

Making Everything Easier!™

Microsoft®
Excel 2013
ALL-IN-ONE

FOR
DUMMIES®

8 BOOKS
IN **1**

- Excel Basics
- Worksheet Design
- Formulas and Functions
- Worksheet Collaboration and Review
- Charts and Graphics
- Data Management
- Data Analysis
- Macros and VBA

Greg Harvey, PhD



Excel 2013
ALL-IN-ONE
FOR
DUMMIES®

by Greg Harvey



WILEY

John Wiley & Sons, Inc.

Excel® 2013 All-in-One For Dummies®

Published by
John Wiley & Sons, Inc.
111 River Street
Hoboken, NJ 07030-5774

www.wiley.com

Copyright © 2013 by John Wiley & Sons, Inc., Hoboken,
New Jersey

Published by John Wiley & Sons, Inc., Hoboken, New
Jersey

Published simultaneously in Canada

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning or otherwise, except as permitted under Sections 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, (978) 750-8400, fax (978) 646-8600. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, (201) 748-6011, fax (201) 748-6008, or online at <http://www.wiley.com/go/permissions>.

Trademarks: Wiley, the Wiley logo, For Dummies, the Dummies Man logo, A Reference for the Rest of Us!, The Dummies Way, Dummies Daily, The Fun and Easy Way, Dummies.com, Making Everything Easier, and related

trade dress are trademarks or registered trademarks of John Wiley & Sons, Inc. and/or its affiliates in the United States and other countries, and may not be used without written permission. Microsoft and Excel are registered trademarks of Microsoft Corporation in the United States and/or other countries. All other trademarks are the property of their respective owners. All other trademarks are the property of their respective owners. John Wiley & Sons, Inc. is not associated with any product or vendor mentioned in this book.

Limit of Liability/Disclaimer of Warranty: The publisher and the author make no representations or warranties with respect to the accuracy or completeness of the contents of this work and specifically disclaim all warranties, including without limitation warranties of fitness for a particular purpose. No warranty may be created or extended by sales or promotional materials. The advice and strategies contained herein may not be suitable for every situation. This work is sold with the understanding that the publisher is not engaged in rendering legal, accounting, or other professional services. If professional assistance is required, the services of a competent professional person should be sought. Neither the publisher nor the author shall be liable for damages arising herefrom. The fact that an organization or Website is referred to in this work as a citation and/or a potential source of further information does not mean that the author or the publisher endorses the information the organization or Website may provide or recommendations it may make. Further, readers should be aware that Internet Websites listed in this work may have changed or

**disappeared between when this work was written
and when it is read.**

For general information on our other products and services, please contact our Customer Care Department within the U.S. at 877-762-2974, outside the U.S. at 317-572-3993, or fax 317-572-4002.

For technical support, please visit
www.wiley.com/techsupport.

Wiley publishes in a variety of print and electronic formats and by print-on-demand. Some material included with standard print versions of this book may not be included in e-books or in print-on-demand. If this book refers to media such as a CD or DVD that is not included in the version you purchased, you may download this material at <http://booksupport.wiley.com>. For more information about Wiley products, visit www.wiley.com.

Library of Congress Control Number: 2012956361

ISBN 978-1-118-51010-0 (pbk); ISBN 978-1-118-55018-2 (ebk); ISBN 978-1-118-62025-0 (ebk); ISBN 978-1-118-55021-2 (ebk)

Manufactured in the United States of America

10 9 8 7 6 5 4 3 2 1



About the Author

Greg Harvey has authored tons of computer books, the most recent being *Excel 2013 For Dummies*. He started out training business users on how to use IBM personal computers and their attendant computer software in the rough-and-tumble days of DOS, WordStar, and Lotus 1-2-3 in the mid-80s of the last century. After working for a number of independent training firms, he went on to teach semester-long courses in spreadsheet and database management software at Golden Gate University in San Francisco.

His love of teaching has translated into an equal love of writing. *For Dummies* books are, of course, his all-time favorites to write because they enable him to write to his favorite audience, the beginner. They also enable him to use humor (a key element to success in the training room) and, most delightful of all, to express an opinion or two about the subject matter at hand.

Dedication

To all the students in my different computer classes who taught me so much about what's really important and what's not when it comes to using computer software.

