMENT WITH AND WITHOUT REQUIRED EDUCATION OR TRAINING (1975)

Occupational Category	No. with Presumably Required Education or Training	%	No. Without Presumably Required Education or Training	%	Total*
A-1	70	27.0	142	67.0	212
A-2	69	31.7	149	68.3	218
B-1	4	15.0	22	85.0	26
B-2	26	4.0	610	96.0	636
B-3	2	0.1	1,256	99.9	1,258
C-1	1,530	4.0	22,244	94.0	23,774
C-2	67	3.7	1,781	96.3	1,848
D-1					
D-2	78	2.0	3,563	98.0	3,641
E	1,293	11.3	10,185	88.7	11,478
F	3,986				3,986

Note: See Table II.8 for the definition of Occupation Groups.

Source: C.A. Sinclair and J. Socknat, Op.Cit., Table 3.8.

Table II.23: ESTIMATES OF EMPLOYMENT IN 1980 ON THE BASIS OF LIKELY GROWTH IN OUTPUT AND PRODUCTIVITY

Sectors	1975 Values			1975-80 Growth Rates (% Per Annum)		Estimated 1980 Values		
	Value Added (Million YRLS)	Employment (In Thousands)	Productivity (Thousand YRLS)	Value Added	Productivity	Value Added (Million YRLS)	Productivity (Thousand YRLS)	Employment (In Thsousand)
Agriculture	2,320	826.1	2.8	4.5	3.3	2,891	3.3	876.1
Mining & Quarrying	30	0.6	51.0	15.0	4.0	60	62.1	1.0
Manufacturing	232	31.4	7.4	15.0	4.0	467	9.0	51.9
Utilities	13	1.0	13.5	12.5	3.0	23	15.6	1.5
Construction	202	48.7	4.1	30.0	4.0	750	5.0	148.6
Trade	926	57.4	16.1	15.0	2.0	1,863	17.8	104.5
Transp. & Comm.	145	19.3	7.5	10.0	3.0	234	8.7	26.9
Finances	226	1.2	190.2	15.0	2.0	455	210.0	2.2
Services	530	74.4	7.1	12.0	2.0	934	7.9	118.7
Total	4,624	1,059.9				7,677		1,331.3

Source: Mission estimates.

Table II.24: COMPARISON OF 1975 CENSUS DATA AND 1978 HOUSEHOLD SURVEY 1/ DATA ON EMPLOYMENT BY SECTORS OF ECONOMIC ACTIVITY AND GOVERNORATES

Sectors of Economic Activity	1975 Data Governorates						1978 Data District Centers of the Governorates Only					
	Sanaa	Taiz	Hodeidah	Ibb	Dhamar	Total	Sanaa	Taiz	Hodeidah	Ibb	Dhamar	Total
Agriculture	154835	104242	137405	134412	90001	610895	1600	300	200	700	300	3100
Mining & Quarrying	24	206	317	10	5	562	100	100	0	0	0	200
Manufacturing	5275	4786	12337	2806	1905	27109	1100	1600	1100	0	300	4100
Utilities	435	332	500	119	17	1403	1200	500	300	200	200	2400
Construction	11597	15788	7224	7548	5221	47378	2600	1500	1300	900	1600	7900
Trade, Hotels & Restaurant	11870	14536	19997	8008	3773	58184	6900	4200	8600	1200	3600	24500
Transport & Communications	4106	6030	3529	2358	901	16924	3300	2900	3000	600	500	10300
Finance & Real Estate	647	483	611	105	37	1883	1700	300	800	100	100	3000
Services	28009	14299	12726	10011	9047	74092	16300	6200	8800	4000	1800	37100
Not Stated	6025	5510	8318	4765	3209	27827	200	0	100	0	0	300
Total	222823	166212	197964	170142	113116	870257	35000	17600	24200	7700	8400	92900

1/ 1978 Survey of 1% of Household conducted by the Central Planning Organization, Sanaa.

NOTE: The survey results have been blown up by a factor of 100.0.

Table II.25: DISTRIBUTION OF MONTHLY WAGE/SALARY EARNINGS IN THE DISTRICT CENTERS OF FIVE GOVERNORATES 1/, 1978

Governorates	Sex	Under 300	300 to 600	601 to 900	901 to 1200	1201 to 1500	1501 to 2000	2001 to 2999	3000 and Over	Not Stated	Total
		Yemeni Rials Per Month									
Sana'a	M	0	1,500	8,000	5,800	2,600	1,900	1,000	1,400	200	22,400
	F	100	400	200	200	0	0	0	0	0	900
	T	100	1,900	8,200	6,000	2,600	1,900	1,000	1,400	200	23,300
Taiz	M	100	1,600	2,200	1,500	1,200	1,000	500	700	0	8,800
	F	100	300	100	0	0	0	0	0	0	500
	T	200	1,900	2,300	1,500	1,200	1,000	500	700	0	9,300
Hodeidah	M	100	2,700	2,500	1,800	1,700	1,400	1,300	400	0	11,900
	F	0	100	400	0	0	0	0	0	0	500
	T	100	2,800	2,900	1,800	1,700	1,400	1,300	400	0	12,400
Ibb	M	0	1,500	1,100	600	600	300	300	400	0	4,800
	F	0	200	0	0	0	0	0	0	0	200
	T	0	1,700	1,100	600	600	300	300	400	0	5,000
Dhamar	M	0	200	200	500	500	700	500	700	0	3,300
	F	0	0	0	0	0	0	0	0	0	0
	T	0	200	200	500	500	700	500	700	0	3,300
Total	M	200	7,500	14,000	10,200	6,600	5,300	3,600	3,600	200	51,200
	F	200	1,000	700	200	0	0	0	0	0	2,100
	T	400	8,500	14,700	10,400	6,600	5,300	3,600	3,600	200	53,300
Percent of Total		0.75	15.95	27.58	19.51	12.38	9.94	6.75	6.75	0.38	100.00

1/ Sana'a, Hodeidah, Taiz, Damar, Ibb

Source: 1978 Survey of 1% of Households conducted by the Central Planning Organization, Sana'a.
Note : The Survey results have been blown up by a factor of 100.0

Table II.26: REPORTED WAGES IN SELECTED OCCUPATIONS IN THE MODERN SECTOR, 1980

Professional and Highly Skilled	YR7000 per month
Technician (Experienced Linesman)	YR5500 per month
Skilled (Carpenters, Steel Fixers)	YR100 - 200 per day
Skilled (Bulldozer Operator)	Yemeni YR2500 per month Non-Yemeni YR3375 per month
Semiskilled (Electrician)	YR50 per spot*
Unskilled (Ordinary Laborer)	Yemeni YR60 - 80 per day Non-Yemeni YR30 - 40 per day
Unskilled (Loader at the port)	Yemeni YR200 - 250 per day Non-Yemeni YR3500 per month

* Outlet, switch or fixture

Source: **Obtained through interviews with employers and workers in the public and private sectors.**

NOTE

Tables II.27 - II.33 are not cited in the text, but are provided in this Statistical Annex as additional data.

Table II.27: DISTRIBUTION OF PUBLIC EMPLOYMENT IN THE CENTRAL ADMINISTRATION BY GOVERNORATE

(April 1, 1977)

	Number	Percent
Central Agencies [1/]	4,298	22.7
Governerates [2/]	14,612	77.3
Sanaa	4,098	21.7
Taiz	3,288	17.4
Hodeidah	2,641	14.0
Ibb	1,411	7.5
Damar	756	4.0
Hajjah	1,279	6.8
Sa'adah	458	2.4
Beida	275	1.4
Mahweet	258	1.3
Marib	148	0.8
Total	18,910	100.0

[1/] These include employees of the central offices (in Sanaa) of the Civil Service at the level of the Republic.

[2/] These include employees of the regional offices of the Central Administration (e.g. regional offices of the Ministry of Finance) as well as employees at the Governerate and Sub-govererate administrative levels. The latter are included within the Office of Governerate Affairs.

Source: General Department of Personnel.

Table II.28: PUBLIC SECTOR EMPLOYMENT BY GRADE AND AGENCY FOR FISCAL YEAR 1977/78

Ministries	President	Acting President	Minister	Acting Minister	1 Grade	2 Grade	3 Grade	4 Grade	5 Grade	6 Grade	7 Grade	8 Grade	9 Grade	10 Grade	11 Grade	12 Grade	13 Grade	Total
President Office	15	9	125	1	48		20	10	7	48	23	26	41	48	76	57	64	618
Prime Minister Office					5	6	1	4	10	2	4	11	5	18	2	4	21	93
C. O. Control and Audt.			1		2		6	16	50	5	5	5	5	25	15	2		137
Administrative Prosecutor								1			3			7	4			15
Office of Legal Advisor							1	7	8		1	3	1	8	5	1	5	40
Department of Antiquities					4			5	11	2	2	9	3	13	25	10	25	109
Information and Guidance Bureau					2		2		9		1	1		3	4		2	22
Command Council Presidency					21		5	6	5	10	5	6	9	8	23	5	8	111
Central Planning Organization		1			1	4	9	13	22	9	9	21	26	38	27	17	13	210
Department of Personnel			1		2		6	1	22	4	8	15	4	20	11	1	10	105
Office of Governorate Affairs		1	11		45		14	16	47	76	212	38	65	60	273	42	300	1199
National Institute of Public Administration			1			10	10	6	7	6	4	10	3	14	25	5	14	115
The General Immigrant Union 1/																		
Ministry of Foreign Affairs			3		37	17	22	57	73	4	1	16	8	23	32	15	16	324
Ministry of Finance		1	8		14		24	32	77	50	77	103	100	154	231	41	60	972
Department of Customs					4	1	9	12	48	35	104	81	49	96	203	74	48	764
Department of Taxation					1		2	6	28	2	56	34	18	69	26	12	8	262
Exise Duty Department					1		3	6	27	33	60	120	92	183	368	53	176	1122
Ministry of the Economy			4		5		6	16	22	1	5	12	2	17	24	5	17	136
Ministry of Justice			5	1	16	21		212	153	34	43	80	218	36	25	36	206	1086
Attorney General Office									19	2		4		10	4	4		43
People's Army					1		2	1	2	3	1	3	3	9	7	6	3	41
Ministry of Education			1		11	1	32	73	283	14	48	931	338	1525	1245	6	1000	5508
Scientific Society							3		1			5		3	1		2	15
Scienc Institute								1	43	40		5	1	11	8		4	113
Ministry of Health			3		23	34	28	78	195	99	87	110	77	322	750	4	639	2449
Revolution General Hospital					2	1		2	12	10	5	4	2	33	20		60	151
Ministry of Public Work , and Public Work Depart.					3		4	12	26	12	29	20	27	44	91	26	5	299
Municipalities Department					2		5	8	13	12	26	41	26	80	444	555	914	2126
Public Lands Department					4		2	3	17	5	15	20	15	15	36	6	2	140
Ministry of Labor and Social Affairs			2	1	7		14	6	4	7	21	5	1	48	33	1	37	187
Department of Social Affairs					1		4	1	2			11		16	25		20	80
Ministry of Information		1	1	1	6		5	10	17	4	16	26	3	50	52	24	14	230
Ministry of Communications					1		22	9	92	90	64	120	39	261	689		85	1472
Ministry of Agriculture			2		9		6	45	43	33	18	50	22	71	92	46	16	453
Ministry of Supply and Trades			1		2				12	4	6	16	7	28	102		27	205
Total	15	12	169	4	278	95	267	675	1407	656	959	1962	1210	3366	4998	1058	3821	19952

Source: General Department of Personnel, Op. Cit.