Author's Acknowledgments

I am always so grateful to the many people who work so hard to bring my book projects into being, and this one is no exception. If anything, I am even more thankful for their talents, given the size and complexity of an All-in-One.

This time, special thanks are in order to Andy Cummings and Katie Feltman for giving me this opportunity to write (and write and write) about Excel in this great All-in-One format. Next, I want to express great thanks to my project editor, Kim Darosett. Thanks also go to Russ Mullen for the great technical edit, to Sheree Montgomery for coordinating the book's production, and to everybody at Wiley Publishing.

Publisher's Acknowledgments

We're proud of this book; please send us your comments at <http://dummies.custhelp.com>. For other comments, please contact our Customer Care Department within the U.S. at 877-762-2974, outside the U.S. at 317-572-3993, or fax 317-572-4002.

Some of the people who helped bring this book to market include the following:

Acquisitions and Editorial

Senior Project Editor: Kim Darosett

Acquisitions Editor: Katie Feltman

Copy Editor: Virginia Sanders

Technical Editor: Russ Mullen

Senior Editorial Manager: Leah Michael

Editorial Assistant: Anne Sullivan

Senior Editorial Assistant: Cherie Case

Cover Photo: © iStockphoto.com / hakan dogu

Composition Services

Project Coordinator: Sheree Montgomery

Layout and Graphics: Carl Byers, Jennifer Creasey,
Joyce Haughey

Proofreaders: Melissa D. Buddendeck, John Greenough

Indexer: BIM Indexing & Proofreading Services

Publishing and Editorial for Technology Dummies

Richard Swadley, Vice President and Executive Group
Publisher

Andy Cummings, Vice President and Publisher

Mary Bednarek, Executive Acquisitions Director

Mary C. Corder, Editorial Director

Publishing for Consumer Dummies

Kathleen Nebenhaus, Vice President and Executive
Publisher

Composition Services

Debbie Stailey, Director of Composition Services

Excel® 2013 All-in-One For Dummies®

Visit

www.dummies.com/cheatsheet/excel2013aio
to view this book's cheat sheet.

Table of Contents

Introduction

[About This Book](#)

[Foolish Assumptions](#)

[How This Book Is Organized](#)

[Book I: Excel Basics](#)

[Book II: Worksheet Design](#)

[Book III: Formulas and Functions](#)

[Book IV: Worksheet Collaboration and Review](#)

[Book V: Charts and Graphics](#)

[Book VI: Data Management](#)

[Book VII: Data Analysis](#)

[Book VIII: Macros and VBA](#)

[Conventions Used in This Book](#)

[Icons Used in This Book](#)

[Where to Go from Here](#)

Book I: Excel Basics

Chapter 1: The Excel 2013 User Experience

[Excel 2013's New Look and Feel](#)

[Excel's Start Screen](#)

[Excel's Ribbon User Interface](#)

[Going behind the scenes to Excel's Backstage view](#)

[Ripping through the Ribbon](#)

[Adjusting to the Quick Access toolbar](#)

[Fooling around with the Formula bar](#)

[What's up with the Worksheet area?](#)

[Taking a tour of the Status bar](#)

[Getting Help](#)

[Launching and Quitting Excel](#)

[Starting Excel from the Windows 8 Start screen](#)

[Starting Excel from the Windows 7 Start menu](#)

[When it's quitting time](#)

Chapter 2: Customizing Excel 2013

[Tailoring the Quick Access Toolbar to Your Tastes](#)

[Adding Ribbon commands to the Quick Access toolbar](#)

[Adding non-Ribbon commands to the Quick Access toolbar](#)

[Adding macros to the Quick Access toolbar](#)

[Exercising Your Options](#)

[Changing some of the more universal settings on the General tab](#)

[Changing common calculation options on the Formulas tab](#)

[Changing correction options on the Proofing tab](#)

[Changing various save options on the Save tab](#)

[Changing a whole lot of other common options on the Advanced tab](#)

[Customizing the Excel 2013 Ribbon](#)

[Using Office Apps](#)

[Add-In Mania](#)

[Managing Excel add-ins](#)

[Managing COM add-ins](#)

[Purchasing third-party add-ins](#)

[Book II: Worksheet Design](#)

[Chapter 1: Building Worksheets](#)

[Designer Spreadsheets](#)

[Take it from a template](#)

[Designing a workbook from scratch](#)

[It Takes All Kinds \(Of Cell Entries\)](#)

[What's in a label?](#)

[What's the value?](#)

[Data Entry 101](#)

[Data entry keyboard style](#)

[Doing data entry with the Touch keyboard](#)

[You AutoComplete this for me](#)

[You AutoCorrect this right now!](#)

[Constraining data entry to a cell range](#)

[Getting Excel to put in the decimal point](#)

[You AutoFill it in](#)

[Saving the Data](#)

[Saving workbooks in other commonly used file formats](#)

[Changing the default file location](#)

[Saving a new workbook in the old file format](#)

[Document Recovery to the Rescue](#)

[Chapter 2: Formatting Worksheets](#)

[Making Cell Selections](#)

[Selecting cells with the mouse](#)

[Selecting cells by touch](#)

[Selecting cells with the keyboard](#)

[You AutoSelect that range!](#)

[Selecting cells with Go To](#)

[Name that range!](#)

[Adjusting Columns and Rows](#)

[You AutoFit the column to its contents](#)

[Adjusting columns the old fashioned way](#)

[Setting a new standard width](#)

[Hiding out a column or two](#)

[Rambling rows](#)

[Formatting Tables from the Ribbon](#)

[Formatting Tables with the Quick Analysis Tool](#)

[Formatting Cells from the Ribbon](#)

[Formatting Cell Ranges with the Mini-Toolbar](#)

[Using the Format Cells Dialog Box](#)

[Assigning number formats](#)

[Altering the alignment](#)

[Fancy fonts and colors](#)

[Basic borders, fills, and patterns](#)

[Hiring Out the Format Painter](#)

[Using Cell Styles](#)

[Using the Number Format cell styles](#)

[Defining a custom cell style by example](#)

[Creating a new cell style from scratch](#)

[Merging styles into other workbooks](#)

[Conditional Formatting](#)

[Graphical conditional formatting](#)

[Formatting with the Quick Analysis tool](#)

[Identifying particular values or text entries in a cell range](#)

[Highlighting duplicate values in a cell range](#)

[Creating your own conditional formatting rules](#)

[Managing conditional formatting rules](#)

[Chapter 3: Editing and Proofing Worksheets](#)

[Opening a Workbook](#)

[Using the Open screen in the Backstage view](#)

[Using the Open dialog box](#)

[Opening more than one workbook at a time](#)

[Finding misplaced workbooks](#)

[Using the other Open options](#)

[Cell Editing 101](#)

[Undo and Redo](#)

[Get that out of here!](#)

[Can I just squeeze this in here?](#)

[A Spreadsheet with a View](#)

[“Zoom, zoom, zoom”](#)

[Freezing window panes](#)

[Saving custom views](#)

[Copying and Moving Stuff Around](#)

[Doing it with drag-and-drop](#)

[Carried away with cut-and-paste](#)

[Find and Replace This Disgrace!](#)

[Finding stuff](#)

[Finding and replacing stuff](#)

[Spell Checking Heaven](#)

[Changing the spelling options](#)

[Adding words to the custom dictionary](#)

[Looking Up and Translating Stuff](#)

[Marking Invalid Data](#)

[Eliminating Errors with Text to Speech](#)

[Chapter 4: Managing Worksheets](#)

[Reorganizing the Worksheet](#)

[Inserting and deleting columns and rows](#)

[Eradicating columns and rows](#)

[Adding new columns and rows](#)

[Splitting the worksheet into panes](#)

[Outlining worksheets](#)

[Reorganizing the Workbook](#)

[Renaming sheets](#)

[Designer sheets](#)

[Adding and deleting sheets](#)

[Changing the sheets](#)

[Group editing](#)

[“Now you see them; now you don’t”](#)

[Opening windows on different sheets](#)

[Working with Multiple Workbooks](#)

[Comparing windows on different workbooks](#)

[Transferring data between open windows](#)

[Transferring sheets from one workbook to another](#)

[Saving a workspace](#)

[Consolidating Worksheets](#)

[Consolidating by position](#)

[Consolidating by category](#)