1/ No information available.

Table II.29: PUBLIC SECTOR EMPLOYMENT BY GRADE AND AGENCY FOR FISCAL YEAR 1978/79

Ministries	President	Acting President	Minister	Acting Minister	1 Grade	2 Grade	3 Grade	4 Grade	5 Grade	6 Grade	7 Grade	8 Grade	9 Grade	10 Grade	11 Grade	12 Grade	13 Grade	Total
President Office	16	8	134	1	48		19	10	6	48	24	25	39	46	74	52	58	608
Prime Minister Office		1	1		5	5	5	3	9	3	4	10	5	14	3	3	23	94
C.O. Control and Audt.			1		2	2	6	21	20	5	5	35	8	25	15	2	2	149
Public Prosecutor					1			1	4		1	3		10	7	5		32
Administrative Prosecutor								1				2		6	3	1	2	15
Office of Legal Advisor							1	9	7		1	3	1	5	3		5	35
Department of Antiquities					4			6	11	2	2	11	3	16	24	10	29	118
Higher Council of Justice				2	5	1	2	1	8									19
Command Council Presidency				2	19		6	5	10	6	4	5	8	10	25	1		101
Central Planning Organization		1			2	4	10	13	21	12	15	35	35	41	37	11	6	243
Department of Personnel			1		1		7	5	16	7	2	9	4	14	10	1	7	84
Office of Governarate Affaires			12		48		17	23	45	78	204	39	70	68	306	42	316	1268
National Institute of Public Adm.			1		1	9	6	6	9	10		9	2	12	19	5	4	93
The General Immigrant Union 1/																		
Administrative Reforms Committee							1					3	1	1	1		1	8
Public Prosecutor			1		1	1		2	1	3		9	1	14		17	10	60
Ministry of Foreign Affaires	3	2	10		28	21	25	63	83	4	4	19	14	42	40	8	16	382
Ministry of Finance		1	7		15	3	26	29	67	54	76	75	77	102	174	27	44	777
Department of Customs					3		10	13	55	36	105	112	48	129	184	123	40	858
Department of Taxation					1	1	2	8	28	6	47	38	20	112	57	11	16	347
Exise Duty Department					1		3	9	29	33	62	122	98	197	398	56	192	1200
Ministry of the Economy			5		3		10	12	24	1	3	12	2	20	18	3	7	120
Ministry of Justice		1	5	11	19	214	144	36	46	86	231	3	8	45	29	33	218	1128
Attorney General Office							26			2	27	3		7	3	4	2	74
People's Army					1		2	1	3	2	3	5	3	11	5	6	4	46
Ministry of Education			3		14	1	35	75	485	12	46	954	319	1549	1185	2	970	5650
University of Sana'a 2/																		
Scientific Society							3		4			10		7	2		3	29
Science Institute							2	2	41	25		7	1	21	24		17	140
Ministry of Health			4		24	27	25	69	208	95	91	122	77	340	770	5	692	2549
Revolution General Hospital					2	1		3	8	9	5	4	2	33	20		55	142
Public Work Department					3		4	12	29	12	29	25	30	60	118	25	8	355
Minicipalities Department					2		5	7	16	12	24	50	25	79	443	553	919	2135
Public Lands Department					3		2	4	16	6	15	23	16	23	53	8	12	181
Ministry of Labor and Social Aff.			2	1	7		15	7	4	7	18	7	1	47	39	1	34	190
Department of Social Affaires					1		5	2	2			16		23	21		14	84
Ministry of Information		1	1	1	4		5	6	13	6	13	28	3	46	44	21	16	208
Ministry of Agriculture			2		8		11	37	59	33	21	52	20	70	104	46	18	481
Ministry of Communications			1		1	2	20	22		83	61	121	38	281	667		73	1454
Ministry of Supply and Trades			1		2		1		16	4	5	24	9	61	133		32	288
Ministry of Religious Endowment							1	6	4	4	15	17	17	30	20	14	11	139
Information and Guidance Bureau							3	2	11	1		1		7	4		3	32
Total	19	15	192	18	279	292	465	531	1502	706	1163	2048	1005	3624	5082	1096	3879	21916

Source: General Department of Personnel, Op.Cit.

1/ No information available.

2/ University Budget not avialable.

Table II.30: ESTIMATED POPULATION PER NURSE BY GOVERNORATES, 1980

Governorates	Estimated Population Mid 1980 [1/]		Qualified Nurses	Nursing Assistants	Total	Percent	Estimated Population per Nurse
	Number	Percent					
Sana'a	1,012,767	17.8	339	190	529	36.4	1,915
Taiz	1,098,112	19.3	117	105	322	22.1	3,410
Ibb	990,008	17.4	44	69	113	7.8	8,761
Hodeidah	853,455	15.0	82	139	221	15.2	3,862
Damar	568,970	10.0	25	43	68	4.7	8,367
Hajjah	495,004	8.7	22	41	63	4.3	7,857
Mahweet	221,898	3.9	17	19	36	2.5	6,164
Beida	199,140	3.5	25	13	38	2.6	5,241
Sa'adah	193,450	3.4	21	12	33	2.3	5,862
Marib	56,898	1.0	23	9	32	2.1	1,778
Total	5,689,702	100.0	715	740	1,455	100.0	3,911

[1/] Ministry of Health Estimate.

Source: Ministry of Health.

Table II.31: NUMBER OF NURSES BY LEVEL OF TRAINING, NATIONALITY AND GOVERNORATE, 1979

Governorates	Qualified Nurses		Qualified Midwives		Nursing Assistants		Operation Theater Assistants	
	Yemeni	Expatriate	Yemeni	Expatriate	Yemeni	Expatriate	Yemeni	Expatriate
Sana'a	113	178	9	28	169	21	3	8
Taiz	79	28	7	2	204	1	0	1
Ibb	15	26	0	3	69	0	0	0
Hodeidah	49	24	4	5	128	11	0	0
Damar	5	17	0	3	43	0	0	0
Hajjah	2	18	0	1	41	0	0	1
Mahweet	2	13	1	1	19	0	0	0
Beida	6	15	1	1	13	0	0	2
Sa'adah	4	15	0	2	12	0	0	0
Marib	2	20	0	1	9	0	0	0
Total	277	354	22	47	707	33	3	12

Source: Ministry of Health.

Note: These do not include scholarship students studying outside the country.

Table II.32: NUMBER OF HEALTH TECHNICIANS BY SPECIALIZATION AND GOVERNORATE, 1979

Governorates	Physician's Assistant		X-Ray Technicians		Laboratory Technicians		Anesthesia Assistant		Health Inspectors		Dental Technicians
	Yemeni	Expatriate	Yemeni	Expatriate	Yemeni	Expatriate	Yemeni	Expatriate	Yemeni	Expatriate	
Sana'a	7	1	8	13	31	27	3	6	38	3	15
Taiz	8	1	5	4	12	5	3	2	24	0	12
Ibb	3	0	2	3	2	4	1	2	10	2	3
Hodiedah	1	0	2	2	8	2	1	3	16	0	8
Damar	3	0	0	2	0	1	1	2	7	1	2
Hajjah	1	1	0	3	0	1	0	1	4	1	1
Mahweet	1	1	1	0	0	1	0	0	3	0	1
Beida	0	0	1	3	0	2	1	0	3	0	1
Sa'adah	0	1	0	1	0	2	0	0	0	1	0
Marib	0	1	0	0	0	1	0	0	0	1	1
Total	24	6	19	31	53	46	10	16	105	9	44

Source: Ministry of Health.

Table II.33: NUMBER OF TECHNICIAN'S ASSISTANTS BY GOVERNORATE, 1979

Governorates	Pharmacists Assistants	X-Ray Technicians Assistants	Laboratory Assistants	Restaurant Workers
	Yemeni	Yemeni	Yemeni	Yemeni
Sana'a	22	5	30	12
Taiz	10	4	40	3
Ibb	6	3	7	2
Hodeidah	4	5	14	8
Damar	2	0	4	2
Hajjah	2	1	6	1
Mahweet	1	0	1	2
Beida	2	0	3	1
Sa'adah	2	0	2	1
Marib	0	0	1	0
Total	51	18	106	32

Source: Ministry of Health.

Table III.1: ESTIMATE OF THE NUMBER OF THE RECORDED YAR MIGRANT POPULATION AND WORKERS IN SAUDI ARABIA, 1969-1977

Year	Population	Labor Force 1/
1969	302,066	187,885
1970	295,730	183,944
1971	323,410	201,161
1972	337,933	210,194
1973	383,233	238,371
1974	403,186	250,782
1975	480,794	299,054
1976	469,668	292,133
1977	444,706	276,607
1978	n.a.	n.a.

1/ Assuming a crude participation rate of 62.2 percent.