[Linking consolidated data](#)

[Chapter 5: Printing Worksheets](#)

[Printing from the Excel 2013 Backstage View](#)

[Selecting the printer to use](#)

[Previewing the printout](#)

[Checking the paging in Page Layout view](#)

[Previewing the pages of the report](#)

[Quick Printing the Worksheet](#)

[Working with the Page Setup Options](#)

[Using the buttons in the Page Setup group](#)

[Using the buttons in the Scale to Fit group](#)

[Using the Print buttons in the Sheet Options group](#)

[Headers and Footers](#)

[Adding a ready-made header or footer](#)

[Creating a custom header or footer](#)

[Solving Page Break Problems](#)

[Printing the Formulas in a Report](#)

[Book III: Formulas and Functions](#)

[Chapter 1: Building Basic Formulas](#)

[Formulas 101](#)

[Formula building methods](#)

[Editing formulas](#)

[When you AutoSum numbers in a spreadsheet](#)

[Totals and sums with the Quick Analysis tool](#)

[Building formulas with operators](#)

[Using the Insert Function button](#)

[Copying Formulas](#)

[Absolute references](#)

[A mixed bag of references](#)

[Adding Array Formulas](#)

[Building an array formula](#)

[Editing an array formula](#)

Range Names in Formulas

Defining range names

Naming constants and formulas

Using names in building formulas

Creating names from column and row headings

Managing range names

Applying names to existing formulas

Adding Linking Formulas

Controlling Formula Recalculation

Circular References

Chapter 2: Logical Functions and Error Trapping

Understanding Error Values

Using Logical Functions

Error-Trapping Formulas

Whiting-Out Errors with Conditional Formatting

Formula Auditing

Tracing precedents

Tracing dependents

Error checking

Changing the Error Checking options

Error tracing

Evaluating a formula

Removing Errors from the Printout

Chapter 3: Date and Time Formulas

Understanding Dates and Times

[Changing the Regional date settings](#)

[Building formulas that calculate elapsed dates](#)

[Building formulas that calculate elapsed times](#)

[Using Date Functions](#)

[TODAY](#)

[DATE and DATEVALUE](#)

[DAY, WEEKDAY, MONTH, and YEAR](#)

[DAYS360](#)

[Other special Date functions](#)

[Using Time Functions](#)

[NOW](#)

[TIME and TIMEVALUE](#)

[HOUR, MINUTE, and SECOND](#)

[Chapter 4: Financial Formulas](#)

[Financial Functions 101](#)

[The PV, NPV, and FV Functions](#)

[Calculating the Present Value](#)

[Calculating the Net Present Value](#)

[Calculating the Future Value](#)

[The PMT Function](#)

[Depreciation Functions](#)

[Analysis ToolPak Financial Functions](#)

[Chapter 5: Math and Statistical Formulas](#)

[Math & Trig Functions](#)

[Rounding off numbers](#)

[POWER and SQRT](#)

[The SUM of the parts](#)

[Conditional summing](#)

[Statistical Functions](#)

[AVERAGE, MAX, and MIN](#)

[Counting cells](#)

[Using specialized statistical functions](#)

[Chapter 6: Lookup, Information, and Text Formulas](#)

[Lookup and Reference](#)

[Looking up a single value with VLOOKUP and HLOOKUP](#)

[Performing a two-way lookup](#)

[Reference functions](#)

[Information, Please . . .](#)

[Getting specific information about a cell](#)

[Are you my type?](#)

[Using the IS functions](#)

[Much Ado about Text](#)

[Using text functions](#)

[Concatenating text](#)

[Book IV: Worksheet Collaboration and Review](#)

[Chapter 1: Protecting Workbooks and Worksheet Data](#)

[Password-Protecting the File](#)

[Protecting the workbook when saving the file](#)

[Assigning a password to open from the Info screen](#)

[Entering the password to gain access](#)

[Entering the password to make changes](#)

[Changing or deleting a password](#)

[Protecting the Spreadsheet](#)

[Changing the Locked and Hidden cell formatting](#)

[Protecting the worksheet](#)

[Enabling cell range editing by certain users](#)

[Doing data entry in the unlocked cells of a protected worksheet](#)

[Protecting the workbook](#)

[Protecting a shared workbook](#)

[Chapter 2: Using Hyperlinks](#)

[Hyperlinks 101](#)

[Adding hyperlinks](#)

[Follow that link!](#)

[Editing hyperlinks](#)

[Using the HYPERLINK Function](#)

[Chapter 3: Sending Workbooks Out for Review](#)

[Preparing a Workbook for Distribution](#)

[Adding properties to a workbook](#)

[Digitally signing a document](#)

[Workbook Sharing 101](#)

[Turning on file sharing](#)

[Modifying the Share Workbook options](#)

[Turning on change tracking](#)

[Merging changes from different users](#)

[Workbooks on Review](#)

[Adding comments](#)

[Marking up a worksheet with digital ink](#)

[Chapter 4: Sharing Workbooks and Worksheet Data](#)

[Sharing Your Workbooks Online](#)

[Sharing workbooks saved on your SkyDrive](#)

[E-mailing workbooks](#)

[Sharing workbooks with Instant Message](#)

[Presenting worksheets online](#)

[Editing worksheets online](#)

[Reviewing workbooks online](#)

[Excel 2013 Data Sharing Basics](#)

[Excel and Word 2013](#)

[Excel and PowerPoint 2013](#)

[Exporting Workbooks to Other Usable File Formats](#)

[Saving and exporting worksheets as PDF files](#)

[Saving worksheets as XPS files](#)

[Saving worksheets as HTML files](#)

[Book V: Charts and Graphics](#)

[Chapter 1: Charting Worksheet Data](#)

[Worksheet Charting 101](#)

[Embedded charts versus charts on separate chart sheets](#)

[Inserting recommended charts](#)

[Inserting specific chart types from the Ribbon](#)

[Inserting charts with the Quick Analysis tool](#)

[Creating a chart on a separate chart sheet](#)

[Refining the chart from the Design tab](#)

[Customizing chart elements from the Format tab](#)

[Customizing the elements of a chart](#)

[Formatting elements of a chart](#)

[Saving a customized chart as a template](#)

[Adding Sparkline Graphics to a Worksheet](#)

[Printing Charts](#)

[Chapter 2: Adding Graphic Objects](#)

[Graphic Objects 101](#)

[Manipulating graphics](#)

[Moving graphic objects to new layers](#)

[Aligning graphic objects](#)

[Grouping graphic objects](#)

[Managing graphic objects in the Selection task pane](#)

[Inserting Different Types of Graphics](#)

[Adding clip art](#)

[Downloading images on the Web](#)

[Inserting local pictures](#)

[Editing pictures](#)

[Formatting pictures](#)

[Drawing Graphics](#)

[Drawing predefined shapes](#)

[Adding text boxes](#)

[Inserting WordArt](#)

[Inserting SmartArt graphics](#)

[Adding Screenshots of the Windows Desktop](#)

[Using Themes](#)

[Book VI: Data Management](#)

[Chapter 1: Building and Maintaining Data Lists](#)

[Data List Basics](#)

[Designing the basic data list](#)

[Add new records to a data list](#)

[Eliminating records with duplicate fields](#)

[Sorting Data](#)

[Sorting records on a single field](#)

[Sorting records on multiple fields](#)

[Sorting the columns of a data list](#)

[Sorting a data list on font and fill colors and cell icons](#)

[Subtotaling Data](#)

[Chapter 2: Filtering and Querying a Data List](#)

[Data List Filtering 101](#)

[Filtering Data](#)

[Using AutoFilter](#)

[Using the Advanced Filter](#)

[Using the Database Functions](#)

External Data Query

[Retrieving data from Access database tables](#)

[Retrieving data from the web](#)

[Retrieving data from text files](#)

[Querying data from other data sources](#)

[Retrieving external data with Microsoft Query](#)

Book VII: Data Analysis

Chapter 1: Performing What-If Scenarios

Using Data Tables

[Creating a one-variable data table](#)

[Creating a two-variable data table](#)

Exploring Different Scenarios

[Creating new scenarios](#)

[Producing a summary report](#)

Hide and Goal Seeking

Using the Solver

[Setting up and defining the problem](#)

[Solving the problem](#)

[Changing the Solver options](#)

[Saving and loading a model problem](#)