Source: Mission estimates

Table III.2: YAR POPULATION AND LABOR FORCE BY SEX AND REGION IN SAUDI ARABIA, 1974

	MALES			FEMALES			TOTAL				
Region	Population	Labor Force	Participation Rate (%)	Population	Labor Force	Participation Rate (%)	Population	Labor Force	Participation Rate (%)	Distribution of Population (%)	Distribution of Labor Force (%)
Mecca	120,172	91,778	76.3	43,357	1,062	2.4	163,529	92,840	56.8	41.2	37.7
Riyadh	65,790	61,130	92.9	4,199	215	5.1	69,989	63,345	87.6	17.7	24.9
Eastern	32,988	30,429	92.2	1,881	98	5.2	34,869	30,527	87.5	8.8	12.4
Jaizan	31,554	17,988	57.0	28,269	542	1.9	59,823	18,530	31.0	15.0	7.5
Asir	15,587	12,775	81.9	4,266	80	1.9	19,853	12,855	64.7	5.0	5.2
Medina	12,903	10,211	79.1	3,437	73	2.1	16,340	10,284	62.9	4.1	4.2
Ghassim	7,044	6,209	88.1	1,198	29	2.4	8,238	6,238	75.7	2.1	2.5
Qurryat	4,461	3,989	89.4	549	16	2.9	5,010	4,005	79.9	1.3	1.6
Najran	6,232	3,522	56.5	4,188	60	1.4	10,420	3,582	34.4	2.6	1.4
Hayal	2,569	2,250	87.5	460	24	5.2	3,029	2,274	75.1	0.8	0.9
Al Baha	2,261	1,847	82.8	628	9	1.4	2,889	1,856	64.2	0.7	0.7
Jouf	954	910	95.4	34	1	2.9	988	911	92.2	0.3	0.4
Tabouk	748	716	95.7	37	1	2.7	785	717	91.3	0.2	0.3
N. Frontier	736	694	94.2	37	1	2.7	773	695	89.9	0.2	0.3
Total	303,999	244,448	80.4	92,536	2,211	2.4	396,535	246,659	62.2	100.0	100.0

Source: Kingdom of Saudi Arabia, Ministry of Finance and National Economy, Central Department of Statistics, Population Census, 1974 (Dammam, 1977) tables 81-1 and 87

Table III.3: DURATION OF RESIDENCE OF RECORDED YAR POPULATION IN SAUDI ARABIA 1/

	Males		Females		Total	
	Number	(%)	Number	(%)	Number	(%)
Less than 1 year	47,173	26.75	5,579	11.34	54,752	23.50
1 year	48,915	26.61	6,185	12.58	55,100	23.65
2 years	23,152	12.59	4,617	9.39	27,769	11.92
3 years	13,493	7.34	4,078	8.29	17,571	7.54
4 years	8,886	4.83	3,536	7.19	12,422	5.33
5-9 years	18,138	9.87	9,688	19.70	27,826	11.94
10-14 years	9,296	5.06	6,514	13.25	15,810	6.79
15+ years	12,762	6.94	8,980	18.26	21,742	9.33
Not specified	12	0.01	2	0.004	14	.00
Total	183,827	100.00	49,179	100.00	233,006	100.00

1/ Excluding Mecca

Source: Saudi Arabia, Census, 1974, op.cit.

Table III.4: EDUCATIONAL ATTAINMENT OF RECORDED YAR POPULATION IN YAR AND RECORDED SHORT-TERM RESIDENTS IN SAUDI ARABIA, 1974/75

Educational Attainment Level	Population Resident in YAR 1/						Population Resident in Saudi Arabia 2/					
	Male	(%)	Female	(%)	Total	(%)	Male	(%)	Female	(%)	Total	(%)
Illiterate	848,487	62.78	1,546,043	96.74	2,394,530	81.19	114,629	68.72	31,235	94.16	145,864	72.94
Read Only	154,672	11.44	14,751	.92	169,423	5.74	10,508	6.30	387	1.17	10,895	5.45
Read and Write	305,507	22.61	23,463	1.47	328,970	11.15	37,541	22.51	1,025	3.09	38,566	19.28
Elementary	15,875	1.17	3,059	.19	18,934	.64	2,114	1.27	196	0.59	2,310	1.16
Intermediate	9,610	.71	1,375	.09	10,985	.37	588	.35	51	0.15	639	.32
Secondary/Below University University	6,705	.50	1,469	.09	8,174	.28	310	.19	23	.07	333	.17
University	4,530	.34	366	.02	4,896	.17	112	.07	10	.03	122	.06
Not Specified	6,069	.45	7,635	.48	13,704	.46	1,008	.60	245	.74	1,253	.62
Total	1,351,455	100.00	1,598,161	100.00	2,949,616	100.00	166,810	100.00	33,172	100.00	199,982	100.00

1/ Data relates to February 1975 and includes enumerated population only.
2/ Data relates to September 1974, does not cover Mecca, and only includes recorded population.

Source: YAR: Census, 1975; Saudi Arabia, Census, 1974.

Table III.5: YAR NATIONALS OFFICIALLY ENTERING AND LEAVING SAUDI ARABIA FROM 1959 TO 1978 AND VISAS AND PASSPORTS ISSUED IN THE YAR, 1963 TO 1978

Year	Arrivals	Departures	Net Inflow (+) or Outflow (-)	Total YAR Migrants at Year End	Passports Issued in the YAR	Cumulative Passports Issued	Visas Issued in the YAR
1959	n.a.	15,896	n.a.		n.a.		n.a.
1960	n.a.	13,754	n.a.		n.a.		n.a.
1961	n.a.	16,887	n.a.		n.a.		n.a.
1962	n.a.	12,845	n.a.		n.a.		n.a.
1963	n.a.	15,806	n.a.		1,062	1,062	384
1964	n.a.	12,975	n.a.		922	1,984	886
1965	n.a.	32,600	n.a.		1,282	3,266	937
1966	n.a.	n.a.	n.a.		1,427	4,693	1,585
1967	n.a.	n.a.	n.a.		982	5,675	1,566
1968	n.a.	n.a.	n.a.		1,475	7,150	1,990
1969	20,910	27,246	-6,336	302,066	2,575	9,725	2,285
1970	36,528	19,686	+16,842	295,730	46,158	55,883	6,745
1971	47,833	20,153	+27,680	323,410	85,811	141,694	42,014
1972	68,162	53,639	+14,523	337,933	10,430	152,124	25,788
1973	119,497	74,197	+45,300	383,233	43,230	195,354	87,321
1974	125,373	105,420	+19,953	403,186	69,749	265,103	66,160
1975	253,942	176,334	+77,608	480,794	202,356	467,459	77,678
1976	234,486	245,612	-11,126	469,668	6,783	474,242	181,668
1977	232,825	257,797	-24,962	444,706	8,701	482,943	156,966
1978	n.a.	n.a.	n.a.	n.a.	31,925	514,868	177,594

Source: Saudi Arabia: Annual Abstracts, various years. YAR: Statistical Yearbooks

Table IV.1: SCHOOL ENROLLMENTS BY LEVEL FOR SELECTED YEARS

Level	Actual Enrollments		As % of Total Enrollments	As % of Corresponding Age Group	Female Enrollments As % of Total Enrollment
	Male	Female			
University					
1971-72	680	20	0.5	0.2	2.8
1973-74	850	102	0.5	0.2	10.7
1976-77	925	111	0.8	0.8	11.4
1979-80	3,759	432	1.2	1.0	17.7
Upper Secondary					
1971-72	1,740	101	1.4	0.5	5.5
1973-74	3,605	282	2.0	1.1	6.9
1976-77	6,952	1,100	3.2	3.7	13.6
1979-80	8,961	1,352	2.8	3.0	13.1
Lower Secondary					
1971-72	5,912	378	4.7	1.5	6.0
1973-74	9,408	980	5.3	2.4	9.4
1976-77	16,062	2,913	7.6	4.8	15.3
1979-80	18,194	3,098	5.5	5.2	15.3
Primary					
1971-72	106,629	12,239	93.4	12.0	10.0
1973-74	157,985	20,771	92.2	15.1	11.6
1976-77	191,000	30,159	88.4	25.7	13.6
1979-80	290,575	41,547	90.5	35.8	12.5

Source: Ministry of Education

Table IV.2: PRIMARY LEVEL EDUCATION

Academic Year	Population Age Group 6-11	Enrollments			No. of Schools	Average No. of Students per Classroom	No. of Teachers		
		Total	M	F			Total	M	F
1962/63	..	61,335	59,555	1,780	919	..	..	..	..
1963/64	..	57,894	55,030	2,864	895	23	..	..	..
1964/65	..	62,836	59,714	3,118	934	24	..	..	..
1965/66	..	69,139	65,683	3,556	997	26	..	..	..
1966/67	..	63,508	59,608	3,900	709	30	..	..	..
1967/68	..	66,830	62,212	4,618	749	48	..	..	..
1968/69	..	66,468	61,592	4,876	744	74	..	..	..
1969/70	..	72,107	66,104	6,003	700	41	..	..	..
1970/71	..	88,217	79,954	8,263	821	49	..	..	..
1971/72	..	118,868	106,629	12,239	1,155	39	..	..	..
1972/73	..	153,807	136,177	17,630	1,442	49	..	..	..
1973/74	..	179,079	158,242	20,837	1,570	35	..	..	..
1974/75	871,875	232,784	209,996	22,788	1,952	34	5,825	5,415	410
1975/76	..	252,726	224,948	27,778	2,137	34	6,701	6,045	656
1976/77		220,159	190,000	30,159	-	-	6,313	-	-
1977/78		252,098	220,555	31,543	-	-	-	-	-
1978/79		258,832	230,224	28,608	1,763	35	5,873	5,284	589
1979/80		332,122	290,575	41,547	2,513	-	6,767		

Source: Ministry of Education, except for age group column which is based on the 1975 census results.

Table IV.3: GENERAL PREPARATORY LEVEL EDUCATION

Academic Year	Population Age Group 12-14	Enrollments			No. of Schools	Average No. of Students per Classroom	No. of Teachers		
		Total	M	F			Total	M	F
1962/63	--	730	730	--	5	43	--	--	--
1963/64	--	1,032	1,032	--	5	33	--	--	--
1964/65	--	1,462	1,459	3	5	34	--	--	--
1965/66	--	1,426	1,426	--	7	34	--	--	--
1966/67	--	1,672	1,672	--	7	45	--	--	--
1967/68	--	2,007	1,985	22	10	41	--	--	--
1968/69	--	2,077	2,073	4	13	36	--	--	--
1969/70	--	3,118	3,028	90	20	37	--	--	--
1970/71	--	3,931	3,806	125	22	35	--	--	--
1971/72	--	5,768	5,732	36	47	35	--	--	--
1972/73	--	7,306	7,212	94	59	33	--	--	--
1973/74	--	9,362	9,229	133	81	33	--	--	--
1974/75	295,766	12,163	11,236	927	98	33	599	583	16
1975/76	--	15,619	13,927	1,692	134	31	711	694	17
1976/77		18,975	16,062	2,913			--	--	--
1977/78		22,082	19,409	2,673			--	--	--
1978/79		20,885	18,288	2,597	148	34	823	769	54
1979/80		20,385	17,590	2,795	200	31	1,061	--	--

Source: Ministry of Education, except for age-group column which is based on the 1975 census results.

Table IV.4: GENERAL SECONDARY LEVEL EDUCATION

Academic Year	Population Age Group 15-17	Enrollments			No. of Schools	Average No. of Students per Classroom	No. of Teachers		
		Total	M	F			Total	M	F
1963/64	..	84	84	-	3	28	..	..	..
1964/65	..	226	226	-	3	45	..	..	..
1965/66	..	433	433	-	3	27	..	..	..
1966/67	..	656	656	-	3	36	..	..	..
1967/68	..	711	711	-	3	44	..	..	..
1968/69	..	803	803	-	4	62	..	..	..
1969/70	..	939	939	-	4	41	..	..	..
1970/71	..	1,189	1,164	25	6	35	..	..	..
1971/72	..	1,496	1,488	3	6	35	..	..	..
1972/73	..	2,267	2,248	19	6	41	..	..	..
1973/74	..	3,098	3,094	4	13	36	..	..	..
1974/75	222,816	4,350	4,153	197	25	38	233	230	3
1975/76	..	6,050	5,581	469	27	39	332	327	5
1976/77		8,052	6,952	1,100			-	-	-
1977/78		8,166	7,308	858			-	-	-
1978/79		7,872	7,133	639			526	490	36
1979/80		8,060	7,043	1,017			480	-	-

Source: Ministry of Education, except for age-group column which is based on the 1975 census results.

Table IV.5: YEMENI AND NON-YEMENI TEACHERS (LOAN AND CONTRACT) DISTRIBUTED ACCORDING TO LEVEL AND SEX (1979/1980) 1/

	Non-Yemeni Teachers						Total Non-Yemeni			Total Yemeni Teachers	% Yemeni
	Primary		Preparatory		Secondary						
	M	F	M	F	M	F	M	F	Total		
Sana'a	951	203	231	29	194	25	1,376	257	1,633	360	18
Taiz	990	148	271	44	101	-	1,362	192	1,554	887	36
Hodeidah	270	38	121	7	81	4	472	49	521	402	46
Ibb	339	54	73	10	24	1	436	65	501	350	41
Damar	184	32	62	1	11	-	257	33	290	309	52
Hajjah	232	13	47	-	4	-	283	13	296	333	48
Beida	207	16	24	3	-	-	231	19	250	47	16
Sa'adah	146	11	8	-	5	-	159	11	170	23	12
Marib	143	7	3	-	-	-	146	7	153	60	28
Mahweet	92	4	7	1	2	-	101	5	106	19	15
Jawf	30	1	-	-	-	-	30	1	31	13	30
Grand Total	3,584	527	847	95	422	30	4,353	652	5,505	2,803	44

1/ Not including teacher training.

Source: Ministry of Education

Table IV.6: NUMBER OF STUDENTS AT UNIVERSITY OF SANAA ACCORDING TO REGISTRATION (1970/71 - 79/80)

		70/71	71/72	72/73	73/74	74/75	75/76	7 /77	77/78	78/79 1/	79/80
Literature	F/T 2/	6	68	121	299	336	227	299	541	604	715
	P/T 3/	6	51	128	169	160	172	164	157	56	122
	Total	12	119	249	468	496	399	463	698	660	837
Shariah & Law	F/T	35	82	122	152	171	239	344	484	545	689
	P/T	12	41	42	37	48	80	165	202	204	233
	Total	47	123	164	189	219	319	509	686	749	922
Science	F/T	5	9	21	27	47	70	87	154	170	356
Commerce	F/T				71	279	454	739	757	714	1019
	P/T				168	399	421	439	397	305	385
	Total				239	678	875	1178	1154	1019	1404
Education	F/T				227	416	680	906	830	707	682
Grand Total		64	251	434	1150	1856	2343	3143	3522	3305	4191

1/ Figures are lower than previous years because they show actual attendance rather than registered enrollments as in previous years.
2/ Full-time
3/ Part-time
Source: University of Sanaa

Table IV.7: NUMBER OF GRADUATES AT THE UNIVERSITY OF SANAA ACCORDING TO COLLEGE, SEX AND NATIONALITY (1973/74 - 1978/79)

	73/74			74/75			75/76			76/77			77/78			78/79		
	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To	M	F	To
Literature																		
Yemeni	5	3	8	29	2	31	40	6	46	23	1	24	21	4	25	31	5	36
Non-Yemeni	1	-	1	4	1	5	6	6	12	13	1	14	9	10	19	3	9	12
Total	6	3	9	33	3	36	46	12	58	36	2	38	30	14	44	34	14	48
Shariah & Law																		
Yemeni	-	-	-	21	-	21	39	-	39	64	-	64	30	-	30	48	-	48
Non-Yemeni	-	-	-	-	-	-	-	-	-	3	-	3	2	-	2	1	-	1
Total	-	-	-	21	-	21	39	-	39	67	-	67	32	-	32	49	-	49
Science																		
Yemeni	-	-	-	3	-	3	2	-	2	-	-	-	9	1	10	11	1	12
Non-Yemeni	-	-	-		-	-	1	1	2	-	-	-	2	-	2	-	-	-
Total	-	-	-	3	-	3	3	1	4	-	-	-	11	1	12	11	1	12
Commerce																		
Yemeni	-	-	-	-	-	-	-	-	-	65	6	71	63	-	63	77	2	79
Non-Yemeni	-	-	-	-	-	-	-	-	-	4	-	4	13	11	24	7	5	12
Total	-	-	-	-	-	-	-	-	-	69	6	75	76	11	87	84	7	91
Education																		
Yemeni	-	-	-	-	-	-	-	-	-	140	13	153	130	12	142	112	11	123
Non-Yemeni	-	-	-	-	-	-	-	-	-	2	2	4	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	142	15	157	130	12	142	112	11	123
Grand Total	6	3	9	57	3	60	88	13	101	314	23	337	279		317	290	33	323

Note: No graduates from the College of Science for the year 76/77.

Source: University of Sanaa

Table IV.8: NUMBER OF EDUCATION STAFF AND THEIR ASSISTANTS AT UNIVERSITY OF SANAA FOR THE YEARS 1970/71 - 1978/79

	Professorial				Assistants			
	Professor	Asst. Professor	Instructor	Total	Asst. Instructor	Graduate Assistant	Total	Grand Total
70/71	1	5	3	9	-	-	-	9
71/72	2	7	5	14	-	-	-	14
72/73	3	9	8	20	-	-	-	20
73/74	3	14	14	31	-	-	-	31
74/75	10	17	14	41	-	-	-	41
75/76	13	20	24	57	2	-	2	59
76/77	15	32	27	74	19	-	19	93
77/78	26	31	40	97	7	20	27	124
78/79	23	41	39	103	17	33	50	153

Source: University of Sanaa.

Table IV.9: ENROLLMENTS IN TEACHERS INSTITUTES

	Primary Level Teacher Training			Primary/Preparatory Level Teacher Training		
	No. of Institutes	Enrollments Males	Enrollments Females	No. of Institutes	Enrollments Males	Enrollments Females
1963/64	1	55	-	-	-	-
1964/65	1	24	-	-	-	-
1965/66	3	90	-	-	-	-
1966/67	5	163	27	-	-	-
1967/68	6	185	30	-	-	-
1968/69	6	402	84	2	37	51
1969/70	6	266	64	3	91	11
1970/71	4	161	124	2	111	16
1971/72	4	-	342	5	192	84
1972/73	4	-	590	6	185	148
1973/74	5	32	847	7	192	278
1974/75	7	307	336	7	107	180
1975/76	8	508	453	7	155	190
1976/77	14	626	486	7	363	175
1977/78	15	627	469	8	202	232
1978/79	14	565	265	7	154	253
1979/80	12	604	303	10	390	285

Source: Ministry of Education

Table IV.10: FELLOWSHIPS ABROAD (1979/80 DEPARTURES)

Country	Law	Agricul.	Eng'g.	Medicine	Veterin.	Pharmacy	Sciences	Publicity	Petrol. & Mining	Technical Insts.	Chemical Eng'g	Statistics	Electricity	Arts	Commerce	Educat.	Total
Syria	--	48	42	4	16	8	6	--	--	11	2	4	1	--	--	--	142
S. Arabia	--	9	53	--	5	4	2	4	8	--	--	--	--	--	--	--	85
Iraq	--	33	16	14	7	2	10	--	--	--	--	--	--	--	--	--	82
Romania	--	--	2	4	--	--	--	--	--	--	--	--	--	--	--	--	6
Kuwait	--	--	1	2	--	--	--	--	--	--	--	--	--	--	--	--	3
Sudan	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1
China	--	--	4	--	--	--	--	--	--	--	--	--	--	--	--	--	4
Libya	--	3	4	2	--	--	--	--	--	--	--	--	--	--	--	--	40
Egypt	13	13	--	--	6	2	12	5	--	--	--	--	--	--	50	40	141
Pakistan	--	8	40	37	6	15	--	--	--	--	--	--	--	--	--	--	106
Total	13	114	162	63	40	31	30	9	8	11	2	4	1	--	50	41	579

Source: Ministry of Education

Table IV.11: ENROLLMENTS IN TECHNICAL, COMMERCIAL & AGRICULTURAL SCHOOLS OR STREAMS IN SECONDARY SCHOOLS

Academic Year	Technical Enrollments		Commercial Enrollments		Agricultural Enrollments	
	M	F	M	F	M	F
1970/71	92	-	43			
1971/72	180	-	60			
1972/73	250	-	124			
1973/74	292	-	174			
1974/75	337	-	215			
1975/76	348	-	218			
1976/77	291	-	213			
1977/78	266	-	240	16		
1978/79	267	-	282	68	-	-
1979/80	1221	2	313	81	58	2

Source: Ministry of Education

Table IV.12: DISTRIBUTION OF HIGHER EDUCATION YEMENI STUDENTS ABROAD, BY COUNTRY (1976/77)

Countries	Number of Students	Percent Total
Arab Countries		
Egypt	657	28.4
Saudi Arabia	282	12.2
Iraq	173	7.5
Syria	109	4.6
Others	300	13.0
Sub-Total	1,521	65.7
Eastern Bloc Countries		
USSR	476	20.6
P. R. China	77	3.3
Czechoslovakia	46	2.0
East Germany	21	0.9
Others	87	3.7
Sub-Total	707	30.6
Western Countries		
West Germany	21	0.9
Others	23	1.0
Sub-Total	44	1.9
Other Countries	42	1.8
TOTAL	2,314	100.0