[Creating Solver reports](#)

Chapter 2: Generating Pivot Tables

Creating Pivot Tables

[Pivot tables with the Quick Analysis tool](#)

[Recommended pivot tables](#)

[Manually created pivot tables](#)

[Formatting a Pivot Table](#)

[Refining the pivot table layout and style](#)

[Formatting the parts of the pivot table](#)

[Sorting and Filtering the Pivot Table Data](#)

[Filtering the report](#)

[Filtering individual Column and Row fields](#)

[Slicing the pivot table data](#)

[Using timeline filters](#)

[Sorting the pivot table](#)

[Modifying the Pivot Table](#)

[Changing the summary functions](#)

[Adding Calculated Fields](#)

[Changing the pivot table options](#)

[Creating Pivot Charts](#)

[Moving a pivot chart to its own sheet](#)

[Filtering a pivot chart](#)

[Formatting a pivot chart](#)

[Using the PowerPivot and Power View Add-Ins](#)

[Data modeling with PowerPivot](#)

[Switching between the Data View and Diagram View](#)

[Adding calculated columns courtesy of DAX](#)

[Creating visual reports with Power View](#)

[Book VIII: Macros and VBA](#)

Chapter 1: Building and Running Macros

Macro Basics

Recording macros

Running a macro

Macro Security

Assigning Macros to the Ribbon and the Quick Access Toolbar

Adding your macros to a custom tab on the Ribbon

Adding your macros to custom buttons on the Quick Access toolbar

Chapter 2: VBA Programming

Using the Visual Basic Editor

Editing recorded macros

Writing new macros in the Visual Basic Editor

Creating Custom Excel Functions

Adding a description to a user-defined function

Using a custom function in your spreadsheet

Saving custom functions in add-in files

Cheat Sheet

Introduction

Excel 2013 All-in-One For Dummies brings together plain and simple information on using all aspects of the latest-and-greatest version of Microsoft Excel. It's designed to be of help no matter how much or how little experience you have with the program. As the preeminent spreadsheet and data analysis software for all sorts of computing devices running Windows 7 or 8 (desktops, laptops, tablet PCs and even smartphones), Excel 2013 offers its users seemingly unlimited capabilities too often masked in technical jargon and obscured by explanations only a software engineer could love. On top of that, many of the publications that purport to give you the lowdown on using Excel are quite clear on how to use particular features without giving you a clue as to why you would want to go to all the trouble.

The truth is that understanding how to use the abundance of features offered by Excel 2013 is only half the battle, at best. The other half of the battle is to understand how these features can benefit you in your work; in other words, "what's in it for you." I have endeavored to cover both the "how to" and "so what" aspects in all my discussions of Excel features, being as clear as possible and using as little tech-speak as possible.

Fortunately, Excel 2013 is well worth the effort to get to know because it's definitely one of the best data-processing and analysis tools that has ever come along. Its new Quick Analysis tool, Apps for Office, Flash Fill, and Recommended Charts and PivotTables, along with the tried-and-true Live Preview feature and tons of ready-made galleries, make this version of the program the easiest to use ever. In short, Excel 2013 is a blast to

use when you know what you're doing, and my great hope is that this "fun" aspect of using the program comes through on every page (or, at least, every other page).

About This Book

As the name states, *Excel 2013 All-in-One For Dummies* is a reference. (Whether you keep it on your desk or use it to prop up your desk is your business.) This means that although the chapters in each book are laid out in a logical order, each stands on its own ready for you to dig into the information at any point.

As much as possible, I have endeavored to make the topics within each book and chapter stand on their own. When there's just no way around relying on some information that's discussed elsewhere, I include a cross-reference that gives you the chapter and verse (actually the book and chapter) for where you can find that related information if you're of a mind to.

Use the full Table of Contents and Index to look up the topic of the hour and find out exactly where it is in this compilation of Excel information. You'll find that although most topics are introduced in a conversational manner, I don't waste much time cutting to the chase by laying down the main principles at work (usually in bulleted form) followed by the hard reality of how you do the deed (as numbered steps).

Foolish Assumptions

I'm only going to make one foolish assumption about you, and that is that you have some need to use Microsoft Excel 2013 in your work or studies. If pushed,