Source: Central Planning Organization

Table IV.13: PROPOSED TRAINING OF YEMENIS ABROAD DURING THE FIVE-YEAR PLAN, 1976/77-1980/81

(Number of Trainees)

	1977/78	1978/79	1979/80	1980/81	Total
Agriculture	77	91	98	83	349
Mining & Mineral Resources	8	3	2	-	13
Manufacturing	68	88	134	155	445
Electricity & Water	22	22	18	18	80
Building & Construction	42	30	23	28	123
Trade	34	25	27	17	103
Transport & Comm.	136	175	200	148	659
Finance	23	21	18	14	76
Education	43	82	55	30	210
Health	28	49	31	47	155
Social Affairs	19	9	15	13	56
Information & Culture	54	52	44	45	195
Public Administration	86	79	64	59	288
TOTAL	640	726	729	657	2,752

Source: CPO, First Five-Year Plan (1976/77-1980/81)

Table IV.14: ANTICIPATED NUMBER OF AGRICULTURE STUDENTS RETURNING BY YEARS AND SPECIALIZATION

Specialization	1976	1977	1978	1979	1980	Total
General Agriculture	10	12	32	43	13	110
Plant Protection	1	1	1	7	-	10
Agronomy	2	-	-	3	2	7
Agri. Chemistry	1	-	1	1	2	4
Horticulture	1	-	1	3	-	5
Livestock	-	-	-	4	-	4
Genetics	-	-	-	2	-	2
Extension	-	-	-	3	-	3
Soils	-	-	-	4	-	4
Irrigation	-	-	-	-	2	2
Fisheries	-	-	-	-	5	5
Total	15	13	35	69	24	156

Source: Preliminary Working Paper by Ministry of Agriculture, September 1976.

Table IV.15: PROPOSED POST-GRADUATE TRAINING - MINISTRY OF AGRICULTURE

Year	Country	Discipline	No. of Trainees	Years		Remarks
				Departed	Exp. Return	
1975	Egypt	Agronomy	2	1975	1977	Extended to 1978
		Extension	1	1975	1977	Arrived in April 1978
		Soil Fertility	1	1975	1977	Dropped because of sickness
		Form Management				
	U.K.	Veterinary	1	1975	1977	Extended to 1978
1976-1977	Egypt	Extension	1	1976	1978	
		Soil Chem.	1	1976	1978	
		Plant Diseases	1	1976	1978	
		Plant Production	1	1976	1978	
	U.K	Horticulture	1	1977	1978	
	U.S.A.	Poultry	2	1976	1978	
Planned 1978	U.K.	Statistics	1	1976	1977	Arrived in January 1978
		Soils	1	1978	1980	Planned for PHD Degree
	Czechoslovakia	Agr. Planning	1	1978	1981	Planned for PHD Degree
	U.S.A.	Plant Protection	1	1978	1981	Left June 1978
		Poultry	1	1978	1981	

Source: Report UNDP-Institutional Support to Ministry of Agriculture, Project Report 1978.

Table IV.16: NATIONAL WATER AND SEWERAGE AUTHORITY TRAINING PLAN (1979/80 - 1983/84)

Occupation	Numbers to be trained	Duration of training (months)	79/80	80/81	81/82	82/83	83/84
Engineer-Manager	8	3	-	3	3	2	-
Civil Engineer	12 7	27 60	2 7	3 -	3 -	2 -	2 -
Mechanical Engineers	2	60	-	-	1	-	1
Electrical Engineers	2	60	-	-	1	-	1
Hydrogeologist	2	27	1	1	-	-	-
Draftsmen	1	12	-	1	-	-	-
Senior surveyor	1	24	-	1	-	-	-
Chemist	1	24	-	1	-	-	-
Accountant	1	27	-	1	-	-	-
Statistician	1	27	-	1	-	-	-
Technicians	45	12	2	3	24	-	16
Meter Inspectors	2	6	-	-	-	2	-
Lab. Technicians	3	6 (local)	-	-	-	3	-
Draughtsmen	6	6 (local)	-	2	-	2	2
Tracers	2	6 (local)	-	1	-	1	-
Pipefitters	15	24 (local)	15	-	-	-	-
Welders	3	24 (local)	3	-	-	-	-
Electricians	3	24 "	3	-	-	-	-
Gen. Mechanics	4	24 "	4	-	-	-	-
Construction Mechanics	3	24 "	3	-	-	-	-
Auto Mechanics	3	24 "	-	3	-	-	-
Machinists	2	24 "	2	-	-	-	-
Financial Analyst	1	33	-	1	-	-	-
Chief Accountant	1	24	-	-	1	-	-
Cost Accountant	5	12	-	2	-	3	-
Accountant	3	60	3	-	-	-	-
Accountant	12	6	-	3	3	2	4
Office mach. maintenance	12	3	-	4	4	-	4
Cost Accountant	5	3 (local)	2	3	-	-	-
Supply Manager	1	24	-	-	1	-	-
Storekeeper	10	12	-	-	3	4	3
Purchase officer	4	9	-	-	2	-	2
Administrative Manager	27	1	-	-	1	-	-
Personnel Mgr.	1	9	-	1	-	-	-
Educ. & Trng Officer	1	15	-	1	-	-	-
Public Relations Officer	1	12	-	-	1	-	-
Legal adviser	1	24	-	-	1	-	-
Librarian	1	12	-	-	1	-	-
Insurance Officer	1	12	-	-	-	1	-
Secretary	5	6 (local)	2	1	1	1	-
Clerks	18	3 (local)	3	3	3	4	5
Typists - Arabic	6	3 (local)	1	1	-	2	2
Typists - Bilingual	3	6 (local)	1	2	-	-	-

Source: NWSA Report, Training Plan.

Table IV.17: INSERVICE OFF-THE-JOB TRAINING CENTERS
(1979)

Agency	Skilled Worker Level			Lower Technician Level			Secondary/Technician Level		
	Category	Duration of Training	Planned Annual Intake	Category	Duration of Training	Planned Annual Intake	Category	Duration of Training	Planned Annual Intake
Highway Authority Vocational Training Center	Equipment Operators/Drivers, Engine Mechanics, Machinists, Welders	6-12 months	160	Storekeeper	N/A	10	Maintenance Supervisors Foremen Accountants	N/A	30
Yemen General Electricity Corporation Training Center	New Recruits-- Thermal Station	18 months	24	Upgrading Existing Thermal Station	3 months	36			
	Distribution	15 months	12	Diesel Station	3 months	36			
				Distribution	3 months	36			
Ministry of Communication Telecommunications School				Radio Operators	3 years	10			
				Telephone Extension OP	3 years	10			
				Instr. Cable/Telex OP	3 years	20			
Ministry of Agriculture Central Research Organization, Taiz				Agriculture Extension Agent	1 year	30			
Zabid Extension Center				Agriculture Extension Agent	1 year	20			
Livestock Training Center	Livestock Assistant	1 year	20						
Ministry of Health Health Manpower Institutes and Hospital Training Schools	Nursing Assistants	1 year	180	Medical Assistants & Nurses	3 years	160			
	Midwives	3 months	50						
National Institute of Public Administration Sana'a, Taiz, Hodeidah				Clerical	5 months	320	Secretarial	8 months	150
				Bookkeeping	3-6 months	90	Financial	3-6 months	160
							Personnel	2 months	60
							Projects Development	3 months	80
							Languages	2 years	250
							(In addition, NIPA conducts training of Civil Service Managers and Development Officials and Public Administration Officials.)		

Source: Compiled by mission.

Table IV.18: NATIONAL INSTITUTE OF PUBLIC ADMINISTRATION

Numbers of trainees

totals 1969 to 1979

Course	Started	Finished	Passed
Arabic			
Office machines	10	10	10
Secretarial practice	286	229	194
Typing	769	554	429
Filing	150	108	78
English			
Secretarial practice	79	43	36
Typing	128	62	40
			787

Source: NIPA Report, 1979.

Table IV.19: DISTRIBUTION OF WORKERS IN THE COMMERCIAL BANKS WHO RECEIVED IN-SERVICE TRAINING

	Internal Training				External Training					
	Yemeni		Expatriate		Yemeni		Expatriate		Total	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
1. Managements										
Group A Top Managements	-	-	-	-	17	0.67	13	0.51	30	1.19
Group B Middle Managements	13	0.51	-	-	50	1.98	15	0.59	78	3.09
Group C Supervisors	20	0.79	-	-	22	0.87	13	0.51	55	2.18
2. Staff										
Group D Executive Staff	66	2.61	26	1.03	12	0.47	13	0.51	117	4.63
Sub-Total	99	3.92	26	1.03	101	4.00	54	2.14	280	11.08
Not Receiving Any Training									2,248	88.92
TOTAL									2,528	100.00

Source: Survey of Commercial Banks conducted by the National Institute of Public Administration, Sanaa, May 1980.

Table IV.19: DISTRIBUTION OF WORKERS IN THE COMMERCIAL BANKS WHO RECEIVED IN-SERVICE TRAINING

	Internal Training				External Training					
	Yemeni		Expatriate		Yemeni		Expatriate		Total	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
1. Managements										
Group A Top Managements	-	-	-	-	17	0.67	13	0.51	30	1.19
Group B Middle Managements	13	0.51	-	-	50	1.98	15	0.59	78	3.09
Group C Supervisors	20	0.79	-	-	22	0.87	13	0.51	55	2.18
2. Staff										
Group D Executive Staff	66	2.61	26	1.03	12	0.47	13	0.51	117	4.63
Sub-Total	99	3.92	26	1.03	101	4.00	54	2.14	280	11.08
Not Receiving Any Training									2,248	88.92
TOTAL									2,528	100.00

Source: Survey of Commercial Banks conducted by the National Institute of Public Administration, Sanaa, May 1980.

Table IV.20: PROPOSED TRAINING PROGRAMS FOR THE STAFF OF COMMERCIAL BANKS BY DURATION OF TRAINING, 1980-83

Training Years	Training Group	Exceeding One Year		Less than a Year		Less than Six Months		Total	
		Number of Programs	Number of Trainees	Number of Programs	Number of Trainees	Number of Programs	Number of Trainees	Number of Programs	Number of Trainees
First Year 1980-81	Group A Top Managements Group B Middle Managements	-	-	1	15	-	-	1	15
	Group C Supervisors	1	15	1	12	1	16	3	43
	Group D Executive Staff	1	15	1	17	1	20	3	52
Second Year 1981-82	Group A Top Managements Group B Middle Managements	-	-	1	15	1	22	2	37
	Group C Supervisors	1	12	0	0	1	17	2	29
	Group D Executive Staff	1	15	2	35	1	20	4	70
Third Year 1982-83	Group A Top Managements Group B Middle Managements	1	18	1	14	-	-	2	32
	Group C Supervisors	0	-	1	13	-	-	1	13
	Group D Executive Staff	1	7	2	35	2	34	5	76
	TOTAL	6	87	10	156	6	129	22	367

Source: Survey of Commercial Banks conducted by the National Institute of Public Administration, Sanaa, May 1980.

Table IV.21: YEMENI ENROLLMENT AT HOME AND IN SAUDI ARABIA, KUWAIT, AND QATAR BY EDUCATIONAL LEVEL IN 1975/76

Education Level	Saudi Arabia (1)	Kuwait (2)	Qatar (3)	Total (1)+(2)+(3) (4)	Enrollment at Home (5)	(4) ÷ (5) (%)
Primary & Below						
Males	14953	240	163	15356		
Females	5079	117	164	5360		
Total	20032	357	327	20716	252626	8.2
Intermediate						
Males	2749	112	26	2887		
Females	475	54	12	541		
Total	3224	166	38	3428	16752	20.5
Secondary & Vocational						
Males	2328 1/	53	22	2403		
Females	132	14	4	150		
Total	2460	67	26	2553	7731	33.0
University						
Males	361	66	-	427		
Females	11	7	-	18		
Total	372	73	-	445	4338	10.3
TOTAL						
Males	20391	471	211	21073		
Females	5697	192	180	6069		
Total	26088	663	391	27142	251431	7.0

1/ Includes other types of education in Saudi Arabia, mostly vocational.
Source: Enrollment in Saudi Arabia: Educational Statistics of Saudi Arabia for 1975/76.
Enrollment in Kuwait: Kuwaiti Ministry of Education, Division of Statistics.
Enrollment in Qatar: Qatari Ministry of Education Annual Report 1976/77.

Table V.1: MANPOWER REQUIREMENTS OF THE FIRST FIVE YEAR PLAN BY SECTOR

(in thousands)

Sector	Base Year 1975/76	1980/81	Increment Amount	Increment (%)
Agriculture	854.0	876.6	22.6	2.6
Industry	42.6	54.4	11.8	27.7
Construction	50.7	71.1	20.4	40.2
Transportation	28.0	32.5	4.5	16.1
Commerce	78.5	79.9	1.4	1.8
Finance & Real Estate	2.2	2.7	0.5	22.7
Services	109.8	150.0	40.2	36.6
Total	1,165.8	1,267.2	101.4	8.7

Source: First Five Year Plan, Volume 7.

Table V.2: MINISTRY OF AGRICULTURE TRAINING PLAN

(1978/79)

Type of Training	Planned Number of Trainees	Actual Number of Trainees	Actual as % of Planned
Higher Education	15	8	53
Short-term Training Abroad	38	17	52
Extension Agents	90	66	73
Mechanics	12	11	92
Assistant Vetenarians	16	18	113
Fishermen	10	15	150
Irrigation Related	40	40	100
Total	216	175	81

Source: Ministry of Agriculture, Annual Report on the Third Year of the Five-Year Plan (1978/79)

Table V.3: EMPLOYMENT BY 1 DIGIT ISCO OCCUPATIONAL CLASSIFICATION, 1975

		Modern Sector 1/	Traditional 3/	Total 2/	%
0/1	Professional, Technical	12,308		12,308	1.16
2	Administrative, Managerial	1,938	1,821	3,759	0.35
3	Clerical Workers	9,211		9,211	0.87
4	Sales Workers	21,089	23,523	44,612	4.21
5	Service Workers	26,389	20,318	46,707	4.41
6	Agriculture Workers	305	826,196	826,501	77.98
7/8/9	Production and Transport Workers	18,883	97,940	116,823	11.01
	TOTAL	90,123	969,798	1,059,921	100.00

Source:

1/ C.S. Sinclair and J. Socknat, Op. Cit., Table 4.24.
2/ Census of Population, 1975.
3/ Derived as a residual of the Total.

Table V.4: EMPLOYMENT BY OCCUPATIONS AND SECTOR (MODERN PRIVATE, PUBLIC AND TRADITIONAL), 1975.

	MODERN PRIVATE SECTOR 1/											
	Agriculture	Mining & Quarrying	Manufacturing	Utilities	Construction	Trade	Transport, Storage & Communications	Finance Insurance & Real Estate	Services	Public 1/ sector	Traditional 2/ sector	Total
A1 Professional Occupations Presumably Requiring a Science/ Math. Based University Degree	24 12.00	2 3.92	33 0.39	3 0.34	18 0.23	19 0.07	4 0.38	3 0.27	120 2.21	515 1.38		741 0.07
A2 Professional Occupations Presumably Requiring an Arts Based University Degree	5 2.50	2 3.92	44 0.52	12 1.38	80 1.01	33 0.12	16 1.53	59 5.24	17 0.31	4,986 13.31		5,254 0.20
B1 Subprofessional and Technician Occupations Presumably Requiring 1 to 3 Years Post-Secondary Science/ Math. Based Education	28 14.00	0 0.00	44 0.52	101 11.61	65 0.82	18 0.07	218 20.82	4 0.36	275 5.07	1,314 3.51		2,067 0.20
B2 Subprofessional Occupations Presumably Requiring 1 to 3 Years Post-Secondary Arts Based Education	0 0.00	0 0.00	39 0.46	0 0.00	0 0.00	1,151 4.17	10 0.96	0 0.00	58 1.07	70 0.19		1,328 0.13
C Skilled and Intermediate Skilled Office Occupations Presumably Requiring 9 to 12 Years of General Education Plus Job Training	22 11.00	3 5.88	663 7.83	228 26.21	482 6.06	21,234 77.02	404 38.58	820 72.82	260 4.80	10,972 29.28		35,088 3.31
D Skilled and Intermediate Skilled Manual Occupations Presumably Requiring 5 to 10 Years of General Education Plus Vocational and/or Education	22 11.00	0 0.00	2,592 30.61	312 35.86	940 11.82	497 1.80	24 2.29	4 0.36	1,778 32.79	12,934 34.52		19,103 1.80
E Semi-skilled Occupations Presumably Requiring Functional Literacy Plus Job Training	78 39.00	43 84.32	4,737 55.94	130 14.94	2,039 25.65	4,119 14.94	177 16.91	67 5.95	1,405 25.91	2,180 5.82	37,170 3/ 3.83	52,145 4.92
F Unskilled Occupations Presumably Requiring no Special Education or Training	21 10.50	1 1.96	317 3.74	84 9.66	4,326 54.41	499 1.81	194 18.53	169 15.00	1,509 27.83	4,500 12.01	932,628 4/ 96.17	944,248 89.08
TOTAL	200 100.00	51 100.00	8,469 100.00	870 100.00	7,950 100.00	27,570 100.00	1,047 100.00	1,126 100.00	5,422 100.00	37,471 100.00	969,798 100.00	1,059,974 100.00

1/ Source: Sinclair and Socknat, Op.Cit., Tables 4.25 and 4.24.
2/ Source: Table V.3.
3/ All those classified in Table V.3 as Administrative/Managerial Workers, Sales Workers and ten percent of those classified as Service Workers and Production Workers.
4/ All those classified in Table V.3 as Agriculture Workers and ninety percent of those classified as Service Workers and Production Workers.

Table V.5: ESTIMATED CLASSIFICATION OF EMPLOYMENT BY SECTORS OF ECONOMIC ACTIVITY AND OCCUPATIONAL CATEGORIES BASED ON THE PRESUMED EDUCATION/TRAINING ATTAINMENT, 1975

Sectors		Occupations								
		A-1	A-2	B-1	B-2	C	D	E	F	Total
	Modern Private	24	5	28	0	22	22	78	21	200
	Public	0	20	0	0	145	1	248	15	429
AGRICULTURE	Traditional	0	0	0	0	0	0	3,700	821,746	825,446
	TOTAL	24	25	28	0	167	23	4,026	821,782	826,075
	(Percent)	(0.0029)	(0.0030)	(0.0034)	(0.0000)	(0.0202)	(0.0028)	(0.4874)	(99.4803)	(100.00)
	Modern Private	2	2	0	0	3	0	43	1	51
	Public	0	0	3	0	0	3	16	0	22
MINING	Traditional	0	0	0	0	0	0	5	510	515
	TOTAL	2	2	3	0	3	3	64	511	588
	(Percent)	(0.3401)	(0.3401)	(0.5102)	(0.0000)	(0.5102)	(0.5102)	(10.8844)	(86.9048)	(100.00)
	Modern Private	33	44	44	39	663	2,592	4,737	317	8,469
	Public	10	16	17	13	216	1,170	19	361	1,822
MANUFACTURING	Traditional	0	0	0	0	0	0	14,063	7,024	21,087
	TOTAL	43	60	61	52	879	3,762	18,819	7,702	31,378
	(Percent)	(0.1370)	(0.1912)	(0.1944)	(0.1657)	(2.8013)	(11.9893)	(59.9751)	(24.5459)	(100.00)
	Modern Private	3	12	101	0	228	312	130	84	870
	Public	2	5	15	0	42	40	5	5	94
UTILITIES	Traditional	0	0	0	0	0	0	0	0	0
	TOTAL	5	17	116	0	250	352	135	89	964
	(Percent)	(0.5187)	(1.7635)	(12.0332)	(0.0000)	(25.9336)	(36.5145)	(14.0041)	(9.2324)	(100.00)
	Modern Private	18	80	65	0	482	940	2,039	4,326	7,950
	Public	28	21	0	0	280	126	42	750	1,247
CONSTRUCTION	Traditional	0	0	0	0	0	0	11,445	28,053	39,498
	TOTAL	46	101	65	0	762	1,066	13,526	33,129	48,6905
	(Percent)	(0.0945)	(0.2074)	(0.1335)	(0.0000)	(1.5648)	(2.1891)	(27.7770)	(68.0337)	(100.00)
	Modern Private	19	33	18	1,151	21,234	497	4,119	499	27,570
	Public	0	6	0	0	96	0	0	117	219
TRADE	Traditional	0	0	0	0	0	0	7,957	21,614	29,571
	TOTAL	19	39	18	1,151	21,330	497	12,076	22,230	57,360
	(Percent)	(0.0331)	(0.0650)	(0.0314)	(2.0067)	(37.1862)	(0.8665)	(21.0530)	(38.7552)	(100.00)
	Modern Private	4	16	218	10	404	24	177	194	1,047
	Public	5	22	18	22	155	990	287	204	1,703
TRANSPORT	Traditional	0	0	0	0	0	0	0	16,541	16,541
	TOTAL	9	38	236	32	559	1,014	464	16,939	19,291
	(Percent)	(0.0467)	(0.1970)	(1.2234)	(0.1659)	(2.8977)	(5.2563)	(2.4053)	(87.8078)	(100.00)
	Modern Private	3	59	4	0	820	4	67	169	1,126
	Public	2	4	0	10	150	0	0	222	383
FINANCE	Traditional	0	0	0	0	0	0	0	62	62
	TOTAL	5	63	4	10	970	4	67	453	1,576
	(Percent)	(0.3173)	(3.9975)	(0.2538)	(0.6345)	(61.5482)	(0.2538)	(4.2513)	(28.7437)	(100.00)
	Modern Private	120	17	275	58	260	1,778	1,405	1,509	5,422
	Public	468	4,892	1,261	25	9,908	10,604	1,563	2,826	31,548
SERVICES	Traditional	0	0	0	0	0	0	0	37,078	37,078
	TOTAL	588	4,909	1,536	83	10,168	12,382	2,968		74,037
	(Percent)	(0.7942)	(6.6305)	(2.0746)	(0.1121)	(13.7337)	(16.7241)	(4.0088)	(55.9220)	(100.00)
	Modern Private	226	268	753	1,258	24,116	6,169	12,795	7,120	52,705
	Public	515	4,986	1,314	70	10,972	12,934	2,180	4,500	37,471
TOTAL	Traditional	0	0	0	0	0	0	37,170	932,628	969,795
	TOTAL	741	5,254	2,076	1,328	35,088	19,103	52,145	944,248	1,059,974
	(Percent)	(0.0699)	(0.4957)	(0.1950)	(0.1253)	(3.3103)	(1.8022)	(4.9195)	(89.0822)	(100.00)

Source: Table V.2, and Sinclair and Socknat, op.cit., Tables 4.24 and 4.25.

NOTE: Employment in the public and the traditional sectors redistributed among the sectors of economic activity.

Table V.6: OCCUPATIONAL DISTRIBUTION OF EMPLOYMENT BY SECTORS OF ECONOMIC ACTIVITY

		A-1 Professional, Scientific	A-2 Professional Other	B-1 Technician, Scientific	B-2 Subprofessional, Other	C Skilled and Intermediate Skilled Office	D Skilled and Intermediate Skilled Manual	E Semiskilled	F Unskilled	Total
Agriculture	1975	0.0029	0.0030	0.0034	0.0000	0.0202	0.0028	0.4874	99.4803	100.0000
	1980	0.010	0.007	0.011	0.001	0.026	0.009	1.100	98.836	100.000
	1985	0.03	0.02	0.03	0.01	0.05	0.04	2.40	97.42	100.00
Mining	1975	0.3401	0.3401	0.5102	0.0000	0.5102	0.5102	10.8844	86.9048	100.0000
	1980	0.700	0.600	0.900	0.100	0.750	1.000	12.000	83.950	100.000
	1985	1.00	0.80	1.30	0.30	1.10	2.20	15.00	78.30	100.00
Manufacturing	1975	0.1370	0.1912	0.1944	0.1657	2.8013	11.9893	59.9751	24.5459	100.0000
	1980	0.300	0.400	0.600	0.400	4.100	17.500	62.000	14.700	100.000
	1985	0.60	0.80	1.30	0.70	4.80	20.50	62.50	8.80	100.00
Utilities	1975	0.5187	1.7635	12.0332	0.0000	25.9336	36.5145	14.0041	9.2324	100.0000
	1980	1.000	2.100	13.100	0.100	27.000	39.000	12.600	5.100	100.000
	1985	1.20	2.20	13.50	0.20	27.10	40.70	11.00	4.10	100.00
Construction	1975	0.0945	0.2074	0.1335	0.0000	1.5648	2.1891	27.7770	68.0337	100.0000
	1980	0.200	0.500	0.500	0.100	2.100	4.000	30.500	62.100	100.000
	1985	0.40	0.80	1.10	0.20	2.50	6.50	33.00	55.50	100.00
Trade	1975	0.0331	0.0680	0.0314	2.0067	37.1862	0.8665	21.0530	38.7552	100.0000
	1980	0.100	0.200	0.150	2.600	37.600	1.800	24.550	33.000	100.000
	1985	0.10	0.40	0.30	3.00	38.00	2.30	27.00	28.90	100.00
Transport	1975	0.0467	0.1970	1.2234	0.1659	2.8977	5.2563	2.4053	87.8078	100.0000
	1980	0.200	0.400	1.900	0.300	3.800	8.000	5.300	80.100	100.000
	1985	0.30	0.60	2.50	0.50	4.70	9.70	7.50	74.20	100.00
Finance	1975	0.3173	3.9975	0.2538	0.6345	61.5482	0.2538	4.2513	28.7437	100.0000
	1980	0.500	4.400	0.600	0.900	64.500	0.800	6.500	21.800	100.000
	1985	0.60	4.80	1.00	1.30	66.00	1.40	7.70	17.20	100.00
Services	1975	0.7942	6.6305	2.0746	0.1121	13.7337	16.7241	4.0088	55.9220	100.0000
	1980	1.400	7.500	5.100	0.170	17.500	21.100	7.000	40.230	100.000
	1985	1.60	8.500	5.80	0.25	20.00	21.90	8.50	33.45	100.00

Source: Mission estimates (See Tables V.4 and V.5)

Table V.7: ESTIMATED SUPPLY AND DEMAND FOR TRAINED MANPOWER 1/ BY OCCUPATIONS, 1975-80 UNDER THE MOST LIKELY SCENARIO
(in Thousands)

	OCCUPATIONS	Supply From the ETS 2/	Demand: Due to Attrition 3/	Demand: Due to Growth in Output 4/	Demand: Total 5/	Shortfall (-)/ Surplus (+)
		(1)	(2)	(3)	(4)=(2)+(3)	(5)=(1)-(4)
A1	Professional Occupations Presumably Requiring a Science/ Math. Based University Degree	0.4	0.0	1.7	1.7	- 1.3
A2	Professional Occupations Presumably Requiring an Arts Based University Degree	3.5	0.5	5.1	5.6	- 2.1
B1	Subprofessional and Technician Occupations Presumably Requiring 1 to 3 Years Post-Secondary Science/Math. Based Education	0.4	0.2	6.0	6.2	- 5.8
B2	Subprofessional Occupations Presumably Requiring 1 to 3 Years Post-Secondary Arts Based Education	1.5	0.1	2.1	2.2	- 0.7
C	Skilled and Intermediate Skilled Office Occupations Presumably Requiring 9 to 12 Years of General Education Plus Job Training	2.4	3.4	33.5	36.8	-34.4
D	Skilled and Intermediate Skilled Manual Occupations Presumably Requiring 5 to 10 Years of General Education Plus Vocational and/or Technical Education	0.8	1.9	25.6	27.5	-26.7
E	Semi-skilled Occupations Presumably Requiring Functional Literacy Plus Job Training	18.1	3.8	70.9	74.6	-56.5
F	Unskilled Occupations Presumably Requiring no Special Education or Training	294.2	68.7	126.6	195.3	98.9
	TOTAL	321.2	78.6	271.4	350.0	-28.6

Note: Estimated total employment in 1980: 1.33 million.

1/ Nationals Only.

2/ Simulated outputs from the Education/Training System grouped to reflect education/training requirements of the occupations. Mission estimates based on actual enrollments through 1979-80.

3/ Assumes no net loss due to emigration, i.e. number of Yemeni workers going abroad are replaced equally by those returning. Attrition only due to death and retirement.

4/ Source: Tables II.23, V.6

5/ Individual figures may not add to the total do to rounding.

Table V.8: ESTIMATED EMPLOYMENT BY SECTORS OF ECONOMIC ACTIVITY, 1980 AND 1985--LOW GROWTH RATES OF SECTORAL OUTPUT AND PRODUCTIVITY
(Constant 1975 Prices)

Sectors	Estimated 1980 Values 1/			1980-85 Growth Rates (% Per Annum)		Estimated 1985 Values		
	Value Added (Million YRls)	Productivity (Thousand YRls)	Employment (in Thousands)	Value Added	Productivity	Value Added (Million YRls)	Productivity (Thousand YRls)	Employment (in Thousands)
Agriculture, Forestry and Fishing	2,891	3.3	876.1	3.0	2.5	3,351	3.7	905.7
Mining and Quarrying	60	62.1	1.0	8.0	2.5	88	70.2	1.3
Manufacturing	467	9.0	51.9	8.0	2.5	686	10.2	67.3
Electricity, Gas and Water	23	15.6	1.5	3.0	1.0	27	16.4	1.6
Construction	750	5.0	148.6	6.0	1.5	1,004	5.4	185.9
Trade	1,863	17.8	104.5	4.0	1.0	2,267	18.7	121.2
Transport and Communications	234	8.7	26.9	3.5	1.5	278	9.4	29.6
Finance	455	210.0	2.2	4.0	0.5	554	215.3	2.6
Services	934	7.9	118.7	3.5	0.8	1,109	8.2	135.2
TOTAL	7,677		1,331.3			9,364		1,450.4

ESTIMATED EMPLOYMENT BY SECTORS OF ECONOMIC ACTIVITY, 1980 AND 1985 -- LIKELY GROWTH RATES OF SECTORAL OUTPUT AND PRODUCTIVITY
(Constant 1975 Prices)

	Value Added (Million YRls)	Productivity (Thousand YRls)	Employment (in Thousands)	(% Per Annum) Value Added	Productivity	Value Added (Million YRls)	Productivity (Thousand YRls)	Employment (in Thousands)
Agriculture	2,891	3.3	876.1	4.0	3.0	3,517	3.8	925.5
Mining and Quarrying	60	62.1	1.0	12.0	3.5	106	73.7	1.4
Manufacturing	467	9.0	51.9	12.0	3.5	823	10.7	76.9
Utilities	23	15.6	1.5	6.0	1.5	31	16.8	1.8
Construction	750	5.0	148.6	10.0	2.0	1,208	5.6	215.7
Trade	1,863	17.8	104.5	7.0	1.5	2,613	19.2	136.1
Transport and Communications	234	8.7	26.9	6.0	2.0	313	9.6	32.6
Finance	455	210.0	2.2	7.0	1.0	638	220.7	2.9
Services	934	7.9	118.7	6.0	1.0	1,250	8.3	150.6
TOTAL	7,677		1,331.3			10,499		1,543.6

1/ based on likely growth rates of sectoral output and productivity during 1975-80, see Table II.23.

Source: Mission estimates.

Table V.9: ESTIMATED SUPPLY AND DEMAND FOR TRAINED MANPOWER BY OCCUPATIONS, 1980-85
ASSUMING MIGRATION OF YEMENI WORKERS
STABILIZED AT 1975/76 LEVEL
(in Thousands)

OCCUPATIONS	Supply From The ETS 2/ (1)	Estimated Yemeni Employment in 1983 3/ (2)	Likely Growth: Due to Attrition 4/ (3)	Likely Growth: Demand Due to Growth in Output 5/ (4)	Likely Growth: Total 6/ (5)=(3)+(4)	Likely Growth: Shortfall (-) Surplus (+) (6)=(1)-(5)	Low Growth: Due to Attrition 4/ (7)	Low Growth: Demand Due to Growth in Output 5/ (8)	Low Growth: Total 6/ (9)=(7)+(8)	Low Growth: Shortfall (-) Surplus (+) (10)=(1)-(9)
A1 Professional Occupations Presumably Requiring a Science/ Math. Based University Degree	0.8	1.1	0.1	1.9	2.0	-1.2	0.1	1.4	1.5	-0.7
A2 Professional Occupations Presumably Requiring an Arts Based University Degree	7.5	8.3	0.8	5.9	6.7	0.8	0.8	4.1	4.9	2.6
B1 Subprofessional and Technician Occupations Presumably Requiring 1 to 3 Years Post-Secondary Science/ Math. Based Education	1.0	2.3	0.2	5.8	6.0	-5.0	0.2	4.3	4.5	-3.5
B2 Subprofessional Occupations Presumably Requiring 1 to 3 Years Post-Secondary Arts Based Education	3.3	2.7	0.3	2.3	2.6	0.7	0.3	1.7	2.0	1.3
C Skilled and Intermediate Skilled Office Occupations Presumably Requiring 9 to 12 Years of General Education Plus Job Training	6.3	33.9	3.3	26.9	30.2	-23.9	3.3	16.6	19.9	-13.6
D Skilled and Intermediate Skilled Manual Occupations Presumably Requiring 5 to 10 Years of General Education Plus Vocational and/or Technical Education	1.4	18.1	1.7	25.5	27.2	-25.8	1.7	17.4	19.1	-17.7
E Semi-skilled Occupations Presumably Requiring Functional Literacy Plus Job Training	39.2	66.4	4.8	71.1	75.9	-36.7	4.8	49.1	53.9	-14.7
F Unskilled Occupations Presumably Requiring no Special Education or Training	250.8	1,169.8	85.4	72.8	158.2	92.6	85.4	24.2	109.6	141.2
TOTAL	310.2	1,302.6	96.6	212.3	308.9	1.3	96.6	119.1	215.7	94.5
	Estimated Employment in 1985: 1.54 million						Estimated Employment in 1985: 1.45 million			

1/ Nationals only.
2/ Simulated outputs from the Education/Training System grouped to reflect education/training requirements of the occupations. Mission estimates based on actual enrollments through 1979/80.
3/ Source: Mission estimates of occupational distribution of Yemeni employment in 1975 and the supply and attrition of Yemenis during 1976-80. See Tables V.5 and V.7. Assumes that the expatriate employment in 1975 was negligible, and the emigration rates during 1976-80 period were at 1975 level.
4/ Assumes no net leoss due to emigration, i.e. number of Yemeni workers going abroad are replaced equally by those returning.
5/ Source: Tables V.6 and V.8.
6/ Sum of individual items may not add to the total due to rounding.

Table V.10: ESTIMATED SUPPLY AND DEMAND FOR TRAINED MANPOWER 1/ BY OCCUPATIONS, 1980-85
ASSUMING MIGRATION OF YEMENI WORKERS INCREASING
(in Thousands)

	OCCUPATIONS	Supply From the ETS 2/	Estimated Yemeni Employment in 1980 3/	LIKELY GROWTH Demand: Due to Regular Attrition 4/	Due to Migration 5/	Due to Growth in Output 6/	Total 7/	Shortfall (-)/ Surplus (+)	LOW GROWTH Demand: Due to Regular Attrition 4/	Due to Migration 5/	Due to Growth in Output 6/	Total 7/	Shortfall (-)/ Surplus (+)
		(1)	(2)	(3)	(4)	(5)	(6)=(3)+(4)+(5)	(7)=(1)-(6)	(8)	(9)	(10)	(11)=(8)+(9)+(10)	(12)=(1)-(11)
A1	Professional Occupations Presumably Requiring a Science/ Math. Based University Degree	0.8	1.1	0.1	0.0	1.9	2.0	- 1.2	0.1	0.0	1.4	1.5	- 0.7
A2	Professional Occupations Presumably Requiring an Arts Based University Degree	7.5	8.3	0.8	0.0	5.9	6.7	0.8	0.8	0.0	4.1	4.9	2.6
B1	Subprofessional and Technician Occupations Presumably Requiring 1 to 3 Years Post-Secondary Science/Math. Based Education	1.0	2.3	0.2	0.0	5.8	6.0	- 5.0	0.2	0.0	4.3	4.5	- 3.5
B2	Subprofessional Occupations Presumably Requiring 1 to 3 Years Post-Secondary Arts Based Education	3.3	2.7	0.3	0.0	2.3	2.6	0.7	0.3	0.0	1.7	2.0	1.3
C	Skilled and Intermediate Skilled Office Occupations Presumably Requiring 9 to 12 Years of General Education Plus Job Training	6.3	33.9	3.3	0.4	26.9	30.6	- 24.3	3.3	0.4	16.6	20.3	-14.0
D	Skilled and Intermediate Skilled Manual Occupations Presumably Requiring 5 to 10 Years of General Education Plus Vocational and/or Technical Education	1.4	18.1	1.7	0.3	25.5	27.5	- 26.1	1.7	0.3	17.4	19.4	-18.0
E	Semi-skilled Occupations Presumably Requiring Functional Literacy Plus Job Training	39.2	66.4	4.8	8.6	71.1	84.5	- 45.3	4.8	8.6	49.1	62.5	-23.3
F	Unskilled Occupations Presumably Requiring no Special Education or Training	250.8	1,169.8	85.4	155.6	72.8	313.8	- 63.0	85.4	155.6	24.2	265.2	-14.4
	TOTAL	310.2	1,302.6	96.6	164.9	212.3	473.8	-163.6	96.6	164.9	119.1	380.6	-70.4
				Estimated Employment in 1985: 1.54 million					Estimated Employment in 1985: 1.45 million				

1/ Nationals Only.

2/ Simulated outputs from the Education/Training System grouped to reflect education/training requirements of the occupations. Mission estimates based on actual enrollments through 1979/80.

3/ Source: Mission estimates of occupational distribution of Yemeni employment in 1975 and the supply and attrition of Yemenis during 1976-80. See Tables V.5 and V.7.

4/ Attrition due to death and retirement.

5/ Assumes increasing emigration among Yemeni workers (0.1 percent per annum at the higher levels and 3.0 percent per annum at the lower levels of occupation).

6/ Source: Tables V.6 and V.8.

7/ Sum of individual items may not add to the total due to rounding.

Table V.11: EMPLOYMENT BY OCCUPATIONS, 1975, 1980 AND 1985 UNDER THE MOST LIKELY SCENARIO 1/
(in Thousands)

	Occupations	Total Employment 1975	Total Employment 1980	Total Employment 1985	Demand Due to Growth 1975-80	Demand Due to Growth 1980-85
A1	Professional Occupations Presumably Requiring a Science/ Math. Based University Degree	0.7	2.4	4.3	1.7	1.9
A2	Professional Occupations Presumably Requiring an Arts Based University Degree	5.3	10.4	16.3	5.1	5.9
B1	Subprofessional and Technician Occupations Presumably Requiring 1 to 3 Years Post-Secondary Science/Math. Based Education	2.1	8.1	13.9	6.0	5.8
B2	Subprofessional Occupations Presumably Requiring 1 to 3 Years Post-Secondary Arts Based Education	1.3	3.4	5.7	2.1	2.3
C	Skilled and Intermediate Skilled Office Occupations Presumably Requiring 9 to 12 Years of General Education Plus Job Training	34.9	68.4	95.3	33.5	26.9
D	Skilled and Intermediate Skilled Manual Occupations Presumably Requiring 5 to 10 Years of General Education Plus Vocational and/or Technical Education	19.2	44.8	70.3	25.6	25.5
E	Semi-skilled Occupations Presumably Requiring Functional Literacy Plus Job Training	52.1	123.0	194.1	70.9	71.1
F	Unskilled Occupations Presumably Requiring no Special Education or Training	944.3	1,070.9	1,143.7	126.6	72.8
	TOTAL 2/	1,049.9	1,331.3	1,543.6	271.4	212.3

1/ For 1980, likely growth rates in productivity; official estimates of growth rates in sectoral GDP during 1975-80. For 1985, high rates of growth in sectoral GDP and productivity during 1980-85. Migration of Yemeni works stablized at 1975 levels.

2/ Individual figures may not add to the total due to rounding.

Source: Tables II.23, V.6 and V.8

NOTE: Includes expatriate workers.

Table V.12: EMPLOYMENT BY SECTORS OF ECONOMIC ACTIVITY, 1975, 1980 AND 1985 UNDER THE MOST LIKELY SCENARIO 1/
(in Thousands)

Sectors	Total Employment			Growth in Employment	
	1975	1980	1985	1975-80	1980-85
Agriculture	826.1	876.1	925.5	50.0	49.4
Mining & Quarrying	0.6	1.0	1.4	0.4	0.4
Manufacturing	31.4	51.9	76.9	20.5	25.0
Utilities	1.0	1.5	1.8	0.5	0.3
Construction	48.7	148.6	215.7	99.9	67.1
Trade	57.4	104.5	136.1	47.1	31.6
Transp. & Comm.	19.3	26.9	32.6	7.6	5.7
Finance	1.2	2.2	2.9	1.0	0.7
Services	74.4	118.7	150.6	44.3	31.9
Total 2/	1,059.9	1,331.3	1,543.6	271.4	212.3

1/ For 1980, likely growth rates in productivity; official estimates of growth rates in sectoral GDP during 1975-80. For 1985, high rates of growth in sectoral GDP and productivity during 1980-85. Migration of Yemeni workers stabilized at 1975 levels.

2/ Individual figures may not add to the total due to rounding.

Source: Tables II.23, V.6 and V.8

NOTE: Includes Expatriate Workers.